

# SELSERS CREEK WATERSHED TMDL FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES

SUBSEGMENT 040603

**SURVEYED June 9 – 13, 2008** 

TMDL REPORT

By:
 WQ Modeling/TMDL Section
 Water Permits Division
 Office of Environmental Services
Louisiana Department of Environmental Quality

**JUNE 1, 2011** 

## **TECHNICAL SUMMARY**

Selsers Creek, Subsegment 040603, was on the 2006 Integrated Report and the consent decree. Selsers Creek was also listed on the 2008 draft Integrated Report which is currently under review by EPA. Subsegment 040603 was found to be "not supporting" its designated uses of Primary Contact Recreation, Secondary Contact Recreation and Fish and Wildlife Propagation. Selsers Creek was subsequently scheduled for Total Maximum Daily Load (TMDL) development with other listed waters in the Lake Pontchartrain Basin. The suspected causes of impairment are low dissolved oxygen(DO), and elevated ammonia, nitrate/nitrite, total phosphorous and total fecal coliform. The suspected sources are unknown. This TMDL report addresses the organic enrichment/low DO impairment.

Subsegment 040603 lies entirely within Tangipahoa Parish.

LDEQ is utilizing a phased approach for Selsers Creek as shown in the Table below. This approach will allow LDEQ to meet its TMDL commitments, revise the dissolved oxygen criteria, develop nutrient criteria, and develop meaningful and implementable TMDL reports based on appropriate DO criteria. At the same time, it will lead to improved water quality while providing local governments and businesses the opportunity to prepare and adjust to new permit requirements that will be implemented as a result of the TMDLs developed in Phases I and II.

Table 1. Selsers Creek Phased TMDL Approach

Ct / Di	11	T I di Di
Stage / Phase	DO Criteria (mg/L)	Implementation Date
Phase I	5.0	Phase I implementation required upon EPA approval of the TMDL and subsequent update of Louisiana's Water Quality Management Plan
Ecoregion-based UAA developed and DO criteria revised and promulgated		
Phase II	Appropriate DO criteria based on UAA	Phase II implementation required upon EPA approval of Phase II of the TMDL and subsequent update of Louisiana's Water Quality Management Plan

Oxygen-demanding parameters modeled included BOD1, BOD2, NBOD and DO. Conservative parameters modeled include conductivity and chlorides.

Phase I will include the development of loading values for the existing DO criteria for Selsers Creek. The resulting permit limits for a criterion of 5.0 mg/L are presented in Tables 4 and 5. However, full implementation of permit limits will occur in a phased manner. Phase I will serve as the first step

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

towards meeting the DO criteria. This approach gives local governments and stakeholders the oppurtunity to make the necessary adjustments to meet these limits. During Phase I, implementation of permit limits will occur according to the following strategy:

# Phase I Permit Implementation

All TMDL, permitting, and enforcement activities will be conducted in accordance with the Clean Water Act, the Louisiana Environmental Regulatory Code, and applicable state laws.

1. New discharges of oxygen-demanding loads:

In general, LDEQ does not intend to permit additional discharges of oxygen-demanding loads. However, in the event that a proposed or existing facility can meet one of the criteria listed below, LDEQ may permit the new discharge. The typical permit limits will be 5 mg/L BOD $_5$  / 2 mg/L NH $_3$  / 5 mg/L DO. Such new facilities may be required to submit an environmental impact assessment to LDEQ's permitting staff, which will conduct a thorough evaluation of the proposed facility based on environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors.

- a. The facility demonstrates that it will provide a significant load reduction of man-made oxygen-demanding constituents to the impaired watershed(s) serviced by the facility. The facility must also contribute to a reduction in the number of facilities discharging to the watershed(s). Facilities that may be considered for permits under this provision include, but are not limited to:
  - i. A facility that will provide improved sewage treatment to multiple subdivisions previously serviced by wastewater treatment plants that are incapable of treating to tertiary limits.
  - ii. A facility that will provide sewage treatment to previously unsewered areas in which many of the sanitary discharges from permitted facilities and individual home treatment units were entering an impaired watershed. As a result, the facility would be expected to provide more efficient treatment to the wastewater and reduce the net loading of oxygen demanding substances in the watershed.
- b. The facility demonstrates that its wastewater will not leave the facility or its property. Significant stormwater events do not apply to this provision. For the purpose of this provision, a significant stormwater event is defined as the 25 year, 24 hour rainfall event or its numerical equivalent, as defined by the Southern Regional Climate Center.

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

- i. Facilities that may be considered under this provision include, but are not limited to:
  - a. Effluent reduction systems that have been approved by the Louisiana Department of Health and Hospitals.
  - b. Wastewater treatment plants equipped with overland flow systems in which the effluent will not leave the facility.
  - c. Wastewater treatment plants equipped with holding ponds that will retain the effluent such that the effluent will not leave the facility.
- ii. LDEQ recognizes that some local governments are in the process of building or expanding regional sewage collection and treatment systems. In such areas, LDEQ may, on a limited basis, grant permits of limited durations to facilities that agree to tie into a regional collection and treatment system when it becomes available. LDEQ must have absolute assurance that the regional collection system will be available to the facility and the facility will connect to the regional collection system on or before the expiration date of the permit. Such assurance may include a formal agreement between the facility, the owner and operator of the regional wastewater treatment system, and LDEQ. The regional system must have the capacity to treat the additional wastewater. Such a permit may have a duration of less than five years or it may have a five year duration with interim permit limits. The permit will be written based on projected completion dates for the construction of the collection system. The facility will be required to cease all wastewater discharges to Selsers Creek and transfer the discharge to the regional collection system once the permit or interim limits expire or the collection system is available to the facility, whichever comes first. If the permit or interim limits expire, but, due to unforeseen circumstances, the availability of the collection system has been temporarily delayed, the duration of the permit or interim limits may be extended. If the availability of the collection system has been indefinitely delayed, the facility may be required to cease all discharges to Selsers Creek. Such facilities may resort to options covered in item 1.b.i. above.
- c. LDEQ reassesses Subsegment 040603 (Selsers Creek). LDEQ determines that Subsegment 040603 is meeting the appropriate DO criteria and designated uses.

2. Existing discharges of oxygen demanding loads:

Below are the reductions for existing dischargers in the Selsers Creek TMDL. Existing facilities discovered to be discharging oxygen-demanding loads without LPDES permits as of the TMDL approval date are to be permitted in accordance with the limits established for existing facilities with permits. Unpermitted facilities that are newly activated or reactivated and discharging after the TMDL approval date may be subjected to enforcement actions and will be required to tie into regional collection and treatment systems, once those systems are available.

- a. Ponchatoula High School WWTP (AI # 43477) will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L BOD<sub>5</sub> / 10 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);
- b. Tangipahoa Parish Sewerage District #1 Southeast Hammond Regional STP (AI # 40040) will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L BOD<sub>5</sub> / 5 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);
- c. All other facilities will receive a compliance schedule of up to 3 years with final limitations of  $10 \text{ mg/L} \text{ BOD}_5$  /  $10 \text{ mg/L} \text{ NH}_3$  (post aeration recommended).
- 3. Nutrient monitoring (i.e., reporting for Total Nitrogen and Total Phosphorus) will be required for individual permits. Nutrient monitoring will be added to each general permit series (LAG530000, LAG540000, LAG560000, and LAG570000) upon the next scheduled renewal of each series.

Phase II will be developed based on the outcome of an ecoregion-based use attainability analysis (UAA) that is currently under development. This UAA is expected to propose new DO criteria for many of the Pontchartrain Basin TMDLs that are currently being developed. This new DO criteria is expected to be developed and promulgated within the next two to three years.

In the event the new criteria is not developed and promulgated within five years from the TMDL approval date for each individual waterbody, the LDEQ intends to proceed in the following manner:

- Case 1: UAA study indicates that the current DO criterion is appropriate the TMDL will be fully implemented based on the existing DO criteria.
- Case 2: The UAA is not likely to be completed and/or approved the TMDL will be fully implemented based on the existing DO criteria.
- Case 3: The UAA is in process and is expected to be approved Phase II of the TMDL will be postponed for a maximum period of 2 years, at which time the UAA status will be reviewed again according to the criteria set in Cases 1 and 2 above.

LDEQ recognizes there may be many unpermitted sources of oxygen-demanding loading within the Lake Pontchartrain Basin. These sources may include unpermitted facilities (privately owned

treatment units for subdivisions or businesses). LDEQ has been locating unpermitted facilities and updating location information on permitted facilities in the Lake Pontchartrain Basin. The unpermitted facilities are required to apply for the appropriate LPDES (Louisiana Pollutant Discharge Elimination System) permits. These unpermitted sources of oxygen-demanding loading may also include individual treatment units for residential homes and small businesses. The ability to accurately quantify the loads provided from these systems is extremely difficult due to lack of reliable information regarding the number of units and the loading provided by each individual unit. These unpermitted sources of loading add to the uncertainty of this TMDL and provide additional justification for the use of the phased TMDL approach.

LDEQ believes that one of the primary solutions to the water quality problems for Subsegment 040603 include the large-scale regionalization of sewage treatment and the rehabilitation and upgrade of existing problematic (leaks, overflows, improperly sized pipes, etc.) sewage collection systems. In addition, nonpoint loading may contribute to the water quality impairments in Subsegment 040603. This includes loading contributed by the MS4 permits for the City of Hammond.

The final TMDL loading for Phase I is presented in Table 3. LDEQ estimates that the overall loading must be reduced by 75% to meet the current DO criteria of 5.0 mg/L. The MS4 loading was partitioned from the nonpoint loading, based on drainage areas. If the proposed DO criteria is changed to 2.3 mg/L for the area of the subsegment below Hwy 22, LDEQ estimates that approximately 60% of the load must be removed. This proposed DO criteria is based on existing UAA work for the Lower Mississippi Alluvial Plains Ecoregions.

Loading attributed to any MS4 will be included in the WLA. The allocations are presented in Table 2. It is recognized that many permitted and unpermitted facilities discharge into the areas regulated by MS4 permits.

Table 2. Summary of MS4 loading for Selsers Creek based on a DO Criterion of 5.0 mg/L

Urban Area	NPDES	MS4 area (Meters	Summer MS4	Winter MS4
		square)	(lbs/day)	(lbs/day)
Hammond	LAR041030	5,817,949	80	68

Table 3. Total Maximum Daily Load (Sum of  $UBOD^1$  and SOD) for a 5.0 mg/L dissolved oxygen standard

ALLOCATION	SUMMER		WINTER	
	Reduction	` '	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	75	229	75	229
Point Source Reserve MOS (20%)		57		57
City of Hammond MS4 WLA		80	75	68
(Nonpoint Loads) City of Hammond MS4 MOS (Nonpoint Source Reserve MOS)		80	75	08
(20%)		20		17
Nonpoint Loads	75	495	75	420
Nonpoint Source Reserve MOS				
(20%)		124		105
TMDL		1,005		897

\*\*\*Note1: UCBOD as stated in this allocation is Ultimate CBOD. UCBOD to CBOD $_5$  ratio = 2.3 for all treatment levels Permit allocations are generally based on CBOD $_5$ \*\*\*

Table 4. TMDL Summary 040603 – Point Sources included in the model vs. a DO Criterion of 5.0 mg/L

				l l	iciuueu iii tiie ii	nouci vs. a Do	Citterion			1				
FACILITY	AI NO.	PERMIT EXPIRATION	FACILITY TYPE	OUTFALL NO.	OUTFALL DESCRIPTION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURR MONTHLY A CONCENT LIMI	AVERAGE RATION	TMDL FLOW	FINAL TMDL MONTHLY AVERAGE CONCENTRATION LIMITS			
	NO.	Date	TITE	NO.	DESCRIPTION	WATER	GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	DO, mg/L	MODELING COMMENTS
Southeast Hammond Regional	40040/ LA0105384	08/31/2011	STP	001	Selsers Creek	Selsers Creek	618,000	10	6	772,500	5	2	5	Modeled
Ponchatoula High School	43477/ LAG560130	05/31/2014	STP	001	Parish canal to Selsers Creek	Selsers Creek	32,160	20		40,200	5	2	5	Modeled
Pelican Gardens Subdivision	137742/ LAG541438	06/30/2013	STP	001	Parish drainage ditch to Selsers Creek	Selsers Creek	20,000	30		25,000	10	2		Modeled
Creekside Subdivision	121582/ LAG541322	06/30/2013	STP	001	Parish drainage ditch to Selsers Creek	Selsers Creek	24,800	30		31,000	10	2		Modeled
Esterbrook Trace LLC	148653/ LAG532205	11/30/2012	STP	001	Selsers Creek	Selsers Creek	3,600	45 Weekly		4,500	10	2		Modeled
Dupre's Trailer Park	141247/ LAG532095	11/30/2012	STP	001	Unnamed ditch to Selsers Creek	Selsers Creek	3,600	45 Weekly		4,500	10	2		Modeled
GMG Rentals LLC	139854/ LAG532149	11/30/2012	STP	001	Unnamed ditch to Selsers Creek	Selsers Creek	3,000	45 Weekly		3,750	10	2		Modeled
Rock's Rentals Mobile Home Park	141705/ LAG532184	11/30/2012	STP	001	Parish drainage ditch to Selsers Creek	Selsers Creek	2,400	45 Weekly		3,000	10	2		Modeled
City of Hammond – MS4	104053/ LAR041030	12/04/2012	MS4			Selsers Creek								Modeled as nonpoint source load

<sup>&</sup>lt;sup>a</sup> This TMDL was developed for critical low-flow conditions (7Q10), therefore the WLAs for all stormwater discharges will be 0.0 lb/d.

Table 5. TMDL Summary 040603 – Point Sources within the watershed but not included in the model vs. DO Criterion of 5.0 mg/L

FACILITY	AI	PERMIT EXPIRATION	FACILITY	OUT-	FALL DESCRIPTION WATER		FINA MONTHL' CONCENTRA						
1.10.2.11	NO.	Date	ТҮРЕ	NO.	DESCRIPTION	GPD		BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	DO, mg/L	MODELING COMMENTS
Ponchatoula Animal Hospital	36750/ LAG531974	11/30/2012	Sanitary	001	Drainage ditch to Selsers Creek	Selsers Creek	500	45 Weekly		10	2		Not Modeled
Delatte Recycling LLC	123716/ LAG532928	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	100	45 Weekly		10	2		Not Modeled
Omni Storage	129930/ LAG531914	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	300	45 Weekly		10	2		Not Modeled
Smith's Nursery & Landscaping	133636/ LAG531972	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	80	45 Weekly		10	2		Not Modeled
CLC Rentals	139836/ LAG531686	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	2,400	45 Weekly		10	2		Not Modeled
Berthelot Mobile Home Park	139856/ LAG532093	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	1,800	45 Weekly		10	2		Not Modeled
A&M Container Sales & Rentals LLC	157244/ LAG532776	11/30/2012	Sanitary	001	Roadside ditch to Selsers Creek	Selsers Creek	60	45 Weekly		10	2		Not Modeled
Thompson Pump & Equipment	157493/ LAG532855	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	140	45 Weekly		10	2		Not Modeled
Cretin Homes LLC	157539/ LAG532875	11/30/2012	Sanitary	001	I-12 service road ditch to Selsers Creek	Selsers Creek	220	45 Weekly		10	2		Not Modeled

Oliginated. Julie 1, 2011													
FACILITY	AI	PERMIT EXPIRATION	FACILITY	OUT- FALL OUTFALL RECEIVING WATER  EX		CURRENT EXPECTED FLOW	CURRE MONTHLY A CONCENTRATI	VERAGE	FINAL MONTHLY CONCENTRA				
	NO.	Date	TYPE		DESCRIPTION	WATER	GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	DO, mg/L	MODELING COMMENTS
Estes Express Lines WWTP	157665/ LAG532778	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	300	45 Weekly		10	2		Not Modeled
Cretin Homes LLC – Sales Office WWTP	157676/ LAG532788	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	200	45 Weekly		10	2		Not Modeled
Howard Warner - JR's Barber Shop	157742/ LAG532841	11/30/2012	Sanitary	001	Parish drainage ditch to Selsers Creek	Selsers Creek	270	45 Weekly		10	2		Not Modeled
MCP Group LLC – Auto Image of Hammond	157867/ LAG532834	11/30/2012	Sanitary	001	Hwy 3158 ditch to unnamed drainage ditch to Selsers Creek	Selsers Creek	40	45 Weekly		10	2		Not Modeled
Coastal Truck Driving School – Coastal College	158080/ LAG533219	11/30/2012	Sanitary	001	Unnamed canal to Selsers Creek	Selsers Creek	500	45 Weekly		10	2		Not Modeled
Bennett's Towing & Recovery	158081/ LAG532910	11/30/2012	Sanitary	001	Unnamed ditch to Tiger Creek to Selsers Creek	Selsers Creek	20	45 Weekly		10	2		Not Modeled
Apostolic Truth Fellowship Center Inc	159473/ LAG532913	11/30/2012	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	500	45 Weekly		10	2		Not Modeled
Airport Garden Center	160575/ LAG532999	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	160	45 Weekly		10	2		Not Modeled
Mt. Pleasant Baptist Church	167196/ LAG533252	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	1,500	45 Weekly		10	2		Not Modeled
Pell Automotive	13937/ LAG470273	08/31/2014	Sanitary	005	Parish drainage to Selsers Creek	Selsers Creek	5,000	45 Weekly		10	2		Not Modeled

FACILITY	AI	PERMIT EXPIRATION	FACILITY	OUT- FALL	OUTFALL	RECEIVING WATER  CURRENT EXPECTED MONTHLY AVER CONCENTRATION I		ERAGE	FINA MONTHLY CONCENTRA				
	NO.	Date	ТҮРЕ	NO.	DESCRIPTION WATER		GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	DO, mg/L	MODELING COMMENTS
4-Way Cash & Dash	68846/ LAG531918	11/30/2012	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	120	45 Weekly		10	2		Not Modeled
Masterliner Inc	92848/ LAG480572	11/30/2015	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	420	45 Weekly		10	2		Not Modeled
Pizzolato's Body Shop	118285/ LAG470275	08/31/2014	Sanitary	005	Local drainage to Selsers Creek	Selsers Creek	5,000	45 Weekly		10	2		Not Modeled
Mo-Dad Utilities LLC – Dunson Park	119139/ LAG541338	06/30/2013	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	17,700	30		10	2		Not Modeled
Mo-Dad utilities LLC – Greenleaf Subdivision	121720/ LAG541309	06/30/2013	Sanitary	001	Unnamed drainage then to Selsers Creek	Selsers Creek	20,000	30		10	2		Not Modeled
Windcrest Mobile Home Park	130510/ LAG541413	06/30/2013	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	8,400	30		10	2		Not Modeled
Mo-Dad Utilities LLC – STP	133094/ LAG541392	06/30/2013	Sanitary	001	Local drainage to Selsers Creek	Selsers Creek	12,400	30		10	2		Not Modeled
Density Utilities of Louisiana LLC – Madison Trace Subdivision	134732/ LAG541678	06/30/2013	Sanitary	001	Unnamed drainage to Selsers Creek	Se Isers Creek	21,600	30		10	2		Not Modeled
Charles Rose Mobile Home Park (Pretty Acres)	135838/ LAG541457	06/30/2013	Sanitary	001	Parish drainage to Selsers Creek	Selsers Creek	12,600	30		10	2		Not Modeled
Shelby Development LLC – Fairfield Farms Subdivision	138837/ LAG541655	06/30/2013	Sanitary	001	Unnamed ditch to Selsers Creek	Selsers Creek	16,000	30		10	2		Not Modeled

Originated. June 1, 2011													
FACILITY	AI	PERMIT EXPIRATION	FACILITY	OUT- FALL	OUTFALL DESCRIPTION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURR MONTHLY A CONCENTRAT	AVERAGE	FINA MONTHL' CONCENTR			
	NO.	Date	TYPE	NO.	DESCRIPTION WATER		GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	DO, mg/L	MODELING COMMENTS
JAMB Building & Development Corp – Grand Center Townhomes Apartments	144320/ LAG541558	06/30/2013	Sanitary	001	Parish drainage to Selsers Creek	Selsers Creek	24,000	30		10	2		Not Modeled
Mo-Dad Utilities LLC – Olde Mill Subdivision	128417/ LAG570405	01/03/2011	Sanitary	001	Parish drainage to Selsers Creek	Selsers Creek	20,000	10	2	10	2		Not Modeled
Rafaels Truck Wash	19055/ LAG750280	03/14/2014	Sanitary	002	Unnamed drainage to Selsers Creek	Selsers Creek	1,500	45 Weekly		10	2		Not Modeled
Mac's Tire & Auto DBA Whittington Tire & Rim	26707/ LAU005991					Selsers Creek							Existing but unpermitted facility
Time Square Investments	157978/ LAU005917					Selsers Creek							Existing but unpermitted facility
Coinmach	157981/ LAU005918					Selsers Creek							Existing but unpermitted facility
Maxin Properties LLC – TruckPro	157982/ LAU005919					Selsers Creek							Existing but unpermitted facility
All Star Transmissions	157983/ LAU005921					Selsers Creek							Existing but unpermitted facility
Gemma Holdings LLC – Covan Worldwide Moving Inc	157984/ LAU005923					Selsers Creek							Existing but unpermitted facility
Davie Shoring Inc – Davie Drive Estates	158067/ LAU005927					Selsers Creek							Existing but unpermitted facility

FACILITY	AI	PERMIT EXPIRATION	FACILITY	OUT- FALL	OUTFALL	RECEIVING	CURRENT EXPECTED FLOW	CURRE MONTHLY A CONCENTRATI	VERAGE	MONTHL	L TMDL Y AVERAGE ATION LIMITS	
	NO.	Date	ТҮРЕ	NO.	DESCRIPTION	WATER	GPD	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, mg/L	BOD5/ CBOD5, mg/L	NH <sub>3</sub> -N, DO, mg/L	MODELING COMMENTS
Pentecostal One Way Holy Church of God	158068/ LAU005928					Selsers Creek						Existing but unpermitted facility
Old School Lounge	158069/ LAU005929					Selsers Creek						Existing but unpermitted facility
ABC Well & Sewage Inc	158082/ LAU005933					Selsers Creek						Existing but unpermitted facility
Overmier's Auto	158083/ LAU005934					Selsers Creek						Existing but unpermitted facility
<b>Daniel Utility Construction</b>	158084/ LAU005937					Selsers Creek						Existing but unpermitted facility
Berthelots Heating & Air Conditioning	158386/ LAU005950					Selsers Creek						Existing but unpermitted facility
Fellowship Baptist Church	158387/ LAU005951					Selsers Creek						Existing but unpermitted facility
New Star Missionary Baptist Church	158390/ LAU005952					Selsers Creek						Existing but unpermitted facility
Autumn Breeze Apartments	158391/ LAU005953					Selsers Creek						Existing but unpermitted facility
Full Faith Christian Fellowship Baptist Church	158393/ LAU005954					Selsers Creek						Existing but unpermitted facility
Crazy Cones	159408/ LAU005992					Selsers Creek						Existing but unpermitted facility

<sup>&</sup>lt;sup>a</sup> This TMDL was developed for critical low-flow conditions (7Q10), therefore the WLAs for all stormwater discharges will be 0.0 lb/d.

### **EXECUTIVE SUMMARY**

This report presents the results of a watershed based, calibrated modeling analysis of Selsers Creek. The modeling was conducted to establish a TMDL for biochemical oxygen-demanding pollutants for the Selsers Creek watershed. The model extends from its headwaters to South Slough. Selsers Creek is located in south Louisiana and this subsegment includes several unnamed tributaries. Selsers Creek is in the Lake Pontchartrain Basin and this study includes Water Quality Subsegment 040603. The area is moderately populated and land use is primarily forest and agriculture.

The mainstem of Selsers Creek was surveyed and modeled. There are 41 permitted dischargers, including one MS4 permittee. In addition, a number of unpermitted dischargers may exist within this subsegment. There were too many facilities to sample and model. Therefore, a representative group of facilities was sampled. The same reductions apply to all facilities, modeled or not. These dischargers are accounted for as nonpoint loading through the process of calibration. Current permit information and discharge monitoring reports were reviewed for all of these facilities. This stream will call for final permit limits of 5 mg/L BOD $_5$  / 2 mg/L NH $_3$  / 5 mg/L DO for Ponchatoula High School, 5 mg/L BOD $_5$  / 2 mg/L NH $_3$  / 5 mg/L DO for Southeast Hammond Regional STP, and 10 mg/L BOD $_5$  / 2 mg/L NH $_3$  for all other facilities. However, interim limits will be implemented as described in the Technical Summary.

The watershed drains one area that is regulated by an MS4 permit. The area covered by this MS4 permit may include many permitted and unpermitted facilities. While LDEQ does assume responsibility for these facilities, partial responsibility belongs to the MS4 permittee to ensure that water draining from the area of coverage does not impact the named waterbody. Reductions in the nonpoint loading presented in this report should apply to MS4 regulated areas.

The impact of stormwater loading on the waterbody under critical conditions is difficult to determine. Monitoring is monetarily and logistically prohibitive. Therefore it is impractical to set MS4 permit limits. However, appropriate BMP measures shall be incorporated into the MS4 permit to minimize the impacts of stormwater loads on water quality. Such BMP measures may include the elimination of illicit wastewater discharges, the regionalization of wastewater treatment, rehabilitating and upgrading sewer collection system lines, buffer zones, and other appropriate activities.

Input data for the calibration model was developed from data collected during the June 2008 intensive survey; data collected by LDEQ monitoring station 1121 in the watershed; USGS drainage area and low flow publications. The nonpoint source loads included nonpoint loading not associated with flow. A satisfactory calibration was achieved for the main stem. For the projection models, data was taken from ambient temperature and dissolved oxygen records at LDEQ monitoring station WQN 1121. The Louisiana Total Maximum Daily Load Technical Procedures, Revision 12, has been followed in this study.

The various spreadsheets that were used in conjunction with the modeling program may be found in the appendices. Projections are adjusted to meet the dissolved oxygen criteria by reducing total nonpoint source loads. At the time of the survey Selsers Creek was only meeting a 5.0 mg/L standard in a portion of reaches 6 and 7.

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

Modeling was limited to low flow scenarios for both the calibration and the projections since the constituent of concern was dissolved oxygen and the available data was limited to low flow conditions. The model used was LAQUAL, a modified version of QUAL-TX, which has been adapted to address specific needs of Louisiana waters.

Selsers Creek, Subsegment 040603, was on the 2006 303(d) list and on the consent decree. Selsers Creek was also listed on the 2008 draft Integrated Report which is currently under review by EPA. Subsegment 040603 is found to be "not supporting" its designated uses of Primary Contact Recreation, Secondary Contact Recreation and Fish and Wildlife Propagation. Selsers Creek was subsequently scheduled for TMDL development with other listed waters in the Lake Pontchartrain Basin. The suspected causes of impairment are low dissolved oxygen, and elevated ammonia, nitrate/nitrite, total phosphorous and total fecal coliform. The suspected sources are unknown.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criterion is supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources.

Louisiana does not have numeric nutrient criteria at the present time. The original nutrient impairments for waterbodies in the Pontchartrain Basin were not based on quantitative assessments of historical nutrient data. The impairments were based on evaluative assessments that may have included dissolved oxygen. LDEQ and EPA plan to reevaluate the previous nutrient impairments in the Pontchartrain Basin. As a result, both the EPA and LDEQ expect the nutrient impairments to change from category 5 (impairment exists; TMDL required) to category 3 (insufficient data) for Louisiana's 2010 Integrated Report. Therefore LDEQ believes that TMDLs for dissolved oxygen should adequately address any potential nutrient impairments, in the absence of numeric nutrient criteria and quantitative assessments.

LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

 $\frac{http://www.deq.louisiana.gov/portal/Portals/0/planning/LA\%20Nutrient\%20Strategy\%20Plan\%20Final\%20FOR\%20WEB.pdf.$ 

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

Upon development of nutrient criteria, a subsequent quantitative assessment of the waterbodies, and the development of full nutrient models, nutrient limits may be established for all facilities discharging to impaired waterbodies in the Pontchartrain Basin. LDEQ recommends that all facilities discharging

to impaired waterbodies take a proactive approach and prepare to receive nutrient limitations in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

A calibrated water quality model for the watershed was developed and projections were modeled to quantify the non-point source load reductions which would be necessary in order for Selsers Creek, subsegment 040603 to comply with its established water quality standards and criteria. This report presents the results of that analysis.

This TMDL will implement a phased approach, as shown in Table 1. This report represents Phase I of the TMDL. For Phase I, 75% of the overall nonpoint loading must be removed to achieve the current DO criterion of 5.0 mg/L. Such loading requirements would require all dischargers to have permit limits of 10 mg/L CBOD / 2 mg/L NH<sub>3</sub> / 5 mg/L DO in this watershed. However, the implementation will occur in a phased manner. Phase II will be completed after LDEQ has had the opportunity to reevauate the DO criteria for the watershed, and if needed, the DO criteria has been revised and promulgated. The resulting allocations for Phase I are presented in Table 3.

LDEQ is in the process of reevaluating Lousiana's ecoregions and modifying the ecoregion boundaries where appropriate. Selsers Creek appears to reside in two different ecoregions, the Lower Mississippi River Alluvial Plain (LMRAP) ecoregion and the Terrace Uplands (TU) ecoregion. Therefore, Selsers Creek may have two different dissolved oxygen criteria. Data for the LMRAP and TU ecoregions indicate that the DO criteria for the lower reaches may be 2.3 mg/L, but the DO criteria for the upper reaches may be equal to or slightly less than the current DO criteria of 5.0 mg/L. LDEQ is evaluating the geographic location of the break between the two ecoregions. As a result, LDEQ has run a preliminary summer projection based on the DO criteria of 5.0 mg/L for the upper reaches and 2.3 mg/L for the lower reaches. This projection is an indication of what the required load reductions may be if the DO criteria is revised for appropriate waterbodies in the Pontchartrain Basin. The final required load reductions may be different based on the final DO criteria.

The table used to develop point source allocations and modeling reductions is shown below.

LDEQ recommends that no additional oxygen-demanding loads be permitted to enter the Selsers Creek watershed unless they conform to the Phase I Permit Implementation described in the Technical Summary. This includes loading from new facilities and increases in loading from existing facilities.

DEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the Federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term data base for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water

Originated: June 1, 2011

monitoring program is used to develop the state's biennial Integrated Report. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

**Table 6. Point Source Allocations to Percent Reductions** 

RELATION OF POINT SOURCE ALLOCATIONS TO PERCENT REDUCTIONS FROM SECONDARY TREATMENT											
Point Source Allocation % reduction from CBOD5   NH3-N   UBOD   Secondary treatments											
CBOD5	NH3-N	secondary treatment									
30	15	133.5									
20	10	89	33%								
10	10	66	51%								
10	5	44.5	67%								
10	2	31.6	76%								
5	2	20.1	85%								
0	0	0	100%								
	Other al	llocations of	choice								
Point	Source Allo	cation	% reduction from								
CBOD5	NH3-N	UBOD	secondary treatment								
5	5	33	75%								
2	1	8.9	93%								

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaced the previous five year cycle. Approximately one quarter of the states watersheds will be sampled in each year so that all of the states watersheds will be sampled within the four year cycle. This will allow the LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

# TABLE OF CONTENTS

TE	FECHNICAL SUMMARY	ii
EX	EXECUTIVE SUMMARY	xiv
LI	LIST OF TABLES	XX
LI	LIST OF FIGURES	xx
1.	1. Introduction	
2.	2. Study Area Description	
	2.1 General Information	
	2.2 Water Quality Standards	2
	2.3 Wastewater Discharges	3
	2.4 Water Quality Conditions/Assessment	5
	2.5 Prior Studies	
	3. General TMDL Development Process	
4.	4. Calibration Model Documentation	7
	4.1 Program Description	7
	4.2 Input Data Documentation	7
	4.2.1 Model Schematics and Maps	
	4.2.2 Model Options, Data Type 2	
	4.2.3 Program Constants, Data Type 3	
	4.2.4 Temperature Correction of Kinetics, Data Type 4	
	4.2.5 Reach Identification Data, Data Type 8	
	4.2.6 Advective Hydraulic Coefficients, Data Type 9	
	4.2.7 Dispersive Hydraulic Coefficients, Data Type 10	
	4.2.8 Initial Conditions, Data Type 11	
	4.2.9 Reaeration Rates, Data Type 12	
	4.2.10 Sediment Oxygen Demand, Data Type 12	
	4.2.11 Carbonaceous BOD Decay and Settling Rates, Data Type	
	4.2.12 Nitrogenous BOD Decay and Settling Rates, Data Type 15	
	4.2.13 Incremental Conditions, Data Types 16, 17, and 18	
	4.2.14 Nonpoint Sources, Data Type 19	
	4.2.15 Headwaters, Data Types 20, 21, and 22	
	4.2.16 Wasteloads, Data Types 23, 24, and 25	
	4.2.17 Boundary Conditions, Data Type 27	16
4	4.3 Model Discussion and Results	
5.	5. Water Quality Projections	
	5.1 Critical Conditions, Seasonality and Margin of Safety	
	5.2 Input Data Documentation	
	5.2.1 Model Options, Data Type 2	
	5.2.2 Temperature Correction of Kinetics, Data Type 4	
	5.2.3 Reach Identification Data, Data Type 8	
	5.2.4 Advective Hydraulic Coefficients, Data Type 9	
	5.2.5 Initial Conditions, Data Type 11	
	5.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Ra	
	and Settling Rates, Data Type 12 and 13	21

5.2.7 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloa	• •
19, 20, 21, 22, 24, 25, and 26	
5.2.8 Boundary Conditions, Data Types 20, 21, 22, and 27	
5.3 Model Discussion and Results	
5.3.1 No-Load Projection	
5.3.2 Summer Projection	
5.3.3 Winter Projection	
5.4 Calculated TMDL, WLAs and LAs	
5.4.1 Outline of TMDL Calculations	
5.4.2 Selsers Creek Subsegment 040603 TMDL	
6. Sensitivity Analysis	
7. Conclusions	
8. References	
9. Appendices	
Appendix A – Detailed TMDL Analysis	
Appendix A1 – Outline of TMDL Calculations	
Appendix A2 – 75% Reduction Summer TMDL Summary	
Appendix A3 – 75% Reduction Winter TMDL Summary	
Appendix B – Calibration Model Input and Output Data Sets	
Appendix B1 – Calibration Output Graphs and Input, Output and Overlay File	
Appendix B2 – Calibration Justifications	
Appendix C – Calibration Model Development	
Appendix C1 – Vector Diagram	
Appendix C2 – Calibration Loading	
Appendix D – Projection Model Input and Output Data Sets	
Appendix D1 – Summer Output Graphs and Input and Output Files	
Appendix D2 – Summer Projection Justifications	
Appendix D3 – Winter Output Graphs and Input and Output Files	
Appendix D4 – Winter Projection Justifications	
Appendix E – Projection Model Development	
Appendix E1 – Summer Loading—75% Reduction	
Appendix E2 – Winter Loading—75% Reduction	
Appendix E3 – MS4 Calculations	
Appendix E4 – Reference Stream Data	
Appendix F – Survey Data Measurements and Analysis Results	
Appendix F1 – Water Quality Data	
Appendix F2 – Cross Sections and Discharge Measurements	
Appendix F3 – Field Notes	
Appendix F4 – Continuous Monitor	
Appendix F5 – BOD Calculations	
Appendix F6- Dispersion Calculations	
Appendix F7 – Water Level Monitor Data	
Appendix G – Historical and Ambient Data	
Appendix G1 – Ambient Temperature & DO Calculations	
Appendix G2 – Historical Data, Site 1121	
Appendix H – Maps and Diagrams	
Appendix H1 – Overview Maps	442

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011	
Appendix H2 – Land Use Map	444
Appendix H3 – Louisiana Precipitation Map	
Appendix I – Sensitivity Analysis	
Appendix I1 – Sensitivity Output Graphs	447
Appendix I2 – Sensitivity Input and Output Data Sets	
LIST OF TABLES  Table 1. Selsers Creek Phased TMDL Approach	vi
standard	• -
Table 4. TMDL Summary 040603 – Point Sources included in the model vs. a DO Criterion	
5.0 mg/L	
Table 5. TMDL Summary 040603 – Point Sources within the watershed but not included in model vs. DO Criterion of 5.0 mg/L	the
Table 6. Point Source Allocations to Percent Reductions	xvii
Table 7. Land Uses in Segment 040603	
Table 8. Water Quality Numerical Criteria and Designated Uses	
Table 9. Summary of Calibration Model Sensitivity Analysis	

# **LIST OF FIGURES**

Figure 1.	Vector Diagram	8
Figure 2.	Flow Diagram	9
	Maps of Study Area	
Figure 4.	Graphs of Calibration Dissolved Oxygen versus River Kilometer	. 17
Figure 5.	Graphs of Summer Projection at 75% Removal of overall NPS loads	. 25
Figure 6.	Graphs of Winter Projection at 75% Removal of overall NPS Loads	. 28

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

#### 1. Introduction

Selsers Creek, Subsegment 040603, was on the 2006 and draft 2008 Integrated Reports and the consent decree. Subsegment 040603 is found to be "not supporting" any of its designated uses of Primary Contact Recreation and Fish and Wildlife Propagation. It is supporting its designated use of Secondary Contact Recreation. The suspected causes of impairment are low dissolved oxygen, nitrate/nitrite, total phosphorus, sulfates, total dissolved solids, and total fecal coliform. All nutrient impairments were based on evaluative assessments. Nutrient data was not used in the nutrient assessments. LDEQ and EPA anticipate the removal of all nutrient impairments in the 2010 303(d). The suspected sources are unknown. Because of the impairment, this subsegment requires the development of a total maximum daily load (TMDL) for oxygen demanding substances. A calibrated water quality model for the Selsers Creek, subsegment 040603 watershed was developed and projections for current dissolved oxygen standards were run to quantify the wasteload reductions required to meet established dissolved oxygen criteria. This TMDL report addresses the organic enrichment/low DO impairment.

### 2. Study Area Description

### 2.1 General Information

"The Lake Pontchartrain Basin, located in southeastern Louisiana, consists of the tributaries and distributaries of Lake Pontchartrain, a large estuarine lake. The basin is bounded on the north by the Mississippi state line, on the west and south by the east bank Mississippi River levee, on the east by the Pearl River Basin and on the southeast by Breton and Chandeleur Sounds. This basin includes Lake Borgne, Breton Sound, Chandeleur Sound and the Chandeleur Islands. The northern part of the basin consists of wooded uplands, both pine and hardwood forests. The southern portions of the basin consist of cypress-tupelo swamps and lowlands and brackish and saline marshes. The marshes of the southeastern part of the basin constitute the most rapidly eroding area along the Louisiana coast. Elevations in this basin range from minus five feet at New Orleans to over two hundred feet near the Mississippi border." (LA DEQ, 2000)

This TMDL addresses Selsers Creek located in the Lake Pontchartrain Basin from its headwaters to South Slough. This area is typical of the basin and is primarily comprised of urban, forestry, and agriculture as documented in Table 7 (LADEQ, 1999).

A detailed land cover map of Subsegment 040603 is also included in Appendix H2. Average annual precipitation in the segment, based on the nearest Louisiana Climatic Station, is 62 - 64 inches based on a 30-year period of record (LSU, 1999). There is a Louisiana average annual precipitation map located in Appendix H3.

Originated: June 1, 2011

Table 7. Land Uses in Segment 040603

Land Type	Acres	Percent Land use
Upland Forest Mixed	164.36	31.64
Upland Forest Evergreen	101.58	19.55
Upland S/S Mixed	84.37	16.24
Agriculture/Cropland/Grassland	52.81	10.17
Vegetated Urban	25.38	4.89
Upland S/S Deciduous	22.62	4.36
Wetland Forest Deciduous	20.44	3.94
Upland S/S Evergreen	16.57	3.19
Water	13.85	2.67
Upland Forest Deciduous	7.39	1.42
Dense Pine Thicket	2.91	0.56
Fresh Marsh	1.91	0.37
Wetland Forest Mixed	1.65	0.32
Wetland S/S Deciduous	1.47	0.28
Non-Vegetated Urban	1.19	0.23
Upland Barren	0.96	0.19

# 2.2 Water Quality Standards

The Water Quality criteria and designated uses for the Selsers Creek watershed are shown in Table 8. As noted in the table, Selsers Creek, Subsegment 040603 has a year round dissolved oxygen standard of 5.0 mg/L.

Table 8. Water Quality Numerical Criteria and Designated Uses

Parameter	Value
Designated Uses	ABC
DO, mg/L	5.0
Cl, mg/L	30
SO <sub>4</sub> , mg/L	20
pH	6.0 - 8.5
BAC	1*
Temperature, deg Celsius	30
TDS, mg/L	150

USES: A – primary contact recreation; B - secondary contact recreation; C – propagation of fish and wildlife; D – drinking water supply; E – oyster propagation; F – agriculture; G – outstanding natural resource water; L – limited aquatic life and wildlife use.

<sup>\*</sup>Note 1 – No more than 25% of samples collected on a monthly or near-monthly basis shall exceed a fecal coliform density of 400 colonies/100mL for the period May through October; No more than 25% of samples collected on a monthly or near-monthly basis shall exceed a fecal coliform density of 2,000 colonies/100mL for the period November through April.

Originated: June 1, 2011

# 2.3 Wastewater Discharges

The Selsers Creek watershed includes 41 permitted dischargers, one of which is an MS4 permittee. In addition, a number of unpermitted dischargers may exist within this subsegment. This represented too many facilities to sample and model. Therefore, a representative group of facilities was sampled. The same reductions apply to all facilities, modeled or not. These dischargers are accounted for as nonpoint loading through the process of calibration. LDEQ recognizes that many of the dischargers may not individually impact the mainstem of Selsers Creek during periods of low stream flow. However, the cumulative impact of many small dischargers can impact the water quality in Selsers Creek during storm events. This is why we have associated discharger allocations with nonpoint reductions. Therefore, in the absence of regional plants, LDEQ believes that all facilities should share in the load reductions. Current permit information and discharge monitoring reports were reviewed for these facilities. LDEQ is not able to quantify the number of individual treatment systems in the watershed. LDEQ realizes that these individual treatment systems may contribute to the loading. LDEQ believes that these individual systems should be linked to regional or community collection and treatment systems, where available.

LDEQ has been updating current information on permitted facilities and actively locating unpermitted facilities in the Pontchartrain Basin to get them permitted. These facilities will be permitted according to the strategy presented in the Technical Summary.

Phase I and II stormwater systems are additional possible point source contributors in the Pontchartrain Basin. Stormwater discharges are generated by runoff from urban land and impervious areas such as paved streets, parking lots, and rooftops during precipitation events. These discharges often contain high concentrations of pollutants that can eventually enter nearby waterbodies. Most stormwater discharges are considered point sources and require coverage by a National Pollutant Discharge Elimination System (NPDES) permit.

Under the NPDES stormwater program, operators of large, medium, and regulated small municipal separate storm sewer systems (MS4s) must obtain authorization to discharge pollutants. The Stormwater Phase I Rule (55 Federal Register 47990, November 16, 1990) requires all operators of medium and large MS4s to obtain an NPDES permit and develop a stormwater management program. Medium and large MS4s are defined by the size of the population within the MS4 area, not including the population served by combined sewer systems. A medium MS4 has a population between 100,000 and 249,999; a large MS4 has a population of 250,000 or more.

Phase II requires a select subset of small MS4s to obtain an NPDES stormwater permit. A small MS4 is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II rule automatically covers all small MS4s in urbanized areas (UAs), as defined by the Bureau of the Census, and also includes small MS4s outside a UA that are so designated by NPDES permitting authorities, case by case (USEPA 2000).

In Louisiana, there are two ways that an MS4 can be identified as a regulated, small MS4. This category includes all cities within UAs and any small MS4 area outside UAs with a population of at least 10,000 and a population density of at least 1,000 people per square mile (LDEQ 2002). In the Selsers Creek watershed, the city of Hammond, Permit # LAR041030, has a small MS4 permit for inside the city limits.

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

EPA's stormwater permitting regulations require municipalities to obtain permit coverage for all stormwater discharges from MS4s. For each MS4 in the basin, a gross load was computed by dividing the acreage of the permitted area in the subsegment by the total area of the subsegment and multiplying the nonpoint source allocation by this percentage. Note that these values are estimates that can be refined in the future as more information about MS4s and land-use-specific loadings becomes available. Note that MS4s are permitted dischargers but function similarly to nonpoint sources (through storm-driven processes). EPA expects that the MS4 WLAs will be achieved through BMPs and adaptive management.

The National Pollutant Discharge Elimination System (NPDES) permitting program for stormwater discharges was established under the Clean Water Act as the result of a 1987 amendment. The Act specifies the level of control to be incorporated into the NPDES stormwater permitting program depending on the source (industrial versus municipal stormwater). These programs contain specific requirements for the regulated communities/facilities to establish a comprehensive stormwater management program (SWMP) or storm water pollution prevention plan (SWPPP) to implement any requirements of the total maximum daily load (TMDL) allocation. [See 40 CFR §130.]

Storm water discharges are highly variable both in terms of flow and pollutant concentration, and the relationships between discharges and water quality can be complex. For municipal stormwater discharges in particular, the current use of system-wide permits and a variety of jurisdiction-wide BMPs, including educational and programmatic BMPs, does not easily lend itself to the existing methodologies for deriving numeric water quality-based effluent limitations. These methodologies were designed primarily for process wastewater discharges which occur at predictable rates with predictable pollutant loadings under low flow conditions in receiving waters. EPA has recognized these problems and developed permitting guidance for stormwater permits. [See "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits" (EPA-833-D-96-00, Date published: 09/01/1996)]

Due to the nature of storm water discharges, and the typical lack of information on which to base numeric water quality-based effluent limitations (expressed as concentration and mass), LDEQ considers an interim permitting approach for NPDES storm water permits which is based on BMPs. (The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards.) These BMPs should include the location of all wastewater discharges, elimination of all illicit discharges, regionalization of sewage collection and treatment, and the rehabilitation of all problematic sewage collection lines and treatment systems within the MS4 regulated area.

A monitoring component is also included in the recommended BMP approach. "Each storm water permit should include a coordinated and cost-effective monitoring program to gather necessary information to determine the extent to which the permit provides for attainment of applicable water FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

quality standards and to determine the appropriate conditions or limitations for subsequent permits." The details of this approach can be found in a guidance memo issued in 2002. [See Memorandum from Robert Wayland, Director of OWOW and James Hanlon, Director of OWM to Regional Water Division Directors: "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit requirements Based on Those WLAs" (Date published: 11/22/2002)] "The policy outlined in this memorandum affirms the appropriateness of an iterative, adaptive management BMP approach, whereby permits include effluent limits (e.g., a combination of structural and nonstructural BMPs) that address storm water discharges, implement mechanisms to evaluate the performance of such controls, and make adjustments (i.e., more stringent controls or specific BMPs) as necessary to protect water quality. ...... If it is determined that a BMP approach (including an iterative BMP approach) is appropriate to meet the storm water component of the TMDL, LDEQ makes sure the TMDL reflects this." This BMP-based approach to stormwater sources in TMDLs is also recognized and described in the most recent EPA guidance. [See "TMDLs To Stormwater Permits Handbook" (DRAFT), EPA, November 2008]

This TMDL adopts the EPA recommended approach and relies on appropriate BMPs for implementation. No numeric effluent limitations are required or anticipated for municipal or private stormwater discharge permits.

# 2.4 Water Quality Conditions/Assessment

Selsers Creek, subsegment 040304, of the Lake Pontchartrain Basin is listed on the 2006 and draft 2008 Integrated Reports and the consent decree. This subsegment is listed as not supporting Primary Contact Recreation, Secondary Contact Recreation and Fish and Wildlife Propagation. The suspected causes of impairment are low dissolved oxygen, elevated ammonia, nitrate/nitrite, total phosphorous, and total fecal coliform. The suspected sources are unknown. Because of the impairment, this subsegment requires the development of a total maximum daily load (TMDL) for oxygen demanding substances.

#### 2.5 Prior Studies

There are no previous TMDL studies for Selsers Creek

LDEQ has one monthly water quality sampling station on Selsers Creek. LDEQ Water Quality Site 1121, Selsers Creek at Weinberger Road, southeast of Ponchatoula, Louisiana, has a period of record from January 2001 to December 2001. Data collected during the Eularian survey conducted in June 2008, included discharge data, cross-section data, field in-situ data, continuous monitor data, two dye studies, and lab water quality data. This data was used to establish the input for the model calibration and is presented in Appendix F.

### 3. General TMDL Development Process

The development of a TMDL for dissolved oxygen generally occurs in 3 stages. Stage 1 encompasses the data collection activities. These activities may include gathering such information as stream cross-sections, stream flow, stream water chemistry, stream temperature and dissolved oxygen at various

locations on the stream, location of the stream centerline and the boundaries of the watershed which drains into the stream, and other physical and chemical factors which are associated with the stream. Additional data gathering activities include gathering all available information on each facility which discharges pollutants in to the stream, gathering all available stream water quality chemistry and flow data from other agencies and groups, gathering population statistics for the watershed to assist in developing projections of future loadings to the water body, land use and crop rotation data where available, and any other information which may have some bearing on the quality of the waters within the watershed. During Stage 1, any data available from reference or least impacted streams which can be used to gauge the relative health of the watershed is also collected.

Stage 2 involves organizing all of this data into one or more useable forms from which the input data required by the model can be obtained or derived. Water quality samples, field measurements, and historical data must be analyzed and statistically evaluated in order to determine a set of conditions which have actually been measured in the watershed. The findings are then input to the model. Best professional judgment is used to determine initial estimates for parameters which were not or could not be measured in the field. These estimated variables are adjusted in sequential runs of the model until the model reproduces the field conditions which were measured. In other words, the model produces a value of dissolved oxygen, temperature, or other parameter which matches the measured value within an acceptable margin of error at the locations along the stream where the measurements were actually made. When this happens, the model is said to be calibrated to the actual stream conditions. At this point, the model should confirm that there is an impairment and give some indications of the causes of the impairment. If a second set of measurements is available for slightly different conditions, the calibrated model is run with these conditions to see if the calibration holds for both sets of data. When this happens, the model is said to be verified.

Stage 3 covers the projection modeling which results in the TMDL. The critical conditions of flow and temperature are determined for the waterbody and the maximum pollutant discharge conditions from the point sources are determined. These conditions are then substituted into the model along with any related condition changes which are required to perform worst case scenario predictions. At this point, the loadings from the point and nonpoint sources (increased by an acceptable margin of safety) are run at various levels and distributions until the model output shows that dissolved oxygen criteria are achieved. It is critical that a balanced distribution of the point and nonpoint source loads be made in order to predict any success in future achievement of water quality standards. At the end of Stage 3, a TMDL is produced which shows the point source permit limits and the amount of reduction in manmade nonpoint source pollution which must be achieved to attain water quality standards. The manmade portion of the NPS pollution is estimated from the difference between the calibration loads and the loads observed on reference or least impacted streams.

#### 4. Calibration Model Documentation

## 4.1 Program Description

The model used for this TMDL was LA-QUAL, a steady-state one-dimensional water quality model. LA-QUAL has the mechanisms for incorporating tidal fluctuations, dispersion, and algal impacts in the analysis and was particularly suitable for use in modeling Selsers Creek. For a history of LA-QUAL, refer to the LA-QUAL for Windows User's Manual (LDEQ, 2010).

### 4.2 Input Data Documentation

Data collected during an intensive survey conducted from June 9-13, 2008 was used to establish the input for the model calibration. The survey data was compared to existing ambient network data for Selsers Creek (Site 1121). This comparison showed that values measured during the survey were consistent with ambient values. The survey data is presented in Appendix F and the comparison graphs are presented in Appendix G. The flows in each reach were based on the measured survey discharges.

Field and laboratory water quality data were entered in a spreadsheet for ease of analysis. The survey data was the primary source of the model input data for initial conditions, decay rates, mainstem water temperature, dissolved oxygen loading, headwater temperature, and DO data.

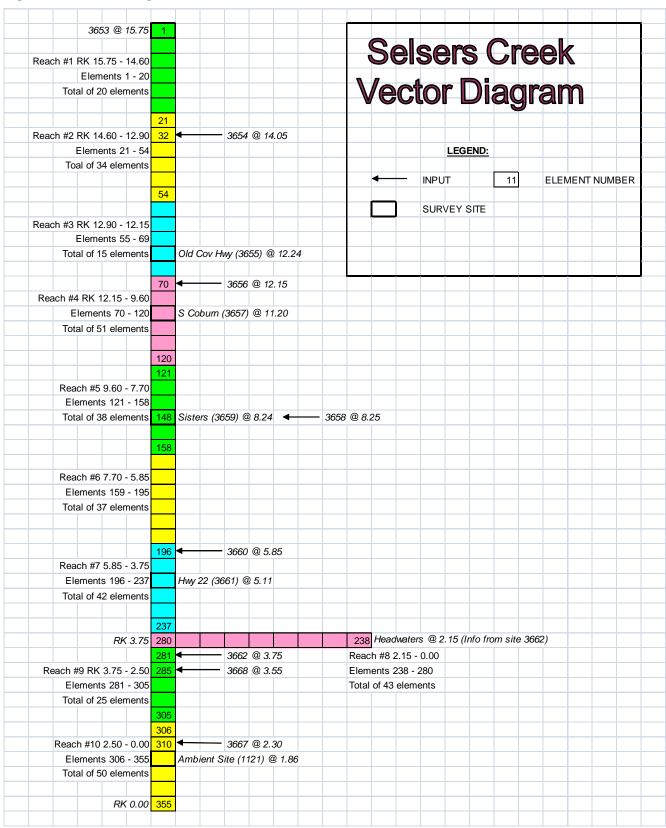
## 4.2.1 Model Schematics and Maps

A vector diagram of the modeled area is presented in Figure 1 and Appendix C1. The vector diagram shows the locations of survey stations, the reach/element design, and the locations of the tributaries. An ARCVIEW map of the stream and subsegment showing river kilometers, survey stations, subsegment boundary and other points of interest are also included in Figure 3 and Appendix H1.

### 4.2.2 Model Options, Data Type 2

Six constituents were modeled during the calibration process. These were dissolved oxygen, BOD1, BOD2, NBOD, chloride, and conductivity. The continuous monitors did show significant diurnal swings indicative of algal activity. The algae cycle was not modeled; however, the measured chlorophyll A values were included in the initial conditions. This allowed the model to simulate the oxygen production associated with algae without modeling the entire algal cycle.

Figure 1. Vector Diagram



Originated: June 1, 2011

Figure 2. Flow Diagram

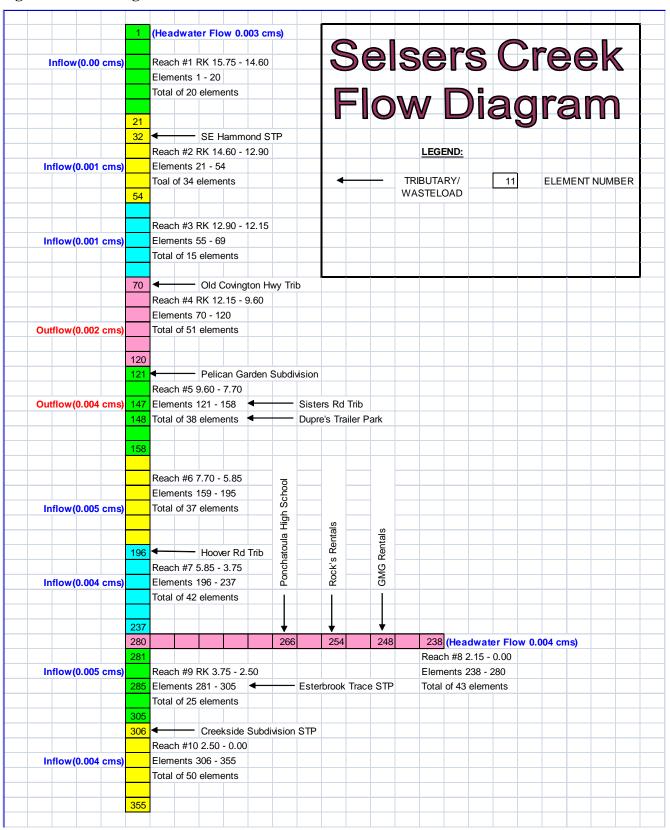
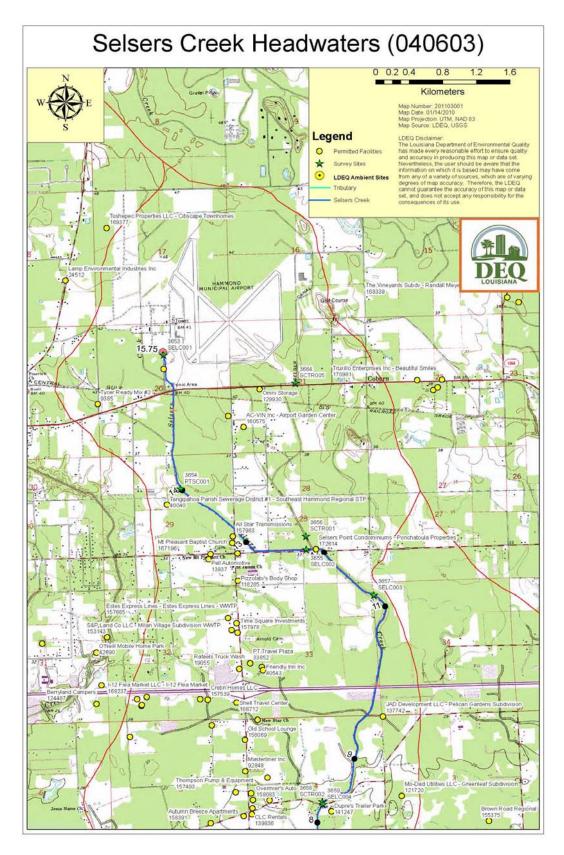
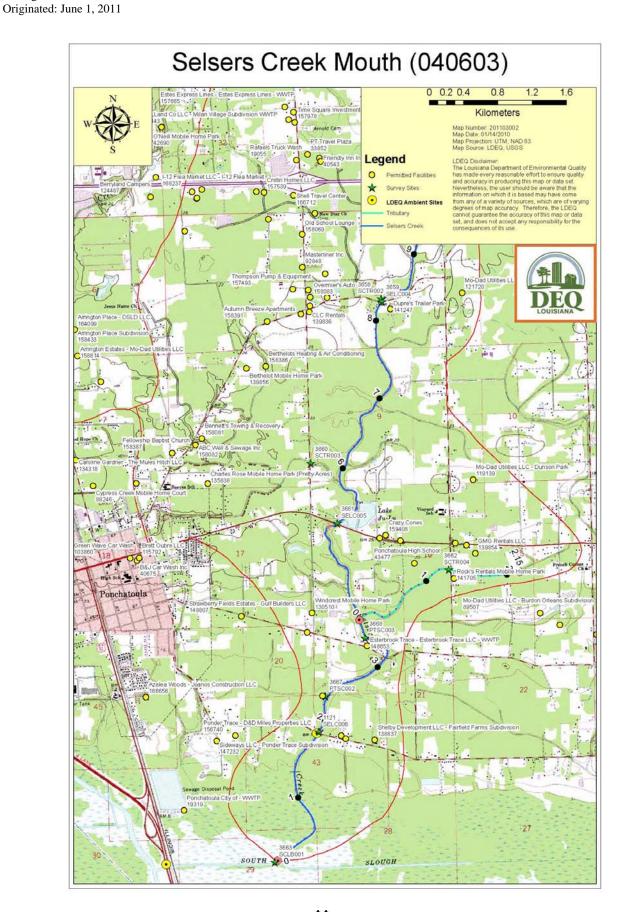


Figure 3. Maps of Study Area





Originated: June 1, 2011

# 4.2.3 Program Constants, Data Type 3

A minimum  $K_L$  value of 0.7 m/day was used. This value is a conversion from 2.3 ft/day which is a Louisiana standard minimum. The  $K_2$  maximum was set to 25 1/day at  $20^{\circ}$  C which is the EPA Policy in the absence of a measured value.

The inhibition control value was set to option 3, which inhibits all rates but sediment oxygen demand. The water column dissolved oxygen demand is assumed to come primarily from facultative bacteria under anoxic conditions and SOD is not influenced by modeled dissolved oxygen levels in the upper water column.

The hydraulic calculation method was set to option 2, which allows the user to set the "widths and depths." This was done because the low slopes in these waterbodies cause a substantial amount of water to be present in some reaches during critical flow. Using a modified Leopold relationship allows the model to predict a more accurate depth and width during low flow.

The settling rate units were set to option 2, which sets the units to 1/day for a rate, instead of m/day for a velocity. By making the settling rate a velocity, the rate becomes dependent upon the depth.

Dispersion equation 3 was used to take into account all modes of transport.

# 4.2.4 Temperature Correction of Kinetics, Data Type 4

The temperature values computed are used to correct the rate coefficients in the source/sink terms for the other water quality variables. These coefficients are input at 20 °C and are then corrected to temperature using the following equation:

$$X_T = X_{20} * Theta^{(T-20)}$$

Where:

 $X_T$  = the value of the coefficient at the local temperature T in degrees Celsius  $X_{20}$  = the value of the coefficient at the standard temperature at 20 degrees Celsius Theta = an empirical constant for each reaction coefficient

In the absence of specified values for data type 4, the model uses default values. A complete listing of these values can be found in the LA-QUAL for Windows User's Manual (LDEQ, 2010). For this

model all values used were LAQUAL default values.

# 4.2.5 Reach Identification Data, Data Type 8

A diagram of the modeled area is presented in Appendix C1. The vector diagram shows the reach/element design and the location of several unnamed tributaries. The modeled area is characterized by 11 sample sites. The model begins at its headwaters and extends to South Slough. This calibrated model includes 10 reaches, 355 elements, and two headwaters. A digitized map of the stream showing river kilometers and the June 2008 survey sampling sites are included in Figure 3 and Appendix H1.

# 4.2.6 Advective Hydraulic Coefficients, Data Type 9

The Leopold equations are used to scale the velocity (U), width (W), and depth (H) of a free flowing stream from a lower value of flow to a higher value or from a higher value of flow to a lower value. Note that the exponents add to one and the coefficients multiply to 1. This is known as the rule of ones. This method is not appropriate for streams which are not dependent entirely on flow such as waterbodies where flow approaches zero, but contain some depth.

$$U = aQ^b$$
  $H = cQ^d$   $W = eQ^f$   $b + d + f = 1$   $(a)(c)(e) = 1$ 

The Leopold equations presume that the water surface width and average depth of a stream are zero at zero flow. Most Louisiana streams, such as Selsers Creek, retain a significant width and depth at zero flow. The equations have therefore been modified to allow for a zero flow width and depth. The rule of ones does not apply to the modified equations. The modified Leopold equations are:

$$W = aQ^b + c$$
  $H = dQ^e + f$   $U = gQ^h$ 

The width and depths were assumed to be constant under critical conditions. Consequently, the modified Leopold coefficients and exponents were not calculated for this model.

## 4.2.7 Dispersive Hydraulic Coefficients, Data Type 10

A dye study was performed between sites 3655 and 1121. Dye was dumped on Tuesday, June 10, 2008. Four (4) fixed dye monitors were set out at locations between sites 3655 and 1121. The monitors were set out to catch the dye cloud as it flowed downstream. The first and second fixed dye monitors were able to record the full passing of the dye cloud. The third and fourth monitors were only able to record a portion of the dye cloud before the end of the survey.

Data from the first fixed site (reach 4, at I-12) was found to give the best results due to duration and lack of tributary inputs. The dispersion value was determined to be 2.125 m<sup>2</sup>/s. All documentation can be found in Appendix F6.

To take into consideration all modes of transport, equation 3, ( $D_L = aH^bQ^cV_M^d$ ) in Laqual was used. Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and QUAL2E equations. The value for coefficient "a" was calibrated to within the boundaries of the final dye run by setting all other parameters to the previously mentioned values. All documentation can be found in Appendix F6.

# 4.2.8 Initial Conditions, Data Type 11

The initial conditions are used to reduce the number of iterations required by the model. The values required for this model were temperature and DO by reach. The input values came from the survey station(s) located closest to the reach.

When the continuous monitoring dissolved oxygen (DO) data for at least one diurnal cycle is available, it is standard practice to calibrate to the mean DO. In this case, a diurnal variation of greater than 2 mg/L was encountered. The standard DEQ practice for this is as follows:

1. Calibrate without simulating algal production as follows:

Range of DO cycle	Calibrate
0-2  mg/L	Mean DO for one or more full cycles
2-9  mg/L	One mg/L over minimum DO
>9 mg/L	0.11*DO cycle over minimum DO

Most sites for this survey were in the 2-9 mg/L variation range, so that option was followed. The input data and sources are shown in Appendix B2.

Chlorophyll a values were also used since the mild effects of algae on the dissolved oxygen concentrations were also simulated with this model. The initial conditions are only a starting point for the model, therefore, all values were set to the measured values. The input data and sources are shown in Appendix B2.

# 4.2.9 Reaeration Rates, Data Type 12

The applicability of the various reaeration equations was examined. The Louisiana Equation was considered to be the most appropriate equation for all reaches. The equation is stated below.

$$K_2 = \underbrace{0.664 (1 + 21.52 \text{ V})}_{D}$$

where: V = stream velocity D = stream depth

# 4.2.10 Sediment Oxygen Demand, Data Type 12

The SOD values were achieved through calibration. The SOD value for each reach is shown in Appendix B2. The values were considered to be reasonable for this type of stream. A large part of the stream has high canopy cover. The high canopy cover means large amounts of leaf fall to the stream, possibly resulting in an organic layer covering the bottom sediments.

All SOD was added as "background sediment oxygen demand" to calibrate to the measured dissolved oxygen values. This should not be taken to imply that this level of SOD represents natural background SOD. In the absence of suitable reference stream data, no natural background loading was specified, and loading needed to calibrate represents both anthropogenic and natural background loading. The

term "Background SOD" in the LAQUAL input file is actually a baseline input value, void of any settled CBOD that has been converted to SOD. "Background SOD" does not refer to any type of natural background loading present in the stream.

### 4.2.11 Carbonaceous BOD Decay and Settling Rates, Data Type 12

The decay rates were based on laboratory analysis of samples. These rates ranged from 0.28 to 0.578 for CBOD1 and from 0.03 to 0.087 for CBOD2. LDEQ used reasonable CBOD settling rates in accordance with the Louisiana Total maximum Daily Load Technical Procedures Manual.

# 4.2.12 Nitrogenous BOD Decay and Settling Rates, Data Type 15

The decay rates were based on laboratory analysis of samples and ranged from 0.147 to 0.307. LDEQ used reasonable NBOD settling rates in accordance with the Louisiana Total maximum Daily Load Technical Procedures Manual.

### 4.2.13 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were used in the calibration to represent nonpoint source loads associated with flows. The presence of bankflow was determined from the flow measurements along the mainstem. An evaluation of the water chemistry confirmed this assumption. The dissolved oxygen, BOD1, BOD2 and NBOD were calculated by mathematical interpolation using the nearest upstream and downstream sample sites. The data and its source for each reach are presented in Appendix B2.

### 4.2.14 Nonpoint Sources, Data Type 19

Nonpoint source loads which are not associated with a flow are input into this part of the model. These can be most easily understood as resuspended load from the bottom sediments and are modeled as SOD and BOD loads. These values are achieved through calibration. The loads determined through calibration were reasonable for this type of waterbody and geometry.

### **4.2.15** Headwaters, Data Types 20, 21, and 22

The headwater flows were based on measured values at sites 3653 and 3662. The data and sources are presented in Appendix B2.

### **4.2.16** Wasteloads, Data Types 23, 24, and 25

A facility review was performed on the subsegment and 43 permitted dischargers were found to be located in subsegment 040603. There were too many facilities to sample and model. Therefore, a representative group of facilities was sampled. The reductions apply to all facilities, modeled or not. LDEQ recognizes that many of the dischargers may not individually impact the mainstem of Selsers Creek during periods of low stream flow. However, the cumulative impact of many small dischargers can impact the water quality in Selsers Creek during storm events. This is why we have associated discharger allocations with nonpoint reductions. Therefore, in the absence of regional plants, LDEQ believes that loading should be reduced equitably for all facilities.

# 4.2.17 Boundary Conditions, Data Type 27

The lower boundary conditions were assumed to be equivalent to the measurements taken at survey station 3663. All tributaries that were flowing under critical conditions (low flow, high temperature) were sampled and included in the model as boundaries loads. As a result, LDEQ captured all of the loading transported by the tributary to Selsers Creek.

### 4.3 Model Discussion and Results

The calibration model input and output files and plots are presented in Appendix B. The overlay plotting option was used to determine if calibration had been achieved. No flow measurement was taken for Southeast Hammond Regional STP during the survey, so flow was estimate from DMR information. Flow is reported monthly for this facility, and average flow for the month of June, 2008 was 0.469 MGD (0.0206 cms). This exceeded the measured stream flows at survey time, so an estimated flow of 0.010291 cms for the day of the survey was used. Plots of the dissolved oxygen concentration versus river kilometer are presented in Figure 4. The dissolved oxygen readings at most sites had a diurnal swing of larger than 2 and less than 9. Therefore, the calibration points for dissolved oxygen were based on the minimum DO + 1. The calibration points for BOD were the measured values from the water quality samples. Sites 3655 and 3657 BOD series data were flagged as "estimations" and were not used as target points. The calibration points for conductivity were the insitu readings. The calibration points for the chlorides and chlorophyll A were the measured values from the water quality samples.

An adequate calibration was achieved for DO, BOD1, BOD2 and NBOD on the main stem. The calibration model shows that during the June 2008 survey period, the DO standard of 5 mg/l was only being met in a portion of reaches 6 and 7. The calibration model minimum DO on the main stem was 0.86 mg/L.

# 5. Water Quality Projections

The traditional summer critical projection loading scenario was performed at the current annual DO standard. This scenario was based on reduced total nonpoint loads at summer season critical conditions (ie. 90<sup>th</sup> percentile seasonal temperatures and summer default flows) in accordance with the Louisiana Technical Procedures (LTP). A winter projection was run based on the percent reduction of total nonpoint loads used for summer critical projections. The summer and winter projection plots for DO are presented in Figures 5 and 6.

## 5.1 Critical Conditions, Seasonality and Margin of Safety

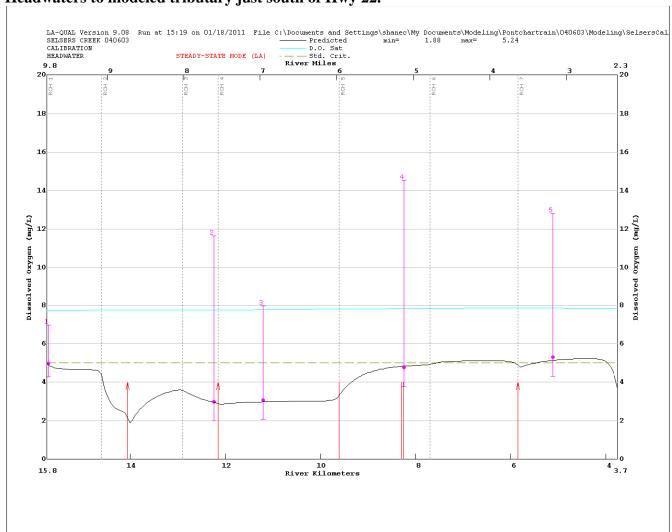
The Clean Water Act requires the consideration of seasonal variation of conditions affecting the constituent of concern, and the inclusion of a margin of safety (MOS) in the development of a TMDL. For the Selsers Creek, subsegment 040603 TMDL, an analysis of LDEQ ambient data has been employed to determine critical seasonal conditions and an appropriate margin of safety.

Critical conditions for dissolved oxygen were determined for Selsers Creek using water quality data from Selsers Creek water quality site number 1121 on the LDEQ Ambient Monitoring Network. The 90<sup>th</sup> percentile temperature for each season and the corresponding 90% of saturation DO was

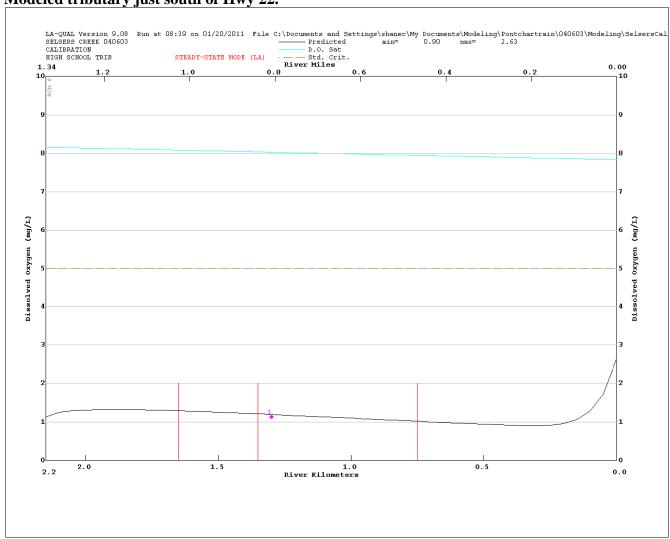
determined. Ambient temperature data, critical temperature and DO saturation determinations are shown in Appendix G1.

Figure 4. Graphs of Calibration Dissolved Oxygen versus River Kilometer

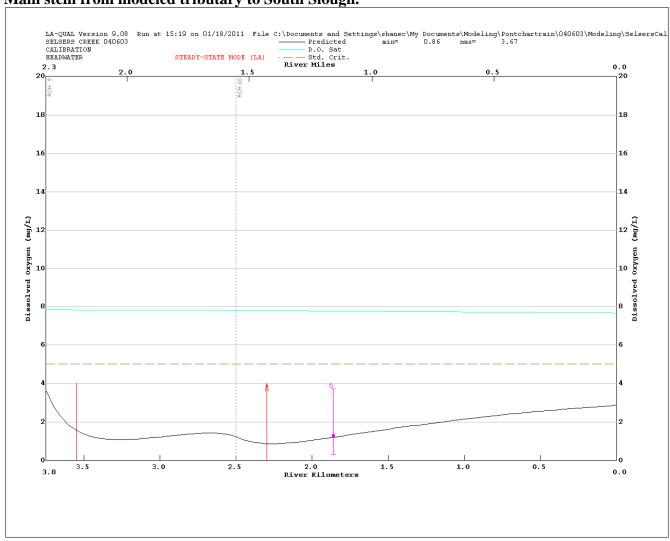
Headwaters to modeled tributary just south of Hwy 22.



## Modeled tributary just south of Hwy 22.



Main stem from modeled tributary to South Slough.



- numbered points indicate survey stations
- vertical lines indicate beginning of reach
- the horizontal line indicates the DO Criterion
- upper plotted line indicates DO saturation
- lower plotted line indicates calibration model output

Graphical and regression analysis techniques have been used by LDEQ historically to evaluate the temperature and dissolved oxygen data from the Ambient Monitoring Network and run-off determinations from the Louisiana Office of Climatology water budget. Since nonpoint loading is conveyed by run-off, this was a reasonable correlation to use. Temperature is strongly inversely proportional to dissolved oxygen and moderately inversely proportional to run-off. Dissolved oxygen and run-off are also moderately directly proportional. The analysis concluded that the critical conditions for stream dissolved oxygen concentrations were those of negligible nonpoint run-off and low stream flow combined with high stream temperature.

When the rainfall run-off (and non-point loading) and stream flow are high, turbulence is higher due to the higher flow and the temperature is lowered by the run-off. In addition, run-off coefficients are higher in cooler weather due to reduced evaporation and evapotranspiration, so that the high flow periods of the year tend to be the cooler periods. Reaeration rates and DO saturation are, of course, much higher when water temperatures are cooler, but BOD decay rates are much lower. For these reasons, periods of high loading are periods of higher reaeration and dissolved oxygen but not necessarily periods of high BOD decay.

This phenomenon is interpreted in TMDL modeling by assuming that nonpoint loading associated with flows into the stream are responsible for the benthic blanket which accumulates on the stream bottom and that the accumulated benthic blanket of the stream, expressed as SOD and/or resuspended BOD in the calibration model, has reached steady state or normal conditions over the long term and that short term additions to the blanket are off set by short term losses. This accumulated loading has its greatest impact on the stream during periods of higher temperature and lower flow. The manmade portion of the NPS loading is the difference between the calibration load and the reference stream load where the calibration load is higher. The only mechanism for changing this normal benthic blanket condition is to implement best management practices and reduce the amount of nonpoint source loading entering the stream and feeding the benthic blanket.

Critical season conditions were simulated in the Selsers Creek, subsegment 040603 dissolved oxygen TMDL projection modeling by using the LTP seasonal defaults for all flows, and the 90<sup>th</sup> percentile temperature. For the headwater DO, the 90% of DO Sat from the ambient monitoring site was used.

In reality, the highest temperatures occur in July-August, the lowest stream flows occur in October-November, and the maximum point source discharge occurs following a significant rainfall, i.e., high-flow conditions. The summer projection model is established as if all these conditions happened at the same time. The winter projection model accounts for the seasonal differences in flows and BMP efficiencies. Other conservative assumptions regarding rates and loadings are also made during the modeling process. In addition to the conservative measures, an explicit MOS of 20% was used for all loads to account for future growth, safety, model uncertainty and data inadequacies.

#### 5.2 Input Data Documentation

The LTP states that the headwater and tributary flows for summer conditions should be 0.1 cfs or the 7Q10, whichever is greater. In the absence of historical data, a 7Q10 value could not be determined for Selsers Creek. Therefore, the summer and winter critical flows were set to 0.1 and 1.0 cfs, respectively.

Critical conditions include dissolved oxygen, temperature and flow. Pollutant loading is adjusted in the projection models to meet the dissolved oxygen criteria.

The calibration values were retained for the remaining parameters and used as input values in the summer and winter projections. The model adjusts the input values for SOD and BOD decay rates based upon the input temperature.

#### 5.2.1 Model Options, Data Type 2

Four constituents were modeled during the projection process. These were dissolved oxygen, BOD1, BOD2 and NBOD.

#### 5.2.2 Temperature Correction of Kinetics, Data Type 4

The temperature correction factors specified in the LTP are entered in the model.

#### 5.2.3 Reach Identification Data, Data Type 8

The reach-element design from the calibration was used in the projection modeling.

#### 5.2.4 Advective Hydraulic Coefficients, Data Type 9

The hydraulic coefficients, exponents, and constants determined for the calibration were used in the projection model.

#### 5.2.5 Initial Conditions, Data Type 11

The initial conditions were set to the 90<sup>th</sup> percentile critical season temperature in accordance with the LTP. For summer, the temperature was set to 28.06°C. For winter, the temperature was set to 20.75°C. The dissolved oxygen values for the initial conditions were set at the stream criteria (5 mg/L)

# 5.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Type 12 and 13

The reaeration rate equations, BOD1 and BOD2 decay and settling rates, and the fractions converting settled BOD to SOD were not changed from the calibration.

# 5.2.7 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26

The NPS values were calculated for each projection scenario using a load equivalent spreadsheet. An analysis was made of the calibration NPS and SOD loads in terms of loading in units of gm- $O_2/m^2/day$ . The same spreadsheet also calculated load reductions for the headwaters and wasteloads. The values and sources of the input data and the load analyses are presented in Appendix D for each of the projection runs.

LDEQ has collected and measured the CBOD and NBOD oxygen demand loading components for a number of years. These loads have been found in all streams including the non-impacted reference streams. It is LDEQ's opinion that much of this loading is attributable to run-off loads which are flushed into the stream during run-off events, and subsequently settle to the bottom in our slow moving streams. These benthic loads decay and breakdown during the year, becoming easily resuspended into the water column during the low flow/high temperature season. This season has historically been identified as the critical dissolved oxygen season.

LDEQ simulates part of the non-point source oxygen demand loading as resuspended benthic load and SOD. The calibrated non-point loads, BOD1, BOD2, NBOD and SOD, are summed to produce the total calibrated benthic load. The total calibrated benthic load is then reduced by the total background benthic load (determined from LDEQ's reference stream research) to determine the total manmade benthic loading. The manmade portion is then reduced incrementally on a percentage basis to determine the necessary percentage reduction of manmade loading required to meet the water body's dissolved oxygen criteria. These reductions are applied uniformly to all reaches sharing similar hydrology and land uses. Being that none of LDEQ's reference streams were considered to be representative of Selsers Creek, the total background and manmade benthic loading could not be estimated. Therefore, the calculations mentioned above were applied to the total benthic loading.

Following the same protocol as the point source discharges, the total reduced manmade benthic load is adjusted for the margin of safety by dividing the value by one minus the margin of safety. This adjusted load is added back to the total background benthic value to obtain the total projection model benthic load. This total projection benthic load is then broken out into its components of SOD, resuspended BOD1 and BOD2 and resuspended NBOD by multiplying the total projection benthic load by the ratio of each calibrated component to the total calibrated benthic load. Once again, since the background and manmade loads could not be estimated, the MOS was applied to the total reduced benthic loading.

LDEQ has found variations in the breakdown of the individual CBOD and NBOD components. While the total BOD is reliable, the carbonaceous and nitrogenous component allocation is subject to the type of test method. In the past, LDEQ used a method which suppressed the nitrogenous component to obtain the carbonaceous component value, which was then subtracted from the total measured BOD to determine the nitrogenous value. The suppressant in this method was only reliable for twenty days thus leading to the assumption that the majority of the carbonaceous loading was depleted within that period of time. The test results supported this assumption. A new method was found in Standard Methods for testing long term BODs and was implemented in 2000. This new method was necessary because the nitrogen suppressant started failing around day seven and the manufacturer of the suppressant will only guarantee it's potency for a five day period. LDEQ felt a five day test would not adequately depict the water quality of streams.

This proposed method is a sixty day test which measures the incremental total BOD of the sample while at the same time measuring the increase in nitrite/nitrate in the sample. This increase in nitrite/nitrate allows LDEQ to calculate the incremental nitrogenous portion by multiplying the increase by 4.57 to determine the NBOD daily readings. These NBOD daily readings are then subtracted from the daily reading for total BOD to determine the CBOD daily values. A curve fit algorithm is then applied to the daily component readings to obtain the estimated ultimate values of each component as well as the decay rate and lag times of the first order equations.

The results obtained using the new method showed that a portion of the CBOD first order equation does begin to level off prior to the twentieth day, however a secondary CBOD component begins to use dissolved oxygen sometime between day ten and day twenty-five. This secondary CBOD component was not being assessed as CBOD using the previous method but was being included in the NBOD load. Thus the CBOD and NBOD component loading used in the reference stream studies is not consistent with the results using the new proposed 60 day method and the individual values should not be used to determine background values for samples processed using the new test methods.

Originated: June 1, 2011

However, the sum of CBOD and NBOD should be about the same for both new and old test methods. For this reason LDEQ decided to use the sum of reference stream benthic loads as background values. Again, background values can not be quantified for Selsers Creek.

The projections show that Selsers Creek cannot meet the current 5.0 mg/L standard without significant load reductions. Since LDEQ assumes these benthic loads are long-term loads brought to the stream by various sources throughout the year, the same percentage reductions were made in the winter projection model as were in the summer critical projection model. These reductions met the summer dissolved oxygen criteria and well surpassed requirements in the non-critical winter projection.

The reductions were determined using the calibrated values for nonpoint BOD1, BOD2, and NBOD. These values were summed by reach, as justified above and adjusted for the margin of safety. Each reach's total benthic nonpoint load was then reduced to meet the dissolved oxygen criteria in each reach. Using the ratios determined in calibration, this reduced total nonpoint load was then broken into its components of BOD1, BOD2, NBOD, and SOD. The percentage reduction within the mainstem was calculated based on the comparison of the reduced total nonpoint benthic load to the calibration total nonpoint benthic load. These calculations are shown in Appendix E. The value and sources of BOD1, BOD2, and NBOD for each projection run are presented in Appendix F5.

### 5.2.8 Boundary Conditions, Data Types 20, 21, 22, and 27

The lower boundary conditions were set at the  $90^{th}$  percentile critical season temperature, the dissolved oxygen criteria, and the measured stream UBOD loads for all projections and scenarios.

#### 5.3 Model Discussion and Results

The projection model input and output data sets are presented in Appendix D.

LDEQ used a watershed approach to modeling this subsegment. As such, it requires that all allocations be on a subsegment basis and not by individual reach.

The additional impact of unmodeled and unpermitted dischargers is reflected in the nonpoint loading and SOD required to calibrate. Although the South East Hammond Regional STP and Ponchatoula High School dischargers had the greatest impact on Selsers Creek and its tributaries, it is evident that the remaining dischargers were having a significant impact and could not be ignored. All facilities within the watershed were contributing to the load, therefore all facilities are subject to load reductions based on this TMDL.

Natural background loading was not separated from anthropogenic loading. In the absence of an appropriate reference stream, LDEQ chose to do an overall load reduction. In other words, any reductions in loading required to meet the 5 mg/L DO criteria were applied to the combined values of anthropogenic and natural background loading. As discharge limitations become more stringent and discharging facilities are able to meet these limits, the benthic load may reach values that are closer to reference stream levels.

#### 5.3.1 No-Load Projection

No suitable reference stream was available for this stream. Therefore, a no load projection was not run. Based on the experience of LDEQ modelers, an 80% reduction in overall loading approximately equates to a 100% reduction of the man-made loading.

#### **5.3.2** Summer Projection

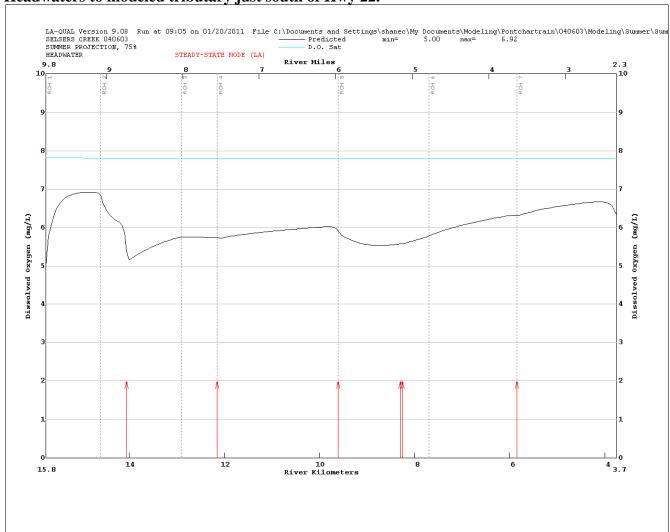
Summer critical season projections were run for the current 5.0 mg/L DO standard. For the 5.0 mg/L standard, a 75% reduction in overall nonpoint loading was required. This level of reduction was applied to the entire watershed. Even though the upper portion of Selsers Creek meets the criteria with less stringent reductions, much of the loading is carried downstream and contributes to the impairment of the lower reaches. As previously stated, this nonpoint loading includes unmodeled and unpermitted dischargers. Graphs of the DO concentration versus river kilometer for the summer projection are presented in figure 5.

#### 5.3.3 Winter Projection

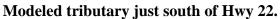
Winter projections were made at the same level of reduction as the summer projections. Graphs of the DO concentration versus river kilometer for the winter projection are presented in figure 6.

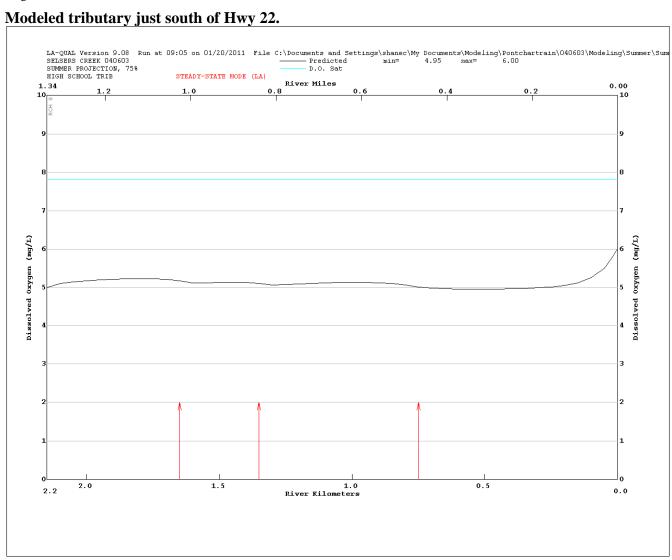
Figure 5. Graphs of Summer Projection at 75% Removal of overall NPS loads

Headwaters to modeled tributary just south of Hwy 22.

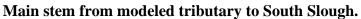


Originated: June 1, 2011





Originated: June 1, 2011



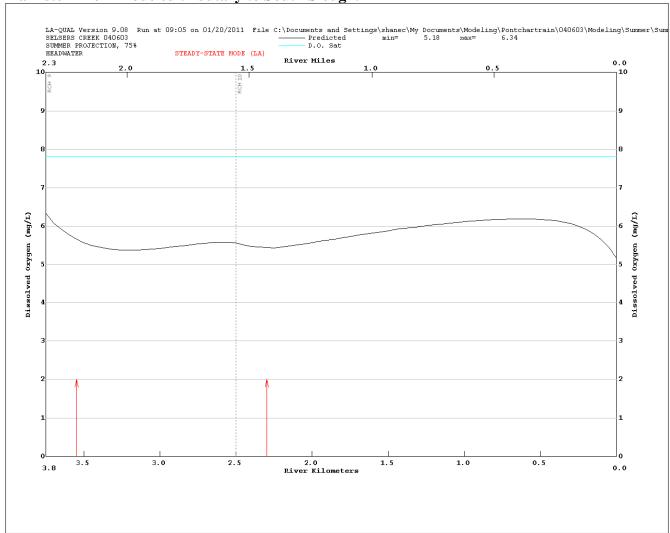
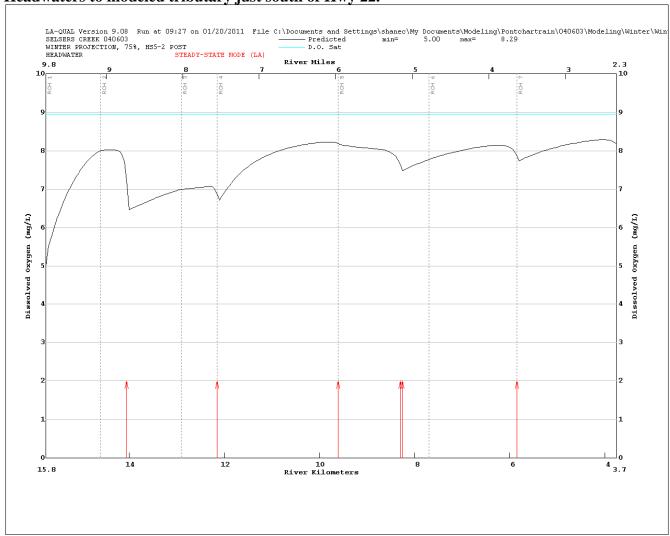


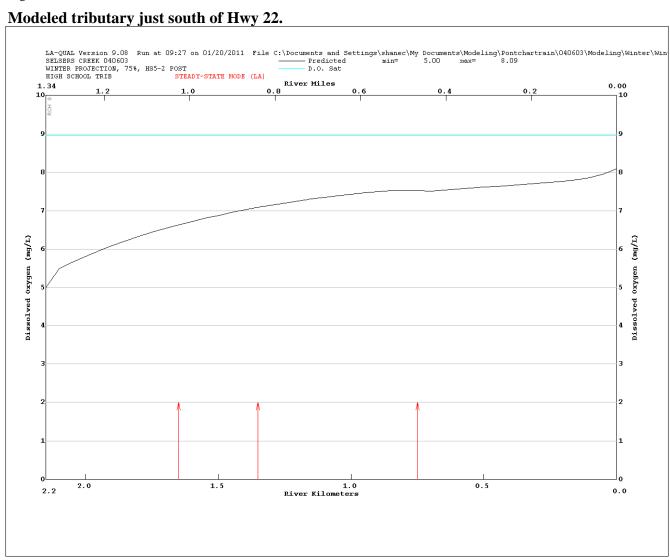
Figure 6. Graphs of Winter Projection at 75% Removal of overall NPS Loads

Headwaters to modeled tributary just south of Hwy 22.



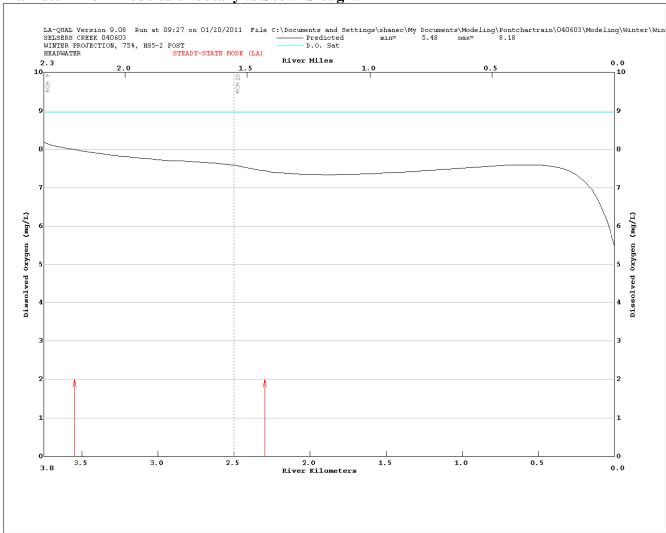
Originated: June 1, 2011

## Modeled tributary just south of Hwy 22.



Originated: June 1, 2011





#### 5.4 Calculated TMDL, WLAs and LAs

#### **5.4.1** Outline of TMDL Calculations

An outline of the TMDL calculations is provided to assist in understanding the TMDL calculations. The outline is presented in Appendix A1.

#### 5.4.2 Selsers Creek Subsegment 040603 TMDL

EPA's stormwater permitting regulations require municipalities to obtain permit coverage for all stormwater discharges from MS4s. For each MS4 in the basin, a gross load was computed by dividing the acreage of the permitted area in the subsegment by the total area of the subsegment and multiplying the nonpoint source allocation by this percentage. Note that these values are estimates that can be refined in the future as more information about MS4s and land-use-specific loadings becomes available. Note that MS4s are permitted dischargers but function similarly to nonpoint sources

(through storm-driven processes). EPA expects that the MS4 WLAs will be achieved through BMPs and adaptive management. The MS4 loads are presented in Table 2.

TMDLs for the biochemical oxygen demanding constituents (BOD and SOD), have been calculated for the summer and winter critical seasons based on current dissolved oxygen criteria. They are presented in Appendix A by reach. A summary of the loads is presented in Table 3.

### 6. Sensitivity Analysis

All modeling studies necessarily involve uncertainty and some degree of approximation. It is therefore of value to consider the sensitivity of the model output to changes in model coefficients, and in the hypothesized relationships among the parameters of the model. The LAQUAL model allows multiple parameters to be varied with a single run. The model adjusts each parameter up or down by the percentage given in the input set. The rest of the parameters listed in the sensitivity section are held at their original projection value. Thus the sensitivity of each parameter is reviewed separately. A sensitivity analysis was performed on the calibration. The sensitivity of the model's minimum DO projections to these parameters is presented in Appendix I. Parameters were varied by +/- 30%, except temperature, which was adjusted +/- 2 degrees Centigrade.

Values reported in Appendix I are percentage variation of minimum DO. As shown in Table 9, benthal demand, stream depth and stream reaeration are the parameters to which DO is most sensitive in the headwater and upland reaches. The unnamed tributary at the tidal boundary is most sensitive to benthal demand, headwater flow, initial temperature, stream baseflow, stream depth, stream reaeration and stream velocity. The tidal reaches of the model are most sensitive to benthal demand, initial temperature, stream depth and stream reaeration. The model is slightly sensitive to insensitive to the remaining parameters.

# Table 9. Summary of Calibration Model Sensitivity Analysis SENSITIVITY ANALYSIS SUMMARY

SENSITIVITY ANALYSIS SUMMARY SELSERS CREEK 040603

CALIBRATION

HEADWATER Base Model Minimum DO = 1.88

Parameter	%Param Chg	Min D.O.	%D.O. Chg	%Param Chg	Min D.O.	%D.O. Chg
Stream Reaeration	-30.0	0.64	-65.7	30.0	2.43	29.3
Benthal Demand	-30.0	2.43	29.4	30.0	1.09	-42.0
Stream Depth	-30.0	1.35	-28.3	30.0	1.97	4.8
Initial Temperature	-2.0	2.14	14.0	2.0	1.61	-14.4
Stream Baseflow	-30.0	1.69	-10.1	30.0	2.09	11.1
Wasteload DO	-30.0	1.68	-10.3	30.0	2.07	10.3
Headwater Flow	-30.0	1.71	-9.1	30.0	2.07	10.1
Wasteload Flow	-30.0	2.03	8.4	30.0	1.77	-5.9
Stream Velocity	-30.0	1.76	-6.2	30.0	1.95	3.9
Stream Dispersion	-30.0	1.83	-2.4	30.0	1.92	2.2
Incremental Inflow	-30.0	1.86	-1.0	30.0	1.90	1.0
CBOD Aerobic Decay Rate	-30.0	1.89	0.6	30.0	1.87	-0.5
Incremental DO	-30.0	1.87	-0.5	30.0	1.89	0.5
CBOD2 Aerobic Decay Rate	-30.0	1.88	0.1	30.0	1.88	-0.1
Headwater CBOD	-30.0	1.88	0.3	30.0	1.87	-0.3
Headwater CBOD2	-30.0	1.88	0.1	30.0	1.87	-0.1
Headwater NBOD	-30.0	1.88	0.1	30.0	1.88	-0.1
NBOD Decay Rate	-30.0	1.88	0.1	30.0	1.88	-0.1
Non-Point Source CBOD	-30.0	1.88	0.2	30.0	1.87	-0.2
Wasteload CBOD	-30.0	1.88	0.3	30.0	1.87	-0.3
Headwater DO	-30.0	1.88	0.0	30.0	1.88	0.0
Incremental CBOD	-30.0	1.88	0.0	30.0	1.88	0.0
Incremental CBOD2	-30.0	1.88	0.0	30.0	1.88	0.0
Incremental NBOD	-30.0	1.88	0.0	30.0	1.88	0.0
Non-Point Source CBOD2	-30.0	1.88	0.0	30.0	1.88	0.0
Non-Point Source NBOD	-30.0	1.88	0.0	30.0	1.88	0.0
Phytoplankton Respiration Ra		1.88	0.0	30.0	1.88	0.0
CBOD2 Hydrolysis Rate	-30.0	1.88	0.0	30.0	1.88	0.0
Wasteload CBOD2	-30.0	1.88	0.0	30.0	1.88	0.0
Wasteload NBOD	-30.0	1.88	0.0	30.0	1.88	0.0
HIGH SCHOOL TRIB Base Mode	el Minimum	DO =	0.90			
Parameter	%Param	Min	%D.O.	%Param	Min	%D.O.
rarameter	Chq	D.O.	Chg	Chq	D.O.	Chg
	CIIg	D.O.	cng	Clig	D.O.	City
Stream Reaeration	-30.0	0.00	-100.0	30.0	1.13	25.1
Headwater Flow	-30.0	0.60	-34.1	30.0	1.13	25.1
Stream Baseflow	-30.0	0.59	-34.2	30.0	1.13	25.1
Stream Velocity	-30.0	0.66	-27.1	30.0	1.12	24.2
Benthal Demand	-30.0	1.13	25.1	30.0		-100.0
Initial Temperature	-2.0	1.13	25.1	2.0	0.29	-67.7
Stream Depth	-30.0	1.13	25.1	30.0	0.64	-28.8
Headwater CBOD2	-30.0	0.95	5.0	30.0	0.86	-4.8
Non-Point Source CBOD	-30.0	0.95	5.4	30.0	0.86	-5.1
CBOD Aerobic Decay Rate	-30.0	0.94	3.7	30.0	0.88	-2.7
CBOD2 Aerobic Decay Rate	-30.0	0.93	2.5	30.0	0.88	-2.2
						–

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

Headwater CBOD	-30.0	0.92	2.2	30.0	0.88	-2.1
Stream Dispersion	-30.0	0.88	-2.2	30.0	0.92	1.9
Non-Point Source CBOD2	-30.0	0.92	1.4	30.0	0.89	-1.4
Headwater DO	-30.0	0.90	-0.1	30.0	0.90	0.1
Headwater NBOD	-30.0	0.91	0.6	30.0	0.90	-0.5
Incremental CBOD	-30.0	0.90	0.1	30.0	0.90	-0.1
Incremental CBOD2	-30.0	0.90	0.1	30.0	0.90	-0.1
Incremental Inflow	-30.0	0.90	-0.2	30.0	0.91	0.2
NBOD Decay Rate	-30.0	0.91	0.7	30.0	0.90	-0.6
Non-Point Source NBOD	-30.0	0.91	0.2	30.0	0.90	-0.2
Wasteload CBOD	-30.0	0.90	0.1	30.0	0.90	-0.1
Wasteload CBOD2	-30.0	0.90	0.1	30.0	0.90	-0.1
Wasteload Flow	-30.0	0.90	-0.4	30.0	0.91	0.3
Wasteload NBOD	-30.0	0.90	0.0	30.0	0.90	0.0
CBOD2 Hydrolysis Rate	-30.0	0.90	0.0	30.0	0.90	0.0
Incremental DO	-30.0	0.90	0.0	30.0	0.90	0.0
Incremental NBOD	-30.0	0.90	0.0	30.0	0.90	0.0
Phytoplankton Respiration Rate	-30.0	0.90	0.0	30.0	0.90	0.0
Wasteload DO	-30.0	0.90	0.0	30.0	0.90	0.0

#### TIDAL REACHES Base Model Minimum DO = 0.86

Parameter	%Param Chg	Min D.O.	%D.O. Chg	%Param Chg	Min D.O.	%D.O. Chg
Benthal Demand	-30.0	2.67	209.1	30.0	0.00	-100.0
Stream Reaeration	-30.0	0.00	-100.0	30.0	2.29	165.1
Initial Temperature	-2.0	1.60	85.0	2.0	0.10	-88.5
Stream Depth	-30.0	1.53	76.8	30.0	0.36	-58.8
Stream Dispersion	-30.0	0.83	-4.3	30.0	0.89	3.6
Stream Velocity	-30.0	0.89	3.0	30.0	0.86	-0.5
Non-Point Source CBOD	-30.0	0.89	2.8	30.0	0.84	-2.7
Stream Baseflow	-30.0	0.85	-1.6	30.0	0.88	2.3
Incremental Inflow	-30.0	0.85	-1.2	30.0	0.88	1.5
Non-Point Source CBOD2	-30.0	0.87	1.1	30.0	0.85	-1.1
Wasteload CBOD	-30.0	0.88	1.4	30.0	0.85	-1.4
CBOD Aerobic Decay Rate	-30.0	0.87	0.8	30.0	0.86	-0.3
CBOD2 Aerobic Decay Rate	-30.0	0.87	0.4	30.0	0.86	-0.4
Headwater CBOD	-30.0	0.86	0.1	30.0	0.86	-0.1
Headwater CBOD2	-30.0	0.87	0.4	30.0	0.86	-0.4
Headwater Flow	-30.0	0.86	-0.5	30.0	0.87	0.6
Headwater NBOD	-30.0	0.86	0.1	30.0	0.86	0.0
Incremental CBOD	-30.0	0.87	1.1	30.0	0.85	-1.1
Incremental CBOD2	-30.0	0.87	1.0	30.0	0.86	-1.0
Incremental DO	-30.0	0.86	-0.4	30.0	0.87	0.4
Incremental NBOD	-30.0	0.86	0.1	30.0	0.86	-0.1
NBOD Decay Rate	-30.0	0.87	0.3	30.0	0.86	-0.2
Non-Point Source NBOD	-30.0	0.87	0.2	30.0	0.86	-0.2
Wasteload CBOD2	-30.0	0.87	0.6	30.0	0.86	-0.6
Wasteload DO	-30.0	0.86	-0.2	30.0	0.87	0.2
Wasteload Flow	-30.0	0.86	-0.5	30.0	0.87	1.2
Wasteload NBOD	-30.0	0.86	0.1	30.0	0.86	-0.1
CBOD2 Hydrolysis Rate	-30.0	0.86	0.0	30.0	0.86	0.0
Headwater DO	-30.0	0.86	0.0	30.0	0.86	0.0
Phytoplankton Respiration Ra	te -30.0	0.86	0.0	30.0	0.86	0.0

Originated: June 1, 2011

#### 7. Conclusions

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criterion is supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources.

A calibrated water quality model and projections were developed for the watershed to quantify the non-point source load reductions which would be necessary in order for Selsers Creek, subsegment 040603, to comply with its established water quality standards and criteria. This report presents the results of that analysis.

The modeling, which has been conducted for this TMDL, is conservative and based on limited information.

LDEQ is utilizing a phased TMDL approach for Selsers Creek as shown in Table 1. This approach will allow LDEQ to meet its TMDL commitments, revise the dissolved oxygen criteria, develop nutrient criteria, and develop meaningful and implementable TMDL reports based on appropriate DO criteria. At the same time, it will lead to improved water quality while providing local governments and businesses the opportunity to prepare and adjust to new permit requirements that will be implemented as a result of the TMDLs developed in Phases I and II.

Phase I will include the development of loading values for the existing DO criteria for Selsers Creek. However, full implementation of permit limits will occur in a phased manner. Phase I will serve as the first step towards meeting the DO criteria. This approach gives local governments and stakeholders the oppurtunity to make the necessary adjustments to meet these limits. During Phase I, implementation of permit limits will occur in a according to the following strategy:

#### Phase I Permit Implementation

All TMDL, permitting, and enforcement activities will be conducted in accordance with the Clean Water Act, the Louisiana Environmental Regulatory Code, and applicable state laws.

#### 1. New discharges of oxygen-demanding loads:

In general, LDEQ does not intend to permit additional discharges of oxygen-demanding loads. However, in the event that a proposed or existing facility can meet one of the criteria listed below, LDEQ may permit the new discharge. The typical permit limits will be 5 mg/L BOD $_5$  / 2 mg/L NH $_3$  / 5 mg/L DO. Such new facilities may be required to submit an environmental impact assessment to LDEQ's permitting staff, which will conduct a thorough evaluation of the proposed facility based on

Originated: June 1, 2011

environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors.

- a. The facility demonstrates that it will provide a significant load reduction of man-made oxygen-demanding constituents to the impaired watershed(s) serviced by the facility. The facility must also contribute to a reduction in the number of facilities discharging to the watershed(s). Facilities that may be considered for permits under this provision include, but are not limited to:
  - i. A facility that will provide improved sewage treatment to multiple subdivisions previously serviced by wastewater treatment plants that are incapable of treating to tertiary limits.
  - ii. A facility that will provide sewage treatment to previously unsewered areas in which many of the sanitary discharges from permitted facilities and individual home treatment units were entering an impaired watershed. As a result, the facility would be expected to provide more efficient treatment to the wastewater and improve and reduce the net loading of oxygen-demanding substances in the watershed.
- b. The facility demonstrates that its wastewater will not leave the facility or its property. Significant stormwater events do not apply to this provision. For the purpose of this provision, a significant stormwater event is defined the 25 year, 24 hour rainfall event or its numerical equivalent, as defined by the Southern Regional Climate Center.
  - i. Facilities that may be considered under this provision include, but are not limited to:
    - a. Effluent reduction systems that have been approved by the Louisiana Department of Health and Hospitals.
    - b. Wastewater treatment plants equipped with overland flow systems in which the effluent will not leave the facility.
    - c. Wastewater treatment plants equipped with holding ponds that will retain the effluent such that the effluent will not leave the facility.
  - ii. LDEQ recognizes that some local governments are in the process of building or expanding regional sewage collection and treatment systems. In such areas, LDEQ may, on a limited basis, grant permits of limited durations to facilities that agree to tie into a regional

Originated: June 1, 2011

collection and treatment system when it becomes available. LDEQ must have absolute assurance that the regional collection system will be available to the facility and the facility will connect to the regional collection system on or before the expiration date of the permit. Such assurance may include a formal agreement between the facility, the owner and operator of the regional wastewater treatment system, and LDEQ. The regional system must have the capacity to treat the additional wastewater. Such a permit may have a duration of less than five years or it may have a five year duration with interim The permit will be written based on projected permit limits. completion dates for the construction of the collection system. The facility will be required to cease all wastewater discharges to Selsers Creek and transfer the discharge to the regional collection system once the permit or interim limits expire or the collection system is available to the facility, whichever comes first. If the permit or interim limits expire, but, due to unforeseen circumstances, the availability of the collection system has been temporarily delayed, the duration of the permit or interim limits may be extended. If the availability of the collection system has been indefinitely delayed, the facility may be required to cease all discharges to Selsers Creek. Such facilities may resort to options covered in item 1.b.i. above.

c. LDEQ reassesses Subsegment 040603 (Selsers Creek). LDEQ determines that Subsegment 040603 is meeting the appropriate DO criteria and designated uses.

#### 2. Existing discharges of oxygen demanding loads:

Below are the reductions for existing dischargers in the Selsers Creek TMDL. Existing facilities discovered to be discharging oxygen-demanding loads without LPDES permits as of the TMDL approval date are to be permitted in accordance with the limits established for existing facilities with permits. Unpermitted facilities that are newly activated or reactivated after the TMDL approval date may be subjected to enforcement actions and will be required to tie into regional collection and treatment systems, once those systems are available.

- a. Ponchatoula High School WWTP (AI # 43477) will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L BOD<sub>5</sub> / 10 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);
- b. Tangipahoa Parish Sewerage District #1 Southeast Hammond Regional STP (AI # 40040) will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L BOD<sub>5</sub> / 5 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);

- c. All other facilities will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L  $BOD_5$  / 10 mg/L  $NH_3$  (post aeration recommended).
- 3. Nutrient monitoring (i.e., reporting for Total Nitrogen and Total Phosphorus) will be required for individual permits. Nutrient monitoring will be added to each general permit series (LAG530000, LAG540000, LAG560000, and LAG570000) upon the next scheduled renewal of each series.

Phase II will be developed based on the outcome of an ecoregion-based use attainability analysis (UAA) that is currently under development. This UAA is expected to propose new DO criteria for many of the Pontchartrain Basin TMDLs that are currently being developed. This new DO criteria is expected to be developed and promulgated within the next two to three years.

In the event the new criteria is not developed and promulgated within five years from the TMDL approval date for each individual waterbody, the LDEQ intends to proceed in the following manner:

Case 1: UAA study indicates that the current DO criterion is appropriate - the TMDL will be fully implemented based on the existing DO criteria.

Case 2: The UAA is not likely to be completed and/or approved - the TMDL will be fully implemented based on the existing DO criteria.

Case 3: The UAA is in process and is expected to be approved – Phase II of the TMDL will be postponed for a maximum period of 2 years, at which time the UAA status will be reviewed again according to the criteria set in Cases 1 and 2 above.

LDEQ recognizes there may be many unpermitted sources of oxygen-demanding loading within the Lake Pontchartrain Basin. These sources may include unpermitted facilities (privately owned treatment units for subdivisions or businesses). LDEQ has been locating unpermitted facilities and updating location information on permitted facilities in the Lake Pontchartrain Basin. The unpermitted facilities are required to apply for the appropriate LPDES (Louisiana Pollutant Discharge Elimination System) permits. These unpermitted sources of oxygen-demanding loading may also include individual treatment units for residential homes and small businesses. The ability to accurately quantify the loads provided from these systems is extremely difficult due to lack of reliable information regarding the number of units and the loading provided by each individual unit. These unpermitted sources of loading add to the uncertainty of this TMDL and provide additional justification for the use of the phased TMDL approach.

LDEQ believes that one of the primary solutions to the water quality problems for Subsegment 040603 include the large-scale regionalization of sewage treatment and the rehabilitation and upgrade of existing problematic (leaks, overflows, improperly sized pipes, etc.) sewage collection systems. In addition, nonpoint loading may contribute to the water quality impairments in Subsegment 040603. This includes loading contributed by the MS4 permits for the City of Hammond.

Louisiana does not have numeric nutrient criteria at the present time. The original nutrient impairments for waterbodies in the Pontchartrain Basin were not based on quantitative assessments of

Originated: June 1, 2011

historical nutrient data. The impairments were based on evaluative assessments that may have included dissolved oxygen. LDEQ and EPA plan to reevaluate the previous nutrient impairments in the Pontchartrain Basin. As a result, both the EPA and LDEQ expect the nutrient impairments to change from category 5 (impairment exists; TMDL required) to category 3 (insufficient data) for Louisiana's 2010 Integrated Report. Therefore LDEQ believes that TMDLs for dissolved oxygen should adequately address any potential nutrient impairments, in the absence of numeric nutrient criteria and quantitative assessments.

LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

 $\frac{http://www.deq.louisiana.gov/portal/Portals/0/planning/LA\%20Nutrient\%20Strategy\%20Plan\%20Final\%20FOR\%20WEB.pdf.$ 

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

Upon development of nutrient criteria, a subsequent quantitative assessment of the waterbodies, and the development of full nutrient models, nutrient limits may be established for all facilities discharging to impaired waterbodies in the Pontchartrain Basin. LDEQ recommends that all facilities discharging to impaired waterbodies take a proactive approach and prepare for the possibility of nutrient limitations in their wastewater discharge permits in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

The watershed drains areas that are regulated by one MS4 permit. The areas covered by this MS4 permit include many permitted and unpermitted facilities. While LDEQ does assume responsibility for these facilities, partial responsibility belongs to the MS4 permittee to ensure that water draining from the area of coverage does not impact the named waterbody. Reductions in the nonpoint loading presented in this report should apply to MS4 regulated areas.

The impact of stormwater loading on the waterbody under critical conditions is difficult to determine. Monitoring is monetarily and logistically prohibitive. Therefore it is impractical to set MS4 permit limits. However, appropriate BMP measures shall be incorporated into the MS4 permit to minimize the impact of loads eminating from the MS4 reagulated areas on the water quality in Selsers Creek. Such BMP measures may include the elimination of illicit wastewater discharges, the regionalization of wastewater treatment, rehabilitating and upgrading sewer collection system lines, and other appropriate activities. BMPs included in MS4 permits should also include measures to reduce the impact of stormwater loading on the water quality of Selsers Creek.

LDEQ has developed this TMDL to be consistent with the state antidegradation policy (LAC 33:IX.1109.A).

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term database for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial Integrated Report. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaced the previous five year cycle. Approximately one quarter of the states watersheds will be sampled each year so that all of the state's watersheds will be sampled within the four year cycle. This will allow LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated by LDEQ and approved by EPA, waterbodies may be added to or removed from the 303(d) list.

#### 8. References

Bowie, G.L., et. al. *Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling (Second Edition)*. Env. Res. Lab., USEPA, EPA/600/3-85/040. Athens, GA: 1985.

LDEQ (Louisiana Department of Environmental Quality). 2002. Office of Environmental Services Water Discharge Permit, Final: Discharges from Small Municipal Separate Storm Sewer Systems. Louisiana Department of Environmental Quality, Baton Rouge, LA.

Lee, Fred N. Low-Flow on Streams in Louisiana. Louisiana Department of Environmental Quality. Baton Rouge, LA: March, 2000.

Louisiana Department of Environmental Quality. *State of Louisiana Water Quality Management Plan, Volume 6, Part A, Nonpoint Source Pollution Assessment Report.* Baton Rouge, LA: 2000. http://nonpoint.deg.louisiana.gov/wqa/NPSManagementPlan.htm

Louisiana Department of Environmental Quality. *Environmental Regulatory Code, Part IX*. Water Regulations. Baton Rouge, LA: 2009.

LSU, Southern Regional Climate Center.

www.srcc.lsu.edu/southernClimate/atlas/images/LAprcp.html. Baton Rouge, LA: 2004.

Smythe, E. deEtte. *Overview of the 1995 and 1996 Reference Streams*. Louisiana Department of Environmental Quality. Baton Rouge, LA: June 28, 1999.

USEPA (U.S. Environmental Protection Agency). 2000. Storm Water Phase II Final Rule. (Fact sheet). EPA 833-F-00-002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

Waldon M. G., R. K. Duerr, and Marian U. Aguillard. *Louisiana Total Maximum Daily Load Technical Procedures*. Louisiana Department of Environmental Quality. Baton Rouge, LA: January, 2008.

Wiland, Bruce L. *LA-QUAL for Windows User's Manual (8.11 revision N)*. Water Support Division, Engineering Section, Louisiana Department of Environmental Quality. Baton Rouge LA: March, 2009.

Louisiana Department of Environmental Quality. GIS Center. GAP Data. Baton Rouge, LA: 1999.

LDEQ (Louisiana Department of Environmental Quality). 2006. Developing Nutrient Criteria for Louisiana. Water Quality Assessment Division, Louisiana Department of Environmental Quality, Baton Rouge, LA.

#### 9. Appendices

Appendix A – Detailed TMDL Analysis

#### **Appendix A1 – Outline of TMDL Calculations**

The calculations described below apply for waterbodies where an appropriate reference stream is available. For cases where no reference stream data is applicable, calculations and reductions are determined based upon the total load. Slight variances may occur based on individual cases.

- 1) The natural background benthic loading was estimated from reference stream resuspension (nonpoint CBOD and NBOD), and SOD load data.
- 2) The calibration man-made benthic loading was determined as follows:
  - a) Calibration resuspension and SOD loads were summed for each reach as gm O<sub>2</sub>/m<sup>2</sup>-day to get the calibration benthic loading.
  - b) The natural background benthic loading was subtracted from the calibration benthic loading to obtain the man-made calibration benthic loading.
- 3) Projection loads are determined by trial and error during the modeling process
  - a) Resuspension and SOD loads are reduced by uniform percentages.
  - b) Point sources are reduced as necessary to subsequently more stringent levels of treatment consistent with the size of the treatment facility as much as possible. Point source design flows are increased to obtain an explicit MOS of 20%.
  - c) Headwater and tributary concentrations of CBOD, NBOD and DO range from reference stream levels to calibration levels based on the character of the headwater. Where headwaters and tributaries exhibit man-made pollutant loads in excess of reference stream values, the loadings are reduced by the same uniform percentages as the benthic loads.
- 4) The projection benthic loading at 20 °C is calculated as the sum of the projection resuspension and SOD components expressed as gm  $O_2/m^2$ -day.
- 5) The natural background benthic load is subtracted from the projection benthic load to obtain the man-made projection benthic load for each reach.
- 6) The percent reduction of man-made loads for each reach is determined from the difference between the projected man-made non-point load and the man-made non-point load found during calibration.
- 7) The projection loads are also computed in units of lb/d and kg/d for each kind.
- 8) The total stream loading capacity at critical water temperature is calculated as the sum of:
  - a) Headwater and tributary CBOD and NBOD loading in lb/d and kg/d.
  - b) The natural and man-made projection benthic loading for all reaches of the stream, converted to the loading at critical temperature and summed in lb/d and kg/d.
  - c) Point source CBOD and NBOD loading in lb/d and kg/d.
  - d) The margin of safety in lb/d and kg/d.

# **Appendix A2 – 75% Reduction Summer TMDL Summary**

		SELSE	RS CREEK	(SUBSEGN	MENT 04060	03)										
		Calcula	tion of the T	MDL - Kilo	ograms per d	av				Calculation of the TMDL - Pounds per day						
Load description	WLA (kg O <sub>2</sub> /day)		CBOD2 LA	Organic-N LA (kg/day)	Ammonia-N	NBOD LA		LA (kg O <sub>2</sub> /day)	MOS Load (kg O <sub>2</sub> /day)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(lbs Load					
Point Source loads	77								19	Point Source loads 170	43					
Headwater / Tributatary loads		2	3	0	0	1		5	1	Headwater / Tributatary loads 4 6 0 0 2	12 3					
Benthic loads		6	6	0	0	4	239	255	64	Benthic loads 14 13 0 0 9 527	563 141					
Incremental Loads		0	0	0	0	0		0	0	Incremental Loads 0 0 0 0	0 0					
SUB-TOTAL	77	8	9	0	0	5	239	261	84	SUB-TOTAL 170 18 19 0 0 11 527	575 186					
TMDL = WLA + LA + MOS								422	kg/day	TMDL = WLA + LA + MOS	931 lbs/da					
Notes: (1) - Load(lbs/day) = Load(kg/day) x 2.20	05									Notes: (1) - Load(lbs/day) = Load(kg/day) x 2.205						
		Calcula	tion of the T	MDL - Kil	ograms per d	ay		•		Calculation of the TMDL - Pounds per day						
Load description		CBOD1 LA (kg O <sub>2</sub> /day)	CBOD2 LA (kg O <sub>2</sub> /day)	Organic-N LA (kg/day)	Ammonia-N	NBOD LA (kg O <sub>2</sub> /day)		LA (kg O <sub>2</sub> /day)	MOS Load (kg O <sub>2</sub> /day)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(lbs Load (lbs					
Point Source loads	77								19	Point Source loads 170	43					
Natural Nonpoint Loads Manmade Nonpoint Loads		0 8	9	0	0	0 5	0 239	0 261	65	Natural Nonpoint Loads         0         0         0         0         0           Manmade Nonpoint Loads         18         19         0         0         11         527	0 575 144					
SUB-TOTAL	77	8	9	0	0	5	239	261	84	SUB-TOTAL 170 18 19 0 0 11 527	575 186					
TMDL = WLA + LA + MOS								422	kg/day	TMDL = WLA + LA + MOS	931 lbs/da					

# **Appendix A3 – 75% Reduction Winter TMDL Summary**

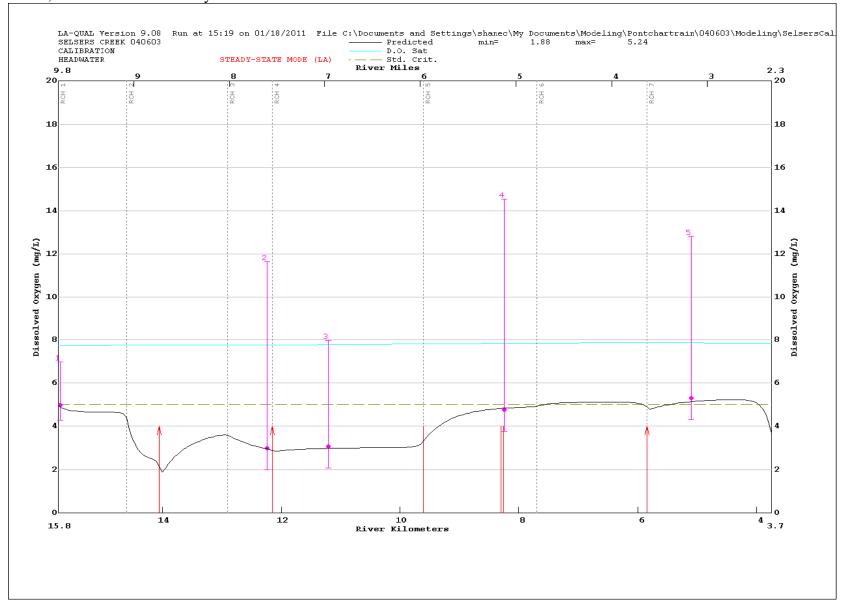
		SELSE	RS CREEK	(SUBSEGN	MENT 04060	3)										
		Calcula	tion of the T	MDL - Kilo	ograms per d	av				Calculation of the TMDL - Pounds per day						
Load description	WLA (kg O <sub>2</sub> /day)		CBOD2 LA	Organic-N LA (kg/day)	Ammonia-N	NBOD LA		LA (kg O <sub>2</sub> /day)	MOS Load (kg O <sub>2</sub> /day)	Load description (lbs (lbs (lbs (lbs (lbs (lbs (lbs (lbs	1 CBOD2 LA Organic (lbs N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O <sub>2</sub> /day)	SOD LA (lbs O <sub>2</sub> /day)	LA (lbs O <sub>2</sub> /day)	MOS Load (lbs O <sub>2</sub> /day
Point Source loads	77								19	Point Source loads 170						43
Headwater / Tributatary loads		17	27	0	0	10		54	14	Headwater / Tributatary loads 38	58 0	0	23		119	30
Benthic loads		6	6	0	0	4	151	167	42	Benthic loads 14	13 0	0	9	332	369	92
Incremental Loads		0	0	0	0	0		0	0	Incremental Loads 0	0 0	0	0		0	0
SUB-TOTAL	77	24	33	0	0	14	151	221	75	SUB-TOTAL 170 53	72 0	0	31	332	488	164
TMDL = WLA + LA + MOS								373	kg/day	DL = WLA + LA + MOS					822	lbs/day
<b>Notes:</b> (1) - Load(lbs/day) = Load(kg/day) x 2.20	)5									Notes: - Load(lbs/day) = Load(kg/day) x 2.205						
		Calcula	tion of the T	MDL - Kilo	ograms per d	ay				Calculation of the TMDL - Pounds per day						
Load description		CBOD1 LA (kg O <sub>2</sub> /day)		Organic-N LA (kg/day)		NBOD LA (kg O <sub>2</sub> /day)		LA (kg O <sub>2</sub> /day)	MOS Load (kg O <sub>2</sub> /day)	Load description WLA (lbs (lbs	1 CBOD2 LA Organic (lbs N LA (lbs/day)	- Ammonia-N LA ) (lbs/day)	NBOD LA (lbs O <sub>2</sub> /day)	SOD LA (lbs O <sub>2</sub> /day)	LA (lbs O <sub>2</sub> /day)	MOS Load (lbs O <sub>2</sub> /day)
Point Source loads	77	_	_	_		_	_		19	Point Source loads 170					_	43
Natural Nonpoint Loads Manmade Nonpoint Loads		0 24	0 33	0	0	0 14	0 151	0 221	55	Natural Nonpoint Loads 0  Manmade Nonpoint Loads 53	0 0 72 0	0	0 31	332	0 488	122
SUB-TOTAL	77	24	33	0	0	14	151	221	75	SUB-TOTAL 170 53	72 0	0	31	332	488	164
TMDL = WLA + LA + MOS	11	24	33			14	131		kg/day	SUB-IOTAL   170   53 $DDL = WLA + LA + MOS$	12 0	0	31	332		lbs/d

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

Appendix B – Calibration Model Input and Output Data Sets

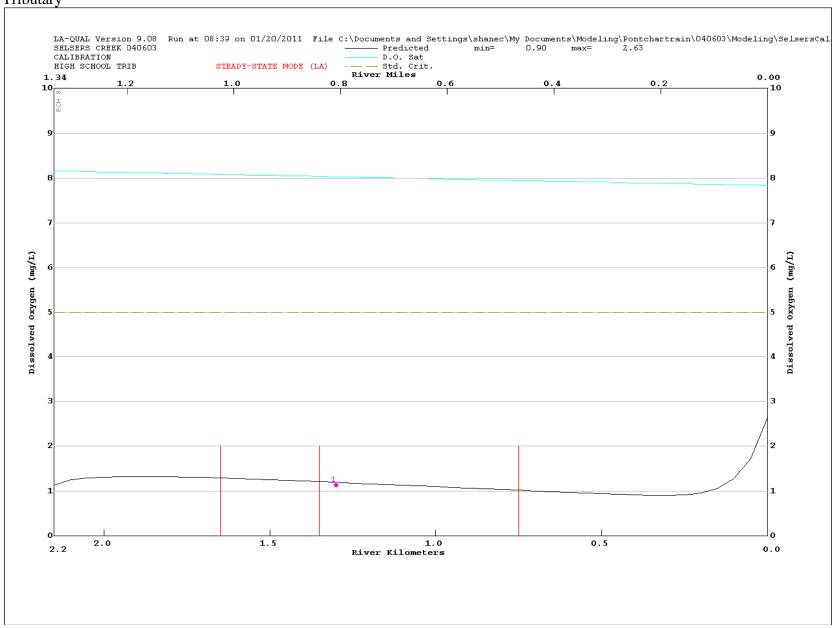
Appendix B1 – Calibration Output Graphs and Input, Output and Overlay Files

Main Stem, Headwaters to Tributary

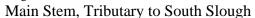


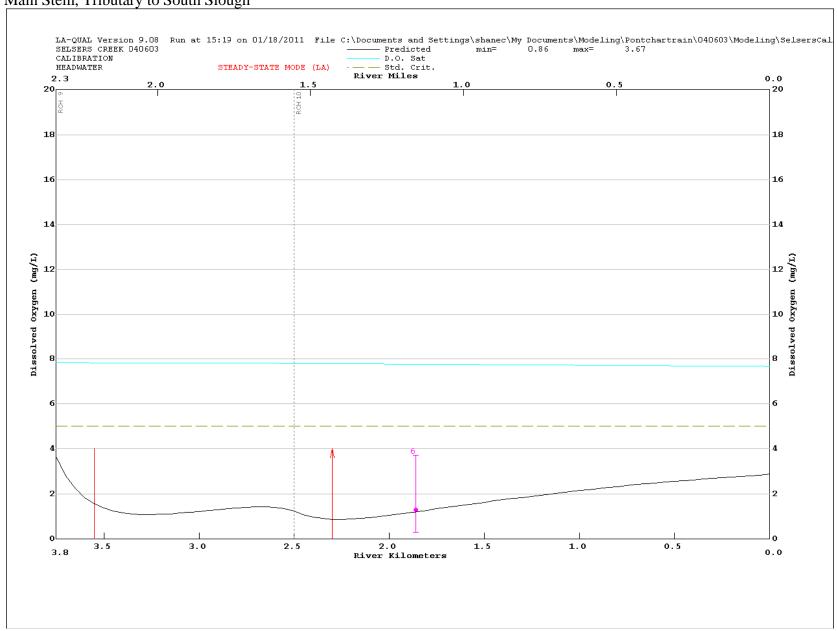
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011



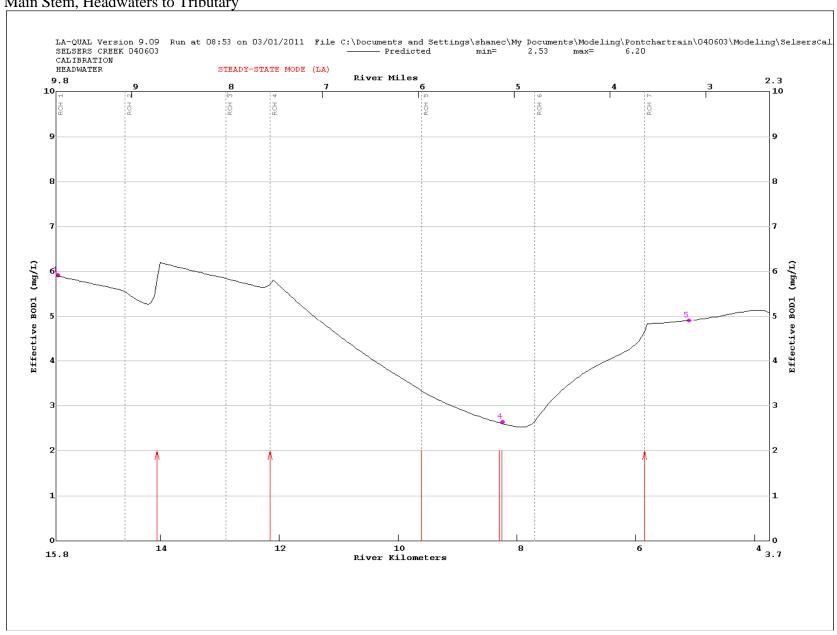


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011





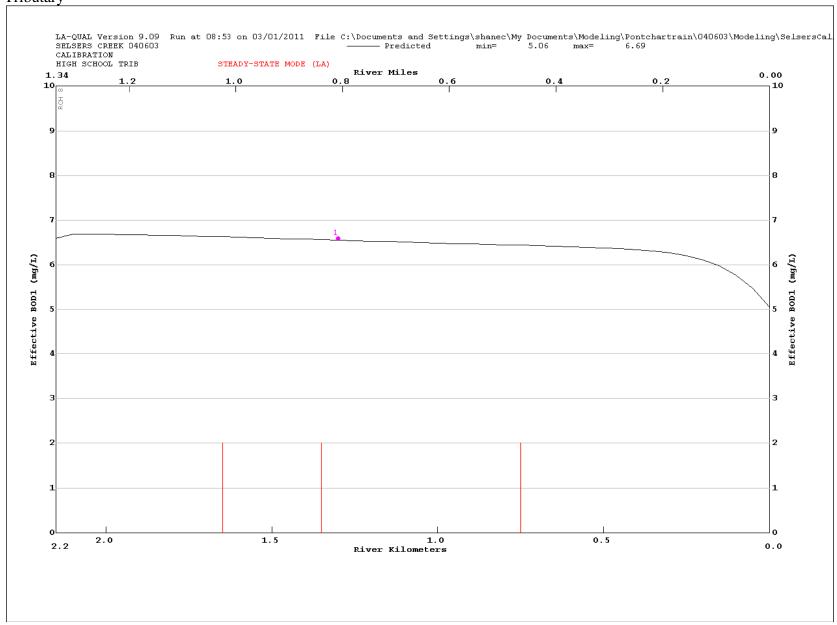
### Main Stem, Headwaters to Tributary

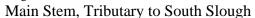


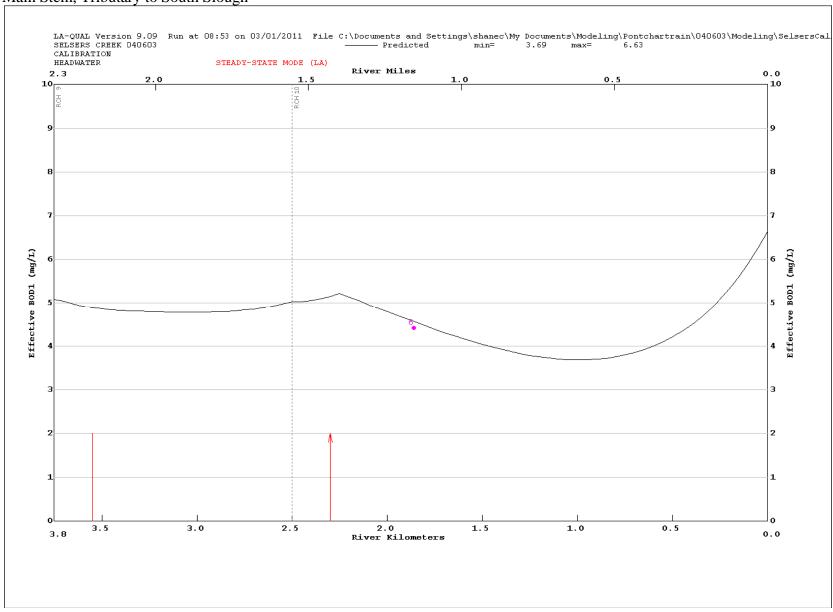
FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

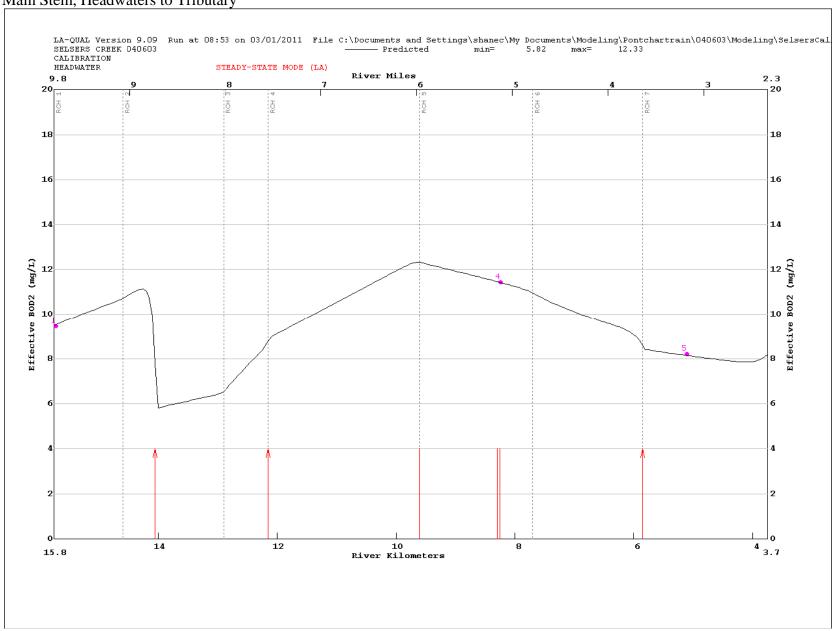
Tributary





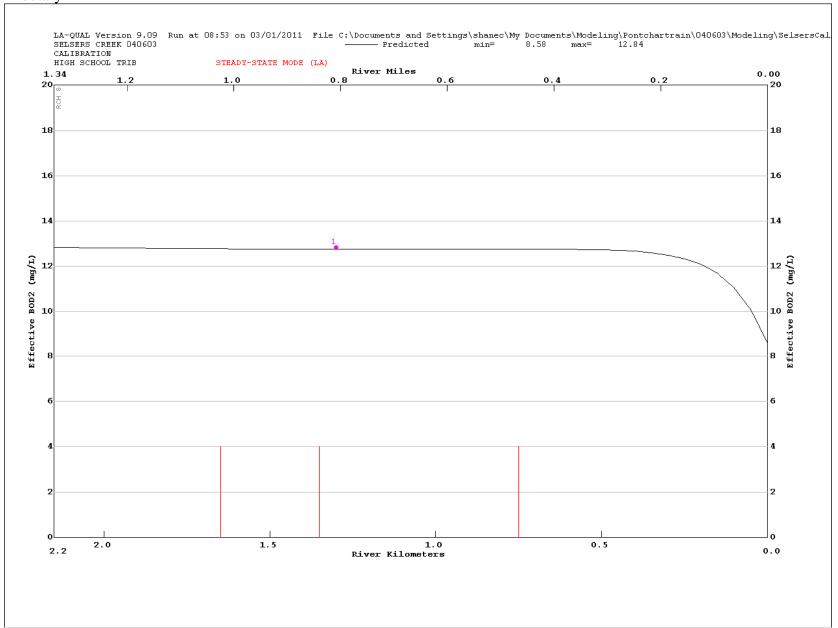


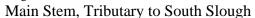
## Main Stem, Headwaters to Tributary

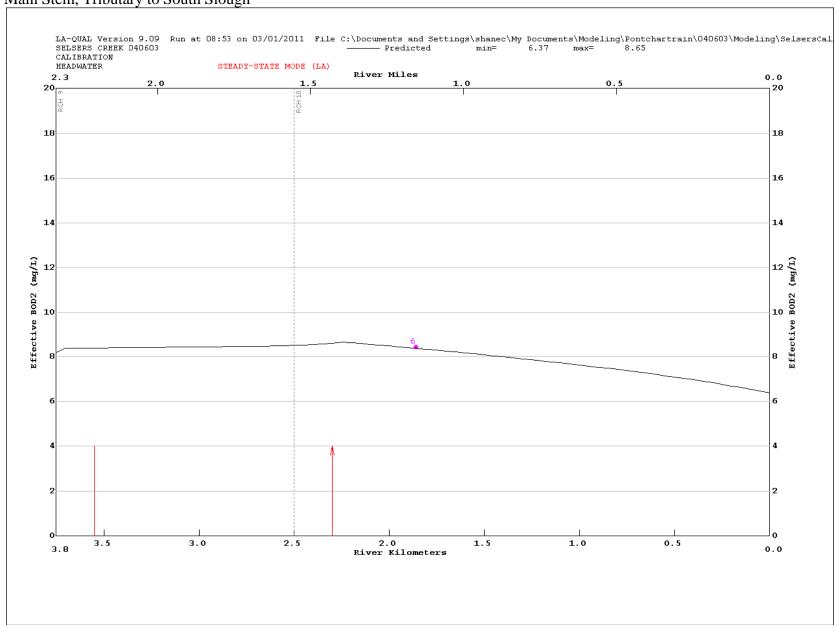


 $FINAL\ Selsers\ Creek\ Watershed\ TMDL$ 

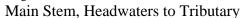
Subsegment 040603 Originated: June 1, 2011

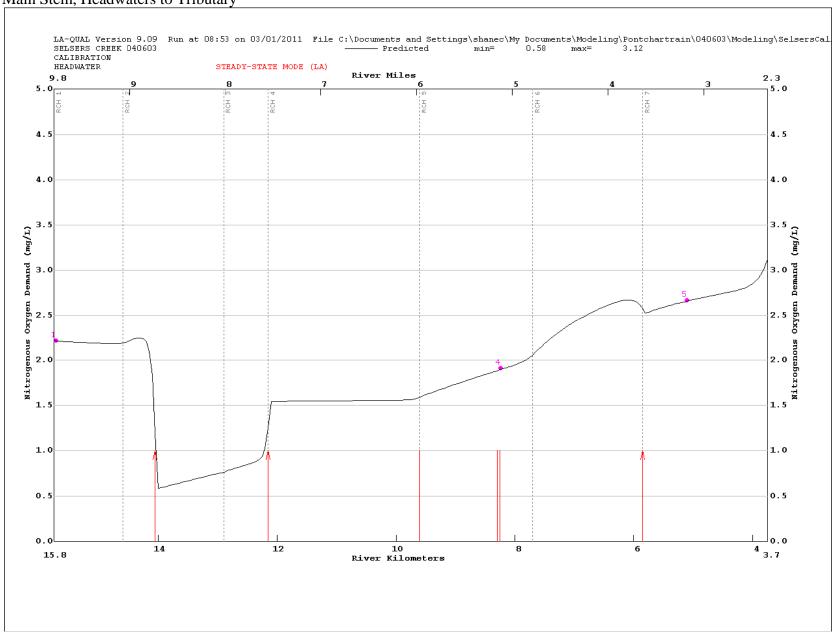




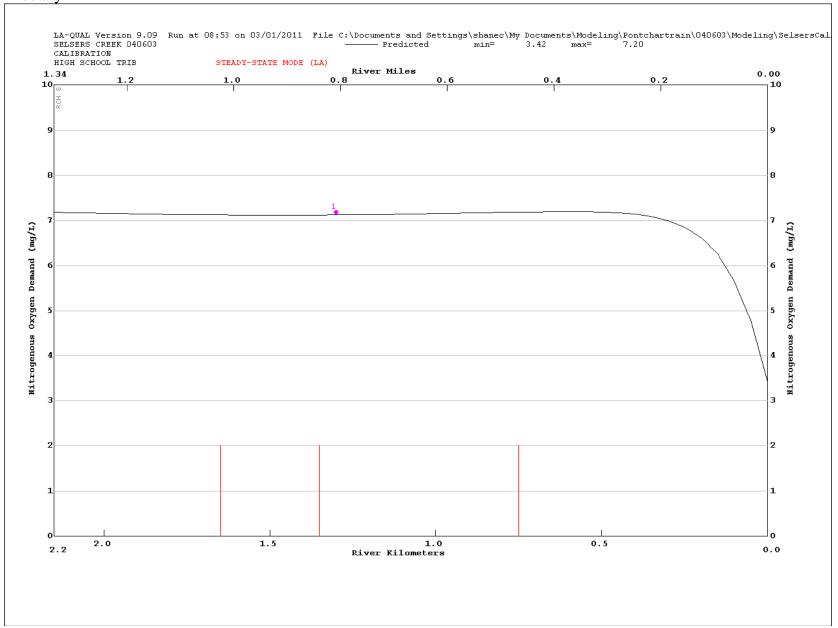


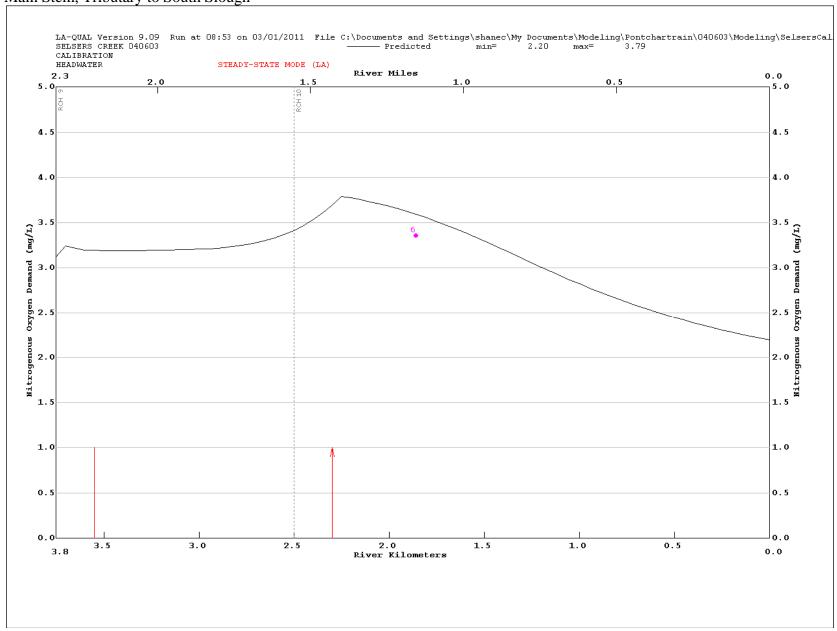
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011



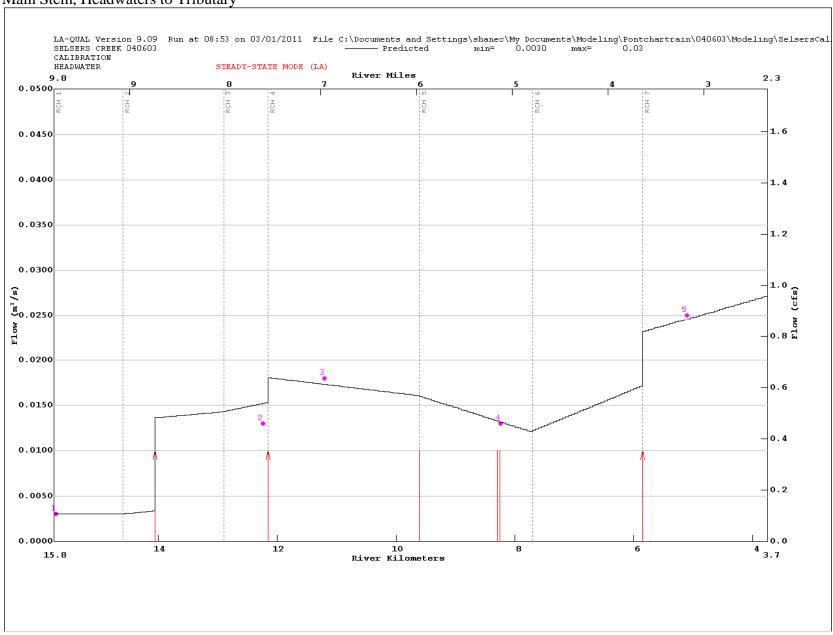


FINAL Selsers Creek Watershed TMDL Subsegment 040603

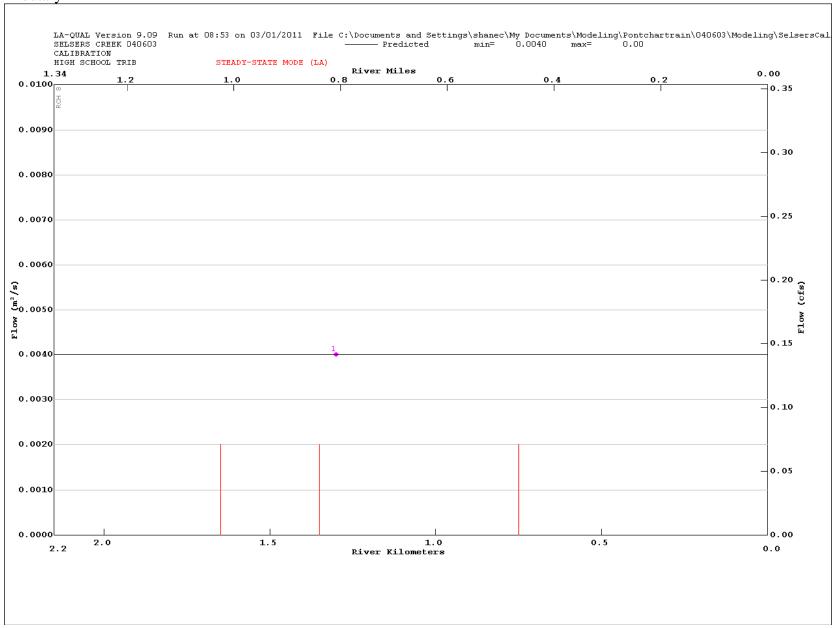




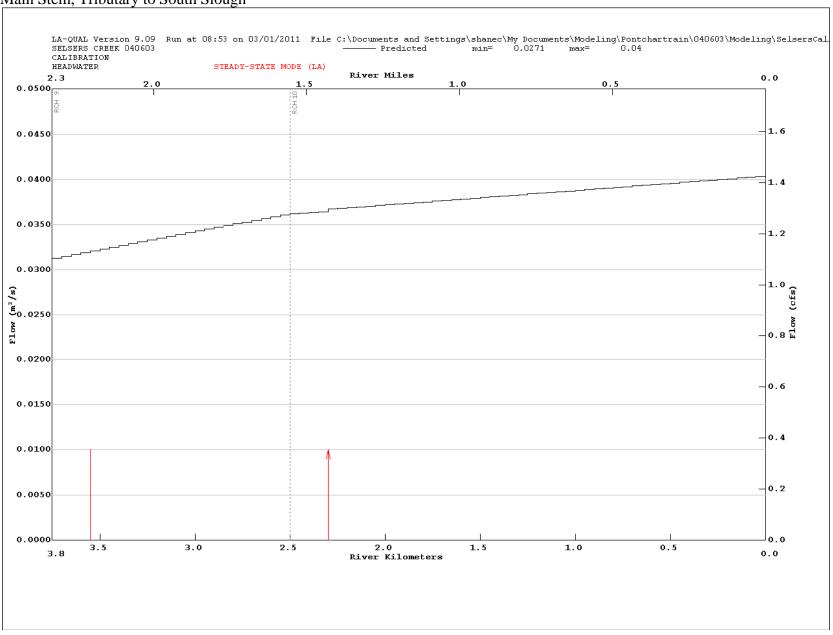
## Main Stem, Headwaters to Tributary



FINAL Selsers Creek Watershed TMDL Subsegment 040603

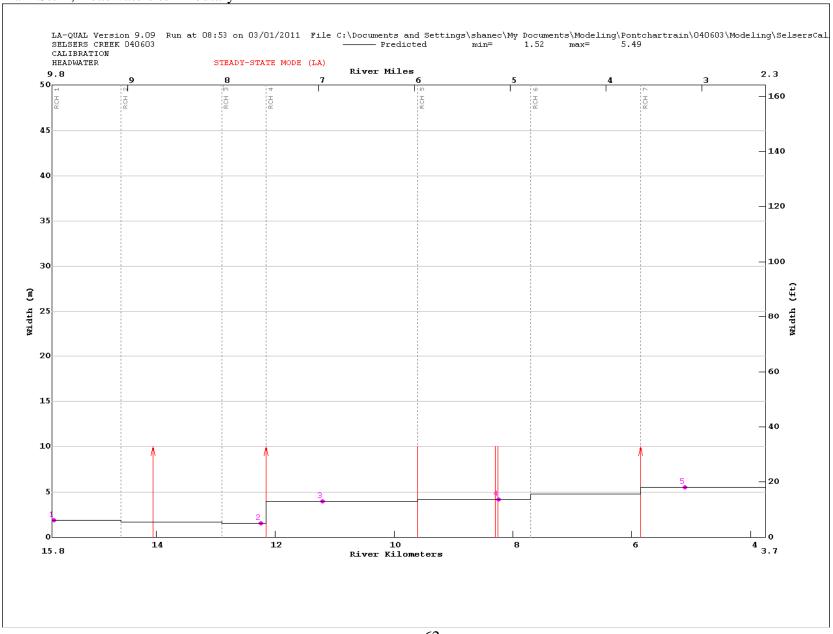


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

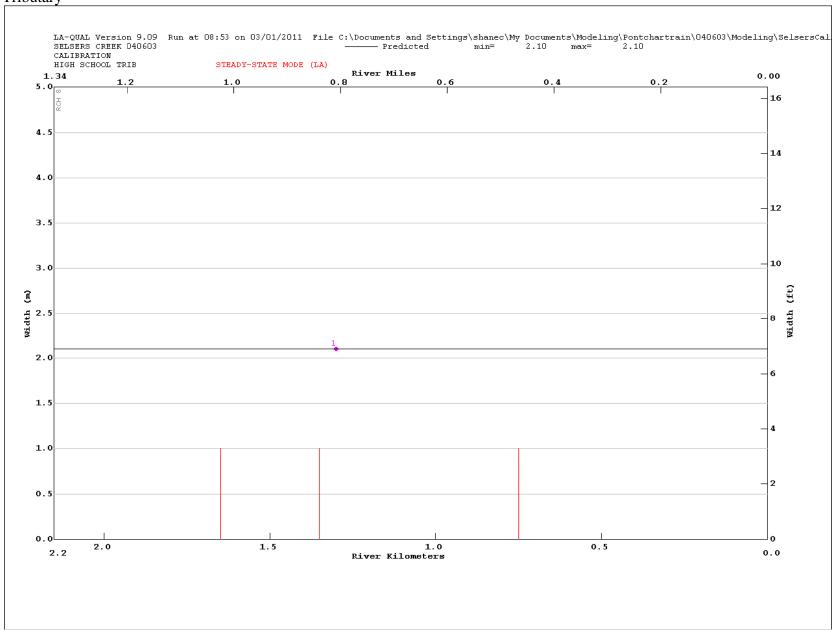


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

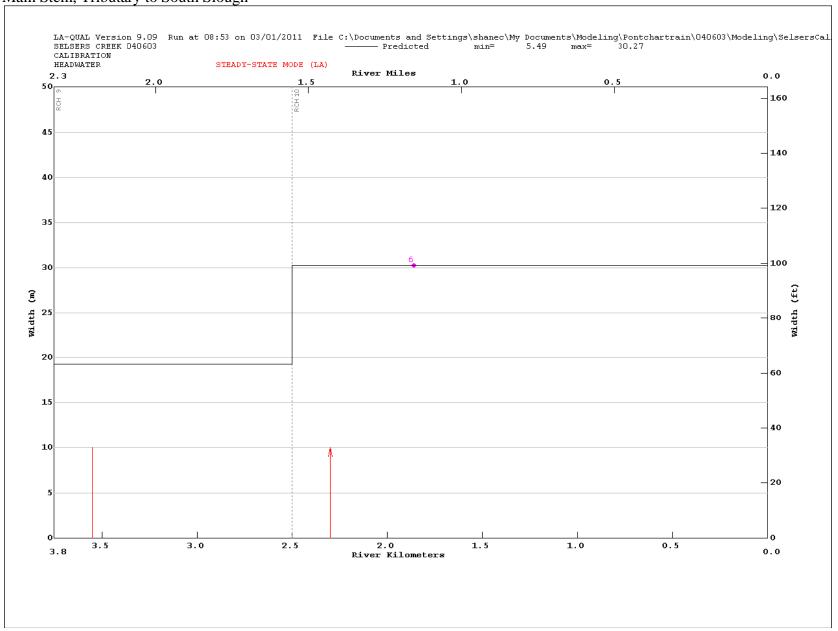
Main Stem, Headwaters to Tributary



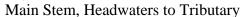
FINAL Selsers Creek Watershed TMDL Subsegment 040603

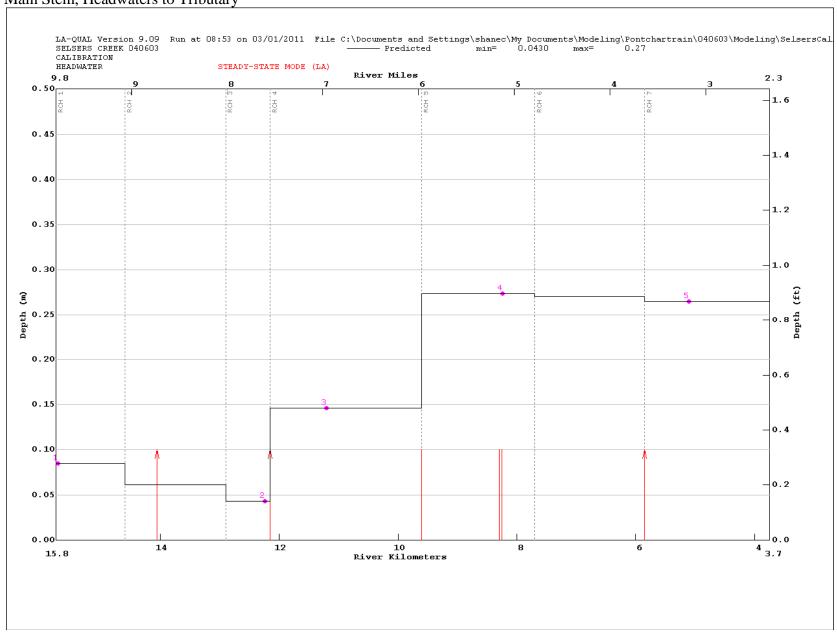


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011



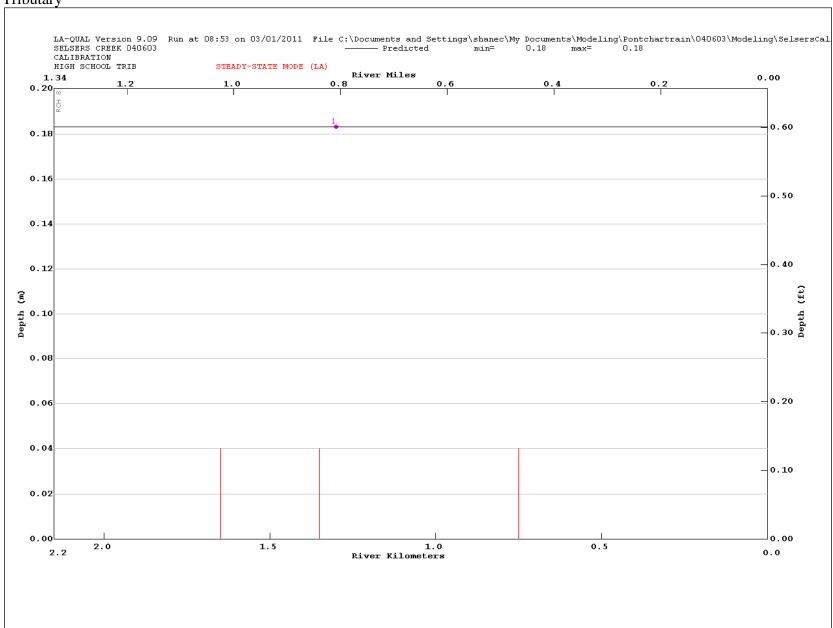
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011



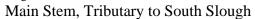


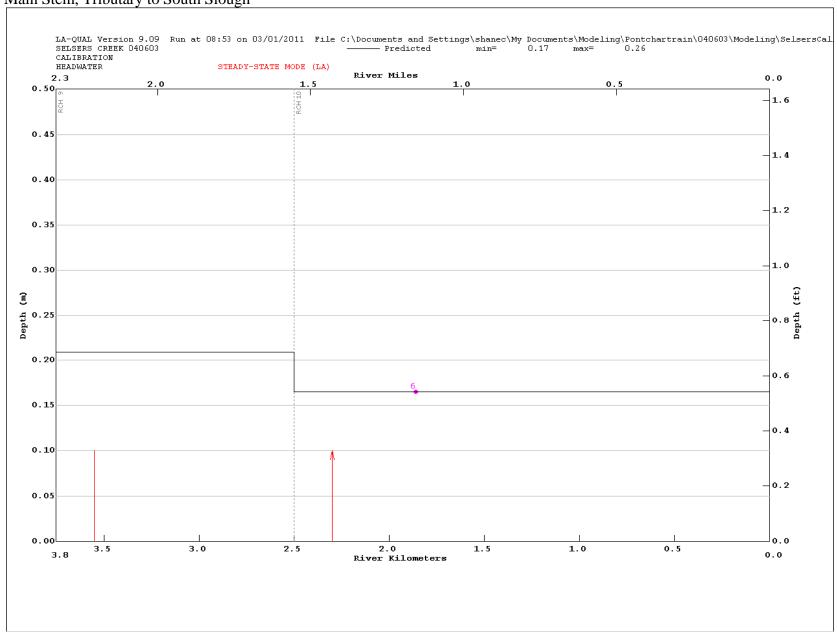
FINAL Selsers Creek Watershed TMDL Subsegment 040603

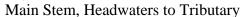


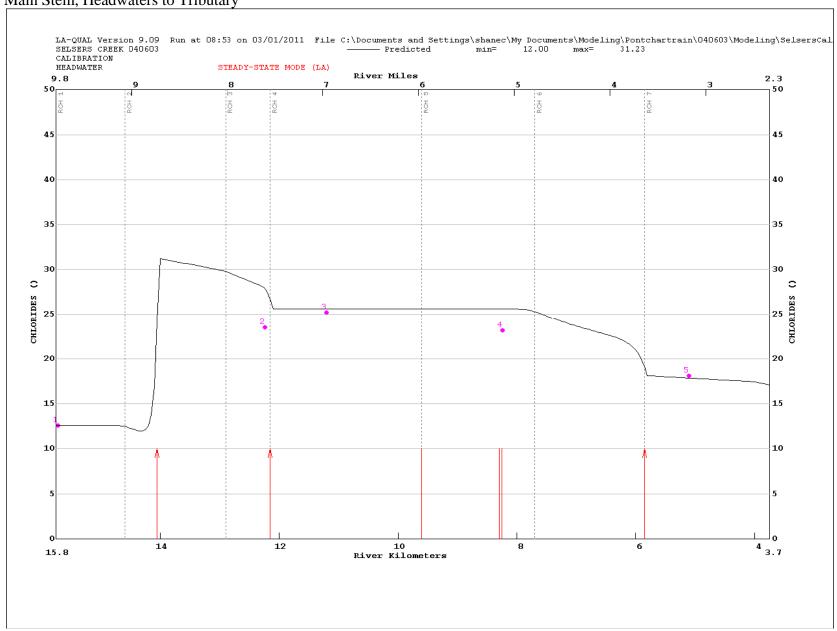


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011



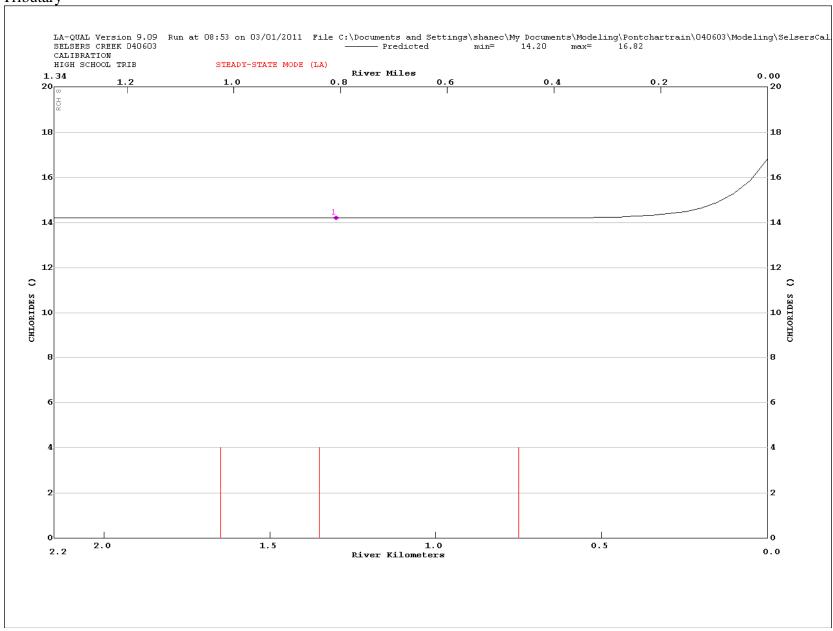




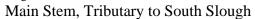


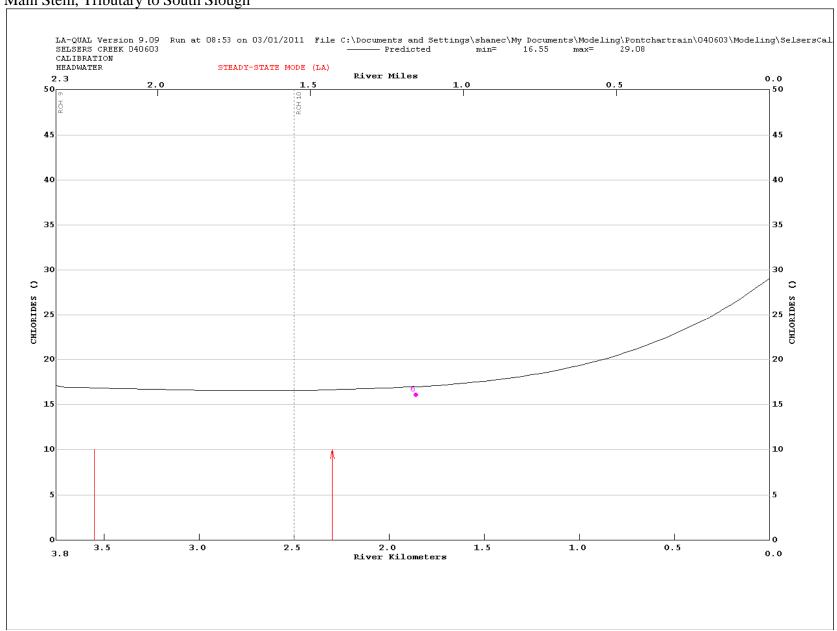
FINAL Selsers Creek Watershed TMDL Subsegment 040603



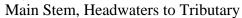


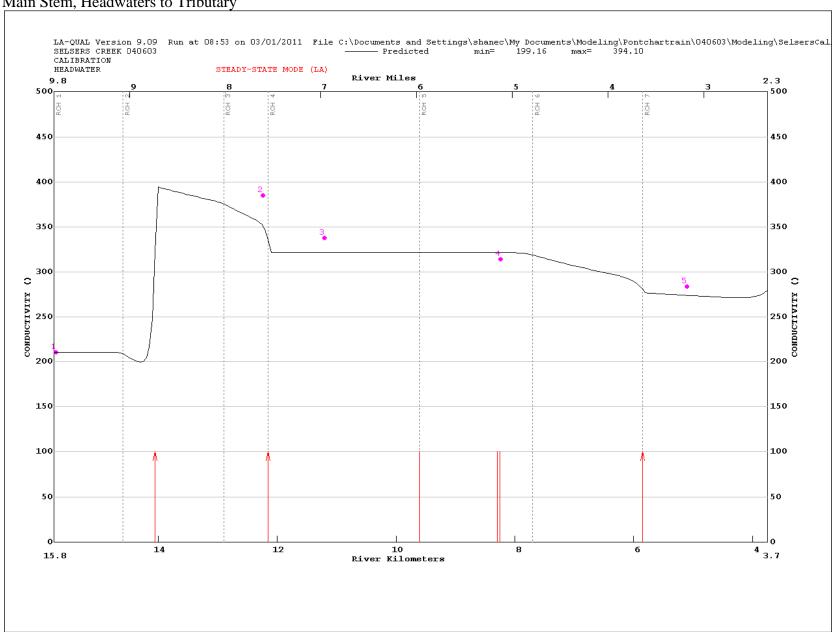
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011





FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

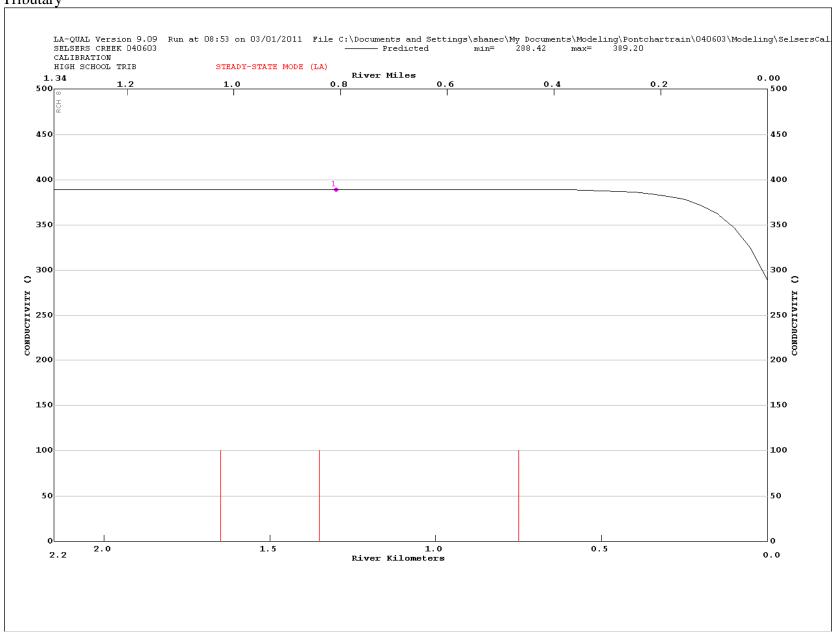


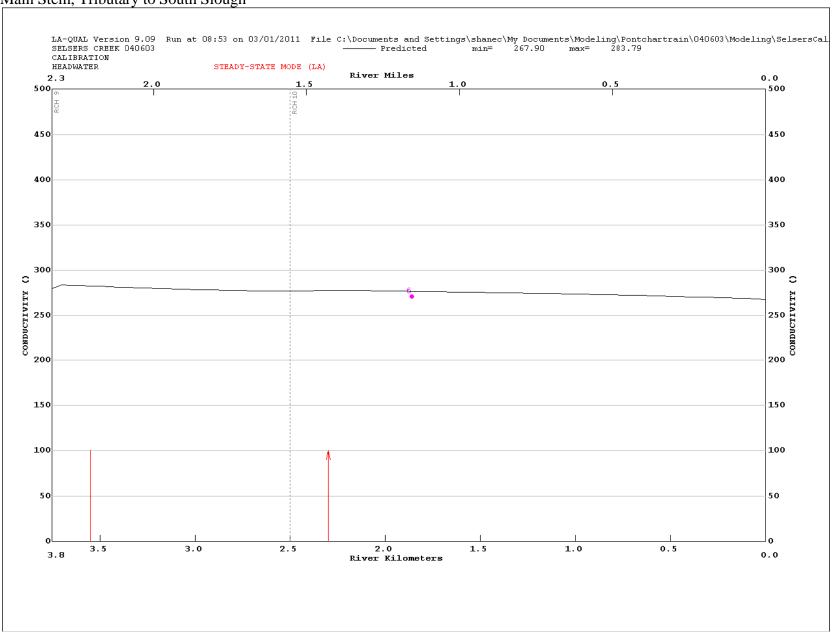


FINAL Selsers Creek Watershed TMDL

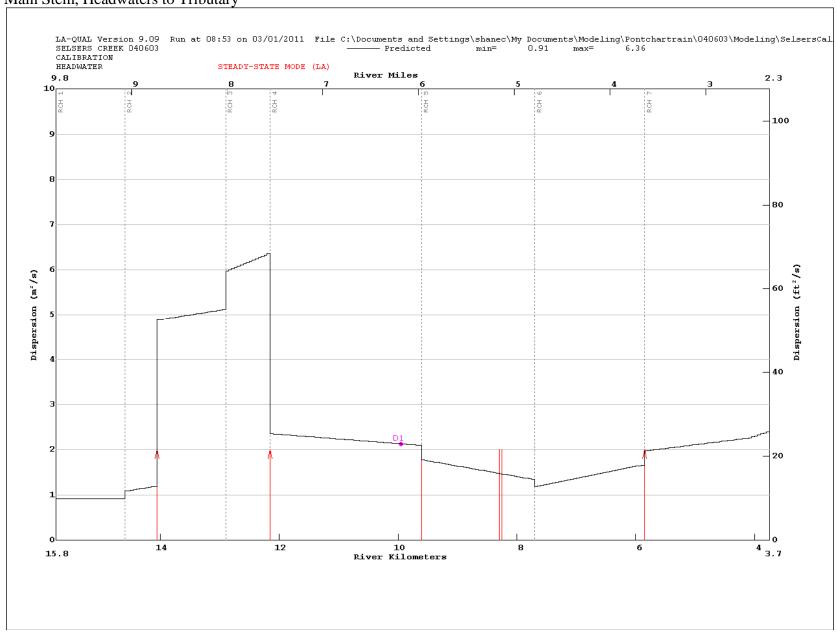
Subsegment 040603 Originated: June 1, 2011







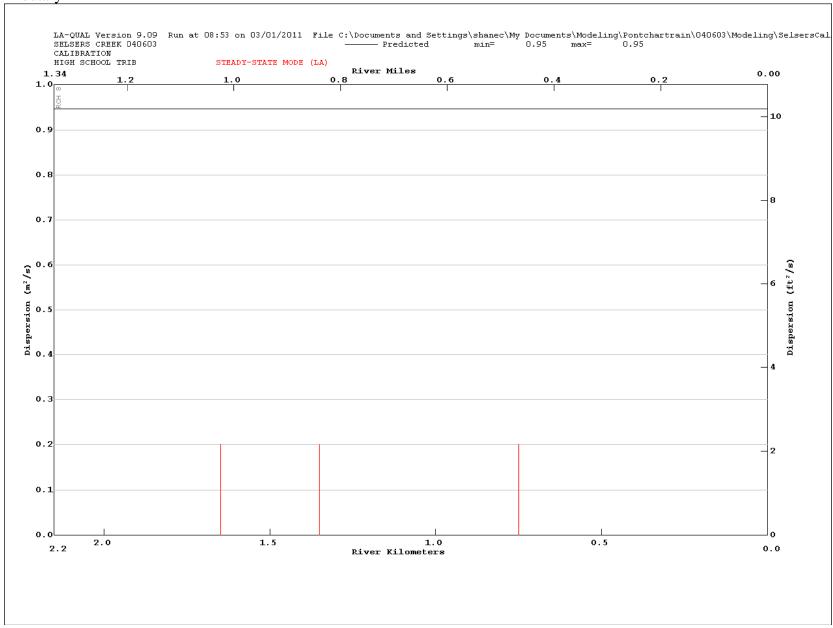
Main Stem, Headwaters to Tributary

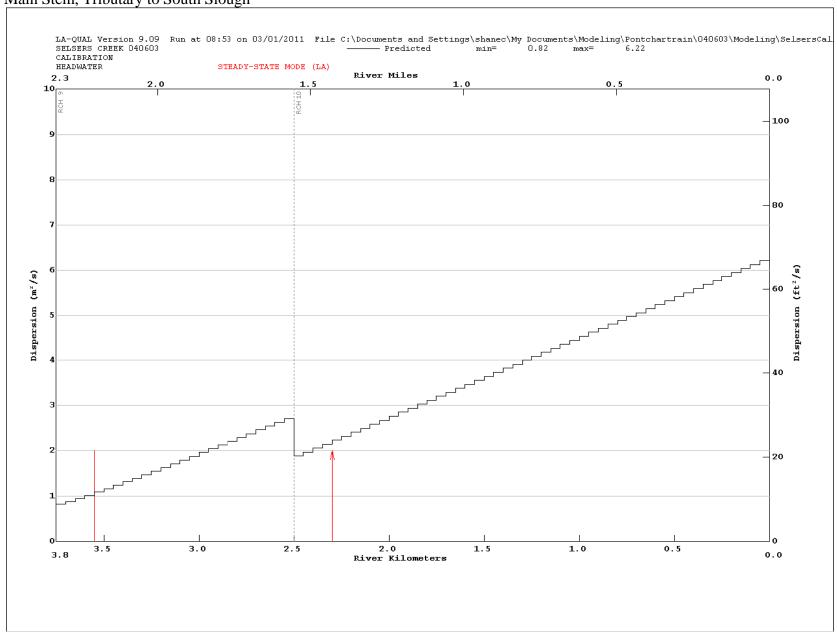


FINAL Selsers Creek Watershed TMDL

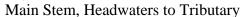
Subsegment 040603 Originated: June 1, 2011

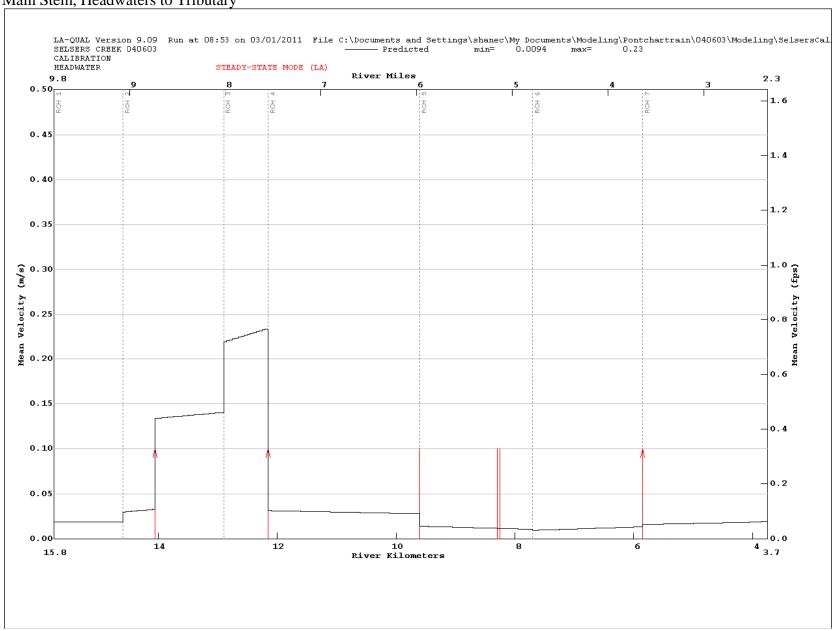




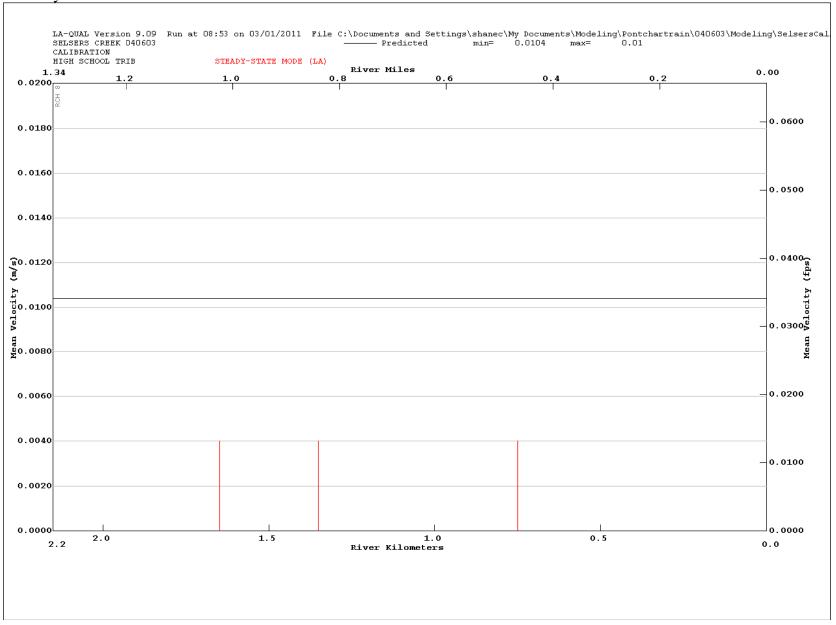


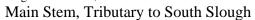
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

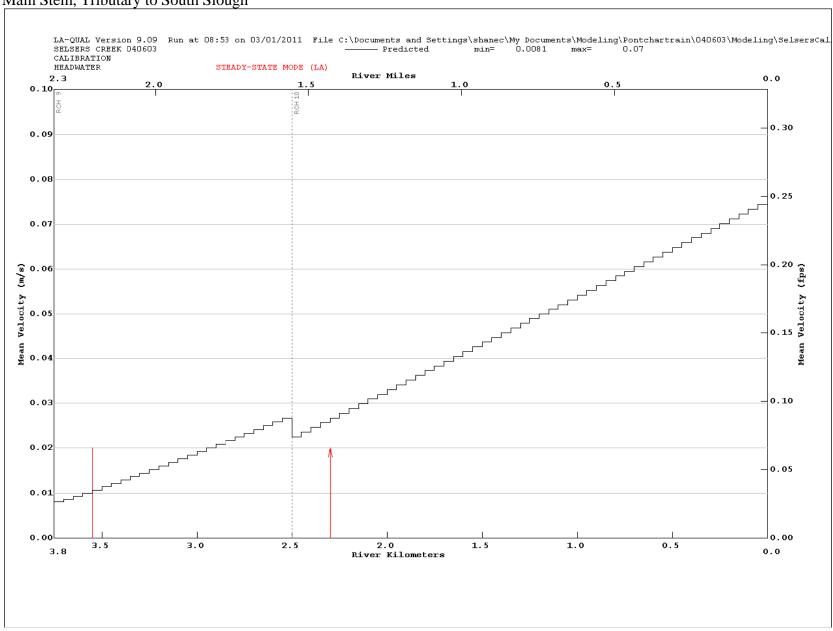




FINAL Selsers Creek Watershed TMDL Subsegment 040603







## **Selsers Creek Calibration Input File**

```
! DATA TYPE 01 -- TITLES AND CONTROL DATA
TITLE01
            SELSERS CREEK 040603
TITLE02
            CALIBRATION
CONTROL YES METRIC UNITS
CONTROL YES USE EFFECTIVE CONCENTRATIONS
ENDATA01
! DATA TYPE 02 -- Model Options
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES
                                                                  IN
                                                                              CL
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY
                                                                  ΤN
                                                                              COND
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD
MODOPT09 NO PHOSPHORUS SERIES
MODOPT10 NO PHYTOPLANKTON
MODOPT11 NO PERIPHYTON
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL
ENDATA02
! DATA TYPE 03 -- PROGRAM CONSTANTS
PROGRAM SETTLING RATE UNITS
                                           = 2
PROGRAM K2 MAXIMUM
                                           = 25
PROGRAM DISPERSION EQUATION
                                           = 3
PROGRAM TIDE HEIGHT
                                         = 0.158
PROGRAM INHIBITION CONTROL VALUE
                                           = 3
PROGRAM PHYTOPLANKTON OXYGEN PROD
                                           = 0
ENDATA03
! DATA TYPE 04 -- TEMPERATURE CORRECTION CONSTANTS
ENDATA04
! DATA TYPE 05 -- TEMPERATURE DATA
ENDATA05
! DATA TYPE 06 -- ALGAE CONSTANTS
ENDATA06
! DATA TYPE 07 -- MACROPHYTE CONSTANTS
ENDATA07
! DATA TYPE 08 -- REACH IDENTIFICATION DATA
```

HYDR-2

HYDR-2

HYDR-2

1 0 375

3 0 375

375

2 0

0.8333

0.8333

0.8333

Ω

0

Originated: June 1, 2011 ! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1 \*\*\* \_\_ \* ! R# ID SITE NAME RKM RKM LENGTH 1 SC HEADWATERS - S OF 190 15.75 14.6 REACH ID 0.0575 REACH ID 2 SC S OF 190 - OLD COVINGTON HWY 14.6 12.9 0.05 REACH ID 3 SC OLD COVINGTON HWY - 1ST UNNAMED 12.9 12.15 0.05 REACH ID 4 SC 1ST UNNAMED - S OF I-12 12.15 9.6 0.05 5 SC S OF I-12 - S OF SISTERS RD. REACH ID 9.6 7.7 0.05 REACH ID 6 SC S OF SISTERS RD. - 3RD UNNAMED 7.7 5.85 0.05 7 SC 3RD UNNAMED - S OF HWY 22 5.85 REACH ID 3.75 0.05 REACH ID 8 HS HIGH SCHOOL TRIB 2.15 0 0.05 9 SC S OF HWY 22 - N OF WEINBERGER 3.75 REACH ID 2.5 0.05 REACH ID 10 SC N OF WEINBERGER - SOUTH SLOUGH 2.5 0 0.05 ENDATA08 ! DATA TYPE 09 -- ADVECTIVE HYDRAULIC COEFFICIENTS ! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1 \*\*\* \_\_\_\_\_\*\*\*\*\*\*\* 1 ! d 6 b C ! WIDTH WIDTH WIDTH DEPTH DEPTH R# COEFF EXP CONST COEFF EXP CONST SLOPE MANNING HYDR-1 1 0 0 1.859 0 0 0.085 0.0001 0.035 HYDR-1 2 0 0 1.669 0 0 0.061 0.0001 0.035 HYDR-1 3 0 0 1.524 0 0.043 0.0001 0.035 HYDR-1 4 0 0 3.962 0 0 0.146 0.0001 0.035 5 0 0 4.191 0 0.274 0.0001 0.035 HYDR-1 HYDR-1 6 0 0 4.797 0 0 0.27 0.0001 0.035 7 0 0 5.486 0 0 0.265 0.0001 0.035 HYDR-1 HYDR-1 8 0 0 2.103 0 0 0.183 0.0001 0.035 9 0 0 0.209 0.0001 0.035 HYDR-1 0 19.287 0 10 0 0 30.267 0 0 0.165 0.0001 0.035 HYDR-1 ENDATA09 ! DATA TYPE 10 -- DISPERSIVE HYDRAULIC COEFFICIENTS ! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1 1 TIDAL ! R# RANGE a d b С

1

1

1

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
HYDR-2
         4 0
               375
                       0.8333
                               0
                                       1
HYDR-2
         5 0
               375
                       0.8333
                                       1
HYDR-2
         6 0
               375
                       0.8333
                               Ω
                                       1
         7 0.5 375
                                       1
HYDR-2
                       0.8333
                               Ω
HYDR-2
        8 0
               375
                       0.8333
                               0
                                       1
                                       1
HYDR-2
        9 1
               375
                       0.8333
                               0
HYDR-2
       10 1
               375
                       0.8333
                               0
                                       1
ENDATA10
! DATA TYPE 11 -- INITIAL CONDITIONS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
        *** _____*********
!
!
             TEMP SALINITY DO
                                NH3 N NIT NIT I PHOS CHL A MACROPHYTES
        R#
        1 28.6
                  0.09
                                                  11.4
INITIAL
                        4.99
                                                  9.09
INITIAL
        2 28.5
                  0.14
                       3.86
INITIAL
        3 28.42
                  0.18
                       2.99
                                                  7.65
INITIAL
        4 28.44
                  0.16
                        3.06
                                                  6.1
INITIAL
        5 28.04
                  0.15
                        4.77
                                                  5.43
INITIAL
        6 27.83
                  0.15
                        5.02
                                                  4.94
INITIAL
        7 27.6
                  0.14
                        5.31
                                                  4.5
INITIAL
      8 25.63
                  0.19
                        1.13
                                                  33.8
INITIAL
        9 27.9
                  0.14
                        3.07
                                                  14.58
INITIAL
       10 28.14
                  0.14
                        1.29
                                                  22.6
ENDATA11
! DATA TYPE 12 -- REAERATION. SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS
!-----5-----6-----7-----8-----9
*** ____******____ ******____*******
1
!
                                    BOD 1 BOD 1
                                                          BOD 2
                                                                 BOD 2
                                SOD DECAY SETT
                                                          DECAY
                                                                 SETT
!
        R# REA KL MIN
                              1.75 0.377 0.05 1
                                                          0.03 0.05
COEF-1
       1 15
COEF-1
         2 15
                              4
                                   0.394 0.05 1
                                                          0.03 0.05
                              3.75 0.405 0.05
COEF-1
        3 15
                                              1
                                                          0.03 0.05
        4 15
                                             1
COEF-1
                              3.25
                                  0.42 0.05
                                                          0.031 0.05
COEF-1
        5 15
                              1.2
                                   0.443 0.05
                                              1
                                                          0.031 0.05
COEF-1
        6 15
                              1
                                   0.367 0.05
                                              1
                                                          0.031 0.05
        7 15
COEF-1
                              1.1
                                   0.28 0.05
                                             1
                                                          0.03 0.05
COEF-1
         8 15
                              3.75
                                   0.513 0.05
                                              1
                                                          0.087 0.05
COEF-1
        9 15
                              4
                                   0.446 0.05
                                              1
                                                         0.032 0.05
COEF-1
                              5
                                   0.578 0.05
                                                          0.034 0.05
        10 15
ENDATA12
```

<sup>!</sup> DATA TYPE 13 -- NITROGEN AND PHOSPHOURS COEFFICIENTS

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
! - - - -1- - - - -2- - - - -3- - - - -4- - - - -5- - - - -6- - - - -7- - - - -8- - - - -9- - - - -0- - - -1
*** _____*******____*******
!
           NBOD
                  NBOD
        R# DECAY SETT
COEF-2
        1 0.211 0.05
COEF-2
         2 0.194 0.05
        3 0.184 0.05
COEF-2
COEF-2
        4 0.17 0.05
COEF-2
        5 0.147 0.05
        6 0.179 0.05
COEF-2
        7 0.216 0.05
COEF-2
COEF-2
        8 0.307 0.05
        9 0.215 0.05
COEF-2
COEF-2
       10 0.214 0.05
ENDATA13
! DATA TYPE 14 -- ALGAE AND MACROPHYTE COEFFICIENTS
ENDATA14
! DATA TYPE 15 -- COLIFORM AND NONCONSERVATIVE COEFFICIENTS
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
       *** _____******
ENDATA15
! DATA TYPE 16 -- INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____*********
!
            OUTFLOW INFLOW TEMP
                                  SALINITY CHLORIDE COND
        R#
                   Ω
INCR-1
        1
INCR-1
         2
                   0.001
INCR-1
                   0.001
        4 -0.002
INCR-1
        5 -0.004
INCR-1
INCR-1
                  0.005
                                        13
                                               225
INCR-1
         7
                   0.004
                                        13
                                               225
        8
INCR-1
INCR-1
        9
                   0.005
                                        13
                                               225
INCR-1
                   0.004
                                        13
                                               225
       10
ENDATA16
! DATA TYPE 17 -- INCREMENTAL DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
NONPOINT
        9 2.5
                  1.5
                                               4
                   3.5
                                               5.75
NONPOINT 10 8
ENDATA19
! DATA TYPE 20 -- HEADWATER DATA FOR FLOW, TEMPERATURE, SAALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
       **** _____********
!
!
       E#
            NAME
                                 FLOW
                                       TEMP SALIN CHLORIDE COND
HDWTR-1 1
           HEADWATER
                               0.003
                                      28.6
                                            0.09
                                                  12.6
                                                         210.35
                                      25.63 0.19
HDWTR-1 238 HIGH SCHOOL TRIB
                               0.004
                                                  14.2
                                                         389.2
ENDATA 20
! DATA TYPE 21 -- HEADWATER DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
       **** _____*********
!
                     BOD 1
                            NBOD
                                  NH3 N
                                         NIT NIT BOD 2
HDWTR-2 1
           4.99
                   5.915
                          2.214
                                               9.462
HDWTR-2 238 1.13
                   6.599
                          7.185
                                               12.841
ENDATA21
! DATA TYPE 22 -- HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - - -3- - - - -4- - - - -5- - - - -6- - - - -7- - - - -8- - - - -9- - - - -0- - - -1
**** _____********
!
!
        E# PHOSPHOR CHL A COLIFORM NCM
HDWTR-3 1
                  11.4
HDWTR-3 238
                   33.8
ENDATA22
! DATA TYPE 23 -- JUNCTION DATA
JUNCTION 281 237 HIGH SCHOOL TRIB CONFLUENCE
ENDATA23
! DATA TYPE 24
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!
           _____********
        E#
              NAME
                             FLOW
                                     TEMP SALINITY CHLORIDE COND
WSTLD-1 32
           SE HAMMOND
                           0.010291 28.9
                                         0.28
                                                 37.8
                                                        462
WSTLD-1 70
           OLD COV HWY TRIB
                           0.0028
                                  25.43
                                         0.07
                                                 13.2
                                                        154.75
WSTLD-1 121
           PELICAN GARDEN SUBD
WSTLD-1 147
           SISTERS RD TRIB
                                  25.35
                                         0.1
                                                 21.1
                                                        220.4
WSTLD-1 148
           DUPRE TRAILER PARK
           HOOVER RD TRIB
                                  26.31
                                         0.11
                                                 7.6
                                                        232.13
WSTLD-1 196
                           0.006
WSTLD-1 248 GMG RENTALS
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
WSTLD-1 254 ROCK'S RENTALS
WSTLD-1 266 PONCHATOULA HIGH
WSTLD-1 285 ESTERBROOK TRACE
WSTLD-1 310 CREEKSIDE SUBD
                       0.000225 28.1 0.36 38.7 707.3
ENDATA24
! DATA TYPE 25
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____*********
!
      E# DO BOD 1
                           NBOD
                                  NH3 N
                                            NIT NIT BOD 2
WSTLD-2 32 1.1 5.656
                                                  3.925
WSTLD-2 70 2.14 7.346
                                                  10.143
                        5.011
WSTLD-2 121
WSTLD-2 147 5.99 2.272 0.528
                                                  4.696
WSTLD-2 148
WSTLD-2 196 2.88 6.283
                      1.768
                                                  6.244
WSTLD-2 248
WSTLD-2 254
WSTLD-2 266
WSTLD-2 285
WSTLD-2 310 3.7 175.359 132.888
                                                  94.733
ENDATA25
! DATA TYPE 26 -- WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
!
      E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE
WSTLD-3 32
                 64
WSTLD-3 70
WSTLD-3 121
WSTLD-3 147
WSTLD-3 148
                 3.6
WSTLD-3 196
WSTLD-3 248
WSTLD-3 254
WSTLD-3 266
WSTLD-3 285
WSTLD-3 310
ENDATA26
! DATA TYPE 27 -- Lower Boundary Conditions
LOWER BC TEMPERATURE
                               = 29.13
LOWER BC SALINITY
                               = 0.13
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
LOWER BC CONSERVATIVE MATERIAL I
                                    = 29.5
LOWER BC CONSERVATIVE MATERIAL II
                                    = 267.7
LOWER BC DISSOLVED OXYGEN
                                    = 2.89
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND
                                    = 6.858
LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND
                                    = 6.331
LOWER BC PO4 PHOSPHORUS
                                    = 0.4
LOWER BC PHYTOPLANKTON
                                    = 11.6
LOWER BC NBOD
                                    = 2.189
ENDATA27
! DATA TYPE 28 -- Dam Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
       ENDATA28
! DATA TYPE 29 -- SENSITIVITY ANALYSIS DATA
ENDATA29
! DATA TYPE 30 -- Plot Control Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
PLOT1 SELSERS CREEK
RCH 1 2 3 4 5 6 7
PLOT2 HIGH SCHOOL TRIB
RCH 8
PLOT3
RCH 9 10
ENDATA30
!
! DATA TYPE 31 -- Overlay Plot Data
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
OVERLAY1 OVERLAY SC.TXT
OVERLAY2 OVERLAY HST.TXT
OVERLAY3 OVERLAY SC.TXT
ENDATA31
```

## **Selsers Creek Main Stem Overlay File**

STATION	1	KILOMETER	15.72	
01	_	28.60	13.72	Temperature
02		0.09		Salinity
03		12.60		Conservative #1
04		210.35		Conservative #1
05		4.29 4.99	6.98	Dissolved Oxygen
06		5.915		Effective BOD1
13		11.40		
				Chlorophyll A
16 18		9.462 2.214		Effective BOD2 NBOD
21		0.14		-
61		0.003		Total Phosphorus Flow
63		0.085		Depth
64		1.859		Width
STATION	2	KILOMETER	12.24	Width
01		28.42	12.21	Temperature
02		0.18		Salinity
03		23.50		Conservative #1
04		385.27		Conservative #2
05		1.99 2.99	11.66	Dissolved Oxygen
21		1.66	11.00	Total Phosphorus
61		0.013		Flow
63		0.043		Depth
64		1.524		Width
STATION	3	KILOMETER	11.20	
01		28.44		Temperature
02		0.16		Salinity
03		25.20		Conservative #1
04		337.54		Conservative #2
05		2.06 3.06	7.99	Dissolved Oxygen
13		6.10		Chlorophyll A
21		1.43		Total Phosphorus
61		0.018		Flow
63		0.146		Depth
64		3.962		Width
STATION	D1	KILOMETER	9.95	
62		2.125		
STATION	4	KILOMETER	8.24	

Subsegment		
Originated: J		
01	28.04	Temperature
02	0.15	Salinity
03	23.20	Conservative #1
04	314.16	Conservative #2
05	3.77 4.77 14.53	Dissolved Oxygen
06	2.646	Effective BOD1
16	11.428	Effective BOD2
18	1.912	NBOD
21	1.16	Total Phosphorus
61	0.013	Flow
63	0.274	Depth
64	4.191	Width
STATION	5 KILOMETER 5.11	
01	27.60	Temperature
02	0.14	Salinity
03	18.10	Conservative #1
04	283.89	Conservative #2
05	4.31 5.31 12.81	Dissolved Oxygen
06	4.912	Effective BOD1
13	4.50	Chlorophyll A
16	8.211	Effective BOD2
18	2.672	NBOD
21	0.75	Total Phosphorus
61	0.025	Flow
63	0.265	Depth
64	5.486	Width
STATION	6 KILOMETER 1.86	WIGCII
01	28.14	Tomponoturo
02		Temperature
	0.14	Salinity
03	16.10	Conservative #1
04	270.88	Conservative #2
05	0.29 1.29 3.72	Dissolved Oxygen
06	4.422	Effective BOD1
13	22.60	Chlorophyll A
16	8.425	Effective BOD2
18	3.359	NBOD
21	0.65	Total Phosphorus
63	0.165	Depth
64	30.267	Width
STD 05 END	5.0 15.75 00.00	

### **Selsers Creek Tributary Overlay File**

STATION	1	KILOMETER	1.3		
01		25.6	53		Temperature
02		0.1	_9		Salinity
03		14.2	20		Conservative #1
04		389.2	20		Conservative #2
05		1.1	.3		Dissolved Oxygen
06		6.5	599		Effective BOD1
13		33.8	30		Chlorophyll A
16		12.8	341		Effective BOD2
18		7.1	-85		NBOD
21		1.5	5		Total Phosphorus
61		0.0	004		Flow
63		0.1	.83		Depth
64		2.1	.03		Width
STD 05 END		5.0	2.15	00.00	

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

ENDATA03

### **Selsers Creek Calibration Output**

LA-QUAL Version 9.09 Louisiana Department of Environmental Quality Input file is C:\Documents and Settings\shanec\My Documents\Modeling\Pontchartrain\040603\Modeling\SelsersCalibration.txt Running in steady-state mode using LA defaults Output produced at 13:30 on 03/02/2011 \$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$ CARD TYPE CONTROL TITLES TITLE01 SELSERS CREEK 040603 TITLE02 CALIBRATION CONTROL YES METRIC UNITS USE EFFECTIVE CONCENTRATION CONTROL YES ENDATA01 \$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$ CARD TYPE MODEL OPTION TEMPERATURE MODOPT01 NO MODOPT02 NO SALINITY CLMODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN COND MODOPT05 YES DISSOLVED OXYGEN MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND MODOPT08 YES NBOD MODOPT09 NO PHOSPHORUS SERIES PHYTOPLANKTON MODOPT10 NO MODOPT11 NO PERIPHYTON MODOPT12 NO COLIFORM MODOPT13 NO NONCONSERVATIVE MATERIAL ENDATA02 \$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$ CARD TYPE VALUE DESCRIPTION OF CONSTANT PROGRAM SETTLING RATE UNITS 2.00000 (values entered as per day) 25.00000 per day PROGRAM K2 MAXIMUM PROGRAM DISPERSION EQUATION 3.00000 (values entered as a function of D,Q,Vmean) PROGRAM TIDE HEIGHT 0.15800 meters PROGRAM INHIBITION CONTROL VALUE 3.00000 (inhibit all rates but SOD) PROGRAM PHYTOPLANKTON OXYGEN PROD 0.00000 mg 0/ug chl a/day

Subsegment 040603

Originated: June 1, 2011

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

				BEGIN		END	ELEM	REACH	ELEMS	BEGIN	END
CARD TYPE	REACH	ID	NAME	REACH		REACH	LENGTH	LENGTH	PER RCH	ELEM	ELEM
				km		km	km	km		NUM	NUM
	_									_	
REACH ID	1	SC	HEADWATERS - S OF 190	15.75	TO	14.60	0.0575	1.15	20	1	20
REACH ID	2	SC	S OF 190 - OLD COVINGTON HWY	14.60	TO	12.90	0.0500	1.70	34	21	54
REACH ID	3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	TO	12.15	0.0500	0.75	15	55	69
REACH ID	4	SC	1ST UNNAMED - S OF I-12	12.15	TO	9.60	0.0500	2.55	51	70	120
REACH ID	5	SC	S OF I-12 - S OF SISTERS RD.	9.60	TO	7.70	0.0500	1.90	38	121	158
REACH ID	6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	TO	5.85	0.0500	1.85	37	159	195
REACH ID	7	SC	3RD UNNAMED - S OF HWY 22	5.85	TO	3.75	0.0500	2.10	42	196	237
REACH ID	8	HS	HIGH SCHOOL TRIB	2.15	TO	0.00	0.0500	2.15	43	238	280
REACH ID	9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	TO	2.50	0.0500	1.25	25	281	305
REACH ID	10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	TO	0.00	0.0500	2.50	50	306	355
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	SC	0.000	0.000	1.859	0.000	0.000	0.085	0.00010	0.035
HYDR-1	2	SC	0.000	0.000	1.669	0.000	0.000	0.061	0.00010	0.035
HYDR-1	3	SC	0.000	0.000	1.524	0.000	0.000	0.043	0.00010	0.035
HYDR-1	4	SC	0.000	0.000	3.962	0.000	0.000	0.146	0.00010	0.035
HYDR-1	5	SC	0.000	0.000	4.191	0.000	0.000	0.274	0.00010	0.035
HYDR-1	6	SC	0.000	0.000	4.797	0.000	0.000	0.270	0.00010	0.035
HYDR-1	7	SC	0.000	0.000	5.486	0.000	0.000	0.265	0.00010	0.035

FINAL Selsers Creek Watershed TMDL

Subsegment 040603	
Originated: June 1 2011	

Originated. Ju	me 1, 20	/11								
HYDR-1	8	HS	0.000	0.000	2.103	0.000	0.000	0.183	0.00010	0.035
HYDR-1	9	SC	0.000	0.000	19.287	0.000	0.000	0.209	0.00010	0.035
HYDR-1	10	SC	0.000	0.000	30.267	0.000	0.000	0.165	0.00010	0.035
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL	DISPERSION	DISPERSION	DISPERSION	DISPERSION
			RANGE	"A"	"B"	"C"	"D"
HYDR	1	SC	0.00	375.000	0.833	0.000	1.000
HYDR	2	SC	0.00	375.000	0.833	0.000	1.000
HYDR	3	SC	0.00	375.000	0.833	0.000	1.000
HYDR	4	SC	0.00	375.000	0.833	0.000	1.000
HYDR	5	SC	0.00	375.000	0.833	0.000	1.000
HYDR	6	SC	0.00	375.000	0.833	0.000	1.000
HYDR	7	SC	0.50	375.000	0.833	0.000	1.000
HYDR	8	HS	0.00	375.000	0.833	0.000	1.000
HYDR	9	SC	1.00	375.000	0.833	0.000	1.000
HYDR	10	SC	1.00	375.000	0.833	0.000	1.000
ENDATA10							

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CL	COND
INITIAL	1	SC	28.60	0.09	4.99	0.00	0.00	0.00	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	SC	28.50	0.14	3.86	0.00	0.00	0.00	9.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	SC	28.42	0.18	2.99	0.00	0.00	0.00	7.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	SC	28.44	0.16	3.06	0.00	0.00	0.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	SC	28.04	0.15	4.77	0.00	0.00	0.00	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	SC	27.83	0.15	5.02	0.00	0.00	0.00	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	7	SC	27.60	0.14	5.31	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	8	HS	25.63	0.19	1.13	0.00	0.00	0.00	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	9	SC	27.90	0.14	3.07	0.00	0.00	0.00	14.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL ENDATA11	10	SC	28.14	0.14	1.29	0.00	0.00	0.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

		•	,		,		- / 111	AEROB		SETTLD	ANAER	AEROB		ANAER	BOD2
CARD	RCH	RCH	K2	K2	K2	K2	BKGRND	BOD	BOD	SOD	BOD	BOD2	BOD2	BOD2	HYDR TO
TYPE	NUM	ID	OPT	"A"	"B"	"C"	SOD	DECAY	SETT	AVAIL	DECAY	DECAY	SETT	DECAY	BOD1
							g/m²/d	per day	per day	frac	per day				
COEF-1	1	SC	15 LOUISIANA	0.000	0.000	0.000	1.750	0.377	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	SC	15 LOUISIANA	0.000	0.000	0.000	4.000	0.394	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	SC	15 LOUISIANA	0.000	0.000	0.000	3.750	0.405	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	SC	15 LOUISIANA	0.000	0.000	0.000	3.250	0.420	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	5	SC	15 LOUISIANA	0.000	0.000	0.000	1.200	0.443	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	6	SC	15 LOUISIANA	0.000	0.000	0.000	1.000	0.367	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	7	SC	15 LOUISIANA	0.000	0.000	0.000	1.100	0.280	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	8	HS	15 LOUISIANA	0.000	0.000	0.000	3.750	0.513	0.050	1.000	0.000	0.087	0.050	0.000	0.000

# FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 COEF-1 9 SC 15 LOUISIANA

COEF-1	9	SC	15 LOUISIANA	0.000	0.000	0.000	4.000	0.446	0.050	1.000	0.000	0.032	0.050	0.000	0.000
COEF-1	10	SC	15 LOUISIANA	0.000	0.000	0.000	5.000	0.578	0.050	1.000	0.000	0.034	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$										

					SETTLD		BKGRND	BKGRND				SETTLD
CARD TYPE	REACH	ID	NBOD	NBOD	ORGN	NH3	NH3	PO4	DENIT	ORGP	ORGP	ORGP
			DECA	SETT	AVAIL	DECA	SRCE	SRCE	RATE	DECA	SETT	AVAIL
			per day	per day	frac	per day	g/m²/d	g/m²/d	per day	per day	per day	frac
COEF-2	1	SC	0.211	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	SC	0.194	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	SC	0.184	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	SC	0.170	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	SC	0.147	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	SC	0.179	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	7	SC	0.216	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	8	HS	0.307	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	9	SC	0.215	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	10	SC	0.214	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENDATA13												

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

		MAX			MAX							
BANK	PERIP	PERIP	PERIP	PHYTO	PHYTO	PHYTO	PHYTO	CHL A:	SECCHI	ID	REACH	CARD TYPE
SHADING	RESP	GROW	DEATH	RESP	GROW	DEATH	SETT	ALGAE	DEPTH			
frac	per day	per dav	per day	per dav	per dav	per day	per day	frac	m			

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE REACH ID COLIFORM NCM NCM
DIE-OFF DECAY SETT
per day per day per day

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW m³/s	INFLOW m³/s	TEMP deg C	SALIN ppt	CL	COND	IN/DIST	OUT/DIST
INCR-1	1	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	SC	0.00000	0.00100	0.00	0.00	0.00	0.00	0.00059	0.00000
INCR-1	3	SC	0.00000	0.00100	0.00	0.00	0.00	0.00	0.00133	0.00000
INCR-1	4	SC	-0.00200	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00078
INCR-1	5	SC	-0.00400	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00211
INCR-1	6	SC	0.00000	0.00500	0.00	0.00	13.00	225.00	0.00270	0.00000
INCR-1	7	SC	0.00000	0.00400	0.00	0.00	13.00	225.00	0.00190	0.00000
INCR-1	8	HS	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	9	SC	0.00000	0.00500	0.00	0.00	13.00	225.00	0.00400	0.00000
INCR-1	10	SC	0.00000	0.00400	0.00	0.00	13.00	225.00	0.00160	0.00000

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 ENDATA16

\$\$\$	DATA	TYPE	17	(INCREMENTAL	DATA	FOR	DO.	BOD,	AND	NITROGEN )	\$\$\$

NGR-2	\$\$\$ DATA TYP	E I/ (INC	REMENTA	AL DATA FOR	DO, BOD,	AND NIIROGE	N) \$\$\$			
NCR-2	CARD TYPE	REACH	ID	DO	BOD1	NBOD			BOD2	
NCR-2				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
NCR-2	INCR-2	1	SC	0.00	0.00	0.00	0.00	0.00	0.00	
NCR-2	NCR-2	2	SC	3.86	5.05	2.13	0.00	0.00	9.98	
NCR-2										
NCR-2	NCR-2	4		0.00	0.00	0.00	0.00			
NCR-2	NCR-2	5					0.00	0.00	0.00	
NCR-2 7 SC 5.31 4.91 2.67 0.00 0.00 8.21 NCR-2 8 HS 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-2 9 SC 3.07 4.64 3.06 0.00 0.00 0.00 8.33 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.33 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-3	NCR-2	6			3.71		0.00	0.00	9.92	
NCR-2 9 SC 3.07 4.64 3.06 0.00 0.00 8.33 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43 NCR-3 TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$ NCR-3 1 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 2 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 3 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 4 SC 0.00 0.00 0.00 0.00 0.00 NCR-3 5 SC 0.00 0.00 0.00 0.00 0.00 NCR-3 6 SC 0.00 0.00 0.00 0.00 0.00 NCR-3 7 SC 0.00 0.00 0.00 0.00 0.00 NCR-3 8 HS 0.00 0.00 0.00 0.00 0.00 NCR-3 9 SC 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00	NCR-2	7	SC	5.31	4.91	2.67	0.00	0.00	8.21	
NCR-2 9 SC 3.07 4.64 3.06 0.00 0.00 8.33 NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 0.00 8.43 NDATA17  \$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$ PHYTO P	NCR-2	8	HS	0.00	0.00	0.00	0.00	0.00	0.00	
NCR-2 10 SC 1.29 4.42 3.36 0.00 0.00 8.43  NDATA17  \$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$  PHYTO  CARD TYPE REACH ID PO4 CHL A COLI NCM ORGP		9								
NOTE	NCR-2	10								
CARD TYPE REACH ID PO4 CHL A COLI NCM ORGP mg/L µg/L #/100mL mg/L mg/L mg/L #/100mL mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg	ENDATA17									
CARD TYPE REACH ID	\$\$\$ DATA TYP	E 18 (INC	CREMENTA	AL DATA FOR	PHOSPHORU	JS, PHYTOPLA	NKTON, COL	JIFORM, ANI	NONCONSE	RVATIVES) S
Mg/L					PHYTO					
NCR-3	CARD TYPE	REACH	I ID	PO4	CHL A		NCM	ORGP		
NCR-3				mg/L	μg/L	#/100mL		mg/L		
NCR-3	NCR-3	1	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3	NCR-3	2	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3	NCR-3	3	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3 6 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 7 SC 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 8 HS 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 8 HS 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 9 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00 NCR-3 10 SC 0.00 0.00 0.00 0.00 0.00 0.00 0.00	NCR-3	4	SC	0.00	0.00	0.00	0.00	0.00		
CANCER-3	NCR-3	5	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3	NCR-3	6	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3	INCR-3	7	SC	0.00	0.00	0.00	0.00	0.00		
NCR-3	INCR-3	8	HS	0.00	0.00	0.00	0.00	0.00		
NCR-3	INCR-3	9	SC	0.00	0.00	0.00	0.00	0.00		
CARD TYPE REACH ID BOD1 NBOD COLI NCM DO BOD2 ORG-P kg/d kg/d kg/d w/day kg/d kg/d kg/d kg/d kg/d kg/d kg/d kg/d	INCR-3									
REACH ID   BOD1   NBOD   COLI   NCM   DO   BOD2   ORG-P   Reach   Re	NDATA18									
kg/d   kg/d   #/day   kg/d	\$\$ DATA TYP	E 19 (NON	POINT S	SOURCE DATA)	\$\$\$					
kg/d   kg/d   #/day   kg/d	ARD TYPE	REACH	ID	BOD1	NBOD	COLI	NCM	DO	BOD2	ORG-P
IONPOINT         2         SC         0.10         0.25         0.00         0.00         0.00         1.00         0.00           IONPOINT         3         SC         0.10         0.10         0.00         0.00         0.00         2.50         0.00           IONPOINT         4         SC         0.12         0.70         0.00         0.00         0.00         7.00         0.00           IONPOINT         5         SC         2.25         1.65         0.00         0.00         0.00         1.10         0.00           IONPOINT         6         SC         6.50         3.00         0.00         0.00         0.00         0.25         0.00           IONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           IONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           IONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         5.75         0.00           IONPOINT         10         SC         8.00         3.50         0.00										
ONPOINT 2 SC 0.10 0.25 0.00 0.00 0.00 1.00 0.00 0.00 ONPOINT 3 SC 0.10 0.10 0.00 0.00 0.00 0.00 0.00 0.0	ONPOINT	1	SC	0.50	0.15	0.00	0.00	0.00	0.50	0.00
KONPOINT         3         SC         0.10         0.10         0.00         0.00         0.00         2.50         0.00           KONPOINT         4         SC         0.12         0.70         0.00         0.00         0.00         7.00         0.00           KONPOINT         5         SC         2.25         1.65         0.00         0.00         0.00         1.10         0.00           KONPOINT         6         SC         6.50         3.00         0.00         0.00         0.00         0.25         0.00           KONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           KONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           KONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           KONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
KONPOINT         4         SC         0.12         0.70         0.00         0.00         0.00         7.00         0.00           KONPOINT         5         SC         2.25         1.65         0.00         0.00         0.00         1.10         0.00           KONPOINT         6         SC         6.50         3.00         0.00         0.00         0.00         0.25         0.00           KONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           KONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           KONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           KONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
ONPOINT         5         SC         2.25         1.65         0.00         0.00         0.00         1.10         0.00           ONPOINT         6         SC         6.50         3.00         0.00         0.00         0.00         0.25         0.00           ONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           ONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           ONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           ONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
ONPOINT         6         SC         6.50         3.00         0.00         0.00         0.00         0.25         0.00           ONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           IONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           IONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           IONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
MONPOINT         7         SC         3.75         3.95         0.00         0.00         0.00         0.90         0.00           MONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           MONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           MONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
MONPOINT         8         HS         2.00         0.65         0.00         0.00         0.00         1.30         0.00           MONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           MONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
ONPOINT         9         SC         2.50         1.50         0.00         0.00         0.00         4.00         0.00           ONPOINT         10         SC         8.00         3.50         0.00         0.00         0.00         5.75         0.00										
IONPOINT 10 SC 8.00 3.50 0.00 0.00 0.00 5.75 0.00										
	ENDATA19	10	bC	0.00	3.30	0.00	0.00	0.00	3.13	0.00

FINAL Selsers Creek Watershed TMDL

Originated: June 1, 2011
\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	T NAME		UNIT	FLOW m³/s	FLOW cfs		SALIN ppt	CL	COND	HDW DI EXCH fra
HDWTR-1 HDWTR-1 ENDATA20	1 238		WATER SCHOOL TRIB	0 0	0.00300 0.00400	0.10593 0.14124		0.09 0.19	12.600 14.200	210.350 389.200	0.00
\$\$\$ DATA T	YPE 21 (HEA	ADWATER I	DATA FOR DO, BO	D, AND 1	NITROGEN)	\$\$\$					
CARD TYPE	ELEMENT	T NAME			DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L	
HDWTR-2 HDWTR-2 ENDATA21	1 238		WATER SCHOOL TRIB		4.99 1.13	5.91 6.60	2.21 7.18	0.00	0.00	9.46 12.84	
\$\$\$ DATA T	YPE 22 (HEA	ADWATER I	DATA FOR PHOSPH	ORUS, PI	HYTOPLANKT(	ON, COLIFO	RM, AND NO	NCONSERVA	TIVES) \$\$	>	
CARD TYPE	ELEMENT	name			PO4-P mg/L	CHL A	COLI #/100mL	NCM	ORG-P mg/L		
HDWTR-3 HDWTR-3 ENDATA22	1 238	HEADV HIGH	WATER SCHOOL TRIB		0.00	11.40 33.80	0.00	0.00	0.00		
\$\$\$ DATA T	YPE 23 (JUN	NCTION DA	ATA) \$\$\$								
CARD TYPE	JUNCTION ELEMENT	UPSTRN ELEMENT		NAME							
JUNCTION ENDATA23	281	237	3.75 HI	GH SCHOO	OL TRIB CO	NFLUENCE					
\$\$\$ DATA T	YPE 24 (WAS	STELOAD I	DATA FOR FLOW,	TEMPERAT	TURE, SALII	NITY, AND	CONSERVATI	VES) \$\$\$			
CARD TYPE	ELEMENT	RKILO	NAME		FLOW m³/s	FLOW cfs		TEMP deg C	SALIN ppt	CL	COND
WSTLD-1	32 70		SE HAMMOND OLD COV HWY TR		0.01029 0.00280	0.36338 0.09887	0.064	28.90 25.43	0.28 0.07	37.800 13.200	462.000 154.750
NSTLD-1 NSTLD-1		12.15 9.60		SUBD			0.064 0.000				
WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1	70 121 147 148	12.15 9.60 8.30 8.25	OLD COV HWY TR PELICAN GARDEN SISTERS RD TRI DUPRE TRAILER	SUBD B PARK	0.00280 0.00000 0.00000 0.00000	0.09887 0.00000 0.00000 0.00000	0.064 0.000 0.000 0.000	25.43 0.00 25.35 0.00	0.07 0.00 0.10 0.00	13.200 0.000 21.100 0.000	154.750 0.000 220.400 0.000
WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1	70 121 147 148 196	12.15 9.60 8.30 8.25 5.85	OLD COV HWY TR PELICAN GARDEN SISTERS RD TRI DUPRE TRAILER HOOVER RD TRIE	SUBD B PARK	0.00280 0.00000 0.00000 0.00000 0.00600	0.09887 0.00000 0.00000 0.00000 0.21186	0.064 0.000 0.000 0.000 0.137	25.43 0.00 25.35 0.00 26.31	0.07 0.00 0.10 0.00 0.11	13.200 0.000 21.100 0.000 7.600	154.750 0.000 220.400 0.000 232.130
WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1	70 121 147 148 196 248	12.15 9.60 8.30 8.25 5.85 1.65	OLD COV HWY TR PELICAN GARDEN SISTERS RD TRI DUPRE TRAILER HOOVER RD TRIE GMG RENTALS	SUBD B PARK	0.00280 0.00000 0.00000 0.00000 0.00600 0.00000	0.09887 0.00000 0.00000 0.00000 0.21186 0.00000	0.064 0.000 0.000 0.000 0.137 0.000	25.43 0.00 25.35 0.00 26.31 0.00	0.07 0.00 0.10 0.00 0.11 0.00	13.200 0.000 21.100 0.000 7.600 0.000	154.75 0.00 220.40 0.00 232.13 0.00
WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1	70 121 147 148 196 248 254	12.15 9.60 8.30 8.25 5.85 1.65 1.35	OLD COV HWY TR PELICAN GARDEN SISTERS RD TRI DUPRE TRAILER HOOVER RD TRIE GMG RENTALS ROCK'S RENTALS	SUBD B PARK	0.00280 0.00000 0.00000 0.00000 0.00600 0.00000	0.09887 0.00000 0.00000 0.00000 0.21186 0.00000	0.064 0.000 0.000 0.000 0.137 0.000 0.000	25.43 0.00 25.35 0.00 26.31 0.00 0.00	0.07 0.00 0.10 0.00 0.11 0.00 0.00	13.200 0.000 21.100 0.000 7.600 0.000 0.000	154.750 0.000 220.400 0.000 232.130 0.000 0.000
WSTLD-1	70 121 147 148 196 248	12.15 9.60 8.30 8.25 5.85 1.65 1.35 0.75	OLD COV HWY TR PELICAN GARDEN SISTERS RD TRI DUPRE TRAILER HOOVER RD TRIE GMG RENTALS	SUBD B PARK GH	0.00280 0.00000 0.00000 0.00000 0.00600 0.00000	0.09887 0.00000 0.00000 0.00000 0.21186 0.00000	0.064 0.000 0.000 0.000 0.137 0.000 0.000	25.43 0.00 25.35 0.00 26.31 0.00	0.07 0.00 0.10 0.00 0.11 0.00	13.200 0.000 21.100 0.000 7.600 0.000	154.750 0.000 220.400 0.000 232.130 0.000

FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

γγγ <i>D</i> 11111 111	1 23 (WIST	ELOID BIIII TOR BO, BOB, III	ND WITHOULK	., ,,,,	% BOD			%		
CARD TYPE	ELEMENT	NAME	DO	BOD	RMVL	NBOD		NITRIF		BOD2
			mg/L	mg/L		mg/L	mg/L		mg/L	mg/L
WSTLD-2	32	SE HAMMOND	1.10	5.66	0.00	0.00	0.00	0.00	0.00	3.92
WSTLD-2	70	OLD COV HWY TRIB	2.14	7.35	0.00	5.01	0.00	0.00	0.00	10.14
WSTLD-2	121	PELICAN GARDEN SUBD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	147	SISTERS RD TRIB	5.99	2.27	0.00	0.53	0.00	0.00	0.00	4.70
WSTLD-2	148	DUPRE TRAILER PARK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	196	HOOVER RD TRIB	2.88	6.28	0.00	1.77	0.00	0.00	0.00	6.24
WSTLD-2	248	GMG RENTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	254	ROCK'S RENTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	266	PONCHATOULA HIGH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	285	ESTERBROOK TRACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2 ENDATA25	310	CREEKSIDE SUBD	3.70	175.36	0.00	132.89	0.00	0.00	0.00	94.73
ENDATA22										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

COLI	ICM ORG-P
#/100mL	mg/L
0.00 0.	00.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
0.00 0.	0.00
	#/100mL  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTE	RATION	
LOWER BC	TEMPERATURE	=	29.130	deg C
LOWER BC	SALINITY	=	0.130	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	29.500	
LOWER BC	CONSERVATIVE MATERIAL II	=	267.700	
LOWER BC	DISSOLVED OXYGEN	=	2.890	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	6.858	mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	=	6.331	mg/L
LOWER BC	PO4 PHOSPHORUS	=	0.400	mg/L
LOWER BC	PHYTOPLANKTON	=	11.600	μg/L
LOWER BC	NBOD	=	2.189	mg/L
ENDATA27				

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

CARD TYPE ELEMENT NAME EQN "A" "B" "H"

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

PLOT1

RCH 1 2 3 4 5 6 7

PLOT2

RCH 8

PLOT3

RCH 9 10

ENDATA31

ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY1 OVERLAY SC.TXT OVERLAY2 OVERLAY HST.TXT OVERLAY3 OVERLAY SC.TXT

....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

.....GRAPHICS DATA FOR PLOT 2 WRITTEN TO UNIT 12

.....GRAPHICS DATA FOR PLOT 3 WRITTEN TO UNIT 13

FINAL REPORT HEADWATER

SELSERS CREEK 040603

REACH NO. 1 HEADWATERS - S OF 190 CALIBRATION

ELEM TYPE FLOW TEMP COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM NO. deg C ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L  $\mu g/L$  #/100mL

1 HDWTR 0.00300 28.60 0.09 12.60 210.35 4.99 4.70 9.46 5.91 9.46 2.21 0.00 0.00 11.40 0.00 0.00

	gment 0406		ersned riv	IDL																							
	nated: June 1																										
			*****	*****	****	*****	****	****	****	*****	*****	* BIOL	OGICAL	AND F	HYSICA	AL COEF	FICIEN	TS ***	****	*****	****	*****	*****	*****	*****	*****	******
ELE	M ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM	
NO.	DIST	D.O.	RATE I	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT	
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	* *	1/da	1/da	1/da	
_																											
1	15.693				0.06		0.00									0.00				0.00			0.00		0.00	0.00	
2	15.635	7.74		0.56		0.00	0.00		0.06	0.00	3.01	3.08	3.08			0.00			0.00		0.00	0.00		0.00	0.00	0.00	
3					0.06											0.00								0.00	0.00	0.00	
4	15.520	7.74		0.56		0.00	0.00	0.04	0.06	0.00			3.08				0.00	0.00				0.00	0.00		0.00	0.00	
5	15.463	7.74				0.00	0.00		0.06	0.00		3.08				0.00		0.00				0.00	0.00		0.00	0.00	
6	15.405	7.74		0.56	0.06	0.00	0.00		0.06	0.00		3.08	3.08	0.34	0.06		0.00	0.00			0.00	0.00	0.00		0.00	0.00	
7	15.348	7.74		0.56		0.00	0.00		0.06	0.00			3.08				0.00				0.00	0.00			0.00	0.00	
8	15.290			0.56		0.00	0.00		0.06		3.00					0.00			0.00		0.00	0.00			0.00	0.00	
9	15.233	7.75		0.56		0.00	0.00	0.04	0.06	0.00		3.08	3.08				0.00	0.00				0.00	0.00		0.00	0.00	
10	15.175					0.00	0.00		0.06		3.00					0.00		0.00				0.00			0.00	0.00	
11	15.118	7.75		0.56		0.00	0.00		0.06	0.00			3.07				0.00	0.00			0.00	0.00	0.00		0.00	0.00	
12	15.060	7.75		0.56		0.00	0.00	0.04	0.06	0.00	3.00	3.07	3.07	0.34	0.06		0.00	0.00				0.00			0.00	0.00	
13	15.003				0.06		0.00		0.06		3.00		3.07			0.00					0.00	0.00			0.00	0.00	
14	14.945	7.75		0.56		0.00	0.00		0.06	0.00			3.07			0.00	0.00					0.00	0.00		0.00	0.00	
15	14.888	7.75				0.00	0.00		0.06			3.07				0.00		0.00				0.00			0.00	0.00	
16	14.830	7.75				0.00	0.00		0.06	0.00			3.07				0.00	0.00				0.00	0.00		0.00	0.00	
17	14.773					0.00	0.00		0.06	0.00		3.07	3.07					0.00				0.00			0.00	0.00	
18	14.715					0.00	0.00		0.06	0.00			3.07			0.00		0.00				0.00			0.00	0.00	
19	14.658				0.06			0.04			2.99					0.00					0.00	0.00		0.00	0.00	0.00	
20	14.600	7.75	12.89	0.56	0.06	0.00	0.00	0.04	0.06	0.00	2.99	3.07	3.07	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20 DEG C	RATE	11.00	0.38	0.05	0.00	0.00	0.03	0.05	0.00	1.75			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	******	******	****
ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L		ETOT-N mg/L		PO4-P mg/L	TOT-P mg/L	EORG-P 1	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
1 2	15.693 15.635	28.60 28.59	0.09	12.60 12.60	210.35 210.35	4.85 4.79	4.69 4.68	9.57 9.63	5.89 5.88	9.57 9.63	2.21 2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.3 11.2	0.0	0. 0.	0.00
3 4	15.578 15.520	28.59 28.58		12.60 12.60	210.35 210.35	4.75 4.72	4.68 4.67	9.69 9.75	5.86 5.84	9.69 9.75	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.1 10.9	0.0	0. 0.	0.00
5	15.463	28.58	0.10	12.60	210.35	4.70	4.67	9.81	5.82	9.81	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.8	0.0	0.	0.00
7		28.57 28.57	0.11	12.60 12.60	210.35 210.35	4.69 4.68	4.66 4.66	9.87 9.93	5.81 5.79	9.87 9.93	2.20 2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.7 10.6	0.0	0. 0.	0.00
8 9	15.290 15.233	28.56 28.56		12.60 12.60	210.35 210.35	4.67 4.66	4.65 4.65	9.99 10.05	5.77 5.76	9.99 10.05	2.20 2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.5 10.4	0.0	0. 0.	0.00
10 11	15.175 15.118	28.55 28.55		12.60 12.60	210.35 210.35	4.66 4.66	4.64 4.64	10.11 10.17	5.74 5.72	10.11 10.17	2.19 2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.2	0.0	0. 0.	0.00
12	15.060	28.54	0.12	12.60	210.35	4.66	4.64	10.23	5.71	10.23	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13 14	15.003 14.945	28.53 28.53		12.60 12.60	210.34 210.34	4.66 4.66	4.63 4.63	10.29 10.34	5.69 5.67	10.29 10.34	2.19 2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.9 9.8	0.0	0. 0.	0.00
15 16	14.888 14.830	28.52 28.52		12.60 12.60	210.32 210.28	4.65 4.65	4.62 4.62	10.40 10.46	5.66 5.64	10.40 10.46	2.18 2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.7 9.6	0.0	0. 0.	0.00

Subsegment	040603
Subsegment	040003

17	14.773 28	3.51 0	.13 12.5	9 210.21	4.65	4.61	10.52	5.62 10.52	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.4	0.0	0.	0.00
18	14.715 28	3.51 0	.14 12.5	3 210.03	4.63	4.61	10.58	5.60 10.58	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.3	0.0	0.	0.00
19	14.658 28	3.50 0	.14 12.5	209.65	4.57	4.60	10.64	5.58 10.64	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.2	0.0	0.	0.00
20	14.600 28	3.50 0	.14 12.5	208.81	4.40	4.58	10.70	5.55 10.70	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.1	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 2 S OF 190 - OLD COVINGTON HWY CALIBRATION

											11211011							
ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L								CHL A µg/L	COLI #/100mL	NCM
	UPR RCH	0.00300	28.50	0.14		208.81					10.70					9.09	0.00	0.00
EACH	INCR	0.00003	0.00	0.00	0.00	0.00	3.86	5.05	9.98			2.13	0.00	0.00	0.00	0.00	0.00	
32	WSTLD	0.01029	28.90	0.28	37.80	462.00	1.10	5.66	3.92	5.66	3.92	0.00	0.00	0.00	0.00	64.00	0.00	0.00

ELEM	ENDING	SAT	REAER	BOD1	BOD1		BOD1	BOD2	BOD2		BKGD	FULL		-	-	NH3-N			-	-		PHYTO		COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT			DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR		DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	* *	1/da	1/da	1/da
21	14.550		20.92																			0.00			0.00	0.00
22	14.500	7.75	21.00	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	14.450	7.75	21.08	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	14.400	7.75	21.16	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.27	0.06		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	14.350	7.75	21.24	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	14.300	7.75	21.31	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	14.250	7.75	21.39	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	14.200	7.76	21.47	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.26	0.06		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	14.150	7.76	21.55	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.25	0.06		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	14.100	7.76	21.63	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	14.050	7.76	21.71	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.87	6.87	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	14.000	7.76	29.28	0.55	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	13.950	7.76	29.28	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	13.900	7.76	29.28	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	13.850	7.76	29.28	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	13.800	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	13.750	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.86	6.86	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	13.700	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.86	6.86	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	13.650	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	13.600	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41	13.550	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	13.500	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43	13.450	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	13.400	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	13.350	7.76	29.27	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46	13.300	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.81	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47	13.250	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL

Originated:	June	1.	2011

48	13.200	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.85	6.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	13.150	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	13.100	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	13.050	7.76	29.26	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	13.000	7.76	29.25	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	12.950	7.76	29.25	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	12.900	7.76	29.25	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 22.80 0.39 0.05 0.00 0.00 0.03 0.05 0.00 4.00 0.19 0.05 0.00 0.00 0.00 0.00 0.00

\*  $g/m^2/d$  \*\* mg/L/day

****	**************************************																								
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
0.1	14 550	00 50	0 14	10.20	006.00	2 0 4	4 5 4	10 80	F F1	10 50	0.00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 0	0 0	0	0.00
21	14.550		0.14	12.39	206.89	3.84		10.78		10.78	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.0	0.0	0.	0.00
22	14.500 14.450		0.14	12.28 12.17	204.94 203.08	3.43 3.13		10.86 10.94		10.86 10.94	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.0 9.0	0.0	0. 0.	0.00
2.4	14.450		0.14	12.17	203.06	2.91		10.94		10.94	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.9	0.0	0.	0.00
25	14.400		0.14	12.07	199.94	2.76		11.01		11.01	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.9	0.0	0.	0.00
26	14.300		0.15	12.01	199.16	2.76		11.12		11.12	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
27	14.250		0.15	12.13	199.83	2.57		11.12	5.28	11.13	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
28	14.200		0.15	12.13	203.91	2.52		11.04		11.04	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
29	14.150		0.15	13.83	216.01	2.46	4.38	10.72	5.31	10.72	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.7	0.0	0.	0.00
30	14.100		0.15	16.89	247.02	2.37	4.52	9.88	5.45	9.88	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.7	0.0	0.	0.00
31	14.050		0.15	24.29	322.73	2.15	4.91	7.80	5.83	7.80	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.6	0.0	0.	0.00
32	14.000		0.15	31.23	394.10	1.88	5.28	5.82	6.20	5.82	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.6	0.0	0.	0.00
33	13.950			31.17	393.25	2.08	5.27	5.86	6.18	5.86	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
34	13.900		0.16	31.10	392.41	2.26	5.26	5.89	6.16	5.89	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
35	13.850		0.16	31.03	391.57	2.43	5.24	5.92	6.15	5.92	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
36	13.800		0.16	30.97	390.73	2.57	5.23	5.95	6.13	5.95	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.4	0.0	0.	0.00
37	13.750		0.16	30.90	389.90	2.70	5.22	5.98	6.11	5.98	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.4	0.0	0.	0.00
38	13.700	28.46	0.16	30.83	389.07	2.82	5.21	6.01	6.10	6.01	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3	0.0	0.	0.00
39	13.650	28.46	0.16	30.77	388.25	2.92	5.20	6.04	6.08	6.04	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3	0.0	0.	0.00
40	13.600	28.45	0.16	30.70	387.43	3.02	5.18	6.07	6.06	6.07	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.0	0.	0.00
41	13.550	28.45	0.16	30.64	386.61	3.10	5.17	6.10	6.05	6.10	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.0	0.	0.00
42	13.500	28.45	0.17	30.57	385.80	3.17	5.16	6.13	6.03	6.13	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.0	0.	0.00
43	13.450	28.45	0.17	30.51	384.98	3.24	5.15	6.16	6.01	6.16	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	0.0	0.	0.00
44	13.400	28.44	0.17	30.45	384.18	3.30	5.14	6.19	6.00	6.19	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	0.0	0.	0.00
45	13.350	28.44	0.17	30.38	383.37	3.35	5.12	6.22	5.98	6.22	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.0	0.0	0.	0.00
46	13.300	28.44	0.17	30.32	382.57	3.40	5.11	6.25	5.97	6.25	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.0	0.0	0.	0.00
47	13.250	28.44	0.17	30.26	381.77	3.44	5.10	6.28	5.95	6.28	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
48	13.200	28.43	0.17	30.19	380.98	3.48	5.09	6.31	5.93	6.31	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
49	13.150	28.43	0.17	30.13	380.18	3.51	5.08	6.34	5.92	6.34	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
50	13.100	28.43	0.18	30.07	379.38	3.54	5.07	6.37	5.90	6.37	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.8	0.0	0.	0.00
51	13.050	28.43	0.18	30.00	378.58	3.57	5.06	6.40	5.89	6.40	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.8	0.0	0.	0.00
52	13.000		0.18	29.94	377.75	3.59	5.05	6.43	5.87	6.43	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00
53	12.950		0.18	29.87	376.85	3.60	5.04	6.48	5.86	6.48	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00
54	12.900	28.42	0.18	29.78	375.80	3.59	5.03	6.55	5.85	6.55	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00

0.00 0.00 0.00

FINAL REPORT HEADWATER

REACH NO. 3 OLD COVINGTON HWY - 1ST UNNAMED

SELSERS CREEK 040603 CALIBRATION

****	******	*****	****	*****	*****	*****	*****	*****	****	*****	*****	*****	****	** DFAC	יוו דווחווד שי	TC **:	*****	****	*****	****	****	****	*****	*****	****	*****	*****	*******	****
	TYPE		LOW	TEMP deg C	SAI pp	LN	CL	COI	ND	DO mg/L	BOD1 mg/L	BOD2 mg/L		l EBOD	2 ORG	-N NI		NO3-N mg/L		CHL A		COLI	NCM						
	UPR RCH INCR		1429 0007	28.42	0.1		29.78	375.		3.59 2.99	5.03 4.52	6.55 10.30	5.8	5 6.5	5 0.		0.00	0.00	0.00	7.65		0.00	0.00						
****	*****	*****	*****	*****	*****	*****	*****	*****	****	*****	*****	** BIOI	LOGICA	L AND P	HYSICA	L COE	FFICIE	NTS **	*****	*****	*****	*****	*****	*****	****	*****	*****	*******	*****
ELEM NO.	ENDING DIST	D.O.		DECAY	BOD1 A SETT D 1/da	DECAY	HYDR I	DECAY	SETT	DECAY	SOD					DECAY	SRCE		HYDR	SETT				COLI DECAY : 1/da		SETT			
	12.850 12.800 12.750 12.750 12.650 12.600 12.550 12.500 12.450 12.350 12.350 12.250 12.250 12.250	7.76 7.76 7.76 7.76 7.76 7.76 7.76 7.76	29.25 29.25 29.26 29.26 29.26 29.26 29.26 29.26 29.26 29.26 29.26	0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	6.37 6.37 6.38 6.38 6.38 6.38 6.38 6.38 6.38	6.40 6.41 6.41 6.41 6.41 6.41 6.41 6.41 6.41	6.40 6.41 6.41 6.41 6.41 6.41 6.41 6.41 6.41	0.27 0.27 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0										
****	*****	*****	****	*****	*****	*****	****	****	****	****	****	**** W.Z	ATER QI	JALITY	CONSTI'	TUENT	VALUE	:S ****	*****	****	****	*****	:****	*****	****	*****	*****	******	****
ELEM	_	TEMP deg C			CL	COND	DO mg/L	BOD mg/			BOD1 :	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L					TOT-N mg/L	ORG-P mg/L				G-P ETO	T-P g/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
55 56 57 58 59 60 61	12.850 12.800 12.750 12.700 12.650 12.600 12.550	28.42 28.42 28.43 28.43 28.43	0.18 0.18 0.17 0.17	29. 29. 29. 29. 28. 28.	51 37 38 37 25 36 11 36	74.15 72.43 70.72 69.03 67.35 65.68 64.03	3.52 3.45 3.39 3.33 3.27 3.22 3.18	5.0 5.0 5.0 5.0	2 6 1 6 1 7 0 7 0 7	.84 .98 .13 .27	5.83 5.81 5.80 5.78 5.76 5.75 5.75	6.69 6.84 6.98 7.13 7.27 7.41 7.56	0.77 0.78 0.79 0.81 0.82 0.83 0.84	0.00 0.00 0.00 0.00 0.00	0.0 0.0 0.0 0.0	0 0 0 0 0 0 0 0 0 0	.00 .00 .00 .00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.0 0.0 0.0 0.0 0.0	00 0. 00 0. 00 0. 00 0.	00 0 00 0 00 0 00 0	.00 .00 .00 .00 .00	7.5 7.4 7.3 7.2 7.1 7.0 6.9	0.0 0.0 0.0 0.0 0.0	0. 0. 0. 0. 0.	0.00 0.00 0.00 0.00 0.00 0.00

Subsegment	040603
Subsegment	U4U0U3

Origina	ted: June 1	, 2011																							
62	12.500	28.43	0.17	28.72	362.39	3.13	4.99	7.70	5.71	7.70	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.8	0.0	0.	0.00
63	12.450	28.43	0.17	28.59	360.75	3.09	4.98	7.83	5.70	7.83	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.7	0.0	0.	0.00
64	12.400	28.43	0.17	28.46	359.09	3.06	4.98	7.97	5.68	7.97	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.6	0.0	0.	0.00
65	12.350	28.43	0.17	28.32	357.35	3.02	4.97	8.11	5.67	8.11	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.5	0.0	0.	0.00
66	12.300	28.44	0.16	28.16	355.33	2.99	4.97	8.25	5.65	8.25	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4	0.0	0.	0.00
67	12.250	28.44	0.16	27.95	352.51	2.96	4.97	8.40	5.65	8.40	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.3	0.0	0.	0.00
68	12.200	28.44	0.16	27.56	347.39	2.92	5.00	8.56	5.66	8.56	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.2	0.0	0.	0.00
69	12.150	28.44	0.16	26.69	335.77	2.88	5.07	8.79	5.72	8.79	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.1	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 4 1ST UNNAMED - S OF I-12 CALIBRATION

ELEM TYPE FLOW TEMP SALN COND DO BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM ug/L #/100mL deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L

70 UPR RCH 0.01529 28.44 26.69 335.77 2.88 5.72 8.79 6.10 0.00 0.00 0.16 5.07 8.79 1.25 0.00 0.00 0.00 -0.00004 EACH INCR 70 WSTLD 0.00280 25.43 13.20 154.75 2.14 7.35 10.14 7.35 10.14 5.01 0.00 0.00 0.00 0.07 0.00 0.00 0.00

ELEM ENDING SAT REAER BOD1 BOD1 BOD1 BOD2 BOD2 BOD2 BBGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM NCM RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY SETT 1/da 1/da 1/da 1/da 1/da 1/da 1/da \* 1/da 1/da 1/da \* 1/da 1/da 1/da  $8.90 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.53 \quad 5.65 \quad 5.65 \quad 0.23 \quad 0.06 \quad 0.00 \quad$  $8.87 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.52 \quad 5.65 \quad 5.65 \quad 0.23 \quad 0.06 \quad 0.00 \quad$  $8.86 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.52 \quad 5.64 \quad 5.64 \quad 0.23 \quad 0.06 \quad 0.00 \quad$  $8.84 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.51 \quad 5.64 \quad 5.64 \quad 0.23 \quad 0.06 \quad 0.00 \quad$  $8.83 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.51 \quad 5.63 \quad 5.63 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.82 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.50 \quad 5.63 \quad 5.63 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.80 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.50 \quad 5.62 \quad 5.62 \quad 0.24 \quad 0.06 \quad 0.00 \quad 0.00$  $8.79 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.49 \quad 5.62 \quad 5.62 \quad 0.24 \quad 0.06 \quad 0.00 \quad$ 82 11.500 7.77  $8.78 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.49 \quad 5.62 \quad 5.62 \quad 0.24 \quad 0.06 \quad 0.00 \quad$ 83 11.450 7.78  $8.77 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.49 \quad 5.62 \quad 5.62 \quad 0.24 \quad 0.06 \quad 0.00 \quad$ 84 11.400 7.78  $8.76 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.49 \quad 5.61 \quad 5.61 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.75 \quad 0.62 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.48 \quad 5.61 \quad 5.61 \quad 0.24 \quad 0.06 \quad 0.00 \quad$ 11.300 7.78 11.250 7.78  $8.75 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.48 \quad 5.61 \quad 5.61 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.74 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.48 \quad 5.61 \quad 5.61 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.73 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.48 \quad 5.60 \quad 5.60 \quad 0.24 \quad 0.06 \quad 0.00 \quad$ 89 11.150 7.78  $8.72 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.47 \quad 5.60 \quad 5.60 \quad 0.24 \quad 0.06 \quad 0.00 \quad$  $8.71 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.47 \quad 5.60 \quad 5.60 \quad 0.23 \quad 0.06 \quad 0.00 \quad$  $92 \quad 11.000 \quad 7.79 \quad 8.70 \quad 0.61 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 5.47 \quad 5.60 \quad 5.60 \quad 0.23 \quad 0.06 \quad 0.00 \quad$ 

Origina	ited: June 1, 20	011																								
93	10.950 7	.79	8.69	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.46	5.59	5.59	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94	10.900 7	.79	8.68	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.46	5.59	5.59	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	10.850 7	.79	8.67	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.46	5.59	5.59	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	10.800 7	.79	8.66	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.46	5.59	5.59	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97	10.750 7	.79	8.66	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98	10.700 7	.79	8.65	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	10.650 7	.79	8.64	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	10.600 7	.79	8.63	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101	10.550 7	.79	8.62	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102	10.500 7	.80	8.61	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
103	10.450 7	.80	8.60	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104	10.400 7	.80	8.59	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	10.350 7	.80	8.58	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.43	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	10.300 7	.80	8.58	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.43	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	10.250 7	.80	8.57	0.61	0.06	0.00	0.00	0.05	0.06	0.00			5.56					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	10.200 7	.80	8.56	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.42	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109	10.150 7	.80	8.55	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.42	5.55	5.55	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	10.100 7	.81	8.54	0.61	0.06	0.00	0.00		0.06				5.55					0.00		0.00		0.00		0.00	0.00	
111	10.050 7	.81	8.53	0.61	0.06	0.00	0.00						5.55					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112	10.000 7	.81	8.52	0.61	0.06	0.00	0.00						5.55					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	9.950 7	.81	8.51	0.61	0.06	0.00	0.00						5.54					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	9.900 7	.81	8.50	0.61	0.06	0.00	0.00	0.04	0.06				5.54					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	9.850 7	.81	8.50	0.61	0.06	0.00	0.00		0.06				5.54					0.00			0.00	0.00	0.00	0.00	0.00	0.00
116	9.800 7	.81	8.49	0.61	0.06	0.00	0.00	0.04	0.06	0.00			5.54					0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	9.750 7			0.61			0.00		0.06				5.53					0.00		0.00		0.00	0.00	0.00	0.00	
118	9.700 7	.81	8.47	0.61	0.06	0.00	0.00						5.53					0.00		0.00			0.00		0.00	0.00
119	9.650 7	.81	8.46	0.61	0.06	0.00	0.00						5.53					0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	9.600 7	.82	8.45	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.39	5.53	5.53	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 2	20 DEG C RA	TE	7.44	0.42	0.05	0.00	0.00	0.03	0.05	0.00	3.25			0.17	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* (	r/m²/d		**	mor/T./	dav																					

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N I	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P :	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
70	12.100	28.43	0.16	25.63	321.64	2.84	5.17	8.99	5.82	8.99	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.1	0.0	0.	0.00
71	12.050	28.42	0.16	25.63	321.64	2.86	5.11	9.06	5.75	9.06	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.1	0.0	0.	0.00
72	12.000	28.42	0.16	25.63	321.64	2.87	5.04	9.13	5.69	9.13	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.1	0.0	0.	0.00
73	11.950	28.41	0.16	25.63	321.64	2.88	4.98	9.20	5.63	9.20	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
74	11.900	28.40	0.16	25.63	321.64	2.90	4.92	9.27	5.57	9.27	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
75	11.850	28.39	0.16	25.63	321.64	2.91	4.87	9.34	5.51	9.34	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
76	11.800	28.39	0.16	25.63	321.64	2.91	4.81	9.41	5.45	9.41	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
77	11.750	28.38	0.16	25.63	321.64	2.92	4.75	9.48	5.39	9.48	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
78	11.700	28.37	0.16	25.63	321.64	2.93	4.69	9.55	5.33	9.55	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
79	11.650	28.36	0.16	25.63	321.64	2.94	4.64	9.62	5.27	9.62	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
80	11.600	28.35	0.16	25.63	321.64	2.94	4.58	9.69	5.22	9.69	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.0	0.0	0.	0.00
81	11.550	28.35	0.16	25.63	321.64	2.95	4.52	9.76	5.16	9.76	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
82	11.500	28.34	0.16	25.63	321.64	2.95	4.47	9.83	5.10	9.83	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
83	11.450	28.33	0.16	25.63	321.64	2.96	4.41	9.90	5.05	9.90	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00

Subsegment	040603
Subscrincin	040003

Origina	ted: June 1																								
84	11.400		0.16	25.63	321.64	2.96	4.36	9.97	4.99	9.97	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
85	11.350	28.31	0.16	25.63	321.64	2.97	4.31	10.04	4.94	10.04	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
86	11.300	28.31	0.16	25.63	321.64	2.97	4.26	10.11	4.88	10.11	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
87	11.250	28.30	0.16	25.63	321.64	2.97	4.20	10.18	4.83	10.18	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
88	11.200	28.29	0.16	25.63	321.64	2.98	4.15	10.25	4.78	10.25	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
89	11.150	28.28	0.16	25.63	321.64	2.98	4.10	10.32	4.72	10.32	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
90	11.100	28.28	0.16	25.63	321.64	2.98	4.05	10.39	4.67	10.39	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
91	11.050	28.27	0.16	25.63	321.64	2.99	4.00	10.46	4.62	10.46	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
92	11.000	28.26	0.16	25.63	321.64	2.99	3.95	10.53	4.57	10.53	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
93	10.950	28.25	0.16	25.63	321.64	2.99	3.90	10.60	4.52	10.60	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
94	10.900	28.24	0.16	25.63	321.64	2.99	3.86	10.67	4.47	10.67	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
95	10.850	28.24	0.15	25.63	321.64	2.99	3.81	10.74	4.42	10.74	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
96	10.800	28.23	0.15	25.63	321.64	3.00	3.76	10.81	4.37	10.81	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
97	10.750	28.22	0.15	25.64	321.64	3.00	3.71	10.88	4.33	10.88	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
98	10.700	28.21	0.15	25.64	321.64	3.00	3.67	10.95	4.28	10.95	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
99	10.650	28.20	0.15	25.64	321.64	3.00	3.62	11.02	4.23	11.02	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
100	10.600	28.20	0.15	25.64	321.64	3.00	3.58	11.09	4.19	11.09	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
101	10.550	28.19	0.15	25.64	321.64	3.00	3.53	11.16	4.14	11.16	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
102				25.64	321.64	3.01		11.23		11.23	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
103	10.450			25.64	321.64	3.01		11.30		11.30	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
104				25.64	321.64	3.01		11.38		11.38	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
105	10.350			25.64	321.64	3.01		11.45		11.45	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
106				25.64	321.64	3.01		11.52		11.52	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
107	10.250			25.64	321.64	3.01		11.59	3.87	11.59	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
108	10.200			25.64	321.64	3.01		11.66		11.66	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
109	10.150			25.64	321.64	3.01		11.73		11.73	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
110	10.100			25.64	321.64	3.02		11.80		11.80	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
111				25.64	321.64	3.02		11.87		11.87	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
112	10.000	28.10		25.64	321.64	3.02		11.94		11.94	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
113	9.950	28.09		25.64	321.64	3.02		12.01		12.01	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
114	9.900			25.64	321.64	3.03		12.07		12.07	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
115	9.850			25.64	321.64	3.03		12.14		12.14	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
116	9.800	28.07		25.64	321.64	3.04		12.20		12.20	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
117	9.750	28.06		25.64	321.64	3.06		12.26		12.26	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
118	9.700	28.06		25.64	321.64	3.10		12.30		12.30	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
119	9.650	28.05		25.64	321.64	3.17		12.33		12.33	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
120	9.600	28.04	0.15	25.64	321.64	3.30	2.75	12.33	3.33	12.33	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603 REACH NO. 5 S OF I-12 - S OF SISTERS RD. CALIBRATION

0.15

25.64

SALN CLELEM TYPE FLOW TEMP DO BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A COLI NCM NO. deg C mg/L mg/L mg/L mg/L μg/L #/100mL mg/L mg/L mg/L mg/L mg/L ppt

0.00

0.00

321.64 3.30 2.75 12.33 3.33 12.33 1.59 0.00 0.00 0.00 5.43

121 UPR RCH 0.01609 28.04 EACH INCR -0.00011

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	* *	* *	1/da	1/da	1/da
121	9.550	7 02	3.66	0 64	0 06	0.00	0 00	0 04	0 06	0 00	1 00	2 24	2 24	0 21	0 06	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
121		7.82	3.65	0.64		0.00	0.00		0.06								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123		7.82	3.65			0.00	0.00			0.00			2.24				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
124	9.400		3.64		0.06	0.00	0.00		0.06			2.24					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	9.350		3.64		0.06	0.00	0.00			0.00		2.23		0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	9.300		3.63				0.00				1.99		2.23		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127		7.82	3.62		0.06	0.00	0.00		0.06	0.00	1.99	2.23		0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128		7.82	3.62		0.06	0.00	0.00		0.06	0.00	1.99		2.23	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	9.150		3.61				0.00		0.06		1.98	2.22		0.22		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	9.100		3.61	0.64	0.06	0.00	0.00			0.00	1.98		2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
131	9.050		3.60	0.64	0.06	0.00	0.00		0.06	0.00	1.98		2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	9.000		3.60		0.06	0.00	0.00		0.06	0.00	1.98		2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	8.950	7.83	3.59	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	8.900	7.83	3.58	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	8.850	7.83	3.58	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	8.800	7.83	3.57	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	8.750	7.83	3.57	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	8.700	7.83	3.56	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139	8.650	7.83	3.55	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	8.600	7.83	3.55	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	8.550	7.83	3.54	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	8.500	7.83	3.54	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
143	8.450	7.83	3.53	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	8.400	7.83	3.52	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	8.350	7.83	3.52	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	8.300		3.51	0.64	0.06	0.00	0.00		0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	8.250		3.51				0.00		0.06		1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148	8.200		3.50		0.06	0.00	0.00			0.00			2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149		7.84	3.49	0.64	0.06	0.00	0.00		0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150		7.84	3.49		0.06	0.00	0.00			0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	8.050		3.48	0.64	0.06	0.00	0.00		0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	8.000		3.48	0.64	0.06	0.00	0.00		0.06	0.00	1.97		2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	7.950		3.47				0.00				1.97	2.19	2.19	0.23		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	7.900		3.47		0.06	0.00	0.00			0.00	1.97		2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	7.850		3.46	0.64	0.06	0.00	0.00		0.06	0.00	1.97	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	7.800		3.45		0.06	0.00	0.00			0.00	1.97	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157 158	7.750 7.700		3.45	0.63			0.00		0.06		1.97					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	7.700	7.04	3.44	0.03	0.06	0.00	0.00	0.04	0.00	0.00	1.90	∠.⊥٥	∠.⊥٥	∪.∠3	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	3.06	0.44	0.05	0.00	0.00	0.03	0.05	0.00	1.20			0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL

Originated: June 1, 2011

121	9.550 28.03 0.15	25.64	321.64	3.50	2.71 12.29	3.29 1		1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
122	9.500 28.03 0.15	25.64	321.64	3.64	2.68 12.26		12.26	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
123	9.450 28.02 0.15	25.64	321.64	3.77	2.65 12.22		12.22	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
124	9.400 28.02 0.15	25.64	321.64	3.89	2.61 12.19		12.19	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
125	9.350 28.01 0.15	25.64	321.64	4.00	2.58 12.16		12.16	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
126	9.300 28.01 0.15	25.64	321.64	4.09	2.55 12.13	3.12 1	12.13	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
127	9.250 28.00 0.15	25.64	321.64	4.18	2.52 12.09	3.09 1	12.09	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
128	9.200 28.00 0.15	25.64	321.64	4.26	2.49 12.06	3.06 1	12.06	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
129	9.150 27.99 0.15	25.64	321.64	4.32	2.47 12.03	3.03 1	12.03	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
130	9.100 27.98 0.15	25.64	321.64	4.39	2.44 12.00	3.01 1	12.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
131	9.050 27.98 0.15	25.64	321.64	4.44	2.41 11.96	2.98 1	11.96	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
132	9.000 27.97 0.15	25.64	321.64	4.49	2.39 11.93	2.95 1	11.93	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
133	8.950 27.97 0.15	25.64	321.64	4.54	2.36 11.90	2.92 1	11.90	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
134	8.900 27.96 0.15	25.64	321.64	4.58	2.33 11.86	2.90 1	11.86	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
135	8.850 27.96 0.15	25.64	321.64	4.61	2.31 11.83	2.87 1	11.83	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
136	8.800 27.95 0.15	25.63	321.64	4.65	2.29 11.80	2.84 1	11.80	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
137	8.750 27.95 0.15	25.63	321.64	4.67	2.26 11.76	2.82 1	11.76	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
138	8.700 27.94 0.15	25.63	321.64	4.70	2.24 11.73	2.79 1	11.73	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
139	8.650 27.94 0.15	25.63	321.64	4.72	2.22 11.70	2.77 1	11.70	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
140	8.600 27.93 0.15	25.63	321.64	4.74	2.20 11.66	2.75 1	11.66	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
141	8.550 27.92 0.15	25.63	321.64	4.76	2.17 11.63	2.73 1	11.63	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
142	8.500 27.92 0.15	25.63	321.63	4.78	2.15 11.60	2.70 1	11.60	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
143	8.450 27.91 0.15	25.63	321.63	4.79	2.13 11.56	2.68 1	11.56	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
144	8.400 27.91 0.15	25.63	321.62	4.81	2.11 11.53	2.66 1	11.53	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
145	8.350 27.90 0.15	25.63	321.61	4.82	2.10 11.49	2.64 1	11.49	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
146	8.300 27.90 0.15	25.63	321.60	4.83	2.08 11.46	2.62 1	11.46	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
147	8.250 27.89 0.15	25.63	321.58	4.84	2.06 11.42	2.60 1	11.42	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
148	8.200 27.89 0.15	25.62	321.56	4.85	2.04 11.39	2.59 1	11.39	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
149	8.150 27.88 0.15	25.62	321.53	4.86	2.03 11.35	2.57 1	11.35	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
150	8.100 27.87 0.15	25.61	321.48	4.86	2.02 11.32	2.55 1	11.32	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
151	8.050 27.87 0.15	25.60	321.41	4.87	2.00 11.28	2.54 1	11.28	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
152	8.000 27.86 0.15	25.59	321.32	4.87	2.00 11.24	2.53 1	11.24	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
153	7.950 27.86 0.15	25.58	321.19	4.88	1.99 11.20	2.53 1	11.20	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
154	7.900 27.85 0.15	25.55	321.00	4.88	1.99 11.16	2.53 1	11.16	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
155	7.850 27.85 0.15	25.52	320.74	4.89	2.00 11.12	2.53 1	11.12	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
156	7.800 27.84 0.15	25.47	320.38	4.90	2.02 11.07	2.55 1	11.07	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
157	7.750 27.84 0.15	25.40	319.87	4.91	2.06 11.02	2.59 1	11.02	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
158	7.700 27.83 0.15	25.31	319.15	4.93	2.12 10.96	2.65 1	10.96	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 6 S OF SISTERS RD. - 3RD UNNAMED CALIBRATION

NCM ELEM TYPE FLOW TEMP COND BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NO. deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L  $\mu$ g/L  $\mu$ f/100mL ppt 159 UPR RCH 0.01209 27.83 0.15 25.31 319.15 4.93 2.12 10.96 2.65 10.96 2.06 0.00 0.00 0.00 0.00 0.00014 0.00 13.00 225.00 5.02 3.71 9.92 2.27 0.00 0.00 0.00 EACH INCR 0.00 0.00 0.00

****	******	*****	*****	*****	*****	*****	*****	*****	****	*****	*****	* BIOL	JOGICAL	L AND I	PHYSICA	AL COEF	FICIEN	ITS ***	*****	*****	*****	*****	*****	*****	*****	********	:**
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD 2	BOD2	AROD2	BKGD	т.п.	CORR	ORG-N	ORG-N	NH3-N	инз-и	DENTT	ORG-P	ORG-P	₽∩4	рнуто	DERTD	COLI	NCM	NCM	
NO.	DIST			DECAY							SOD	SOD												DECAY			
		mg/L		1/da												1/da								1/da			
159	7.650																							0.00			
160	7.600																							0.00			
161	7.550																							0.00			
162 163	7.500 7.450																							0.00			
164	7.450																							0.00			
165	7.350																							0.00			
166	7.300																							0.00			
167	7.250																							0.00			
168	7.200																							0.00			
169	7.150																							0.00			
170	7.100																							0.00			
171	7.050	7.86																						0.00			
172	7.000	7.86	3.50	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
173	6.950	7.86	3.51	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
174	6.900	7.86	3.52	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
175	6.850	7.86	3.52	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
176	6.800	7.86	3.53	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
177	6.750	7.86	3.53	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
178	6.700	7.86	3.54	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
179	6.650	7.86	3.55	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	6.600	7.86	3.55	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.84	1.84	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
181	6.550	7.87																						0.00			
182	6.500																							0.00			
183	6.450																							0.00			
184	6.400																							0.00			
185	6.350																							0.00			
186	6.300																							0.00			
187	6.250																							0.00			
188 189	6.200 6.150																							0.00			
190	6.100																							0.00			
191	6.050																							0.00			
192	6.000																							0.00			
193	5.950																							0.00			
194	5.900																							0.00			
195	5.850																							0.00			
AVG 2	0 DEG C	RATE	3.06	0.37	0.05	0.00	0.00	0.03	0.05	0.00	1.00			0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
* 9	g/m²/d		**	mg/L/	day																						

Subsegment 040603	Subse	gment	040	603
-------------------	-------	-------	-----	-----

' . 1 T 1 OO	1 1
inated: June 1, 20	11
inated. June 1, 20	1

Originat	ea: June 1,	, ZUII																							
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
159	7.650	27.82	0.15	25.18	318.14	4.97	2.21	10.89	2.74	10.89	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
160	7.600	27.82	0.15	25.05	317.14	5.00	2.30	10.82	2.83	10.82	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
161	7.550	27.81	0.15	24.92	316.17	5.02	2.39	10.75	2.91	10.75	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
162	7.500	27.81	0.15	24.80	315.22	5.04	2.47	10.68	2.99	10.68	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
163	7.450	27.80	0.15	24.67	314.29	5.05	2.55	10.62	3.07	10.62	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
164	7.400	27.79	0.15	24.55	313.38	5.06	2.62	10.55	3.14	10.55	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
165		27.79		24.44	312.48	5.07		10.49	3.21	10.49	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
166	7.300	27.78	0.15	24.32	311.61	5.08	2.76	10.43	3.28	10.43	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
167		27.77		24.21	310.75	5.09	2.82	10.38		10.38	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
168		27.77		24.10	309.91	5.09		10.32		10.32	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
169		27.76		23.99	309.08	5.10		10.26		10.26	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
170		27.76		23.89	308.27	5.10		10.21		10.21	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
171		27.75		23.78	307.47	5.10		10.16		10.16	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
172		27.74		23.68	306.69	5.11		10.11		10.11	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
173		27.74		23.58	305.93	5.11		10.06		10.06	2.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
174		27.73		23.48	305.17	5.11		10.01		10.01	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
175		27.72		23.38	304.43	5.11	3.24	9.96	3.74	9.96	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
176		27.72		23.29	303.70	5.11	3.28	9.91	3.78	9.91	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
177		27.71		23.19	302.99	5.11	3.32	9.87	3.82	9.87	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
178		27.71		23.10	302.28	5.11	3.36	9.82	3.86	9.82	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
179		27.70		23.01	301.58	5.11	3.40	9.78	3.90	9.78	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
180		27.69		22.91	300.88	5.11	3.43	9.73 9.69	3.93 3.97	9.73 9.69	2.57 2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
181		27.69 27.68		22.82	300.19	5.11 5.11	3.47			9.65	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7 4.7	0.0	0.	0.00
182		27.68		22.72 22.63	299.50 298.80	5.11	3.50 3.53	9.65 9.60	4.00	9.65	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.0	0. 0.	0.00
183 184		27.67		22.53	298.80	5.12	3.53	9.56	4.03	9.56	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6 4.6	0.0	0.	0.00
185		27.66		22.53	290.10	5.12	3.60	9.50	4.08	9.50	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
186		27.66		22.42	296.60	5.12	3.63	9.47	4.12	9.47	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
187		27.65		22.17	295.79	5.11	3.66	9.43	4.15	9.43	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
188		27.64		22.02	294.89	5.11	3.70	9.38	4.19	9.38	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
189		27.64		21.84	293.89	5.11	3.73	9.32	4.22	9.32	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
190		27.63		21.63	292.72	5.10	3.77	9.26	4.26	9.26	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
191		27.62		21.35	291.33	5.09	3.82	9.18	4.31	9.18	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
192		27.62		21.00	289.62	5.07	3.88	9.09	4.37	9.09	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
193		27.61		20.54	287.46	5.03	3.95	8.98	4.44	8.98	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
194		27.61		19.93	284.67	4.98	4.05	8.83	4.53	8.83	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
195		27.60		19.11	280.99	4.90	4.17	8.64	4.66	8.64	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
220	3.000		J		_00.00	1.75	/	0.01	1.00	0.01	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5		٠.	0.00

FINAL REPORT HEADWATER

REACH NO. 7 3RD UNNAMED - S OF HWY 22

SELSERS CREEK 040603 CALIBRATION

ELEM TYPE FLOW TEMP COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM mg/L NO. deg C mg/L mg/L mg/L mg/L mg/L  $\mu$ g/L  $\mu$ f/100mL ppt mg/L 196 UPR RCH 0.01709 27.60 0.14 19.11 280.99 4.90 4.17 8.64 4.66 8.64 2.58 0.00 0.00 0.00 4.50 0.00 0.00 0.00010 225.00 2.67 EACH INCR 0.00 0.00 13.00 5.31 4.91 8.21 0.00 0.00 0.00 0.00 0.00 196 WSTLD 0.00600 26.31 0.11 7.60 232.13 2.88 6.28 6.24 6.28 6.24 1.77 0.00 0.00 0.00 3.60 0.00

0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

****	******	*****	*****	*****	*****	*****	*****	*****	*****	:****	*****	* BIOL	JOGICAI	L AND I	PHYSICA	AL COE	FFICIEN	NTS ***	*****	*****	****	*****	*****	****	*****	*****
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da							
196	5.800	7.88	3.88	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197	5.750	7.88	3.89	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
198	5.700	7.87	3.89	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	5.650	7.87	3.90	0.40	0.06	0.00	0.00			0.00								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	5.600	7.87	3.90	0.40	0.06	0.00	0.00			0.00								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
201	5.550	7.87				0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202	5.500		3.91	0.40	0.06	0.00	0.00			0.00								0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
203	5.450	7.87	3.91	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
204	5.400			0.40						0.00								0.00			0.00		0.00	0.00	0.00	0.00
205	5.350	7.87	3.92	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
206	5.300	7.87	3.93	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
207	5.250		3.93	0.40	0.06	0.00	0.00	0.04	0.06	0.00							0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
208	5.200		3.94	0.40	0.06	0.00	0.00		0.06	0.00						0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
209	5.150	7.86	3.94	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210	5.100		3.95	0.40	0.06	0.00	0.00		0.06	0.00								0.00			0.00		0.00	0.00	0.00	0.00
211	5.050	7.86	3.95	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
212	5.000	7.86	3.96	0.40	0.06	0.00	0.00		0.06	0.00								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
213	4.950	7.86	3.96	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
214	4.900	7.86	3.96	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
215	4.850	7.86	3.97	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
216	4.800	7.86	3.97	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
217	4.750	7.86	3.98	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.79	1.98	1.98	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
218	4.700		3.98	0.40	0.06					0.00								0.00			0.00		0.00		0.00	0.00
219	4.650	7.85	3.99	0.40	0.06	0.00	0.00			0.00								0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	4.600		3.99							0.00								0.00			0.00			0.00		0.00
221	4.550	7.85	4.00		0.06	0.00	0.00			0.00								0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	4.500		4.00		0.06		0.00			0.00								0.00			0.00		0.00			0.00
223	4.450			0.40						0.00								0.00			0.00					0.00
224	4.400			0.40		0.00				0.00								0.00			0.00		0.00			0.00
225	4.350			0.40		0.00	0.00			0.00							0.00				0.00		0.00			0.00
226	4.300						0.00			0.00											0.00					0.00
227	4.250		4.02			0.00	0.00		0.06							0.00					0.00		0.00	0.00		0.00
228	4.200			0.40		0.00				0.00								0.00			0.00			0.00		0.00
229	4.150		4.03			0.00	0.00		0.06	0.00								0.00			0.00		0.00	0.00		0.00
230	4.100			0.40						0.00								0.00		0.00	0.00		0.00			0.00
231	4.050		4.05		0.06	0.00	0.00			0.00										0.00	0.00		0.00	0.00	0.00	0.00
232	4.000		4.05			0.00				0.00								0.00		0.00						0.00
233	3.950		4.07				0.00			0.00								0.00			0.00		0.00		0.00	0.00
234	3.900		4.08		0.06					0.00								0.00		0.00			0.00	0.00	0.00	0.00
235	3.850		4.09		0.06		0.00			0.00								0.00			0.00		0.00	0.00	0.00	0.00
236	3.800					0.00				0.00										0.00						0.00
237	3.750	7.83	4.12	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.81	2.00	1.99	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	3.44	0.28	0.05	0.00	0.00	0.03	0.05	0.00	1.10			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

## FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

\*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	******	*****	*****	*****	*****	*****	******	******	*****	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
196	5.800	27.61	0.14	18.14	276.76	4.79	4.32	8.42	4.83	8.42	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
197	5.750	27.61	0.14	18.12	276.55	4.83	4.30	8.40	4.83	8.40	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
198	5.700	27.62	0.14	18.10	276.34	4.87	4.28	8.38	4.83	8.38	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
199	5.650	27.63	0.14	18.08	276.14	4.91	4.25	8.36	4.84	8.36	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
200		27.64		18.06	275.93	4.94	4.23	8.34	4.84	8.34	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
201	5.550	27.64	0.14	18.04	275.73	4.97	4.21	8.32	4.84	8.32	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
202	5.500	27.65	0.14	18.02	275.53	5.00	4.19	8.30	4.85	8.30	2.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.2	0.0	0.	0.00
203	5.450	27.66	0.14	18.00	275.33	5.02	4.17	8.28	4.86	8.28	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4	0.0	0.	0.00
204	5.400	27.66	0.14	17.98	275.13	5.04	4.15	8.26	4.86	8.26	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.7	0.0	0.	0.00
205		27.67		17.96	274.93	5.06	4.13	8.24	4.87	8.24	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.9	0.0	0.	0.00
206	5.300	27.68	0.14	17.94	274.74	5.08	4.11	8.22	4.87	8.22	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.1	0.0	0.	0.00
207		27.69		17.92	274.54	5.10	4.09	8.20	4.88	8.20	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	7.4	0.0	0.	0.00
208		27.69		17.91	274.35	5.11	4.07	8.18	4.89	8.18	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	7.6	0.0	0.	0.00
209		27.70		17.89	274.16	5.13	4.06	8.17	4.90	8.17	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
210		27.71		17.87	273.97	5.14	4.04	8.15	4.90	8.15	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	8.1	0.0	0.	0.00
211		27.71		17.85	273.79	5.15	4.02	8.13	4.91	8.13	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	8.3	0.0	0.	0.00
212		27.72		17.83	273.60	5.16	4.01	8.11	4.92	8.11	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	8.6	0.0	0.	0.00
213		27.73		17.81	273.42	5.17	3.99	8.09	4.93	8.09	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	8.8	0.0	0.	0.00
214		27.74		17.79	273.23	5.18	3.97	8.08	4.94	8.08	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	9.1	0.0	0.	0.00
215		27.74		17.78	273.05	5.19	3.96	8.06	4.95	8.06	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	9.3	0.0	0.	0.00
216		27.75		17.76	272.88	5.20	3.94	8.04	4.96	8.04	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	9.5	0.0	0.	0.00
217		27.76		17.74	272.70	5.20	3.93	8.03	4.97	8.03	2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	9.8	0.0	0.	0.00
218		27.76		17.72	272.53	5.21	3.91	8.01	4.98	8.01	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
219		27.77		17.70	272.36	5.22	3.90	7.99	4.99	7.99	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.3	0.0	0.	0.00
220		27.78		17.69	272.19	5.22	3.88	7.98	5.01	7.98	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.5	0.0	0.	0.00
221		27.79		17.67	272.03	5.23	3.87	7.96	5.02	7.96	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.7	0.0	0.	0.00
222		27.79		17.65	271.88	5.23	3.86	7.95	5.03	7.95	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.0	0.0	0.	0.00
223		27.80		17.63	271.73	5.23	3.84	7.93	5.04	7.93	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.2	0.0	0.	0.00
224		27.81		17.61	271.60	5.24	3.83	7.92	5.05	7.92	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	11.5	0.0	0.	0.00
225		27.81		17.60	271.48	5.24	3.82	7.90	5.06	7.90	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	11.7	0.0	0.	0.00
226		27.82		17.58	271.39	5.24	3.80	7.89	5.08	7.89	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	11.9	0.0	0.	0.00
227		27.83		17.56	271.33	5.23	3.79	7.88	5.09	7.88	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	12.2	0.0	0.	0.00
228		27.84		17.54	271.31	5.23	3.77	7.87	5.10	7.87	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	12.4	0.0	0.	0.00
229		27.84		17.51	271.35	5.21	3.76	7.87	5.11	7.87	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	12.7	0.0	0.	0.00
230		27.85		17.49	271.48	5.19	3.74	7.87	5.12	7.87	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	12.9	0.0	0.	0.00
231		27.86		17.46	271.72	5.15	3.73	7.87	5.13	7.87	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	13.1	0.0	0.	0.00
232		27.86		17.43	272.13	5.08	3.71	7.88	5.14	7.88	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	13.4	0.0	0.	0.00
233		27.87		17.39	272.76	4.98	3.68	7.90	5.14	7.90	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	13.6	0.0	0.	0.00
234			0.14	17.34	273.70	4.83	3.66	7.94	5.14	7.94	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	13.9	0.0	0.	0.00
235			0.14	17.27	275.07	4.59	3.62	8.00	5.13	8.00	2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	14.1	0.0	0.	0.00
236 237		27.89 27.90	0.14	17.19 17.09	277.03 279.80	4.23	3.58 3.53	8.08	5.11 5.08	8.08	3.03 3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.3	0.0	0. 0.	0.00
431	3.750	∠1.90	0.14	17.09	2/9.80	3.0/	3.53	8.21	5.08	8.21	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.6	0.0	υ.	0.00

SELSERS CREEK 040603 FINAL REPORT HEADWATER

Subsegment 040603

Originated: June 1, 2011
REACH NO. 9 S OF HWY 22 - N OF WEINBERGER

CALIBRATION

***	**************************************																											
ELEM	TYPE	F	LOW	TEMP	SZ	ALN	CL	CC	OND	DO	BOD1	BOD2	EBOD1	EBOL	)2 ORG	3-N N	H3-N	NO3-N	PO4-P	CHL A	. (	COLI	NCM					
NO.				deg C		pt					mg/L	mg/L	mg/I				mg/L	mg/L	mg/L		#/10							
281	UPR RCH	0 0	2709	27.90	Λ	.14	17.09	279.	80 3	3.67	3.53	8.21	5.08	8.2	1 2	.12	0.00	0.00	0 00	14.58	: (	0.00	0.00					
	TRIB		0400	27.90		.14	16.82	288.			3.50	8.58	5.06				0.00	0.00		14.58		0.00	0.00					
EACH	INCR	0.0	0020	0.00	0.	.00	13.00	225.	.00 3	3.07	4.64	8.33			3 .	.06	0.00	0.00	0.00	0.	00	0.00						
****	******	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	* BIOI	OGICAI	AND F	HYSICA	AL COE	FFICIE	NTS **	*****	*****	****	*****	*****	*****	*****	*******	*****	*****
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	РНҮТО	PERIP	COLI	NCM	NCM		
NO.	DIST	D.O.		DECAY			HYDR				SOD	SOD	SOD											DECAY				
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da		
281	3.700	7.83	4.33	0.64	0.06	0.00	0.00	0.05	0.06	0.00	6.58	6.73	6.73	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
282	3.650																			0.00					0.00			
283	3.600	7.83	4.42	0.59	0.06	0.00	0.00	0.04	0.06	0.00	6.59	6.74	6.73	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
284	3.550	7.83	4.47	0.50	0.06	0.00	0.00	0.04	0.06	0.00	6.59	6.74	6.74	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
285	3.500																			0.00					0.00	0.00		
286	3.450																			0.00					0.00			
287	3.400																			0.00					0.00			
288	3.350																			0.00					0.00			
289 290	3.300 3.250				0.06															0.00					0.00			
291	3.200																	0.00					0.00		0.00			
292	3.150																			0.00					0.00			
293	3.100																			0.00					0.00			
294	3.050	7.82	5.09	0.38	0.06	0.00	0.00	0.03	0.06	0.00	6.63	6.78	6.77	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
295	3.000	7.82	5.16	0.39	0.06	0.00	0.00	0.03	0.06	0.00	6.64	6.78	6.77	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
296	2.950	7.81	5.22	0.41	0.06	0.00	0.00	0.03	0.06	0.00	6.64	6.78	6.77	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
297	2.900																			0.00					0.00			
298	2.850																			0.00					0.00			
299	2.800				0.06															0.00					0.00			
300 301	2.750 2.700																	0.00		0.00			0.00		0.00			
301	2.650																			0.00					0.00			
303	2.600																			0.00					0.00			
304	2.550																							0.00				
305	2.500																							0.00				
AVG	20 DEG C	RATE	4.34	0.45	0.05	0.00	0.00	0.03	0.05	0.00	4.00			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00		
*	g/m²/d		**	mg/L,	/dav																							
	y, , u			g/ II/	aay																							
****	*****	*****	*****	*****	*****	*****	* * * * * *	*****	*****	****	*****	*** WA	TER QU	JALITY	CONST	ITUENT	VALUE	S ****	*****	*****	****	*****	*****	*****	*****	*******	*****	*****
ELEM	ENDING	TEMP	SALN		CL	COND	DO	BOI	)1 B(	DD2 EI	BOD1 E	BOD2	ORG-N	NH3-N	NO3-	-N TO	T-N EO	RG-N E	rot-n	ORG-P	PO4-I	TOT-	-P EORC	G-P ETO	T-P C	CHL A PERIP	COLI	NCM

FINAL Selsers Creek Watershed TMDL

_				•	2011
( )r	1011	ıated:	lune	1	. 2011

Originat	ca. June 1	, 2011																							
NO.	DIST	deg C	ppt			mg/L	μg/L	g/m²	#/100mL																
281	3.700	27.91	0.14	16.94	283.79	2.79	3.45	8.39	5.04	8.39	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.9	0.0	0.	0.00
282	3.650	27.92	0.14	16.91	283.36	2.23	3.35	8.39	4.97	8.39	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.2	0.0	0.	0.00
283	3.600	27.93	0.14	16.88	282.94	1.84	3.26	8.39	4.92	8.39	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.5	0.0	0.	0.00
284	3.550	27.94	0.14	16.86	282.52	1.56	3.19	8.39	4.89	8.39	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.9	0.0	0.	0.00
285	3.500	27.95	0.14	16.83	282.11	1.36	3.13	8.39	4.86	8.39	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.2	0.0	0.	0.00
286	3.450	27.96	0.14	16.80	281.71	1.23	3.08	8.40	4.84	8.40	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.5	0.0	0.	0.00
287	3.400	27.97	0.14	16.78	281.32	1.15	3.03	8.40	4.83	8.40	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.8	0.0	0.	0.00
288	3.350	27.98	0.14	16.75	280.93	1.10	2.99	8.41	4.82	8.41	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.1	0.0	0.	0.00
289	3.300	27.99	0.14	16.73	280.56	1.08	2.94	8.41	4.81	8.41	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.5	0.0	0.	0.00
290	3.250	28.00	0.14	16.70	280.20	1.07	2.90	8.42	4.80	8.42	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.8	0.0	0.	0.00
291	3.200	28.01	0.14	16.68	279.86	1.09	2.86	8.42	4.80	8.42	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.1	0.0	0.	0.00
292	3.150	28.02	0.14	16.66	279.52	1.11	2.82	8.43	4.79	8.43	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.4	0.0	0.	0.00
293	3.100	28.02	0.14	16.64	279.20	1.14	2.78	8.43	4.79	8.43	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.8	0.0	0.	0.00
294	3.050	28.03	0.14	16.62	278.90	1.18	2.75	8.44	4.79	8.44	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.1	0.0	0.	0.00
295	3.000	28.04		16.61	278.61	1.22	2.71	8.44	4.79	8.44	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.4	0.0	0.	0.00
296		28.05		16.59	278.35	1.26	2.68	8.44	4.79	8.44	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.7	0.0	0.	0.00
297		28.06		16.58	278.10	1.30	2.65	8.45	4.79	8.45	3.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.0	0.0	0.	0.00
298		28.07		16.57	277.88	1.34	2.63	8.45	4.80	8.45	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.4	0.0	0.	0.00
299			0.14	16.56	277.68	1.37	2.61	8.46	4.82	8.46	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.7	0.0	0.	0.00
300			0.14	16.55	277.51	1.40	2.59	8.46	4.83	8.46	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.0	0.0	0.	0.00
301		28.10		16.55	277.37	1.41	2.58	8.47	4.86	8.47	3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.3	0.0	0.	0.00
302		28.11		16.55	277.26	1.41	2.58	8.48	4.89	8.48	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.6	0.0	0.	0.00
303		28.12		16.55	277.19	1.39	2.58	8.49	4.93	8.49	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.0	0.0	0.	0.00
304			0.14	16.56	277.16	1.34	2.59	8.50	4.97	8.50	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.3	0.0	0.	0.00
305	2.500	28.14	0.14	16.57	277.18	1.24	2.61	8.51	5.02	8.51	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.6	0.0	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 10 N OF WEINBERGER - SOUTH SLOUGH

SELSERS CREEK 040603 CALIBRATION

****	******	*****	*****	******	*****	*****	*****	* * * * * *	*****	*****	REACH	INPUTS	*****	*****	*****	******	*****	*************
ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L					NH3-N mg/L				COLI #/100mL	NCM
EACH	UPR RCH INCR WSTLD	0.03609 0.00008 0.00022	28.14 0.00 28.10	0.14 0.00 0.36	13.00	277.18 225.00 707.30	1.29	4.42	8.43			3.36	0.00	0.00	0.00	0.00	0.00 0.00 0.00	

NO. DIST D.O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD DECAY DECAY SETT DECAY SRCE RATE HYDR SETT SRCE PROD DECAY DECAY SETT DECAY S

FINAL Selsers Creek Watershed TMDL

Subsegment 040603	
Originated: June 1 2011	

Origina	ed: June 1	, 2011																								
310	2.250	7.79	7.40	0.36	0.06	0.00	0.00	0.02	0.06	0.00	8.40	8.52	8.51	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
311	2.200	7.79	7.50	0.37	0.06	0.00	0.00	0.02	0.06	0.00	8.41	8.53	8.52	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
312	2.150	7.78	7.61	0.38	0.06	0.00	0.00	0.02	0.06	0.00	8.42	8.54	8.53	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
313	2.100	7.78	7.72	0.40	0.06	0.00	0.00	0.02	0.06	0.00	8.43	8.55	8.54	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
314	2.050	7.78	7.83	0.42	0.06	0.00	0.00	0.02	0.06	0.00	8.44	8.55	8.55	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315	2.000	7.77	7.94	0.44	0.06	0.00	0.00	0.03	0.06	0.00	8.45	8.56	8.56	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
316	1.950	7.77	8.05	0.46	0.06	0.00	0.00	0.03	0.06	0.00	8.46	8.57	8.57	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
317	1.900	7.77	8.16	0.49	0.06	0.00	0.00	0.03	0.06	0.00	8.47	8.58	8.58	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
318	1.850	7.77	8.27	0.52	0.06	0.00	0.00	0.03	0.06	0.00	8.48	8.59	8.58	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
319	1.800	7.76	8.38	0.54	0.06	0.00	0.00	0.03	0.06	0.00	8.50	8.60	8.59	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320	1.750	7.76	8.49	0.57	0.06	0.00	0.00	0.03	0.06	0.00	8.51	8.61	8.60	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
321	1.700	7.76	8.60	0.59	0.06	0.00	0.00	0.03	0.06	0.00	8.52	8.62	8.61	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
322	1.650	7.76	8.71	0.62	0.06	0.00	0.00	0.04	0.06	0.00	8.53	8.63	8.62	0.08	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
323	1.600	7.75	8.82	0.64	0.06	0.00	0.00	0.04	0.06	0.00	8.54	8.64	8.63	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
324	1.550	7.75	8.93	0.67	0.06	0.00	0.00	0.04	0.06	0.00	8.55	8.65	8.64	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
325	1.500	7.75	9.04	0.70	0.06	0.00	0.00	0.04	0.06	0.00	8.56	8.66	8.65	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
326	1.450	7.75	9.15	0.72	0.06	0.00	0.00	0.04	0.06	0.00	8.57	8.67	8.66	0.14	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
327	1.400	7.74	9.26	0.74	0.06	0.00	0.00	0.04	0.06	0.00	8.58	8.68	8.67	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
328		7.74	9.37	0.77	0.06	0.00	0.00	0.05		0.00	8.59		8.69	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
329		7.74	9.48	0.79	0.06	0.00	0.00	0.05		0.00	8.60		8.70	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330		7.73	9.59	0.81	0.06	0.00	0.00	0.05		0.00	8.61		8.71	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
331	1.200	7.73	9.71	0.84	0.06	0.00	0.00	0.05		0.00	8.62	8.72	8.72	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
332	1.150	7.73	9.82	0.86	0.06	0.00	0.00	0.05		0.00		8.73		0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
333	1.100	7.73	9.93	0.86	0.06	0.00	0.00	0.05		0.00	8.64			0.26		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
334	1.050	7.72	10.04	0.86	0.06	0.00	0.00	0.05		0.00	8.66		8.75	0.27		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
335	1.000	7.72	10.15	0.86	0.06	0.00	0.00	0.05		0.00	8.67	8.76	8.76	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
336	0.950	7.72	10.26	0.86	0.06	0.00	0.00	0.05		0.00	8.68		8.77	0.27		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337	0.900	7.72	10.37			0.00	0.00	0.05		0.00	8.69		8.78	0.27		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
338	0.850	7.71	10.49	0.87	0.06	0.00	0.00	0.05		0.00	8.70	8.80		0.28		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
339	0.800	7.71	10.60	0.87	0.06	0.00	0.00	0.05		0.00	8.71		8.80	0.28		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
340	0.750	7.71		0.87		0.00	0.00	0.05		0.00	8.72	8.82		0.28		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
341	0.700	7.71	10.82				0.00	0.05		0.00	8.73		8.83			0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
342	0.650	7.70	10.93	0.87	0.06	0.00	0.00	0.05		0.00	8.74			0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
343	0.600	7.70	11.05	0.87	0.06	0.00	0.00	0.05		0.00	8.75	8.85		0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
344	0.550	7.70	11.16 11.27	0.87	0.06	0.00	0.00	0.05		0.00	8.76	8.86		0.29		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345 346	0.500 0.450	7.69 7.69		0.87 0.87	0.06		0.00	0.05		0.00	8.78 8.79		8.87 8.88	0.29		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
346	0.450	7.69	11.38 11.50	0.87	0.06	0.00	0.00	0.05		0.00	8.79		8.90	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
348	0.400	7.69	11.61	0.87	0.06	0.00	0.00	0.05		0.00	8.81		8.91	0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
349	0.300	7.68		0.87		0.00	0.00	0.05		0.00	8.82			0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
350	0.300	7.68	11.72	0.87	0.06	0.00	0.00	0.05		0.00	8.83		8.94	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
351	0.200	7.68		0.88		0.00	0.00	0.05		0.00	8.84			0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
352	0.150	7.68	12.06	0.88	0.06	0.00	0.00	0.05		0.00	8.85	8.96		0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
353		7.67	12.17				0.00			0.00	8.86			0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
354	0.050	7.67	12.29	0.88	0.06	0.00	0.00	0.05		0.00				0.31		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
355	0.000		12.40	0.88	0.06	0.00	0.00	0.05		0.00			9.01			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
333	0.000	, ,	_2.10	3.00	3.00	0.00	0.00	3.03	3.00	3.00	3.05	J. U.	J. U.	3.31	3.00	0.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
AVG 2	0 DEG C	RATE	8.22	0.58	0.05	0.00	0.00	0.03	0.05	0.00	5.00			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
		_																								

\* g/m²/d \*\* mg/L/day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

ELEM	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2	EBOD1	EBOD2	ORG-N	NH3-N mg/L	NO3-N mg/L	TOT-N	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P	EORG-P mg/L	ETOT-P mg/L	CHL A	PERIP g/m²	COLI #/100mL	NCM
		_				3.	3.	3.	3.	J.	3.	J.	3.	3.	3.	3.	3.	3.	3.	3.	3.	, 5.	J.		
306		28.16		16.58	277.25	1.08	2.64	8.52	5.03	8.52	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	22.4	0.0	0.	0.00
307		28.18		16.61	277.36	0.97	2.69	8.54	5.05	8.54	3.53	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	22.2	0.0	0.	0.00
308		28.20		16.63	277.50	0.90	2.75	8.57	5.09	8.57	3.61	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	21.9	0.0	0.	0.00
309		28.22		16.67	277.68	0.87	2.83	8.61	5.14	8.61	3.69	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	21.7	0.0	0.	0.00
310		28.24		16.70	277.91	0.86	2.92	8.65	5.21	8.65	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	21.5	0.0	0.	0.00
311		28.26		16.73	277.75 277.60	0.88	2.86 2.80	8.62	5.13	8.62	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	21.3	0.0	0.	0.00
312 313		28.28 28.30		16.75 16.78	277.60	0.90 0.94	2.80	8.59 8.55	5.05 4.97	8.59 8.55	3.75 3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.06 0.06	0.00	0.00	0.00	21.1 20.8	0.0	0. 0.	0.00
313		28.32		16.81	277.43	0.99	2.68	8.52	4.88	8.52	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.6	0.0	0.	0.00
315		28.34		16.85	277.14	1.04	2.62	8.48	4.80	8.48	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	20.4	0.0	0.	0.00
316		28.36		16.90	276.98	1.10	2.56	8.44	4.72	8.44	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	20.2	0.0	0.	0.00
317		28.38		16.95	276.82	1.15	2.50	8.41	4.63	8.41	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	20.0	0.0	0.	0.00
318		28.40		17.00	276.66	1.21	2.44	8.37	4.55	8.37	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	19.7	0.0	0.	0.00
319		28.42		17.06	276.50	1.27	2.39	8.33	4.47	8.33	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	19.5	0.0	0.	0.00
320		28.44		17.13	276.34	1.33	2.33	8.29	4.40	8.29	3.51	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	19.3	0.0	0.	0.00
321	1.700	28.46	0.14	17.21	276.18	1.39	2.28	8.25	4.32	8.25	3.47	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	19.1	0.0	0.	0.00
322	1.650	28.48	0.14	17.29	276.01	1.45	2.23	8.21	4.25	8.21	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	18.9	0.0	0.	0.00
323	1.600	28.50	0.14	17.39	275.85	1.51	2.19	8.17	4.18	8.17	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	18.6	0.0	0.	0.00
324	1.550	28.52	0.14	17.49	275.68	1.57	2.14	8.13	4.11	8.13	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	18.4	0.0	0.	0.00
325	1.500	28.54	0.14	17.60	275.51	1.62	2.10	8.09	4.04	8.09	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	18.2	0.0	0.	0.00
326	1.450	28.56	0.14	17.72	275.33	1.68	2.06	8.04	3.98	8.04	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	18.0	0.0	0.	0.00
327		28.58		17.85	275.16	1.73	2.03	8.00	3.93	8.00	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	17.8	0.0	0.	0.00
328		28.60		17.99	274.98	1.79	2.00	7.96	3.88	7.96	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	17.5	0.0	0.	0.00
329		28.62		18.14	274.79	1.84	1.98	7.91	3.83	7.91	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	17.3	0.0	0.	0.00
330		28.64		18.31	274.61	1.89	1.96	7.87	3.79	7.87	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	17.1	0.0	0.	0.00
331		28.65		18.49	274.42	1.94	1.95	7.82	3.76	7.82	3.01	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	16.9	0.0	0.	0.00
332		28.67		18.68	274.22	1.99	1.95	7.77	3.73	7.77	2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	16.7	0.0	0.	0.00
333		28.69		18.89	274.02	2.04	1.95	7.73	3.71	7.73	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	16.4	0.0	0.	0.00
334		28.71		19.11	273.82	2.09	1.96	7.68	3.69	7.68	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	16.2	0.0	0.	0.00
335		28.73		19.35	273.61	2.14	1.98	7.63	3.69	7.63	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	16.0	0.0	0.	0.00
336 337		28.75 28.77		19.61 19.88	273.40 273.18	2.19 $2.24$	2.01	7.58 7.53	3.69 3.70	7.58 7.53	2.78 2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.25 0.26	0.00	0.00	0.00	15.8 15.6	0.0	0. 0.	0.00
337		28.79		20.18	273.16	2.24	2.04	7.33	3.70	7.33	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	15.3	0.0	0.	0.00
339		28.81		20.18	272.73	2.33	2.14	7.43	3.72	7.43	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	15.1	0.0	0.	0.00
340		28.83		20.49	272.73	2.37	2.21	7.38	3.80	7.38	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	14.9	0.0	0.	0.00
341		28.85		21.18	272.15	2.41	2.29	7.32	3.85	7.32	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	14.7	0.0	0.	0.00
342		28.87		21.56	272.23	2.45	2.38	7.32	3.92	7.27	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	14.5	0.0	0.	0.00
343		28.89		21.96	271.74	2.49	2.48	7.21	4.00	7.21	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	14.2	0.0	0.	0.00
344		28.91		22.38	271.47	2.52	2.60	7.15	4.10	7.15	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	14.0	0.0	0.	0.00
345		28.93		22.84	271.20	2.56	2.74	7.09	4.21	7.09	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	13.8	0.0	0.	0.00
346		28.95		23.32	270.92	2.59	2.89	7.03	4.34	7.03	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	13.6	0.0	0.	0.00
347		28.97		23.83	270.62	2.62	3.07	6.97	4.50	6.97	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	13.4	0.0	0.	0.00
348	0.350	28.99	0.13	24.36	270.32	2.65	3.26	6.90	4.67	6.90	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	13.1	0.0	0.	0.00
349	0.300	29.01	0.13	24.93	270.01	2.68	3.48	6.84	4.86	6.84	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	12.9	0.0	0.	0.00
350	0.250	29.03	0.13	25.54	269.69	2.71	3.72	6.77	5.08	6.77	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	12.7	0.0	0.	0.00
351	0.200	29.05	0.13	26.17	269.35	2.74	3.99	6.69	5.33	6.69	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	12.5	0.0	0.	0.00
352	0.150	29.07	0.13	26.84	269.01	2.77	4.29	6.62	5.60	6.62	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	12.3	0.0	0.	0.00
353	0.100	29.09	0.13	27.55	268.65	2.80	4.63	6.54	5.91	6.54	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	12.0	0.0	0.	0.00
354	0.050	29.11	0.13	28.30	268.28	2.83	4.99	6.46	6.25	6.46	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	11.8	0.0	0.	0.00

Originated: June 1, 2011

 $3\overline{5}5$  0.000 29.13 0.13 29.08 267.90 2.87 5.40 6.37 6.63 6.37 2.20 0.00 0.00 0.00 0.00 0.00 0.40 0.00 0.00 0.00 11.6 0.0 0. 0.00

FINAL REPOR	RT	HIGH	SCHOOL	TRIB		SELSERS	CREEK	040603
REACH NO.	8	HIGH	SCHOOL	TRIB		CALIBRAT	'ION	

ELEM TYPE	FLOW	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	PO4-P	CHL A	COLI	
NO.		deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	#/100mL	

238 HDWTR 0.00400 25.63 0.19 14.20 389.20 1.13 2.99 12.84 6.60 12.84 7.18 0.00 0.00 0.00 33.80 0.00 0.00

RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY SETT 1/da 1/da 1/da 1/da 1/da 1/da 1/da \* 1/da 1/da 1/da \* 1/da 1/da 1/da  $4.95 \quad 0.42 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.36 \quad 5.53 \quad 5.53 \quad 0.06 \quad 0.06 \quad 0.00 \quad$ 238  $4.95 \quad 0.43 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.38 \quad 5.55 \quad 5.55 \quad 0.06 \quad 0.06 \quad 0.00 \quad 0.00$  $4.96 \quad 0.43 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.40 \quad 5.57 \quad 5.57 \quad 0.07 \quad 0.06 \quad 0.00 \quad$  $4.96 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.42 \quad 5.59 \quad 5.59 \quad 0.07 \quad 0.06 \quad 0.00 \quad$ 1.900 8.12 4.97 0.44 0.06 0.00 0.00 0.07 0.06 0.00 5.44 5.60 5.60 0.07 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 $4.97 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.08 \quad 0.06 \quad 0.00 \quad 5.45 \quad 5.62 \quad 5.62 \quad 0.07 \quad 0.06 \quad 0.00 \quad$  $4.98 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.47 \quad 5.64 \quad 5.64 \quad 0.07 \quad 0.06 \quad 0.00 \quad$  $4.98 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.49 \quad 5.66 \quad 5.66 \quad 0.07 \quad 0.06 \quad 0.00 \quad$  $4.98 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.51 \quad 5.68 \quad 5.68 \quad 0.07 \quad 0.06 \quad 0.00 \quad$ 1.700 8.09  $4.99 \quad 0.44 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.53 \quad 5.70 \quad 5.70 \quad 0.06 \quad 0.06 \quad 0.00 \quad$  $4.99 \quad 0.43 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.54 \quad 5.72 \quad 5.72 \quad 0.06 \quad 0.06 \quad 0.00 \quad$  $5.00 \quad 0.43 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.56 \quad 5.74 \quad 5.73 \quad 0.06 \quad 0.06 \quad 0.00 \quad 0.00$  $5.00 \quad 0.43 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.58 \quad 5.76 \quad 5.75 \quad 0.06 \quad 0.06 \quad 0.00 \quad$ 1.500 8.06  $5.01 \quad 0.42 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.60 \quad 5.77 \quad 5.77 \quad 0.06 \quad 0.06 \quad 0.00 \quad$ 1.400 8.04  $5.01 \quad 0.42 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.62 \quad 5.79 \quad 5.79 \quad 0.05 \quad 0.06 \quad 0.00 \quad$  $5.02 \quad 0.41 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.64 \quad 5.81 \quad 5.81 \quad 0.05 \quad 0.06 \quad 0.00 \quad 0.00$  $5.02 \quad 0.41 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.66 \quad 5.83 \quad 5.83 \quad 0.05 \quad 0.06 \quad 0.00 \quad$  $5.03 \quad 0.41 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.68 \quad 5.85 \quad 5.85 \quad 0.05 \quad 0.06 \quad 0.00 \quad 0.00$  $5.03 \quad 0.40 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.69 \quad 5.87 \quad 5.86 \quad 0.04 \quad 0.06 \quad 0.00 \quad$ 5.04 0.39 0.06 0.00 0.00 0.07 0.06 0.00 5.73 5.91 5.90 0.04 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.001.050 7.99  $5.05 \quad 0.39 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.06 \quad 0.00 \quad 5.75 \quad 5.93 \quad 5.92 \quad 0.04 \quad 0.06 \quad 0.00 \quad$ 1.000 7.98 0.950 7.98  $5.06 \quad 0.38 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.06 \quad 0.06 \quad 0.00 \quad 5.79 \quad 5.97 \quad 5.96 \quad 0.04 \quad 0.06 \quad 0.00 \quad$  $5.07 \quad 0.37 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.06 \quad 0.06 \quad 0.00 \quad 5.83 \quad 6.01 \quad 6.00 \quad 0.03 \quad 0.06 \quad 0.00 \quad$  $5.07 \quad 0.36 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.06 \quad 0.06 \quad 0.00 \quad 5.85 \quad 6.03 \quad 6.02 \quad 0.03 \quad 0.06 \quad 0.00 \quad$  $5.08 \quad 0.36 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.06 \quad 0.06 \quad 0.00 \quad 5.87 \quad 6.05 \quad 6.03 \quad 0.03 \quad 0.06 \quad 0.00 \quad$  $0.550 \quad 7.92 \quad 5.10 \quad 0.34 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.06 \quad 0.06 \quad 0.00 \quad 5.95 \quad 6.13 \quad 6.11 \quad 0.02 \quad 0.06 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL

Originat	ted: June 1, 2011																								
270	0.500 7.91	5.10	0.33	0.06	0.00	0.00	0.06	0.06	0.00	5.97	6.15	6.13	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
271	0.450 7.90	5.10	0.33	0.06	0.00	0.00	0.06	0.06	0.00	5.99	6.17	6.15	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
272	0.400 7.89	5.11	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.01	6.19	6.17	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
273	0.350 7.89	5.11	0.32	0.06	0.00	0.00	0.06	0.06	0.00	6.03	6.21	6.19	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
274	0.300 7.88	5.12	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.05	6.23	6.21	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
275	0.250 7.87	5.12	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.07	6.25	6.23	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
276	0.200 7.86	5.13	0.35	0.06	0.00	0.00	0.06	0.06	0.00	6.09	6.27	6.24	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
277	0.150 7.86	5.13	0.39	0.06	0.00	0.00	0.07	0.06	0.00	6.11	6.28	6.26	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
278	0.100 7.85	5.14	0.47	0.06	0.00	0.00	0.08	0.06	0.00	6.13	6.29	6.28	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
279	0.050 7.84	5.14	0.63	0.06	0.00	0.00	0.11	0.06	0.00	6.15	6.30	6.29	0.21	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
280	0.000 7.83	5.15	0.74	0.06	0.00	0.00	0.13	0.06	0.00	6.17	6.30	6.30	0.40	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 2	0 DEG C RATE	4.44	0.51	0.05	0.00	0.00	0.09	0.05	0.00	3.75			0.31	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VALU	JES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N H	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P I	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
238	2.100	25.68	0.19	14.20	389.20	1.26	3.12	12.83	6.69	12.83	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.4	0.0	0.	0.00
239	2.050	25.74	0.19	14.20	389.20	1.29	3.17	12.82	6.69	12.82	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.9	0.0	0.	0.00
240	2.000	25.79	0.19	14.20	389.20	1.31	3.21	12.81	6.68	12.81	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.5	0.0	0.	0.00
241	1.950	25.84	0.19	14.20	389.20	1.32	3.26	12.81	6.68	12.81	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.0	0.0	0.	0.00
242	1.900	25.89	0.18	14.20	389.20	1.32	3.30	12.80	6.67	12.80	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.6	0.0	0.	0.00
243	1.850	25.95	0.18	14.20	389.20	1.32		12.79	6.66	12.79	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.1	0.0	0.	0.00
244	1.800	26.00	0.18	14.20	389.20	1.32		12.79	6.65	12.79	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.7	0.0	0.	0.00
245	1.750	26.05	0.18	14.20	389.20	1.31		12.78	6.65	12.78	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.2	0.0	0.	0.00
246	1.700	26.11	0.18	14.20	389.20	1.30		12.78	6.64	12.78	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.8	0.0	0.	0.00
247	1.650	26.16	0.18	14.20	389.20	1.29	3.49	12.77	6.63	12.77	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.3	0.0	0.	0.00
248	1.600	26.21	0.18	14.20	389.20	1.28	3.53	12.77	6.62	12.77	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.9	0.0	0.	0.00
249	1.550	26.26	0.18	14.20	389.20	1.26	3.57	12.76	6.61	12.76	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.4	0.0	0.	0.00
250	1.500			14.20	389.20	1.25	3.61	12.76	6.60	12.76	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.0	0.0	0.	0.00
251	1.450	26.37	0.17	14.20	389.20	1.24	3.64	12.75	6.59	12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.5	0.0	0.	0.00
252	1.400		0.17	14.20	389.20	1.22	3.68	12.75	6.57	12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.1	0.0	0.	0.00
253	1.350	26.47	0.17	14.20	389.20	1.21	3.72	12.75	6.56	12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.6	0.0	0.	0.00
254	1.300	26.53	0.17	14.20	389.20	1.19		12.75	6.55	12.75	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.2	0.0	0.	0.00
255	1.250	26.58	0.17	14.20	389.20	1.18	3.79	12.74	6.54	12.74	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.8	0.0	0.	0.00
256	1.200	26.63	0.17	14.20	389.20	1.16	3.83	12.74	6.53	12.74	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.3	0.0	0.	0.00
257	1.150	26.69	0.17	14.20	389.20	1.14	3.87	12.74	6.52	12.74	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.9	0.0	0.	0.00
258	1.100	26.74	0.17	14.20	389.19	1.13	3.90	12.74	6.51	12.74	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.4	0.0	0.	0.00
259	1.050	26.79	0.16	14.20	389.19	1.11	3.94	12.74	6.50	12.74	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.0	0.0	0.	0.00
260	1.000	26.84	0.16	14.20	389.18	1.10	3.98	12.74	6.49	12.74	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.5	0.0	0.	0.00
261	0.950	26.90		14.20	389.18	1.08	4.01	12.74	6.48	12.74	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.1	0.0	0.	0.00
262	0.900			14.20	389.16	1.06	4.05	12.74	6.47	12.74	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.6	0.0	0.	0.00
263	0.850	27.00		14.20	389.14	1.05	4.09	12.75	6.46	12.75	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.2	0.0	0.	0.00
264	0.800	27.06	0.16	14.20	389.11	1.03	4.13	12.75	6.45	12.75	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.7	0.0	0.	0.00
265	0.750	27.11	0.16	14.20	389.06	1.02		12.75	6.44	12.75	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.3	0.0	0.	0.00
266			0.16	14.21	388.98	1.00		12.75		12.75	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.8	0.0	0.	0.00
267	0.650	27.21	0.16	14.21	388.86	0.98	4.24	12.75	6.42	12.75	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.4	0.0	0.	0.00
268	0.600	27.27	0.15	14.21	388.67	0.97	4.28	12.74	6.41	12.74	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.9	0.0	0.	0.00

Subsegment 040603

$\circ$	٠.,	1	т	1	2011
Ori	gınat	ea:	June	1,	2011

Original	lea: June 1	, 2011																							
269	0.550	27.32	0.15	14.22	388.38	0.95	4.31	12.74	6.39	12.74	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.5	0.0	0.	0.00
270	0.500	27.37	0.15	14.23	387.93	0.94	4.35	12.73	6.38	12.73	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.0	0.0	0.	0.00
271	0.450	27.42	0.15	14.25	387.24	0.92	4.38	12.70	6.36	12.70	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.6	0.0	0.	0.00
272	0.400	27.48	0.15	14.28	386.16	0.91	4.40	12.66	6.34	12.66	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.2	0.0	0.	0.00
273	0.350	27.53	0.15	14.32	384.49	0.90	4.42	12.60	6.31	12.60	7.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.7	0.0	0.	0.00
274	0.300	27.58	0.15	14.39	381.90	0.90	4.42	12.50	6.27	12.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.3	0.0	0.	0.00
275	0.250	27.64	0.15	14.49	377.90	0.92	4.41	12.33	6.20	12.33	6.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.8	0.0	0.	0.00
276	0.200	27.69	0.14	14.66	371.69	0.96	4.36	12.08	6.11	12.08	6.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.4	0.0	0.	0.00
277	0.150	27.74	0.14	14.91	362.08	1.06	4.27	11.68	5.97	11.68	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.9	0.0	0.	0.00
278	0.100	27.79	0.14	15.29	347.20	1.27	4.12	11.05	5.77	11.05	5.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.5	0.0	0.	0.00
279	0.050	27.85	0.14	15.89	324.14	1.72	3.87	10.08	5.48	10.08	4.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.0	0.0	0.	0.00
280	0.000	27.90	0.14	16.82	288.42	2.63	3.50	8.58	5.06	8.58	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.6	0.0	0.	0.00

SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

# FINAL Selsers Creek Watershed TMDL Subsegment 040603

· ·		T .	
( )r19	ınated:	June	1. 2011

DEPTH	=	0.04	TO	0.27	m
WIDTH		1.52	TO	30.27	m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01	TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN		0.86	TO	5.24	mg/L

#### STREAM SUMMARY REPORT: HIGH SCHOOL TRIB

TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 0.9467 0.01039 0.18 2.10	TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10	m <sup>3</sup> /s m <sup>2</sup> /s m/s m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO TO TO TO TO TO TO TO	0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	25.68 0.90	TO TO	27.90 2.63	deg C mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 SELSERS CREEK 040603 CALIBRATION

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.47	11.02	4.71	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	IESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.83	73.22	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

**Appendix B2 – Calibration Justifications** 

		DATA TYPE 3 - PROGRAM CONSTANTS								
CONSTANT NAME	<b>VALUE</b>	UNITS	DATA SOURCE							
DISPERSION EQUATION	3		Louisiana Standard Practice							
TIDE HEIGHT	0.158	meters	Water Level data							
INHIBITION CONTROL	3		Louisiana Standard Practice							
VALUE										
PHYTOPLANKTON OXYGEN	0	mg O / ug chl	Louisiana Standard Practice when large DO							
PRODUCTION	O	a / day	swing							
K2 MAXIMUM	25	1/day at 20	Louisiana Standard Practice							
112 IVII MINIONI	23	deg C	Louisana Sandara Hactice							
SETTLING RATE UNITS	2		Louisiana Standard Practice							

			DATA TYP	E 8 - REACH	IDENTI	FICATION DATA
			Upstream	Downstream	Element	
Reach	ID	Name	River	River	Length,	Data Source
			Kilometer	Kilometer	km	
1	SC	HEADWATERS - S OF 190	15.75	14.60	0.0575	ArcMap calculation
2	SC	S OF 190 - OLD COVINGTON HWY	14.60	12.90	0.0500	ArcMap calculation
3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.0500	ArcMap calculation
4	SC	1ST UNNAMED - S OF I-12	12.15	9.60	0.0500	ArcMap calculation
5	SC	S OF I-12 - S OF SISTERS RD.	9.60	7.70	0.0500	ArcMap calculation
6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	5.85	0.0500	ArcMap calculation
7	SC	3RD UNNAMED - S OF HWY 22	5.85	3.75	0.0500	ArcMap calculation
8	HS	HIGH SCHOOL TRIB	2.15	0.00	0.0500	ArcMap calculation
9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	2.50	0.0500	ArcMap calculation
10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	0.0500	ArcMap calculation

		DATA TYPE 9 - ADVECTIVE HYDRAULIC DATA T COEFFICIENTS					TA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. ''d''	Depth Exp. "e"	Depth Const. ''f''	Data Source	Slope (unitless)	Data Source	Manning's ''n''	Data Source		
1	HEADWATERS - S OF 190	0	0	1.859	Site 3653 X-section	0	0	0.085	Site 3653 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
2	S OF 190 - OLD COVINGTON HWY	0	0	1 1 669	Interpolation between sites 3653 and 3655	0	0	0.061	Interpolation between sites 3653 and 3655	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
3	OLD COVINGTON HWY - 1ST UNNAMED	0	0	1.524	Site 3655 X-section	0	0	0.043	Site 3655 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
4	1ST UNNAMED - S OF I- 12	0	0	3.962	Site 3657 X-section	0	0	0.146	Site 3657 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
5	S OF I-12 - S OF SISTERS RD.	0	0	4.191	Site 3659 X-section	0	0	0.274	Site 3659 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
6	S OF SISTERS RD 3RD UNNAMED	0	0	1 4 /9/	Interpolation between sites 3659 and 3661	0	0	0.270	Interpolation between sites 3659 and 3661	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
7	3RD UNNAMED - S OF HWY 22	0	0	5.486	Site 3661 X-section	0	0	0.265	Site 3661 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
8	HIGH SCHOOL TRIB	0	0	2.103	Site 3662 X-section	0	0	0.183	Site 3662 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
9	S OF HWY 22 - N OF WEINBERGER	0	0	1 19 28 /	Interpolation between sites 3661 and 1121	0	0	() 209	Interpolation between sites 3661 and 1121		Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		
10	N OF WEINBERGER - SOUTH SLOUGH	0	0	30.267	Site 1121 X-section	0	0	0.165	Site 1121 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook		

		DATA TYPI	E 10 - DISPERSIVE HYDRAULIC COEFFICIENTS	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS						
Reach	Name	Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"		Data Source		
1	HEADWATERS - S OF 190	0.00	BPJ and Calibration	375.000	0.8333	0	1			
2	S OF 190 - OLD COVINGTON HWY	0.00	BPJ and Calibration	375.000	0.8333	0	1			
3	OLD COVINGTON HWY - 1ST UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1			
4	1ST UNNAMED - S OF I- 12	0.00	BPJ and Calibration	375.000	0.8333	0	1			
5	S OF I-12 - S OF SISTERS RD.	0.00	BPJ and Calibration	375.000	0.8333	0	1	Tracor Equation and Calibration values.		
6	S OF SISTERS RD 3RD UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1	values.		
7	3RD UNNAMED - S OF HWY 22	0.50	BPJ and Calibration	375.000	0.8333	0	1			
8	HIGH SCHOOL TRIB	0.00	BPJ and Calibration	375.000	0.8333	0	1			
9	S OF HWY 22 - N OF WEINBERGER	1.00	BPJ and Calibration	375.000	0.8333	0	1			
10	N OF WEINBERGER - SOUTH SLOUGH	1.00	BPJ and Calibration	375.000	0.8333	0	1			

Subsegment 040603 Originated: June 1, 2011

o riginate	1: Julie 1, 2011	NITIAL CONDITIONS						
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll <u>a</u>	Macrophytes	Data Source
1	HEADWATERS - S OF 190	28.60	0.09	4.99		11.40	0	
2	S OF 190 - OLD COVINGTON HWY	28.50	0.14	3.86		9.09	0	
3	OLD COVINGTON HWY - 1ST UNNAMED	28.42	0.18	2.99	Mathematical interpolations of	7.65	0	Mathematical interpolations of
4	1ST UNNAMED - S OF I-12	28.44	0.16	3.06	Field and Lab data based on physical location in reference to	6.10	0	Field and Lab data based on physical location in reference to
5	S OF I-12 - S OF SISTERS RD.	28.04	0.15	4.77	Site locations.	5.43	0	Site locations.
6	S OF SISTERS RD 3RD UNNAMED	27.83	0.15	5.02		4.94	0	
7	3RD UNNAMED - S OF HWY 22	27.60	0.14	5.31		4.50	0	
8	HIGH SCHOOL TRIB	25.63	0.19	1.13	Site 3662 Field and Lab data	33.80	0	Site 3662 Field and Lab data
9	S OF HWY 22 - N OF WEINBERGER	27.90	0.14	3.07	Mathematical interpolations of Field and Lab data based on	14.58	0	Mathematical interpolations of Field and Lab data based on
10	N OF WEINBERGER - SOUTH SLOUGH	28.14	0.14	1.29	physical location in reference to Site locations.	22.60	0	physical location in reference to Site locations.

			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS											
REACI	I NAME	K <sub>2</sub> OPT	Data Source	BKGRND SOD, gmO2/m²/day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SEIT RATE (m/day, ft/day or 1/day)	Data Source			
1	HEADWATERS - S OF 190	15	Louisiana	1.750	Calibration	0.377	0.03		0.05	0.05	LTP, BPJ and calibration			
2	S OF 190 - OLD COVINGTON HWY	15	Louisiana	4.000	Calibration	0.394	0.03		0.05	0.05	LTP, BPJ and calibration			
3	OLD COVINGTON HWY - 1ST UNNAMED	15	Louisiana	3.750	Calibration	0.405	0.03	Mathematical interpolations of Lab bottle	0.05	0.05	LTP, BPJ and calibration			
4	1ST UNNAMED - S OF I-12	15	Louisiana	3.250	Calibration	0.420	0.031	rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration			
5	S OF I-12 - S OF SISTERS RD.	15	Louisiana	1.200	Calibration	0.443	0.031	to Site locations.	0.05	0.05	LTP, BPJ and calibration			
6	S OF SISTERS RD 3RD UNNAMED	15	Louisiana	1.000	Calibration	0.367	0.031		0.05	0.05	LTP, BPJ and calibration			
7	3RD UNNAMED - S OF HWY 22	15	Louisiana	1.100	Calibration	0.280	0.03		0.05	0.05	LTP, BPJ and calibration			
8	HIGH SCHOOL TRIB	15	Louisiana	3.750	Calibration	0.513	0.087	Site 3662 Lab bottle rates	0.05	0.05	LTP, BPJ and calibration			
9	S OF HWY 22 - N OF WEINBERGER	15	Louisiana	4.000	Calibration	0.446	0.032	Mathematical interpolations of Lab bottle rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration			
10	N OF WEINBERGER - SOUTH SLOUGH	15	Louisiana	5.000	Calibration	0.578	0.034	to Site locations.	0.05	0.05	LTP, BPJ and calibration			

		DATA '	TYPE 13 - NITI	ROGEN AND
Reach	Name	rate, 1/day 1/day		Data Source
1	HEADWATERS - S OF 190	0.211	0.05	
2	S OF 190 - OLD COVINGTON HWY	0.194	0.05	Mathematical
3	OLD COVINGTON HWY - 1ST UNNAMED	0.184	0.05	interpolations of Lab bottle rates based on
4	1ST UNNAMED - S OF I-12	0.170	0.05	physical location in
5	S OF L12 S OF SISTERS PD L (1/1/1 L (1/1/5 L - 1/1/5 L)		reference to Site	
6	S OF SISTERS RD 3RD UNNAMED	0.179	0.05	locations.
7	3RD UNNAMED - S OF HWY 22	0.216	0.05	
8	HIGH SCHOOL TRIB	0.307	0.05	Site 3662 Lab bottle rates
9	S OF HWY 22 - N OF WEINBERGER	0.215	0.05	Mathematical interpolations of Lab bottle rates based on
10	N OF WEINBERGER - SOUTH SLOUGH	0.214	0.05	physical location in reference to Site locations.

8	: June 1, 2011	DAT	DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALIN CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, m <sup>3</sup>	Incr. Inflow, m <sup>3</sup>	Data Source	Temp, deg C	Sal.,		Cons. Mat II Conductivity	Data Source			
1	HEADWATERS - S OF 190		0.00000									
2	S OF 190 - OLD COVINGTON HWY		0.00100									
3	OLD COVINGTON HWY - 1ST UNNAMED		0.00100									
4	1ST UNNAMED - S OF I-12	-0.002										
5	S OF I-12 - S OF SISTERS RD.	-0.004		BPJ and calibration					BPJ and calibration			
6	S OF SISTERS RD 3RD UNNAMED		0.00500	BI J and Campanon			13.00	225.00	Bi J and Cambiation			
7	3RD UNNAMED - S OF HWY 22		0.00400				13.00	225.00				
8	HIGH SCHOOL TRIB		0.00000									
9	S OF HWY 22 - N OF WEINBERGER		0.00500				13.00	225.00				
10	N OF WEINBERGER - SOUTH SLOUGH		0.00400				13.00	225.00				

ited: June 1,	2011		DATA TYP	E 17 - IN	CREME	NTAL D	ATA FOR D	O, BOD, A	ND NITROGEN
Reach	Reach Name	DO, mg/l	UCBOD1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH <sup>3</sup> -N, mg/L	NO <sub>2</sub> +NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source
1	HEADWATERS - S OF 190								
2	S OF 190 - OLD COVINGTON HWY	3.86	5.054		2.134			9.98	
3	OLD COVINGTON HWY - 1ST UNNAMED	2.99	4.519		2.085			10.302	
4	1ST UNNAMED - S OF I-12								
5	S OF I-12 - S OF SISTERS RD.								Mathematical interpolation of Field and
6	S OF SISTERS RD 3RD UNNAMED	5.02	3.707		2.268			9.922	Lab data.
7	3RD UNNAMED - S OF HWY 22	5.31	4.912		2.672			8.211	
8	HIGH SCHOOL TRIB								
9	S OF HWY 22 - N OF WEINBERGER	3.07	4.639		3.055			8.33	
10	N OF WEINBERGER - SOUTH SLOUGH	1.29	4.422		3.359			8.425	

			DATA TY	PE 19 - NO	NPOINT S	SOURCES
Reach	Reach Name	Length of Reach, km	ŕ	NBOD, kg/day	UCBOD 2, kg/day or lb/day	Data Source
1	HEADWATERS - S OF 190	1.15	0.500	0.150	0.500	Calibration
2	S OF 190 - OLD COVINGTON HWY	1.70	0.100	0.250	1.000	Calibration
3	OLD COVINGTON HWY - 1ST UNNAMED	0.75	0.100	0.100	2.500	Calibration
4	1ST UNNAMED - S OF I-12	2.55	0.125	0.700	7.000	Calibration
5	S OF I-12 - S OF SISTERS RD.	1.90	2.250	1.650	1.100	Calibration
6	S OF SISTERS RD 3RD UNNAMED	1.85	6.500	3.000	0.250	Calibration
7	3RD UNNAMED - S OF HWY 22	2.10	3.750	3.950	0.900	Calibration
8	HIGH SCHOOL TRIB	2.15	2.000	0.650	1.300	Calibration
9	S OF HWY 22 - N OF WEINBERGER	1.25	2.500	1.500	4.000	Calibration
10	N OF WEINBERGER - SOUTH SLOUGH	2.50	8.000	3.500	5.750	Calibration

		DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES										
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms		Salinity,	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source				
HEADWATER	1		0.003	28.6	0.09	12.6	210.35	Site 3653 Field and Lab data				
HIGH SCHOOL TRIB	238		0.004	25.63	0.19	14.2	389.2	Site 3662 Field and Lab data				

	DA	DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN										
Headwater Name	Dissolved Oxygen, mg/L	Data Source										
HEADWATER	4.99	5.915	2.214			9.462	Site 3653 Field and Lab data					
HIGH SCHOOL TRIB	1.13	6.599	7.185			12.841	Site 3662 Field and Lab data					

	DATA TYI	DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES											
Headwater Name	Phosphorus, mg/L	Date Source											
HEADWATER	B	<b>ug/L</b> 11.4	#/100 mL		Site 3653 Field and Lab data								
HIGH SCHOOL TRIB		33.8			Site 3662 Field and Lab data								

	DATA TYPE 23 - J	JUNCTION DATA
Junction Name	Computational element number of the element immediately downstream of the element	Computational element number of the element immediately upstream of the element
HIGH SCHOOL TRIB CONFLUENCE	281	237

	DA	DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES										
Wasteload / Withdrawal Name	EL#	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source					
SE Hammond	32	0.010291	28.9	0.28	37.8	462	Site 3654 survey data, flow by DMR & calibration					
Old Cov Hwy Trib	70	0.0028	25.43	0.07	13.2	154.75	Minimal flow, site 3664 survey data					
Pelican Garden Subd	121											
Sisters Rd. Trib	147		25.35	0.1	21.1	220.4	Site 3658 survey data					
Dupre Trailer Park	148											
Hoover Rd. Trib	196	0.006	26.31	0.11	7.6	232.13	Site 3660 survey data					
GMG Rentals	248											
Rock's Rentals	254											
Ponchatoula High	266											
Esterbrook Trace	285											
Creekside Subdivision	310	0.000225	28.1	0.36	38.7	707.3	Site 3667 survey data					

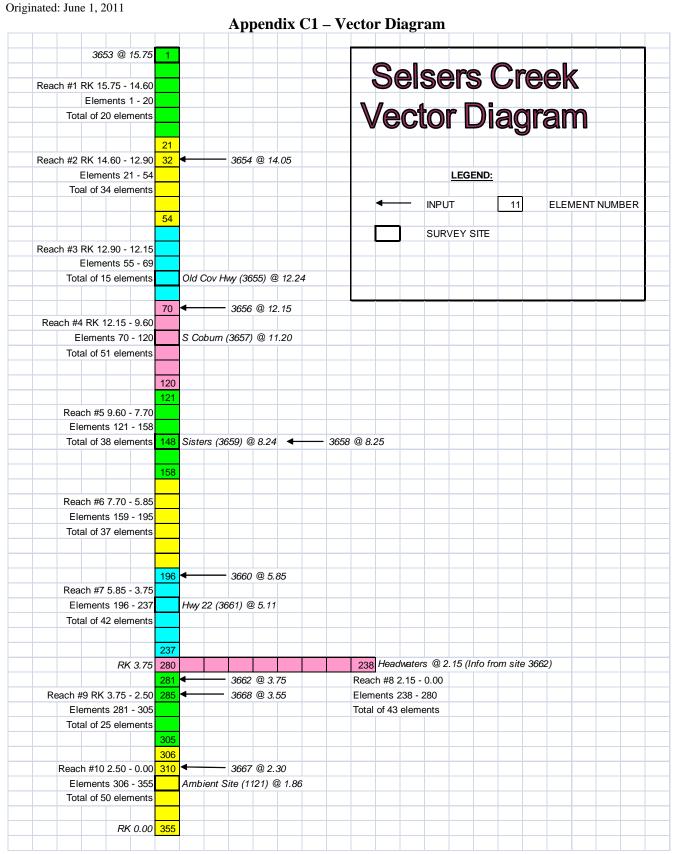
		DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN										
Wasteload / Withdrawal Name	EL#	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	NH <sub>3</sub> -N, mg/L	NH <sub>3</sub> -N nitrified, percent	NO <sub>2</sub> +NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source		
SE Hammond	32	1.10	5.656		0				3.925	Site 3654 survey data		
Old Cov Hwy Trib	70	2.14	7.346		5.011				10.143	Site 3664 survey data		
Pelican Garden Subd	121											
Sisters Rd. Trib	147	5.99	2.272		0.528				4.696	Site 3658 survey data		
Dupre Trailer Park	148											
Hoover Rd. Trib	196	2.88	6.283		1.768				6.244	Site 3660 survey data		
GMG Rentals	248											
Rock's Rentals	254											
Ponchatoula High	266											
Esterbrook Trace	285											
Creekside Subdivision	310	3.70	175.359		132.888				94.773	Site 3667 survey data		

d. June 1, 2011	DATA	ATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM,										
		AND NONCONSERVATIVES										
Wasteload / Withdrawal	EL#	Phosphorus,	Chlorophyll-A,	Coliform,	Nonconservative	Data Source						
Name		mg/L	ug/L	#/100 mL	Material	Data Source						
SE Hammond	32		64			Site 3654 survey data						
Old Cov Hwy Trib	70											
Pelican Garden Subd	121											
Sisters Rd. Trib	147											
Dupre Trailer Park	148											
Hoover Rd. Trib	196		3.6			Site 3660 survey data						
GMG Rentals	248											
Rock's Rentals	254											
Ponchatoula High	266											
Esterbrook Trace	285											
Creekside Subdivision	310		_									

ted: Julie 1, 2011		DATA TYPI	E 27 - LOWER BOUNDARY CONDITIONS
Parameter Parame	Value	Units	Data Source
TEMPERATURE	29.13	oCelcius	
SALINITY	0.13	ppt	
CONSERVATIVE MATERIAL I CHLORIDES	29.5	mg/L	
CONSERVATIVE MATERIAL II CONDUCTIVITY	267.7	mg/L	
DISSOLVED OXYGEN	2.89	mg/L	
BIOCHEMICAL OXYGEN DEMAND 1	6.858	mg/L	
BIOCHEMICAL OXYGEN DEMAND 2	6.331	mg/L	Field and Lab data, Site 3663
ORGANIC NITROGEN		mg/L	
AMMONIA NITROGEN		mg/L	
NITRATE + NITRITE		mg/L	
NBOD	2.189	mg/L	
PHOSPHORUS	0.4	mg/L	
PHYTOPLANKTON	11.6	ug/L	
COLIFORM		#/100 mL	
NONCONSERVATIVE MATERIAL		mg/L	

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

**Appendix C – Calibration Model Development** 



FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

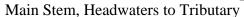
## **Appendix C2 – Calibration Loading**

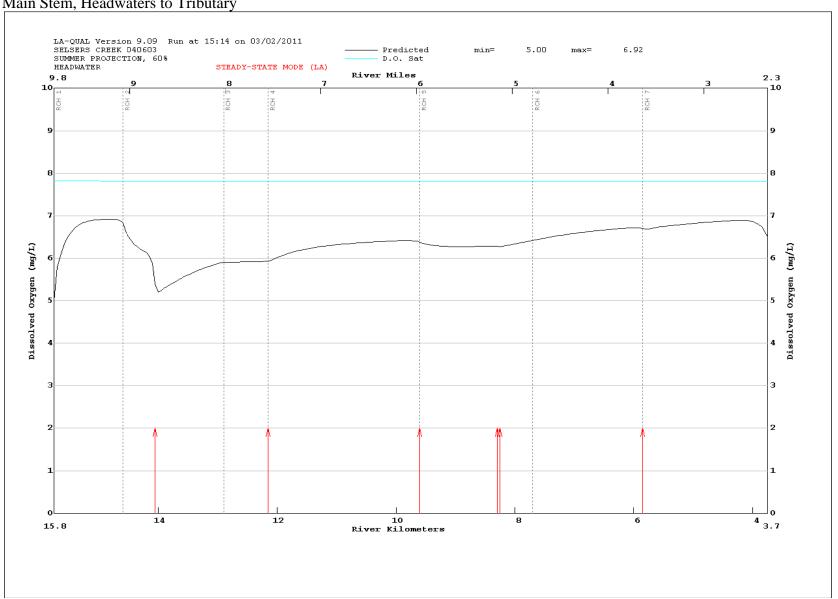
Calibration Model Non-Poi	nt Load E	quivalent C	alculations:										
Modeled stream or	water body:					SELSE	RS CREEK (SU	UBSEGMENT (	040603)				
Shaded cells are input values for calculat	ions.	If modeling the n	itrogen series, be	sure that column	"I" is clear of all v	alues.							
REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	UCBOD1	UCBOD2	Total UCBOD	UNBOD	Total UNBOD	UCBOD1	UCBOD2	Total UCBOD	Calibration Model Total UNBOD Nonpoint loading	Calibration Model SOD	Calibration Model TOTAL Benthic Load
	km	meters	kg O <sub>2</sub> /day	$g O_2 / [(m^2)(day)]$	$g O_2 / [(m^2)(day)]$	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	$g O_2 / [(m^2)(day)]$	$g O_2 / [(m^2)(day)]$	$g O_2 / [(m^2)(day)]$				
Reach 1Headwaters - S of 190	1.15	1.859	0.50	0.50	1.00	0.15	0.15	0.234	0.234	0.468	0.070	1.75	2.29
Reach 2S of 190 - Old Covington Hwy	1.70	1.669	0.10	1.00	1.10	0.25	0.25	0.035	0.352	0.388	0.088	4.00	4.48
Reach 3Old Covington Hwy - 1st Unnamed	0.75	1.524	0.10	2.50	2.60	0.10	0.10	0.087	2.187	2.275	0.087	3.75	6.11
Reach 41st Unnamed - S of I-12	2.55	3.962	0.13	7.00	7.13	0.70	0.70	0.012	0.693	0.705	0.069	3.25	4.02
Reach 5S of I-12 - S of Sisters Rd.	1.90	3.962	2.25	1.10	3.35	1.65	1.65	0.299	0.146	0.445	0.219	1.20	1.86
Reach 6S of Sisters Rd 3rd Unnamed	1.85	4.797	6.50	0.25	6.75	3.00	3.00	0.732	0.028	0.761	0.338	1.00	2.10
Reach 73rd Unnamed - S of Hwy 22	2.10	5.486	3.75	0.90	4.65	3.95	3.95	0.326	0.078	0.404	0.343	1.10	1.85
Reach 8High School Trib	2.15	2.103	2.00	1.30	3.30	0.65	0.65	0.442	0.288	0.730	0.144	3.75	4.62
Reach 9S of Hwy 22 - N of Weinberger	1.25	19.287	2.50	4.00	6.50	1.50	1.50	0.104	0.166	0.270	0.062	4.00	4.33
Reach 10N of Weinberger - South Slough	2.50	30.267	8.00	5.75	13.75	3.50	3.50	0.106	0.076	0.182	0.046	5.00	5.23

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

**Appendix D – Projection Model Input and Output Data Sets** 

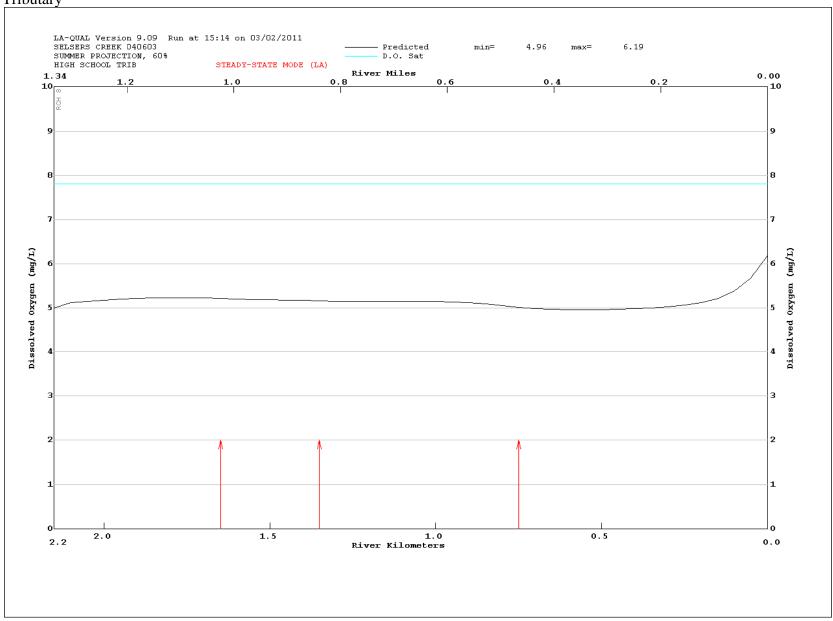
**Appendix D1 – Summer Output Graphs and Input and Output Files** 



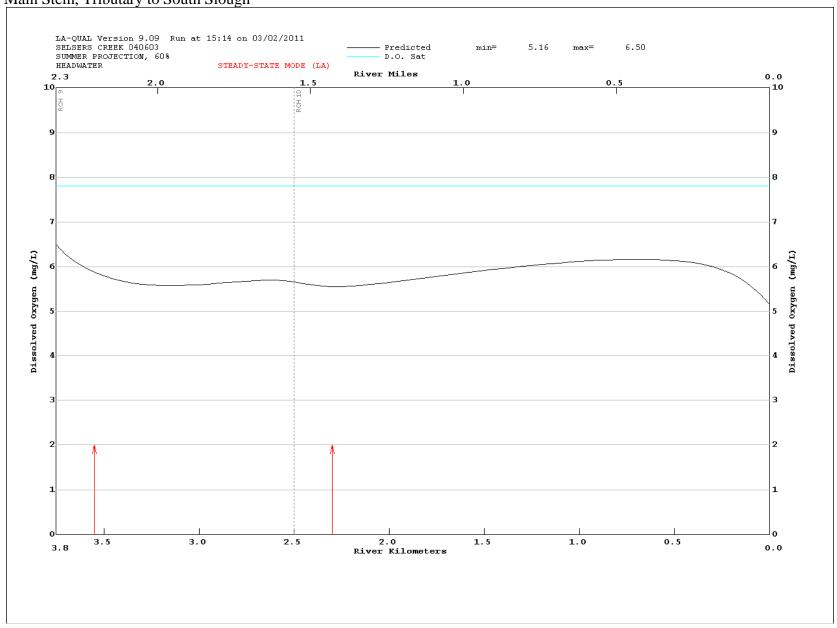


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011





Main Stem, Tributary to South Slough



## Selsers Creek, Summer, 75% Reduction Input Data Set

```
! DATA TYPE 01 -- TITLES AND CONTROL DATA
TITLE01 SELSERS CREEK 040603
TITLE02
            SUMMER PROJECTION, 75%, POST AERATION
CONTROL YES METRIC UNITS
CONTROL YES USE EFFECTIVE CONCENTRATIONS
ENDATA01
! DATA TYPE 02 -- Model Options
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 NO CONSERVATIVE MATERIAL I = CHLORIDES
                                                                 IN
                                                                             CL
MODOPT04 NO CONSERVATIVE MATERIAL II = CONDUCTIVITY
                                                                 ΤN
                                                                             COND
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD
MODOPT09 NO PHOSPHORUS SERIES
MODOPT10 NO PHYTOPLANKTON
MODOPT11 NO PERIPHYTON
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL
ENDATA02
! DATA TYPE 03 -- PROGRAM CONSTANTS
PROGRAM SETTLING RATE UNITS
                                          = 2
                                          = 25
PROGRAM K2 MAXIMUM
PROGRAM DISPERSION EQUATION
                                          = 3
PROGRAM TIDE HEIGHT
                                          = 0.158
PROGRAM INHIBITION CONTROL VALUE
ENDATA03
! DATA TYPE 04 -- TEMPERATURE CORRECTION CONSTANTS
ENDATA04
! DATA TYPE 05 -- TEMPERATURE DATA
ENDATA05
! DATA TYPE 06 -- ALGAE CONSTANTS
ENDATA06
! DATA TYPE 07 -- MACROPHYTE CONSTANTS
ENDATA07
! DATA TYPE 08 -- REACH IDENTIFICATION DATA
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
```

!	***	*******	*****	*****	*	***	****	*				
!	R#	ID SITE NAM	E		RKI	M	RKM	LENGTH				
REACH ID	1	SC HEADWATERS	- S OF 190		15.75	14.6	5	0.0575				
REACH ID		SC S OF 190 -					)	0.05				
REACH ID	3	SC OLD COVING	TON HWY - 1ST	C UNNAMED	12.9	12.1	.5	0.05				
REACH ID		SC 1ST UNNAME			12.15	9.6		0.05				
REACH ID		SC S OF I-12			9.6	7.7		0.05				
REACH ID		SC S OF SISTE			7.7	5.85		0.05				
REACH ID		SC 3RD UNNAME				3.75		0.05				
REACH ID		HS HIGH SCHOO				0		0.05				
REACH ID		SC S OF HWY 2		NBERGER	3.75	2.5		0.05				
REACH ID		SC N OF WEINB			2.5	0		0.05				
ENDATA08												
! DATA TY	PE 09	ADVECTIVE	HYDRAULIC COI	EFFICIENT	S							
		2				6		7	-8	9-		01
		56789012345678										
!		*****										
!		a b	c d	е	f							
!		WIDTH WIDTH	WIDTH DEP		DEPTI	Н						
!	R#	COEFF EXP	CONST COE	FF EXP	CONS	T SLOPE	MANNI	NG				
HYDR-1	1	0 0	1.859 0	0	0.085	0.0001	0.03	5				
HYDR-1	2	0 0	1.669 0	0	0.061	0.0001	0.03	5				
HYDR-1	3	0 0	1.524 0	0	0.043	0.0001	0.03	5				
HYDR-1	4		3.962 0	0		0.0001						
HYDR-1	5	0 0	4.191 0	0	0.274	0.0001	0.03	5				
HYDR-1	6	0 0	4.797 0	0	0.27	0.0001	0.03	5				
	7		5.486 0	0	0.265	0.0001	0.03	5				
HYDR-1	8		2.103 0	0	0.183	0.0001	0.03	5				
HYDR-1	9	0 0	19.287 0	0	0.209	0.0001	0.03	5				
HYDR-1	10	0 0	30.267 0	0	0.165	0.0001	0.03	5				
ENDATA09												
! DATA TY	PE 10	DISPERSIVE	HYDRAULIC CO	DEFFICIEN'	TS							
!	1	2	-34-		5	6		7	-8	9-		01
!23456789	01234	56789012345678	9012345678903	L23456789	0123456	78901234	56789	012345678	9012345	678901	23456789	01234567890
!	* * *	*******	**	*****	*							
!		TIDAL										
!	R#	RANGE a	b	С	d							
HYDR-2	1	0 375	0.8333	)	1							
	2			)	1							
	3	0 375	0.8333	)	1							
HYDR-2	3 4 5	0 375 0 375		) )	1 1							

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
HYDR-2
         6 0
                375
                       0.8333
                                        1
HYDR-2
         7 0.5 375
                       0.8333
                               0
HYDR-2
         8 0
                375
                       0.8333
                                        1
HYDR-2
        9 1
                375
                       0.8333
                               0
                                        1
HYDR-2
        10 1
               375
                        0.8333
                                        1
ENDATA10
! DATA TYPE 11 -- INITIAL CONDITIONS
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
        *** _____********
!
             TEMP
                 SALINITY DO
                                NH3 N NIT NIT I PHOS CHL A MACROPHYTES
        R#
        1 28.06
                  0.09
INITIAL
                                                  10
         2 28.06
                  0.14
                        5
                                                  10
INITIAL
        3 28.06
                  0.18
                        5
                                                  10
INITIAL
        4 28.06
                        5
                                                  10
INITIAL
                  0.16
                        5
INITIAL
        5 28.06
                  0.15
                                                  1.0
INITIAL
        6 28.06
                  0.15
                                                  1.0
         7 28.06
                  0.14
                        5
                                                  10
INITIAL
INITIAL
        8 28.06
                  0.19
                        5
                                                  10
                        5
INITIAL
        9 28.06
                  0.14
                                                  10
       10 28.06
                  0.14
                                                  10
INITIAL
ENDATA11
! DATA TYPE 12 -- REAERATION. SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS
!------6----7----8-----9
!23456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
        !
                                    BOD 1 BOD 1
                                                          BOD 2
                                                                 BOD 2
!
                                SOD DECAY SETT
                                                          DECAY
                                                                 SETT
        R# REA KL MIN
COEF-1
        1 15
                              0.546870.377 0.05 1
                                                          0.03 0.05
COEF-1
         2 15
                              1.25 0.394 0.05 1
                                                          0.03 0.05
COEF-1
         3 15
                              1.171870.405 0.05
                                              1
                                                          0.03 0.05
        4 15
                              1.015620.42 0.05
                                                          0.031 0.05
COEF-1
        5 15
                              0.375 0.443 0.05
                                              1
                                                          0.031 0.05
COEF-1
COEF-1
         6 15
                              0.3125 0.367 0.05
                                                          0.031 0.05
        7 15
COEF-1
                              0.343750.28 0.05 1
                                                          0.03 0.05
COEF-1
         8 15
                              1.171870.513 0.05
                                             1
                                                          0.087 0.05
COEF-1
         9 15
                              1.25 0.446 0.05
                                              1
                                                          0.032 0.05
COEF-1
        10 15
                              1.5625 0.578 0.05 1
                                                          0.034 0.05
ENDATA12
! DATA TYPE 13 -- NITROGEN AND PHOSPHOURS COEFFICIENTS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
```

```
Subsegment 040603
Originated: June 1, 2011
      *** ____*******____*
!
          NBOD
                NBOD
       R# DECAY SETT
COEF-2
      1 0.211 0.05
COEF-2
        2 0.194 0.05
COEF-2
       3 0.184 0.05
COEF-2
       4 0.17 0.05
COEF-2
       5 0.147 0.05
COEF-2
       6 0.179 0.05
       7 0.216 0.05
COEF-2
COEF-2
      8 0.307 0.05
       9 0.215 0.05
COEF-2
      10 0.214 0.05
COEF-2
ENDATA13
! DATA TYPE 14 -- ALGAE AND MACROPHYTE COEFFICIENTS
ENDATA14
! DATA TYPE 15 -- COLIFORM AND NONCONSERVATIVE COEFFICIENTS
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
      *** _____******
1
ENDATA15
! DATA TYPE 16 -- INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
*** _____*********
       R# OUTFLOW INFLOW TEMP
!
                          SALINITY CHLORIDE COND
ENDATA16
! DATA TYPE 17 -- INCREMENTAL DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - -1
*** _____*********
       R#
            DO
                 BOD 1
                       NBOD
                             NH3 N NIT NIT BOD 2
ENDATA17
! DATA TYPE 18 -- Incremental Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____********
!
       R# PHOSPH CHL A COLIFORM NONCONSERVATIVE
ENDATA18
! DATA TYPE 19 -- NONPOINT SOURCE DATA
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
```

ENDATA23

! DATA TYPE 24

```
!
       Ε#
             NAME
                            FLOW
                                    TEMP
                                         SALINITY CHLORIDE COND
WSTLD-1 32
           SE HAMMOND
                          0.033845 30
                                        0.28
                                               37.8
                                                      462
WSTLD-1 70
           OLD COV HWY TRIB
                         0.00283 28.06
                                        0.07
                                               13.2
                                                      154.75
WSTLD-1 121
           PELICAN GARDEN SUBD 0.001095 30
WSTLD-1 147
           SISTERS RD TRIB
                          0.00283 28.06
                                        0.1
                                               21.1
                                                      220.4
WSTLD-1 148
           DUPRE TRAILER PARK 0.000197530
WSTLD-1 196
           HOOVER RD TRIB
                          0.00283 28.06
                                        0.11 7.6
                                                      232.13
WSTLD-1 248
           GMG RENTALS
                          0.000163730
WSTLD-1 254
           ROCK'S RENTALS
                          0.000131230
WSTLD-1 266 PONCHATOULA HIGH
                          0.001761230
WSTLD-1 285
                          0.000197530
           ESTERBROOK TRACE
WSTLD-1 310 CREEKSIDE SUBD
                                    0.36
                                               38.7
                                                      707.3
                          0.001358730
ENDATA 2.4
! DATA TYPE 25
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!
      E#
                                    NH3 N
                                                NIT NIT BOD 2
               DO
                   BOD 1
                              NBOD
                  11.5
                             8.6
WSTLD-2 32
           5
           5
                  2.295625
WSTLD-2 70
                            1.5659375
                                                     3.1696875
WSTLD-2 121
           5
                             8.6
                  23
WSTLD-2 147 5
                0.71
                             0.165
                                                     1.4675
WSTLD-2 148
          5
                  2.3
                             8.6
           5
WSTLD-2 196
                 1.9634375
                             0.5525
                                                     1.95125
WSTLD-2 248
          5
                  23
                             8.6
WSTLD-2 254
          5
                  23
                             8.6
               11.5
WSTLD-2 266 5
                             8.6
WSTLD-2 285 5
                  23
                             8.6
WSTLD-2 310 5
                  23
                             8.6
ENDATA25
! DATA TYPE 26 -- WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
      **** _____*********
!
        E# PHOSPHOR CHL A
                         COLIFORM NONCONSERVATIVE
                  1.0
WSTLD-3 32
WSTLD-3 70
                  10
WSTLD-3 121
WSTLD-3 147
                  10
WSTLD-3 148
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
WSTLD-3 196
                       10
WSTLD-3 248
WSTLD-3 254
WSTLD-3 266
WSTLD-3 285
WSTLD-3 310
ENDATA26
! DATA TYPE 27 -- Lower Boundary Conditions
LOWER BC TEMPERATURE
                                           = 28.06
                                           = 0.13
LOWER BC SALINITY
LOWER BC CONSERVATIVE MATERIAL I
                                           = 29.5
                                           = 267.7
LOWER BC CONSERVATIVE MATERIAL II
                                           = 5
LOWER BC DISSOLVED OXYGEN
                                           = 6.858
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND
                                           = 6.331
LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND
LOWER BC PO4 PHOSPHORUS
                                           = 0.4
LOWER BC PHYTOPLANKTON
                                           = 11.6
LOWER BC NBOD
                                           = 2.189
ENDATA27
! DATA TYPE 28 -- Dam Data
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
ENDATA28
! DATA TYPE 29 -- SENSITIVITY ANALYSIS DATA
ENDATA 29
! DATA TYPE 30 -- Plot Control Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!
PLOT1 SELSERS CREEK
RCH 1 2 3 4 5 6 7
PLOT2 HIGH SCHOOL TRIB
RCH 8
PLOT3 TIDAL
RCH 9 10
ENDATA30
! DATA TYPE 31 -- Overlay Plot Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
ENDATA31
```

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

## Selsers Creek, Summer, 75% Reduction Output Data Set

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

LA-OUAL Version 9.09 Louisiana Department of Environmental Quality Input file is C:\Documents and Settings\shanec\My Documents\Modeling\Pontchartrain\040603\Modeling\Summer\Summer75HS5-2allp.txt Running in steady-state mode using LA defaults Output produced at 08:00 on 03/03/2011 \$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$ CARD TYPE CONTROL TITLES TITLE01 SELSERS CREEK 040603 TITLE02 SUMMER PROJECTION, 75%, POST AERATION CONTROL YES METRIC UNITS YES USE EFFECTIVE CONCENTRATION CONTROL ENDATA01 \$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$ CARD TYPE MODEL OPTION MODOPT01 NO TEMPERATURE MODOPT02 NO SALINITY MODOPT03 NO CONSERVATIVE MATERIAL I = CHLORIDES IN CLIN COND MODOPT04 NO CONSERVATIVE MATERIAL II = CONDUCTIVITY MODOPT05 YES DISSOLVED OXYGEN MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND BOD2 BIOCHEMICAL OXYGEN DEMAND MODOPT07 YES MODOPT08 YES NBOD MODOPT09 NO PHOSPHORUS SERIES MODOPT10 NO PHYTOPLANKTON MODOPT11 NO PERIPHYTON MODOPT12 NO COLIFORM MODOPT13 NONCONSERVATIVE MATERIAL ENDATA02 \$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$ CARD TYPE DESCRIPTION OF CONSTANT VALUE PROGRAM SETTLING RATE UNITS 2.00000 (values entered as per day) PROGRAM K2 MAXIMUM 25.00000 per day PROGRAM DISPERSION EQUATION 3.00000 (values entered as a function of D,O,Vmean) PROGRAM 0.15800 meters TIDE HEIGHT PROGRAM INHIBITION CONTROL VALUE 3.00000 (inhibit all rates but SOD) ENDATA03

# FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	SC	HEADWATERS - S OF 190	15.75	TO	14.60	0.0575	1.15	20	1	20
REACH ID	2	SC	S OF 190 - OLD COVINGTON HWY	14.60	TO	12.90	0.0500	1.70	34	21	54
REACH ID	3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	TO	12.15	0.0500	0.75	15	55	69
REACH ID	4	SC	1ST UNNAMED - S OF I-12	12.15	TO	9.60	0.0500	2.55	51	70	120
REACH ID	5	SC	S OF I-12 - S OF SISTERS RD.	9.60	TO	7.70	0.0500	1.90	38	121	158
REACH ID	6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	TO	5.85	0.0500	1.85	37	159	195
REACH ID	7	SC	3RD UNNAMED - S OF HWY 22	5.85	TO	3.75	0.0500	2.10	42	196	237
REACH ID	8	HS	HIGH SCHOOL TRIB	2.15	TO	0.00	0.0500	2.15	43	238	280
REACH ID	9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	TO	2.50	0.0500	1.25	25	281	305
REACH ID	10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	TO	0.00	0.0500	2.50	50	306	355
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	SC	0.000	0.000	1.859	0.000	0.000	0.085	0.00010	0.035
HYDR-1	2	SC	0.000	0.000	1.669	0.000	0.000	0.061	0.00010	0.035
HYDR-1	3	SC	0.000	0.000	1.524	0.000	0.000	0.043	0.00010	0.035
HYDR-1	4	SC	0.000	0.000	3.962	0.000	0.000	0.146	0.00010	0.035
HYDR-1	5	SC	0.000	0.000	4.191	0.000	0.000	0.274	0.00010	0.035
HYDR-1	6	SC	0.000	0.000	4.797	0.000	0.000	0.270	0.00010	0.035
HYDR-1	7	SC	0.000	0.000	5.486	0.000	0.000	0.265	0.00010	0.035
HYDR-1	8	HS	0.000	0.000	2.103	0.000	0.000	0.183	0.00010	0.035

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

Originated. J	unc 1, 20	11																	
HYDR-1	9	SC	0.000	0.000	19.	287	0.000	0	0.000		0.209	0.00010	0.035						
HYDR-1	10	SC	0.000			267	0.000		0.000		0.165	0.00010	0.035						
ENDATA09		50	0.000	0.000	50.		0.000				0.100	0.00010	0.055						
21,211110																			
\$\$\$ DATA T	TYPE 10	(DIS	PERSIVE HYD	RAULIC COEFFI	CIENTS)	\$\$\$													
g											~-~-								
CARD TYPE	REACH	ID	TIDAL	DISPERSION	I DIS	PERSION		RSION	1	DISPERS	SION								
			RANGE	"A"		"B"	" C	"		"D"									
HYDR	1	SC	0.00	375.000		0.833	0	000		1.00	0.0								
HYDR	2	SC	0.00	375.000		0.833		000		1.00									
HYDR	3	SC	0.00	375.000		0.833		000		1.00									
HYDR	4	SC	0.00	375.000		0.833		000		1.00									
HYDR	5	SC	0.00	375.000		0.833		000		1.00									
HYDR	6	SC	0.00	375.000		0.833		000		1.00									
HYDR	7	SC	0.50	375.000		0.833		000		1.00									
HYDR	8	HS	0.00	375.000		0.833		000		1.00									
HYDR	9	SC	1.00	375.000		0.833		000		1.00									
HYDR	10	SC	1.00	375.000		0.833		000		1.00									
ENDATA10		50	1.00	373.000		0.033	٠.			1.00									
\$\$\$ DATA T	TYPE 11	(INI	TIAL CONDIT	IONS) \$\$\$															
CARD TYPE	RI	EACH			DO	NH3-N	NO3-N	PO4		CHL A		BOD1	BOD2	ORG-N	ORG-P	COLI	NCM	CL	COND
			deg	C ppt	mg/L	mg/L	mg/L	mg	J/L	μg/I	L g/m²	mg/L	mg/L	mg/L	mg/L	#/100mL			
T11TFF 7 7		1	22 20 0		F 00	0.00	0 00	0	0.0	10.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		1 2	SC 28.0 SC 28.0		5.00	0.00	0.00		00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL INITIAL		3	SC 28.0		5.00 5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		6	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		7	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		8	HS 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		9	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00			0.00	
INITIAL		10	SC 28.0		5.00	0.00	0.00		00	10.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA11		10	SC 20.0	0 0.14	5.00	0.00	0.00	0.	00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DIVDITITIE																			
\$\$\$ DATA T	TYPE 12	(REA	ERATION, SE	DIMENT OXYGEN	DEMAND,	BOD COEF	FICIENTS	) \$\$\$											
									Al	EROB		SETTLD	ANAER	AEROB			ANAE	ER BO	DD2
CARD R	RCH RCE	1 K2		K2				GRND		BOD	BOD	SOD	BOD	BOD2	BOD2	2	BOI	D2 HYDR	TO
TYPE N	NUM II	OP	T	"A"	"B	3" '	C "	SOD	DI	ECAY	SETT	AVAIL	DECAY	DECAY	SETT	ľ	DECA	AY BO	DD1
							g/	m²/d	per	day	per day	frac	per day	per day	per day	7	per da	ay per o	lay
go 1	1 0	. 15		0.000	0 00			E 4 E	0	200	0.050	1 000	0.000	0.000	0.050		0.00	00 0	200
COEF-1	1 SC		LOUISIANA	0.000	0.00			.547		.377	0.050	1.000	0.000	0.030	0.050		0.00		000
COEF-1 COEF-1	2 SO 3 SO		LOUISIANA LOUISIANA	0.000	0.00			.250 .172		.394	0.050 0.050	1.000	0.000	0.030	0.050		0.00		
COEF-1	4 SC 5 SC		LOUISIANA	0.000	0.00			.016		.420	0.050	1.000	0.000	0.031 0.031	0.050		0.00		
COEF-1			LOUISIANA	0.000	0.00			.375		.443	0.050	1.000	0.000		0.050		0.00		
COEF-1	6 SC 7 SC		LOUISIANA	0.000	0.00			.312		.367	0.050	1.000	0.000	0.031	0.050		0.00		
COEF-1 COEF-1	7 SC 8 HS		LOUISIANA	0.000	0.00			.344		.280	0.050 0.050	1.000	0.000	0.030 0.087	0.050		0.00		
COFL-I	o HS	э 15	LOUISIANA	0.000	0.00	0.0	,00 I	. 1 / 2	U	.513	0.050	1.000	0.000	0.08/	0.050	,	0.00		000

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 COEF-1 9 SC 15 LOUISIANA 0.000 0.000 0.000 1.250 0.446 0.050 1.000 0.000 0.032 COEF-1 10 SC 15 LOUISIANA 0.000 1.562 0.578 0.000 0.000 0.050 1.000 0.000 0.034 ENDATA12 \$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$ BKGRND BKGRND SETTLD SETTLD CARD TYPE REACH ID NBOD NBOD ORGN NH3 NH3 PO4 DENIT ORGP ORGP ORGP SRCE SRCE DECA DECA SETT AVAIL DECA RATE SETT AVAIL per day frac per day g/m²/d g/m²/d per day per day frac per day per day COEF-2 0.211 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 SC COEF-2 2 SC 0.194 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 3 0.000 0.000 0.000 0.000 0.000 0.000 COEF-2 SC 0.184 0.050 0.000 0.000 COEF-2 4 0.170 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 SC 0.000 5 COEF-2 SC 0.147 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 COEF-2 6 SC 0.179 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 7 SC 0.000 0.000 0.000 0.000 0.000 0.000 COEF-2 0.216 0.050 0.000 0.000 8 HS COEF-2 0.307 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 COEF-2 9 SC 0.215 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 COEF-2 10 SC 0.214 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 ENDATA13 \$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$ MAX MAX CARD TYPE REACH ID SECCHI CHL A: PHYTO PHYTO PHYTO PHYTO PERIP PERIP PERIP BANK DEPTH ALGAE SETT DEATH GROW RESP DEATH GROW RESP SHADING m frac per day frac ENDATA14 \$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$ CARD TYPE REACH ID COLIFORM NCM NCM DIE-OFF DECAY SETT per day per day per day ENDATA15 \$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$ CARD TYPE REACH ID OUTFLOW INFLOW TEMP SALIN COND IN/DIST OUT/DIST CLm³/s m³/s deg C ppt ENDATA16 \$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE

ENDATA17

REACH ID

DO

mg/L

BOD1

mg/L

NBOD

mg/L

mg/L

mg/L

152

BOD2

mg/L

0.050

0.050

0.000

0.000

0.000

0.000

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

\$\$\$ DATA TYPE	E 18 (INC	REMENTAL	DATA FOR E	HOSPHORU PHYTO	JS, PHYTOPLAI	NKTON, COLI	FORM, AND	NONCONSER	RVATIVES)	\$\$\$	
CARD TYPE	REACH	ID	PO4 mg/L	CHL A µg/L	COLI #/100mL	NCM	ORGP mg/L				
ENDATA18											
\$\$\$ DATA TYPE	E 19 (NON	POINT SOU	JRCE DATA)	\$\$\$							
CARD TYPE	REACH	ID	BOD1	NBOD	COLI	NCM	DO	BOD2	ORG-P		
			kg/d	kg/d	#/day		kg/d	kg/d	kg/d		
NONPOINT	1	SC	0.16	0.05	0.00	0.00	0.00	0.16	0.00		
NONPOINT	2	SC	0.03	0.08	0.00	0.00	0.00	0.31	0.00		
NONPOINT	3	SC	0.03	0.03	0.00	0.00	0.00	0.78	0.00		
NONPOINT	4	SC	0.04	0.22	0.00	0.00	0.00	2.19	0.00		
NONPOINT	5	SC	0.74	0.55	0.00	0.00	0.00	0.36	0.00		
NONPOINT	6	SC	2.03	0.94	0.00	0.00	0.00	0.08	0.00		
NONPOINT	7	SC	1.17	1.23	0.00	0.00	0.00	0.28	0.00		
NONPOINT	8	HS	0.62	0.20	0.00	0.00	0.00	0.41	0.00		
NONPOINT	9	SC	0.02	0.47	0.00	0.00	0.00	1.25	0.00		
NONPOINT	10	SC	2.50	1.09	0.00	0.00	0.00	1.80	0.00		
ENDATA19	10	БС	2.30	1.05	0.00	0.00	0.00	1.00	0.00		
\$\$\$ DATA TYPE	20 (HEAI	DWATER FC	OR FLOW, TE	MPERATUR	RE, SALINITY	AND CONSER	VATIVES)	\$\$\$			
61.DD									a-	g0175	HDW DISP
CARD TYPE	ELEMENT	NAME		Ur	NIT FLOW m³/s	FLOW cfs		SALIN ppt	CL	COND	EXCHG frac
HDWTR-1	1	HEADWA	TER		0 0.00283	0.09993	28.06	0.09	12.600	210.350	0.000
HDWTR-1 ENDATA20	238		CHOOL TRIE	3	0 0.00283	0.09993		0.19	14.200	389.200	0.000
\$\$\$ DATA TYPE	E 21 (HEAI	DWATER DA	TA FOR DO,	BOD, AN	ND NITROGEN)	\$\$\$					
CARD TYPE	ELEMENT	NAME			DO	BOD#1	NBOD			BOD2	
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
HDWTR-2	1	HEADWA	TER		5.00	1.85	0.69	0.00	0.00	2.96	
HDWTR-2	238		CHOOL TRIE	3	5.00	2.06	2.25	0.00	0.00	4.01	
ENDATA21	230	111011	.011002 11111		3.00	2.00	2.23	0.00	0.00	1.01	
\$\$\$ DATA TYPE	E 22 (HEAI	DWATER DA	TA FOR PHO	SPHORUS,	, PHYTOPLANK	ON, COLIFO	RM, AND N	ONCONSERVA	ATIVES) \$\$	\$	
CARD TYPE	ELEMENT	NAME			PO4-P	CHL A	COLI	NCM	ORG-P		
		-			mg/L		#/100mL	-	mg/L		
HDWTR-3	1	HEADWA	TER		0.00	10.00	0.00	0.00	0.00		
HDWTR-3 ENDATA22	238		CHOOL TRIE	3	0.00	10.00	0.00	0.00	0.00		
\$\$\$ DATA TYPE	23 (JUN	CTION DAT	A) \$\$\$								

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

CARD TYPE	JUNCTION ELEMENT		RIVER NAME KILOM								
JUNCTION ENDATA23	281	237	3.75 HIGH SCHO	OOL TRIB CO	NFLUENCE						
\$\$\$ DATA TY	YPE 24 (WAS	STELOAD DATA FO	OR FLOW, TEMPERA	TURE, SALI	NITY, AND	CONSERVATI	VES) \$\$\$				
CARD TYPE	ELEMENT	RKILO NAME		FLOW m³/s	FLOW cfs		TEMP deg C	SALIN ppt	CL	COND	
WSTLD-1	32 70 121 147 148 196 248 254 266 285 310	9.60 PELICA 8.30 SISTER 8.25 DUPRE 5.85 HOOVER 1.65 GMG RI 1.35 ROCK'S 0.75 PONCHA 3.55 ESTERN 2.30 CREEKS	OV HWY TRIB AN GARDEN SUBD RS RD TRIB TRAILER PARK R RD TRIB	0.03384 0.00283 0.00109 0.00283 0.00020 0.00283 0.00016 0.00013 0.00176 0.00020 0.00136	1.19509 0.09993 0.03867 0.09993 0.00697 0.09993 0.00578 0.00463 0.06219 0.00697 0.04798	0.065 0.025 0.065 0.005 0.065 0.004 0.003 0.040	30.00 28.06 30.00 28.06 30.00 28.06 30.00 30.00 30.00 30.00	0.28 0.07 0.00 0.10 0.00 0.11 0.00 0.00 0.00	37.800 13.200 0.000 21.100 0.000 7.600 0.000 0.000 0.000 0.000 38.700	462.000 154.750 0.000 220.400 0.000 232.130 0.000 0.000 0.000 0.000 707.300	
CARD TYPE	ELEMENT		31. 20, 202, 12.2	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD2 mg/L
WSTLD-2	32 70 121 147 148 196 248 254 266 285 310	SE HAMMOND OLD COV HWY PELICAN GAR SISTERS RD DUPRE TRAIL HOOVER RD T GMG RENTALS ROCK'S RENT PONCHATOULA ESTERBROOK CREEKSIDE S	RDEN SUBD TRIB LER PARK FRIB S FALS A HIGH TRACE SUBD	5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	11.50 2.30 23.00 0.71 23.00 1.96 23.00 23.00 23.00 23.00 23.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	8.60 1.57 8.60 0.17 8.60 0.55 8.60 8.60 8.60 8.60	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 3.17 0.00 1.47 0.00 1.95 0.00 0.00 0.00 0.00
SSS DATA TY	YPE 26 (WAS		OR PHOSPHORUS, E	PHYTOPLANTO PO4-P mg/L	PHYTO CHL A	COLI /100mL	NCM	ORG-P mg/L			
WSTLD-3 WSTLD-3 WSTLD-3 WSTLD-3	32 70 121 147	SE HAMMOND OLD COV HWY PELICAN GAR SISTERS RD	RDEN SUBD	0.00 0.00 0.00 0.00	10.00 10.00 0.00 10.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00			

#### FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 WSTLD-3 148 DUPRE TRAILER PARK WSTLD-3 196 HOOVER RD TRIB GMG RENTALS WSTLD-3 248 WSTLD-3 254 ROCK'S RENTALS WSTLD-3 266 PONCHATOULA HIGH

285

310

CONSTITUENT

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

LOWER BC TEMPERATURE 28.060 deg C LOWER BC SALINITY 0.130 ppt LOWER BC CONSERVATIVE MATERIAL I 29.500 LOWER BC CONSERVATIVE MATERIAL II 267.700 LOWER BC 5.000 DISSOLVED OXYGEN mg/L LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND 6.858 mg/L LOWER BC 6.331 BOD2 BIOCHEMICAL OXYGEN DEMAND mg/L LOWER BC PO4 PHOSPHORUS 0.400 mg/L LOWER BC 11.600 PHYTOPLANKTON μg/L LOWER BC NBOD 2.189 mg/L ENDATA27

ESTERBROOK TRACE

CREEKSIDE SUBD

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE ELEMENT NAME EQN "A" "B" "H"

ENDATA28

WSTLD-3

WSTLD-3

ENDATA26

CARD TYPE

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8

0.00

0.00

0.00

0.00

0.00

0.00

0.00

CONCENTRATION

0.00

10.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

PLOT1

RCH 1 2 3 4 5 6 7

PLOT2

RCH 8 PLOT3

RCH 9 10

ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

....NO ERRORS DETECTED IN INPUT DATA
....HYDRAULIC CALCULATIONS COMPLETED
....TRIDIAGONAL MATRIX TERMS INITIALIZED
....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED
....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11
....GRAPHICS DATA FOR PLOT 2 WRITTEN TO UNIT 12

.....GRAPHICS DATA FOR PLOT 3 WRITTEN TO UNIT 13

FINAL REPORT HEADWATER SELSERS CREEK 040603

REACH NO. 1 HEADWATERS - S OF 190 SUMMER PROJECTION, 75%, POST AERATION

****	**************************************															******	:**											
ELEM	TYPE	F	LOW	TEMP	SI	ALN	CL	CO	ND	DO	BOD1	BOD2	EBOD1	EBOD	2 ORG	G-N NI	H3-N	NO3-N	PO4-P	CHL A	(	COLI	NCM					
NO.				deg C	I	ppt			n	ıg/L	mg/L	mg/L	mg/L	mg/	L mg	g/L r	mg/L	mg/L	mg/L	μg/L	#/10	OmL						
1	HDWTR	0.0	0283	28.06	0.	.09	12.60	210.	35 5	5.00	0.78	2.96	1.85	2.9	6 0.	.69 (	0.00	0.00	0.00	10.00	(	0.00	0.00					
****	******	*****	*****	*****	******	*****	*****	*****	*****	*****	*****	* BTOI	OGTCAL	. AND D	HVSTCZ	AI. COFI	FFTCTF	יאיר איי	*****	*****	****	*****	*****	*****	*****	*****	******	.**
ELEM	ENDING	DIST D.O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DEC															COLI	NCM	NCM									
NO.	DIST	D.O.																										
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da		
1	15.693	7.82	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
2	15.635																								0.00			
3	15.578																								0.00	0.00		
4	15.520																								0.00	0.00		
5	15.463	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
6	15.405	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
7	15.348	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
8	15.290	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
9	15.233	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
10	15.175	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
11	15.118	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
12	15.060	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
13	15.003	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
14	14.945	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
15	14.888	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
16	14.830	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
17	14.773																								0.00	0.00		
18	14.715	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
19	14.658	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		
20	14.600	7.81	12.58	0.55	0.06	0.00	0.00	0.04	0.06	0.00	0.91	0.93	0.93	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00		

 $0.21 \quad 0.05 \quad 0.00 \quad 0.00$ 

32 WSTLD

0.03384

30.00

\*  $g/m^2/d$  \*\* mg/L/day

****	*****	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	******	******	******	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N		EORG-N			PO4-P	TOT-P	EORG-P		CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
1	15.693	28.06	0.09	1.00	0.00	5.80	0.81	2.99	1.87	2.99	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
2	15.635	28.06	0.10	1.00	0.00	6.11	0.82	3.01	1.89	3.01	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
3	15.578	28.06	0.10	1.00	0.00	6.34	0.83	3.03	1.90	3.03	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
4	15.520	28.06	0.10	1.00	0.00	6.50	0.84	3.05	1.91	3.05	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
5	15.463	28.06	0.10	1.00	0.00	6.62	0.86	3.07	1.92	3.07	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
6	15.405	28.06	0.11	1.00	0.00	6.71	0.87	3.09	1.94	3.09	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
7	15.348	28.06	0.11	1.00	0.00	6.77	0.88	3.11	1.95	3.11	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	15.290	28.06	0.11	1.00	0.00	6.82	0.89	3.13	1.96	3.13	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	15.233	28.06	0.11	1.00	0.00	6.85	0.90	3.15	1.97	3.15	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	15.175	28.06	0.12	1.00	0.00	6.87	0.91	3.17	1.98	3.17	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
11	15.118	28.06	0.12	1.00	0.00	6.89	0.93	3.19	1.99	3.19	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
12	15.060	28.06	0.12	1.00	0.00	6.90	0.94	3.21	2.00	3.21	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	15.003	28.06	0.12	1.00	0.00	6.91	0.95	3.23	2.01	3.23	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
14	14.945	28.06	0.12	1.00	0.00	6.91	0.96	3.25	2.02	3.25	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
15	14.888	28.06	0.13	1.00	0.00	6.92	0.97	3.27	2.03	3.27	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
16	14.830	28.06	0.13	1.00	0.00	6.92	0.98	3.29	2.04	3.29	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
17	14.773	28.06	0.13	1.00	0.00	6.92	0.99	3.31	2.05	3.31	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
18	14.715	28.06	0.14	1.00	0.00	6.91	0.99	3.33	2.06	3.33	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
19	14.658	28.06	0.14	1.00	0.00	6.90	1.00	3.35	2.07	3.35	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
20	14.600	28.06	0.14	1.00	0.00	6.84	1.00	3.37	2.07	3.37	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 2 S OF 190 - OLD COVINGTON HWY SUMMER PROJECTION, 75%, POST AERATION

37.80

462.00

5.00 11.50

0.28

ELEM TYPE FLOW TEMP SALN BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NO. deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L μg/L #/100mL ppt mg/L 21 UPR RCH 0.00283 28.06 1.00 0.00 0.00 0.14 0.00 6.84 1.00 3.37 2.07 3.37 0.68 0.00 0.00 0.00 10.00

8.60

0.00

0.00

0.00 10.00

0.00

0.00

0.00

0.00 11.50

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

23	14.450	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
24	14.400	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
25	14.350	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
26	14.300	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
27	14.250	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
28	14.200	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.09	2.09	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
29	14.150	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.10	2.10	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
30	14.100	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.10	2.10	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
31	14.050	7.81	20.23	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.11	2.11	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
32	14.000	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
33	13.950	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
34	13.900	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
35	13.850	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
36	13.800	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
37	13.750	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
38	13.700	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
39	13.650	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
40	13.600	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12		0.31		0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
41	13.550	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
42	13.500	7.81			0.06	0.00	0.00	0.04	0.06	0.00			2.12			0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
43	13.450	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
44	13.400	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
45	13.350	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
46	13.300	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
47	13.250	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
48	13.200	7.81			0.06	0.00		0.04		0.00						0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
49	13.150	7.81		0.57	0.06	0.00		0.04		0.00		2.12		0.32		0.00		0.00	0.00	0.00	0.00		0.00	0.00		0.00
50	13.100	7.81			0.06	0.00		0.04		0.00	2.08	2.12		0.32		0.00			0.00	0.00			0.00	0.00		0.00
51	13.050	7.81			0.06	0.00		0.04		0.00		2.12		0.32		0.00			0.00	0.00	0.00		0.00	0.00		0.00
52	13.000	7.81		0.57	0.06	0.00		0.04		0.00		2.12				0.00		0.00	0.00	0.00	0.00			0.00		0.00
53	12.950					0.00			0.06									0.00		0.00		0.72		0.00	0.00	
54	12.900	7.81	29.07	0.57	0.06	0.00	0.00	0.04	0.06	0.00	2.08	2.12	2.12	0.32	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	22.54	0.39	0.05	0.00	0.00	0.03	0.05	0.00	1.25			0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d mg/L/day

****	LEM ENDING TEMP SALN CL COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A PERIP COLI NCM																								
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
21	14.550	28.06	0.14	1.00	0.00	6.65	0.99	3.40	2.06	3.40	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
22	14.500	28.06	0.14	1.00	0.00	6.51	0.99	3.43	2.05	3.43	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
23	14.450	28.06	0.14	1.00	0.00	6.40	0.98	3.46	2.05	3.46	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
24	14.400	28.06	0.14	1.00	0.00	6.33	0.98	3.49	2.05	3.49	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
25	14.350	28.06	0.15	1.00	0.00	6.27	1.00	3.51	2.07	3.51	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
26	14.300	28.06	0.15	1.00	0.00	6.22	1.05	3.51	2.12	3.51	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
27	14.250	28.06	0.15	1.00	0.00	6.18	1.18	3.49	2.25	3.49	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
28	14.200	28.06	0.15	1.00	0.00	6.14	1.52	3.40	2.58	3.40	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
29	14.150	28.06	0.15	1.00	0.00	6.06	2.33	3.14	3.40	3.14	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

55 UPR RCH 0.03667 28.06

Subsegment 040003									
Originated: June 1, 2011									

Origina	Originated. June 1, 2011																								
30	14.100	28.06	0.15	1.00	0.00	5.88	4.29	2.47	5.36	2.47	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
31	14.050	28.06	0.15	1.00	0.00	5.39	9.02	0.85	10.09	0.85	6.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
32	14.000	28.06	0.15	1.00	0.00	5.20	10.65	0.29	11.72	0.29	7.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
33	13.950	28.06	0.16	1.00	0.00	5.25	10.64	0.29	11.71	0.29	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
34	13.900	28.06	0.16	1.00	0.00	5.29	10.63	0.30	11.70	0.30	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
35	13.850	28.06	0.16	1.00	0.00	5.34	10.62	0.30	11.69	0.30	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
36	13.800	28.06	0.16	1.00	0.00	5.38	10.61	0.30	11.68	0.30	7.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
37	13.750	28.06	0.16	1.00	0.00	5.43	10.60	0.30	11.67	0.30	7.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
38	13.700	28.06	0.16	1.00	0.00	5.47	10.59	0.31	11.66	0.31	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
39	13.650	28.06	0.16	1.00	0.00	5.50	10.58	0.31	11.65	0.31	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
40	13.600	28.06	0.16	1.00	0.00	5.54	10.57	0.31	11.64	0.31	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
41	13.550	28.06	0.16	1.00	0.00	5.58	10.56	0.32	11.62	0.32	7.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
42	13.500	28.06	0.17	1.00	0.00	5.61	10.55	0.32	11.61	0.32	7.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
43	13.450	28.06	0.17	1.00	0.00	5.64	10.54	0.32	11.60	0.32	7.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
44	13.400	28.06	0.17	1.00	0.00	5.67	10.53	0.32	11.59	0.32	7.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
45	13.350			1.00	0.00	5.70	10.52	0.33	11.58	0.33	7.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
46	13.300	28.06	0.17	1.00	0.00	5.73	10.50		11.57	0.33	7.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
47	13.250			1.00	0.00	5.76	10.49		11.56	0.33	7.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
48	13.200			1.00	0.00	5.78	10.48	0.34	11.55	0.34	7.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
49	13.150			1.00	0.00	5.81	10.47			0.34	7.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
50	13.100			1.00	0.00	5.83	10.46			0.34	7.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
51	13.050			1.00	0.00	5.85	10.45			0.34	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
52				1.00	0.00	5.87	10.44	0.35	11.51	0.35	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
53			0.18	1.00	0.00	5.89	10.43	0.35	11.50	0.35	7.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
54	12.900	28.06	0.18	1.00	0.00	5.90	10.43	0.36	11.49	0.36	7.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 3 OLD COVINGTON HWY - 1ST UNNAMED SUMMER PROJECTION, 75%, POST AERATION

1.00

0.18

ELEM TYPE FLOW TEMP BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NO. deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L

0.00

0.00

0.00 5.90 10.43 0.36 11.49 0.36 7.89 0.00 0.00 0.00 10.00

### FINAL Selsers Creek Watershed TMDL Subsegment 040603

·		. 1		•	201	•
()rı	gir	ated:	June	Ι.	201	I

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A COLI NCM DIST deg C ppt mq/L mq/L mq/L mq/L mq/L mg/L mg/L mg/L mq/L mq/L mq/L mg/L mq/L mq/L mq/L mq/L q/m² #/100mL 12.850 28.06 0.18 1.00 0.00 5.90 10.42 0.38 11.49 0.38 7.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 12.800 28.06 0.18 1.00 0.00 5.91 10.41 0.39 11.48 0.39 7.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 12.750 28.06 0.18 1.00 0.00 5.91 10.41 0.41 11.48 0.41 7.88 0.00 0.00 0.00 10.0 0.00 0.0 5.91 10.40 12.700 28.06 0.17 1.00 0.00 0.42 11.47 0.42 7.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.91 10.39 59 12.650 28.06 0.17 0.44 11.46 7.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 1.00 0.00 0.44 0.0 12.600 28.06 0.17 1.00 0.00 5.91 10.39 0.46 11.46 0.46 7.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 12.550 28.06 0.17 5.91 10.38 0.47 11.45 0.47 7.87 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 1.00 0.00 0.0 12.500 28.06 0.17 1.00 5.92 10.38 0.49 11.44 0.49 7.87 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 63 12.450 28.06 0.17 1.00 0.00 5.92 10.37 0.51 11.44 0.51 7.87 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 5.92 10.36 0.52 11.43 7.87 0.00 0.00 0.00 12.400 28.06 0.17 1.00 0.00 0.52 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 65 12.350 28.06 0.17 1.00 0.00 5.92 10.35 0.54 11.42 0.54 7.86 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 66 12.300 28.06 0.16 0.00 5.92 10.33 0.56 11.40 0.56 7.85 0.00 0.00 0.00 0.00 10.0 0.00 1.00 0.0 5.92 10.30 0.58 11.37 0.00 0.00 0.00 0.00 67 12.250 28.06 0.16 1.00 0.00 0.58 7.83 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 68 12.200 28.06 0.16 1.00 0.00 5.93 10.21 0.62 11.28 0.62 7.77 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 12.150 28.06 0.16 1.00 5.94 9.97 0.71 11.03 0.71 7.60 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.00 0.0

FINAL REPORT HEADWATER

REACH NO. 4 1ST UNNAMED - S OF I-12

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

ELEM TYPE FLOW TEMP SALN COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM µg/L #/100mL NO. deg C ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L 70 UPR RCH 0.03667 28.06 0.16 1.00 0.00 5.94 9.97 0.71 11.03 0.71 7.60 0.00 0.00 0.00 10.00 0.00 0.00 70 WSTLD 0.00283 28.06 0.07 13.20 154.75 5.00 2.30 3.17 2.30 3.17 1.57 0.00 0.00 0.00 10.00 0.00 0.00

ELEM ENDING SAT REAER BOD1 BOD1 BOD1 BOD1 BOD2 BOD2 BOD2 BKGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM NCM

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

8		,																								
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	* *	1/da	1/da	1/da
70	12.100	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
71	12.050	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00			1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
72	12.000	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00			1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
73	11.950	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
74	11.900	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
75	11.850	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
76	11.800	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
77	11.750	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
78	11.700	7.81	13.06	0.61	0.06	0.00	0.00							0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
79	11.650	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69		1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
80	11.600	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
81	11.550	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
82	11.500	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.78	1.78	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
83	11.450	7.81	13.06	0.61	0.06	0.00	0.00			0.00	1.69	1.77		0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
84	11.400	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
85	11.350	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00				0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
86	11.300	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
87	11.250	7.81		0.61	0.06	0.00	0.00			0.00		1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
88	11.200	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
89	11.150	7.81		0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
90	11.100	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00	1.69		1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
91	11.050	7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
92	11.000	7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
93	10.950	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
94		7.81		0.61		0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
95				0.61		0.00	0.00					1.77		0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
96		7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
97	10.750	7.81	13.06	0.61	0.06	0.00	0.00	0.04		0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
98	10.700	7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
99	10.650	7.81		0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
100	10.600	7.81		0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
101	10.550	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
102		7.81		0.61		0.00	0.00						1.77		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
103	10.450	7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
104	10.400	7.81		0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69		1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
105	10.350	7.81		0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
106		7.81		0.61		0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00		0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
107		7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00	1.69		1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
108	10.200	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
109		7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
110	10.100	7.81	13.06	0.61	0.06	0.00	0.00			0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
111	10.050	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00		1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
112		7.81		0.61		0.00	0.00						1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
113	9.950	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
114	9.900	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00			1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
115	9.850	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
116	9.800	7.81	13.06	0.61	0.06	0.00	0.00		0.06	0.00		1.77	1.77	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
117	9.750	7.81	13.06	0.61	0.06	0.00	0.00							0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
118	9.700	7.81	13.06	0.61	0.06	0.00	0.00	0.04	0.06	0.00	1.69	1.76	1.76	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

\*  $g/m^2/d$  \*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	******	*****	******	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
70	12.100			1.00	0.00	5.95	9.62		10.69	0.81	7.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
71	12.050		0.16	1.00	0.00	5.98	9.57	0.82	10.64	0.82	7.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
72	12.000			1.00	0.00	6.02	9.52		10.59	0.83	7.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
73	11.950		0.16	1.00	0.00	6.04	9.47			0.85	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
74	11.900		0.16	1.00	0.00	6.07	9.41			0.86	7.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
75	11.850			1.00	0.00	6.09	9.36		10.43	0.87	7.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
76	11.800		0.16	1.00	0.00	6.12	9.31		10.38	0.88	7.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
77	11.750		0.16	1.00	0.00	6.14	9.26	0.89	10.32	0.89	7.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
78	11.700			1.00	0.00	6.16	9.20		10.27	0.90	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
79	11.650			1.00	0.00	6.17	9.15		10.22	0.92	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
80	11.600		0.16	1.00	0.00	6.19	9.10		10.17	0.93	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
81	11.550			1.00	0.00	6.21	9.05		10.12	0.94	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
82	11.500		0.16	1.00	0.00	6.22	9.00			0.95	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
83	11.450			1.00	0.00	6.23	8.95		10.02	0.96	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
84	11.400		0.16	1.00	0.00	6.25	8.90	0.97	9.97	0.97	7.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
85 86	11.350 11.300			1.00	0.00	6.26	8.85	0.99	9.92	0.99	7.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0. 0.	0.00
	11.250			1.00	0.00	6.27	8.80	1.00	9.87 9.82	1.00	7.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0		0.00
87	11.200		0.16	1.00	0.00	6.28	8.75 8.71	1.01	9.62	1.01	7.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0. 0.	0.00
88			0.16	1.00	0.00	6.29		1.02		1.02	7.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0			
89	11.150		0.16	1.00	0.00	6.29	8.66	1.03	9.72	1.03	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
90 91	11.100 11.050		0.16	1.00	0.00	6.30 6.31	8.61 8.56	1.04	9.68 9.63	1.04	6.97 6.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0 10.0	0.0	0. 0.	0.00
92	11.000			1.00	0.00	6.32	8.51	1.00	9.58	1.00	6.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
93	10.950		0.16	1.00	0.00	6.32	8.47	1.07	9.53	1.07	6.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
94	10.900			1.00	0.00	6.33	8.42	1.08	9.49	1.09	6.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
95	10.850		0.15	1.00	0.00	6.34	8.37	1.10	9.49	1.10	6.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
96	10.830			1.00	0.00	6.34	8.33	1.11	9.39	1.11	6.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
97	10.750			1.00	0.00	6.35	8.28	1.13	9.35	1.13	6.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
98	10.700		0.15	1.00	0.00	6.35	8.23	1.14	9.30	1.14	6.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
99	10.700		0.15	1.00	0.00	6.36	8.19	1.15	9.26	1.15	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
100	10.600			1.00	0.00	6.36	8.14	1.16	9.21	1.16	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
101	10.550			1.00	0.00	6.37	8.10	1.17	9.16	1.17	6.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
102	10.500		0.15	1.00	0.00	6.37	8.05	1.18	9.12	1.18	6.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
102	10.450			1.00	0.00	6.38	8.01	1.19	9.07	1.19	6.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
104	10.400			1.00	0.00	6.38	7.96	1.21	9.03	1.21	6.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
105	10.350		0.15	1.00	0.00	6.38	7.92	1.22	8.99	1.22	6.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
106	10.300		0.15	1.00	0.00	6.39	7.87	1.23	8.94	1.23	6.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
107	10.250		0.15	1.00	0.00	6.39	7.83	1.24	8.90	1.24	6.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
108	10.200			1.00	0.00	6.40	7.79	1.25	8.85	1.25	6.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

_				•	2011
( )r	1011	ıated:	lune	1	. 2011

8		,																							
109	10.150	28.06	0.15	1.00	0.00	6.40	7.74	1.26	8.81	1.26	6.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
110	10.100	28.06	0.15	1.00	0.00	6.40	7.70	1.27	8.77	1.27	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
111	10.050	28.06	0.15	1.00	0.00	6.41	7.66	1.29	8.73	1.29	6.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
112	10.000	28.06	0.15	1.00	0.00	6.41	7.62	1.30	8.69	1.30	6.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
113	9.950	28.06	0.15	1.00	0.00	6.41	7.58	1.31	8.64	1.31	6.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
114	9.900	28.06	0.15	1.00	0.00	6.41	7.54	1.32	8.61	1.32	6.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
115	9.850	28.06	0.15	1.00	0.00	6.42	7.50	1.33	8.57	1.33	6.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
116	9.800	28.06	0.15	1.00	0.00	6.42	7.47	1.34	8.54	1.34	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
117	9.750	28.06	0.15	1.00	0.00	6.42	7.44	1.35	8.51	1.35	6.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
118	9.700	28.06	0.15	1.00	0.00	6.41	7.42	1.35	8.49	1.35	6.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
119	9.650	28.06	0.15	1.00	0.00	6.40	7.42	1.35	8.48	1.35	6.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
120	9.600	28.06	0.15	1.00	0.00	6.38	7.44	1.35	8.51	1.35	6.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 5 S OF I-12 - S OF SISTERS RD.

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

****	*****	*****	*****	*****	*****	*****	*****	*****	****	*****	*****	*****	*****	** REAC	H INP	UTS *	*****	*****	*****	*****	*****	*****	*****	*****	****	*******
ELEM NO.	TYPE	F	LOW	TEMP deg C		LN ppt	CL	CC	ND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1				NH3-N mg/L	NO3-N mg/L	PO4-P mg/L		#/10	COLI OmL	NCM			
121 147		0.0	0109 0283	28.06 30.00 28.06 30.00	0. 0.		1.00 0.00 21.10 0.00	0. 220.	00 40	5.00 5.00		1.35 0.00 1.47 0.00		0.0 L 1.4	00 8 17 0	.60 .17	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00		0		0.00 0.00 0.00 0.00			
****	148 WSTLD 0.00020 30.00 0.00 0.00 0.00 5.00 23.00 0.00 23.00 0.00 8.60 0.00 0.00 0.00 0.00 0.00 0															********										
ELEM	ENDING DIST	-		BOD1 DECAY							_	FULL SOD	CORR SOD							-		PHYTO PROD				
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	a *	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
121	9.550		4.96															0.00				0.72			0.00	
122 123	9.500 9.450		4.96 4.96			0.00				0.00								0.00				0.72			0.00	
124	9.400	7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.77	0.77	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
125	9.350	7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.76	0.76	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
126	9.300	7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.76	0.76	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
127	9.250	7.81		0.64		0.00				0.00								0.00				0.72			0.00	0.00
128	9.200		4.96	0.64	0.06	0.00	0.00											0.00		0.00				0.00	0.00	* * * * *
129	9.150		4.96	0.64						0.00								0.00		0.00						0.00
130	9.100		4.96	0.64		0.00				0.00								0.00				0.72			0.00	
131	9.050		4.96							0.00								0.00							0.00	
132	9.000			0.64		0.00												0.00							0.00	
133	8.950 8.900			0.64		0.00				0.00								0.00						0.00	0.00	
134 135	8.850			0.64						0.00								0.00				0.72			0.00	
136	8.800																	0.00								
				- /										- /								–				

 $8.750 \quad 7.81 \quad 4.96 \quad 0.64 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.62 \quad 0.75 \quad 0.75 \quad 0.24 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL Subsegment 040603

· ·				•	2011	
( )rı	gina	ated:	June	Ι.	. 2011	

138	8.700 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.75	0.75	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
139	8.650 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.75	0.75	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
140	8.600 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.75	0.75	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
141	8.550 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.75	0.75	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
142	8.500 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
143	8.450 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
144	8.400 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
145	8.350 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
146	8.300 7.81	4.96	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
147	8.250 7.81	5.11	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
148	8.200 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.74	0.74	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
149	8.150 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
150	8.100 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
151	8.050 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
152	8.000 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
153	7.950 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
154	7.900 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
155	7.850 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
156	7.800 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
157	7.750 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
158	7.700 7.81	5.12	0.64	0.06	0.00	0.00	0.04	0.06	0.00	0.62	0.73	0.73	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 2	0 DEG C RATE	4.31	0.44	0.05	0.00	0.00	0.03	0.05	0.00	0.38			0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

<sup>\*</sup> g/m²/d \*\* mg/L/day

****	*****	*****	*****	******	*****	******	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU:	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	*****	****
ELEM	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N I	EORG-N :	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
121	9.550	28.06	0.15	1.00	0.00	6.35	7.49	1.34	8.55	1.34	6.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
122	9.500	28.06	0.15	1.00	0.00	6.33	7.41	1.34	8.48	1.34	6.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
123	9.450	28.06	0.15	1.00	0.00	6.32	7.33	1.34	8.40	1.34	6.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
124	9.400	28.06	0.15	1.00	0.00	6.31	7.26	1.34	8.32	1.34	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
125	9.350	28.06	0.15	1.00	0.00	6.30	7.18	1.34	8.25	1.34	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
126	9.300	28.06	0.15	1.00	0.00	6.29	7.11	1.34	8.18	1.34	6.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
127	9.250	28.06	0.15	1.00	0.00	6.29	7.03	1.34	8.10	1.34	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
128	9.200	28.06	0.15	1.00	0.00	6.28	6.96	1.34	8.03	1.34	6.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
129	9.150	28.06	0.15	1.00	0.00	6.28	6.89	1.34	7.96	1.34	6.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
130	9.100	28.06	0.15	1.00	0.00	6.27	6.82	1.34	7.89	1.34	6.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
131	9.050	28.06	0.15	1.00	0.00	6.27	6.75	1.34	7.82	1.34	6.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
132	9.000	28.06	0.15	1.00	0.00	6.27	6.68	1.34	7.75	1.34	6.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
133	8.950	28.06	0.15	1.00	0.00	6.27	6.61	1.34	7.68	1.34	6.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
134	8.900	28.06	0.15	1.00	0.00	6.27	6.54	1.34	7.61	1.34	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
135	8.850	28.06	0.15	1.00	0.00	6.27	6.47	1.34	7.54	1.34	6.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
136	8.800	28.06	0.15	1.00	0.00	6.27	6.41	1.34	7.47	1.34	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
137	8.750	28.06	0.15	1.00	0.00	6.27	6.34	1.34	7.41	1.34	5.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
138	8.700	28.06	0.15	1.00	0.00	6.27	6.27	1.34	7.34	1.34	5.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
139	8.650	28.06	0.15	1.00	0.00	6.28	6.20	1.34	7.27	1.34	5.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
140	8.600	28.06	0.15	1.00	0.00	6.28	6.13	1.34	7.20	1.34	5.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

Subsegr	Selsers Crement 040603 ed: June 1,	3	shed TM	<b>I</b> DL																					
141	8.550	28.06	0.15	1.00	0.00	6.28	6.06	1.34	7.13	1.34	5.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
142	8.500	28.06	0.15	1.00	0.00	6.29	5.98	1.34	7.05	1.34	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
143	8.450	28.06	0.15	1.00	0.00	6.29	5.90	1.35	6.97	1.35	5.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
144	8.400	28.06	0.15	1.00	0.00	6.29	5.81	1.35	6.88	1.35	5.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
145	8.350	28.06	0.15	1.00	0.00	6.29	5.72	1.35	6.78	1.35	5.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
146	8.300	28.06	0.15	1.00	0.00	6.28	5.60	1.35	6.67	1.35	5.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
147	8.250	28.06	0.15	1.00	0.00	6.27	5.48	1.35	6.54	1.35	5.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
148	8.200	28.06	0.15	1.00	0.00	6.29	5.45	1.35	6.51	1.35	5.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
149	8.150	28.06	0.15	1.00	0.00	6.30	5.40	1.35	6.46	1.35	5.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
150	8.100	28.06	0.15	1.00	0.00	6.31	5.35	1.35	6.41	1.35	5.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
151	8.050	28.06	0.15	1.00	0.00	6.33	5.30	1.35	6.36	1.35	5.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
152	8.000	28.06	0.15	1.00	0.00	6.34	5.25	1.35	6.32	1.35	5.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
153	7.950	28.06	0.15	1.00	0.00	6.35	5.20	1.35	6.27	1.35	5.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
154	7.900	28.06	0.15	1.00	0.00	6.36	5.15	1.35	6.22	1.35	5.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
155			0.15	1.00	0.00	6.38	5.11	1.35	6.18	1.35	5.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
156			0.15	1.00	0.00	6.39	5.07	1.35	6.13	1.35	5.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
157			0.15	1.00	0.00	6.40	5.02	1.35	6.09	1.35	5.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
158	7.700	28.06	0.15	1.00	0.00	6.42	4.99	1.35	6.05	1.35	5.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
FINAL REACH		HEADWA S OF S		S RD 3R	D UNNAMEI	D				CREEK 04 ROJECTIO		POST A	AERATIOI	1											
****	* * * * * * * *	*****	* * * * * * *	******	*****	* * * * * * *	* * * * * * *	* * * * * * *	* * * * * * *	*****	******	REACH	INPUTS	*****	*****	******	*****	******	*****	*****	*****	*****	******	*****	*****
ELEM NO.	TYPE	FLO		TEMP leg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COI #/100m		NCM					
159	UPR RCH	0.043	363 2	28.06	0.15	1.00	0.00	6.42	4.99	1.35	6.05	1.35	5.16	0.00	0.00	0.00	10.00	0.0	0 0	.00					

ELEM ENDING SAT REAER BOD1 BOD1 ABOD1 BOD1 BOD2 BOD2 ABOD2 BKGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM DIST D.O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY SETT mg/L 1/da 1/da 1/da 1/da 1/da 1/da 1/da \* 1/da 1/da 1/da \* 1/da 1/da 1/da  $7.650 \quad 7.81 \quad 4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 159  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00$ 7.250 7.81  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.53 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.52 \quad 0.62 \quad 0.62 \quad 0.62 \quad 0.30 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 7.000 7.81 4.93 0.53 0.06 0.00 0.00 0.04 0.06 0.00 0.52 0.61 0.61 0.30 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.72 0.00 0.00 0.00 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated:	Inna	1	2011
Ongmated.	June	1.	2011

173	6.950 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
174	6.900 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
175	6.850 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
176	6.800 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
177	6.750 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
178	6.700 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
179	6.650 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
180	6.600 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
181	6.550 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
182	6.500 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
183	6.450 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
184	6.400 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
185	6.350 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
186	6.300 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
187	6.250 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
188	6.200 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
189	6.150 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
190	6.100 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
191	6.050 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.61	0.61	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
192	6.000 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.60	0.60	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
193	5.950 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.60	0.60	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
194	5.900 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.60	0.60	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
195	5.850 7.81	4.93	0.53	0.06	0.00	0.00	0.04	0.06	0.00	0.52	0.60	0.60	0.30	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 2	0 DEG C RATE	4.24	0.37	0.05	0.00	0.00	0.03	0.05	0.00	0.31			0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

****	******	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P I	EORG-P I	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
159 160	7.650 7.600			1.00	0.00	6.43 6.45	4.95 4.92	1.34 1.34	6.02 5.98	1.34 1.34	5.14 5.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0 10.0	0.0	0. 0.	0.00
161 162 163	7.500	28.06 28.06 28.06	0.15	1.00 1.00 1.00	0.00 0.00 0.00	6.46 6.47 6.49	4.88 4.85 4.81	1.34 1.34 1.34	5.95 5.92 5.88	1.34 1.34 1.34	5.09 5.06 5.04	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00	10.0 10.0 10.0	0.0 0.0 0.0	0. 0. 0.	0.00 0.00 0.00
164 165	7.400 7.350		0.15	1.00	0.00	6.50 6.51	4.78 4.75	1.34	5.85 5.82	1.34	5.04 5.02 4.99	0.00	0.00	0.00	0.00 0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0. 0.	0.00
166 167 168	7.250	28.06 28.06 28.06	0.15	1.00	0.00 0.00 0.00	6.52 6.53 6.55	4.72 4.68 4.65	1.33 1.33 1.33	5.78 5.75 5.72	1.33 1.33 1.33	4.97 4.95 4.92	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00	0.00	0.00	0.00 0.00 0.00	0.00	10.0 10.0 10.0	0.0	0. 0. 0.	0.00 0.00 0.00
169 170		28.06 28.06	0.15	1.00 1.00 1.00	0.00	6.55 6.56 6.57	4.65 4.62 4.59	1.33 1.32	5.72 5.69 5.66	1.33 1.33 1.32	4.92 4.90 4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00 0.00	0.00	0.00	0.00	10.0	0.0 0.0 0.0	0. 0. 0.	0.00
171 172 173	7.050 7.000 6.950	28.06 28.06 28.06	0.15	1.00 1.00 1.00	0.00 0.00 0.00	6.58 6.58 6.59	4.56 4.53 4.50	1.32 1.32 1.32	5.63 5.59 5.56	1.32 1.32 1.32	4.85 4.83 4.81	0.00 0.00 0.00	10.0 10.0 10.0	0.0 0.0 0.0	0. 0. 0.	0.00 0.00 0.00									
174 175 176	6.900 6.850 6.800	28.06 28.06	0.15	1.00 1.00 1.00	0.00 0.00 0.00	6.60 6.61 6.62	4.47 4.44 4.41	1.32 1.32 1.31	5.53 5.50 5.47	1.32 1.32 1.31	4.78 4.76 4.74	0.00	0.00	0.00	0.00	0.00 0.00 0.00	0.00	0.00	0.00	0.00 0.00 0.00	0.00	10.0 10.0 10.0	0.0	0. 0. 0.	0.00 0.00 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Buosegment	040005	
Originated: J	June 1, 2011	Ĺ

6.750 28.06 0.14 1.00 0.00 6.63 4.38 1.31 5.45 1.31 4.72 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.42 178 6.700 28.06 0.14 1.00 0.00 6.64 4.35 1.31 1.31 4.69 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 179 6.650 28.06 0.14 1.00 6.64 4.32 1.31 5.39 1.31 4.67 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 180 6.600 28.06 0.14 1.00 0.00 6.65 4.29 1.31 5.36 1.31 4.65 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 181 6.550 28.06 0.14 1.00 0.00 6.66 4.26 1.30 5.33 1.30 4.63 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.30 5.30 0.00 0.00 182 6.500 28.06 0.14 1.00 0.00 6.66 4.23 1.30 4.61 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 183 6.450 28.06 0.14 1.00 0.00 6.67 4.21 1.30 5.28 1.30 4.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.30 5.25 0.00 0.00 0.00 0.00 184 6.400 28.06 0.14 1.00 0.00 6.68 4.18 1.30 4.56 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 6.350 28.06 0.14 1.00 0.00 6.68 4.15 1.30 5.22 1.30 4.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 186 6.300 28.06 0.14 1.00 0.00 6.69 4.12 1.30 5.19 1.30 4.51 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.16 187 6.250 28.06 0.14 1.00 0.00 6.70 4.10 1.30 1.30 4.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 6.200 28.06 0.14 4.07 1.29 5.14 1.29 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 188 1.00 0.00 6.70 4.46 0.00 10.0 0.0 0. 0.00 189 6.150 28.06 0.14 1.00 0.00 6.71 4.04 1.29 5.11 1.29 4.44 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 190 6.100 28.06 0.14 1.00 0.00 6.71 4.01 1.29 5.08 1.29 4.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.29 5.04 1.29 191 6.050 28.06 0.14 1.00 0.00 6.71 3.98 4.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 192 6.000 28.06 0.14 1.00 0.00 6.72 3.94 1.30 5.01 1.30 4.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 0.00 193 5.950 28.06 0.14 1.00 0.00 6.71 3.90 1.30 4.97 1.30 4.29 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.900 28.06 0.14 1.00 0.00 6.71 3.86 1.30 4.93 1.30 4.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.850 28.06 0.14 1.00 6.70 3.81 1.31 4.88 1.31 4.16 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 195 0.00 0.0 0.

FINAL REPORT HEADWATER
REACH NO. 7 3RD UNNAMED - S OF HWY 22

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

****	*****	*****	*****	*****	*****	*****	****	*****	*****	*****	*****	*****	*****	* REAC	H INPU	JTS **	*****	****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	***
ELEM NO.	TYPE	F	LOW	TEMP deg C		LN ppt	CL	CO			BOD1 mg/L	BOD2 mg/L	EBOD1				H3-N I	NO3-N mg/L	PO4-P mg/L		#/10	COLI OmL	NCM						
	UPR RCH WSTLD		4363 0283	28.06 28.06	0. 0.	14 11	1.00 7.60					1.31 1.95	4.88 1.96		1 4. 5 0.		0.00	0.00	0.00	10.00		0.00	0.00						
****	******	*****	*****	* * * * * * *	*****	*****	****	*****	*****	*****	*****	* BIOL	OGICAL	AND P	HYSICA	L COE	FFICIE	NTS **	*****	****	*****	*****	****	*****	*****	*****	* * * * * * * * * * * *	*****	***
ELEM NO.	ENDING DIST	SAT D.O. mg/L		DECAY	SETT		HYDR	BOD2 DECAY 1/da	SETT	DECAY	BKGD SOD *	FULL SOD *		-	SETT	DECAY	SRCE	RATE	ORG-P HYDR 1/da	SETT		PHYTO PROD **		COLI DECAY 1/da	DECAY	SETT			
196 197 198	5.800 5.750 5.700	7.81 7.81	4.92 4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57 0.57	0.65 0.65	0.65 0.65	0.36 0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72 0.72	0.00	0.00	0.00	0.00			
199 200 201 202	5.650 5.600 5.550 5.500	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00 0.00 0.00	0.57 0.57	0.65	0.65 0.65		0.06	0.00	0.00	0.00	0.00	0.00	0.00 0.00 0.00	0.72 0.72 0.72 0.72	0.00	0.00	0.00	0.00			
203 204 205 206	5.450 5.400 5.350 5.300	7.81 7.81 7.81	4.92 4.92 4.92	0.41 0.41 0.41 0.41	0.06 0.06 0.06	0.00 0.00 0.00	0.00 0.00 0.00	0.04 0.04 0.04	0.06 0.06 0.06	0.00	0.57 0.57 0.57	0.65 0.65 0.65	0.65 0.65 0.65	0.36 0.36 0.36	0.06 0.06 0.06	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.72 0.72 0.72	0.00 0.00 0.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00			

 $4.92 \quad 0.41 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.04 \quad 0.06 \quad 0.00 \quad 0.57 \quad 0.65 \quad 0.65 \quad 0.36 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

208	5.200	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
209	5.150	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
210	5.100	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
211	5.050	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
212	5.000	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
213	4.950	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
214	4.900	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
215	4.850	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
216	4.800	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.65	0.65	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
217	4.750	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
218	4.700	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
219	4.650	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
220	4.600	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
221	4.550	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
222	4.500	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
223	4.450	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
224	4.400	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
225	4.350	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
226	4.300	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
227	4.250	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
228	4.200	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
229	4.150	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
230	4.100	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
231	4.050	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.37	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
232	4.000	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
233	3.950	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
234	3.900	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
235	3.850	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
236	3.800	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
237	3.750	7.81	4.92	0.41	0.06	0.00	0.00	0.04	0.06	0.00	0.57	0.64	0.64	0.36	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	4.23	0.28	0.05	0.00	0.00	0.03	0.05	0.00	0.34			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	*****		*****	****	*****	*****	**** W	ATER QU	JALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	****	*****	******	
ELEM NO.	_	TEMP deg C	SALN	CL	COND	DO ma/I	BOD1	BOD2	EBOD1			NH3-N mg/L		TOT-N I	-					EORG-P			PERIP	COLI #/100mL	NCM
1,0.	DIDI	acg c	PPC			9/1	9/1	111971	111971	9/11	9/ 1	9/1	111971	9/ 1	1119/11	9/11	111971	111971	9/1	9/1	111971	M3/ T	9/	11 / 1 0 O III L	
196	5.800	28.06	0.14	1.00	0.00	6.68	3.76	1.32	4.82	1.32	4.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
197	5.750	28.06	0.14	1.00	0.00	6.69	3.73	1.32	4.80	1.32	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
198	5.700	28.06	0.14	1.00	0.00	6.71	3.71	1.32	4.78	1.32	4.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
199	5.650	28.06	0.14	1.00	0.00	6.72	3.68	1.32	4.75	1.32	4.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
200	5.600	28.06	0.14	1.00	0.00	6.73	3.66	1.32	4.73	1.32	3.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
201	5.550	28.06	0.14	1.00	0.00	6.74	3.64	1.32	4.71	1.32	3.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
202	5.500	28.06	0.14	1.00	0.00	6.74	3.61	1.32	4.68	1.32	3.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
203	5.450	28.06	0.14	1.00	0.00	6.75	3.59	1.32	4.66	1.32	3.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
204	5.400	28.06	0.14	1.00	0.00	6.76	3.57	1.32	4.64	1.32	3.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
205	5.350	28.06	0.14	1.00	0.00	6.77	3.55	1.31	4.61	1.31	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
206	5.300	28.06	0.14	1.00	0.00	6.78	3.52	1.31	4.59	1.31	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

Subsegment 040603

Originated: June 1, 2011

C		<i>'</i>																							
207	5.250	28.06	0.14	1.00	0.00	6.79	3.50	1.31	4.57	1.31	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
208	5.200	28.06	0.14	1.00	0.00	6.79	3.48	1.31	4.55	1.31	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
209	5.150	28.06	0.14	1.00	0.00	6.80	3.46	1.31	4.53	1.31	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
210	5.100	28.06	0.14	1.00	0.00	6.81	3.44	1.31	4.50	1.31	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
211	5.050	28.06	0.14	1.00	0.00	6.81	3.42	1.31	4.48	1.31	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
212	5.000	28.06	0.14	1.00	0.00	6.82	3.39	1.31	4.46	1.31	3.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
213	4.950	28.06	0.14	1.00	0.00	6.83	3.37	1.31	4.44	1.31	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
214	4.900	28.06	0.14	1.00	0.00	6.83	3.35	1.31	4.42	1.31	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
215	4.850	28.06	0.14	1.00	0.00	6.84	3.33	1.31	4.40	1.31	3.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
216	4.800	28.06	0.14	1.00	0.00	6.84	3.31	1.31	4.38	1.31	3.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
217	4.750	28.06	0.14	1.00	0.00	6.85	3.29	1.30	4.36	1.30	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
218	4.700	28.06	0.14	1.00	0.00	6.85	3.27	1.30	4.34	1.30	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
219	4.650	28.06	0.14	1.00	0.00	6.86	3.25	1.30	4.32	1.30	3.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
220	4.600	28.06	0.14	1.00	0.00	6.86	3.23	1.30	4.30	1.30	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
221	4.550	28.06	0.14	1.00	0.00	6.87	3.21	1.30	4.28	1.30	3.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
222	4.500	28.06	0.14	1.00	0.00	6.87	3.19	1.30	4.26	1.30	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
223	4.450	28.06	0.14	1.00	0.00	6.88	3.17	1.30	4.24	1.30	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
224	4.400	28.06	0.14	1.00	0.00	6.88	3.15	1.30	4.22	1.30	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
225	4.350	28.06	0.14	1.00	0.00	6.88	3.13	1.30	4.20	1.30	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
226	4.300	28.06	0.14	1.00	0.00	6.89	3.11	1.30	4.18	1.30	3.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
227	4.250	28.06	0.14	1.00	0.00	6.89	3.09	1.30	4.16	1.30	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
228	4.200	28.06	0.14	1.00	0.00	6.89	3.07	1.30	4.14	1.30	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
229	4.150	28.06	0.14	1.00	0.00	6.89	3.05	1.30	4.12	1.30	3.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
230	4.100	28.06	0.14	1.00	0.00	6.88	3.03	1.30	4.10	1.30	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
231	4.050	28.06	0.14	1.00	0.00	6.88	3.01	1.30	4.08	1.30	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
232	4.000	28.06	0.14	1.00	0.00	6.86	2.99	1.31	4.06	1.31	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
233	3.950	28.06	0.14	1.00	0.00	6.84	2.97	1.31	4.03	1.31	3.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
234		28.06		1.00	0.00	6.80	2.94	1.32	4.01	1.32	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
235		28.06		1.00	0.00	6.74	2.91	1.33	3.98	1.33	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
236		28.06		1.00	0.00	6.64	2.88	1.34	3.95	1.34	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
237	3.750	28.06	0.14	1.00	0.00	6.50	2.84	1.36	3.91	1.36	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 9 S OF HWY 22 - N OF WEINBERGER

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

****	****			*****	*****	*****	*****	*****	*****	*****	REACH	INPUTS	*****	*****	*****	*****	*****	* * * * * * * * * * * * * * * * * * * *	*****	****
ELEM	TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L					NH3-N mg/L				COLI #/100mL	NCM		
281	UPR RCH	0.04646	28.06	0.14	1.00	0.00	6.50	2.84	1.36	3.91	1.36	3.15	0.00	0.00	0.00	10.00	0.00	0.00		
281	TRIB	0.00489	28.06	0.14	1.00	0.00	6.19	2.82	1.43	3.89	1.43	3.08	0.00	0.00	0.00	10.00	0.00	0.00		
285	WSTLD	0.00020	30.00	0.00	0.00	0.00	5.00	23.00	0.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00		

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

281	3.700	7 01	1 71	0 6 5	0.06	0 00	0 00	0 0 5	0 06	0 00	2 00	2 12	2 12	0 26	0 06	0 00	0 00	0 00	0 00	0 00	0 00	0.72	0 00	0 00	0 00	0 00
282	3.650				0.06												0.00									
283		7.81	4.71		0.06							2.13									0.00				0.00	
284	3.550				0.06												0.00				0.00				0.00	0.00
285	3.500				0.06												0.00									
	3.450				0.06							2.13					0.00								0.00	
286	3.450																								0.00	
287	3.100				0.06												0.00								0.00	0.00
288	3.350				0.06												0.00								0.00	0.00
289	3.300				0.06												0.00									
290	3.250				0.06												0.00									
291		7.81			0.06			0.05									0.00								0.00	
292	3.150				0.06												0.00									
293	3.100				0.06												0.00									
294		7.81	5.19	0.05	0.06	0.00						2.12					0.00				0.00				0.00	0.00
295	3.000				0.06												0.00								0.00	
296	2.950		5.31		0.06												0.00									
297		7.81	5.37		0.06							2.12						0.00		0.00		0.72		0.00	0.00	0.00
298	2.850				0.06												0.00								0.00	
299	2.800				0.06												0.00								0.00	
300	2.750				0.06							2.12														
301	2.700	7.81	5.61		0.06												0.00								0.00	0.00
302	2.650	7.81	5.68	0.65	0.06	0.00											0.00								0.00	
303	2.600				0.06												0.00									
304	2.550	7.81			0.06												0.00									
305	2.500	7.81	5.86	0.65	0.06	0.00	0.00	0.05	0.06	0.00	2.08	2.11	2.11	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 2	DEG C R	ATE	4.45	0.45	0.05	0.00	0.00	0.03	0.05	0.00	1.25			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

<sup>\*</sup>  $g/m^2/d$  \*\* mg/L/day

****	******	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	****
ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N I	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P I	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
281 282	3.700 3.650	28.06 28.06		1.00	0.00	6.26 6.11	2.79 2.72	1.39 1.39	3.86 3.79	1.39	3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0. 0.	0.00
283	3.600	28.06	0.14	1.00	0.00	5.99	2.65	1.40	3.72	1.40	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
284	3.550	28.06	0.14	1.00	0.00	5.88	2.59	1.40	3.66	1.40	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
285	3.500	28.06	0.14	1.00	0.00	5.79	2.54	1.40	3.61	1.40	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
286	3.450	28.06	0.14	1.00	0.00	5.73	2.47	1.41	3.54	1.41	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
287	3.400	28.06	0.14	1.00	0.00	5.67	2.40	1.41	3.47	1.41	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
288	3.350	28.06	0.14	1.00	0.00	5.64	2.33	1.42	3.40	1.42	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
289	3.300	28.06	0.14	1.00	0.00	5.61	2.26	1.42	3.33	1.42	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
290	3.250	28.06	0.14	1.00	0.00	5.59	2.20	1.43	3.27	1.43	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
291	3.200	28.06	0.14	1.00	0.00	5.58	2.14	1.43	3.21	1.43	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
292	3.150	28.06	0.14	1.00	0.00	5.58	2.08	1.44	3.15	1.44	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
293	3.100	28.06	0.14	1.00	0.00	5.58	2.02	1.44	3.09	1.44	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
294	3.050	28.06	0.14	1.00	0.00	5.59	1.97	1.45	3.03	1.45	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
295	3.000	28.06	0.14	1.00	0.00	5.60	1.91	1.45	2.98	1.45	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

Subsegment	040603
------------	--------

Originated: June 1, 2011 2.950 28.06 0.14 1.00 1.45 2.93 1.45 2.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 1.86 297 2.900 28.06 0.14 1.00 0.00 5.63 1.81 1.46 2.88 1.46 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 298 2.850 28.06 0.14 1.00 0.00 5.65 1.77 1.46 2.83 1.46 2.31 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 2.800 28.06 0.14 1.00 0.00 1.46 2.79 1.46 2.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 2.750 28.06 0.14 1.47 300 1.00 0.00 1.68 2.75 1.47 2.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 301 2.700 28.06 0.14 1.00 0.00 5.69 1.65 1.47 2.71 1.47 2.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 302 2.650 28.06 0.14 1.00 0.00 5.70 1.61 1.47 2.68 1.47 2.17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0.00 2.600 28.06 0.14 1.00 0.00 5.70 1.58 1.47 2.65 1.47 2.13 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.00 0.00 0.00 0.00 2.550 28.06 0.14 1.00 0.00 1.55 2.62 1.47 2.10 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 2.500 28.06 0.14 0.00 5.67 1.53 1.47 2.60 1.47 2.08 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 305 1.00 0.00 0.0

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 10 N OF WEINBERGER - SOUTH SLOUGH SUMMER PROJECTION, 75%, POST AERATION

ELEM TYPE NO.	FLO	WC	TEMP deg C	SALN ppt	CL	COND				EBOD1 mg/L							COLI #/100mL	NCM
306 UPR R	сн 0.05	154	28.06	0.14	1.00	0.00	5.67	1.53	1.47	2.60	1.47	2.08	0.00	0.00	0.00	10.00	0.00	0.00
310 WSTLD	0.00	136	30.00	0.36	38.70	707.30	5.00	23.00	0.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00

SAT REAER BOD1 BOD1 ABOD1 BOD1 BOD2 BOD2 ABOD2 BKGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY SETT NO. DIST D.O. SOD 1/da 1/da 1/da 1/da 1/da 1/da 1/da \* \* 1/da 1/da 1/da \* 1/da 1/da 1/da  $7.00 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.63 \quad 2.63 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.73$ 0.00 0.00 0.00 307 7.10 0.84 0.06 0.00 0.00 0.05 0.06 0.00 2.60 2.63 2.63 0.35 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.73 0.00 0.00 0.00 7.21 0.84  $0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.63 \quad 2.63 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.73 \quad 0.00 \quad 0.00 \quad 0.00$ 0.06  $7.31 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.63 \quad 2.63 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.73 \quad 0.00 \quad$ 0.06  $0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.63 \quad 2.63 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.74 \quad 0.00 \quad 0.00$ 2.200 7.81 7.52 0.84 0.06 0.00  $0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.63 \quad 2.63 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.74 \quad 0.00 \quad 0.00$ 311  $0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.74 \quad 0.00 \quad 0.00$ 312 2.150 7.81 7.62 0.84 0.06 0.00 0.00 313 2.100 7.81 7.73 0.84 0.06  $0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 0.00 0.00 0.74 0.00 0.00 314  $7.83 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.74 \quad 0.00 \quad$ 7.94 0.84 0.06 0.00  $0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 0.75 0.06 0.00 2.60 2.62 2.62 0.35 0.06 0.00 0.00 0.00 316 8.04 0.84 0.06 0.00 0.00 0.05 0.00 0.00 0.00 0.75 317 8.15 0.84 0.06 0.00 0.00 0.05 0.06 0.00 2.60 2.62 2.62 0.35 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.75  $8.25 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.75$ 0.00 0.00 0.00  $8.36 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.76 \quad 0.00 \quad 0.00 \quad 0.00$ 1.750 7.81 8.46 0.84 0.06 0.00  $0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.76 \quad 0.00 \quad 0.00$ 321 1.700 7.81 8.57 0.84 0.06 0.00 322 1.650 7.81  $8.67 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.76 \quad 0.00 \quad 0.00 \quad 0.00$  $8.78 \quad 0.84 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.77 \quad 0.00 \quad$ 1.550 7.81 8.89 0.84 0.06 0.00  $0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.77 \quad 0.00 \quad 0.00 \quad 0.00$  $0.00 \quad 0.05 \quad 0.06 \quad 0.00 \quad 2.60 \quad 2.62 \quad 2.62 \quad 0.35 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.07 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 8.99 0.84 0.06 0.00 325 9.10 0.84 0.06 0.00 0.00 0.05 0.06 0.00 2.60 2.62 2.62 0.35 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.77 0.00 0.00 0.00 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated:	June	1,	2011
-------------	------	----	------

327	1.400	7.81	9.20	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00
328	1.350	7.81	9.31	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
329	1.300	7.81	9.41	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
330	1.250	7.81	9.52	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
331	1.200	7.81	9.63	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
332	1.150	7.81	9.73	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
333	1.100	7.81	9.84	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.62	2.62	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
334	1.050	7.81	9.95	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
335	1.000	7.81	10.05	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
336	0.950	7.81	10.16	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
337	0.900	7.81	10.26	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
338	0.850	7.81	10.37	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
339	0.800	7.81	10.48	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
340	0.750	7.81	10.58	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.63	2.63	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
341	0.700	7.81	10.69	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.64	2.64	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
342	0.650	7.81	10.80	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.64	2.64	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
343	0.600	7.81	10.90	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.64	2.64	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
344	0.550	7.81	11.01	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.65	2.65	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
345	0.500	7.81	11.12	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.65	2.65	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
346	0.450	7.81	11.22	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.65	2.65	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
347	0.400	7.81	11.33	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.66	2.66	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
348	0.350	7.81	11.44	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.66	2.66	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
349	0.300	7.81	11.54	0.84	0.06	0.00							2.67					0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00
350	0.250	7.81	11.65	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.67	2.67	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00
351	0.200	7.81	11.76	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.68	2.68	0.35	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00
352	0.150	7.81	11.86	0.84	0.06	0.00							2.69					0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00
353			11.97										2.69					0.00			0.00	0.84	0.00	0.00	0.00	0.00
354			12.08																			0.84		0.00		
355	0.000	7.81	12.18	0.84	0.06	0.00	0.00	0.05	0.06	0.00	2.60	2.71	2.71	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00
AVG 2	DEG C	RATE	8.24	0.58	0.05	0.00	0.00	0.03	0.05	0.00	1.56			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN CLCOND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A PERIP COLI NCM NO. DIST deg C mg/L μg/L g/m<sup>2</sup> #/100mL ppt mg/L 0.00 306 2.450 28.06 0.14 1.00 0.00 5.62 1.51 1.46 2.58 1.46 2.05 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00 10.0 0.0 0. 307 2.400 28.06 0.14 1.00 0.00 5.59 1.50 1.46 2.58 1.46 2.02 0.00 0.00 0.00 0.00 0.00 0.00 0.02 0.00 0.00 0.00 10.1 0.00 0.0 0. 1.46 2.59 1.46 2.00 0.00 0.00 0.00 0.00 0.02 0.00 308 2.350 28.06 0.14 1.00 0.00 5.57 1.51 0.00 0.00 0.00 0.00 10.1 0.0 0. 0.00 2.300 28.06 0.14 1.00 0.00 5.56 1.54 1.45 2.62 1.45 1.99 0.00 0.00 0.00 0.00 0.00 0.00 0.03 0.00 0.00 0.00 10.1 0.00 309 0.0 0. 2.250 28.06 0.14 1.00 0.00 5.56 1.58 1.45 2.66 1.45 1.98 0.00 0.00 0.00 0.00 0.00 0.00 0.04 0.00 0.00 0.00 10.2 0.0 0.00 2.61 1.45 1.94 0.00 0.00 0.00 0.05 0.00 311 2.200 28.06 0.14 1.00 0.00 5.57 1.52 1.45 0.00 0.00 0.00 0.00 0.00 10.2 0.0 0. 0.00 2.150 28.06 0.14 0.00 5.58 1.47 1.45 2.56 1.45 1.90 0.00 0.00 0.00 0.00 0.00 0.00 0.06 0.00 0.00 10.2 0.00 312 1.00 0.00 0.0 0. 313 2.100 28.06 0.14 1.00 0.00 5.60 1.41 1.45 2.51 1.45 1.86 0.00 0.00 0.00 0.00 0.00 0.00 0.06 0.00 0.00 0.00 10.3 0.0 0. 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.00 314 2.050 28.06 0.14 1.00 0.00 5.62 1.36 1.46 2.46 1.46 1.83 0.00 0.00 0.00 0.00 10.3 0.0 0. 1.00 1.32 1.46 1.79 0.00 0.00 0.00 0.00 0.00 0.00 0.08 0.00 10.3 0.00 315 2.000 28.06 0.14 0.00 5.65 1.46 2.42 0.00 0.00 0.0 0. 1.950 28.06 0.14 5.68 1.27 1.47 2.38 1.47 1.76 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.4 0.00 316 1.00 0.00 0.09 0.0 0. 0.00 317 1.900 28.06 0.14 1.00 0.00 5.70 1.23 1.48 2.34 1.48 1.72 0.00 0.00 0.00 0.00 0.00 0.10 0.00 0.00 0.00 10.4 0.0 0. 0.00 FINAL Selsers Creek Watershed TMDL Subsegment 040603

0		T	1	2011
OH2	inated:	June	Ι.	2011

Originat	eu. June 1,	, 2011																							
318	1.850	28.06	0.14	1.00	0.00	5.73	1.19	1.49	2.31	1.49	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	10.4	0.0	0.	0.00
319	1.800	28.06	0.14	1.00	0.00	5.76	1.16	1.50	2.27	1.50	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	10.4	0.0	0.	0.00
320	1.750	28.06	0.14	1.00	0.00	5.78	1.13	1.51	2.24	1.51	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	10.5	0.0	0.	0.00
321	1.700	28.06	0.14	1.00	0.00	5.81	1.10	1.52	2.22	1.52	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	10.5	0.0	0.	0.00
322	1.650	28.06	0.14	1.00	0.00	5.84	1.07	1.54	2.19	1.54	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	10.5	0.0	0.	0.00
323	1.600	28.06	0.14	1.00	0.00	5.87	1.04	1.55	2.17	1.55	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	10.6	0.0	0.	0.00
324	1.550	28.06	0.14	1.00	0.00	5.89	1.02	1.57	2.16	1.57	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	10.6	0.0	0.	0.00
325	1.500	28.06	0.14	1.00	0.00	5.92	1.00	1.60	2.14	1.60	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	10.6	0.0	0.	0.00
326	1.450		0.14	1.00	0.00	5.94	0.99	1.62	2.13	1.62	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	10.7	0.0	0.	0.00
327	1.400		0.14	1.00	0.00	5.96	0.98	1.65	2.12	1.65	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	10.7	0.0	0.	0.00
328			0.14	1.00	0.00	5.99	0.97	1.68	2.12	1.68	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	10.7	0.0	0.	0.00
329	1.300		0.14	1.00	0.00	6.01	0.97	1.72	2.12	1.72	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	10.8	0.0	0.	0.00
330	1.250		0.13	1.00	0.00	6.03	0.97	1.76	2.13	1.76	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	10.8	0.0	0.	0.00
331	1.200		0.13	1.00	0.00	6.05	0.98	1.81	2.14	1.81	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	10.8	0.0	0.	0.00
332		28.06		1.00	0.00	6.07	0.99	1.86	2.15	1.86	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	10.9	0.0	0.	0.00
333		28.06		1.00	0.00	6.09	1.01	1.92	2.17	1.92	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	10.9	0.0	0.	0.00
334	1.050		0.13	1.00	0.00	6.10	1.03	1.98	2.20	1.98	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	10.9	0.0	0.	0.00
335	1.000		0.13	1.00	0.00	6.12	1.07	2.05	2.24	2.05	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	11.0	0.0	0.	0.00
336	0.950		0.13	1.00	0.00	6.13	1.11	2.13	2.28	2.13	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	11.0	0.0	0.	0.00
337	0.900		0.13	1.00	0.00	6.14	1.16	2.21	2.33	2.21	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	11.0	0.0	0.	0.00
338		28.06		1.00	0.00	6.15	1.22	2.31	2.40	2.31	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	11.1	0.0	0.	0.00
339	0.800		0.13	1.00	0.00	6.16	1.29	2.41	2.47	2.41	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	11.1	0.0	0.	0.00
340	0.750		0.13	1.00	0.00	6.16	1.37	2.52	2.55	2.52	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	11.1	0.0	0.	0.00
341		28.06		1.00	0.00	6.17	1.46	2.65	2.65	2.65	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	11.2	0.0	0.	0.00
342		28.06		1.00	0.00	6.17	1.57	2.78	2.77	2.78	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	11.2	0.0	0.	0.00
343	0.600	28.06	0.13	1.00	0.00	6.16 6.15	1.70 1.84	2.93 3.10	2.90 3.04	2.93 3.10	$1.41 \\ 1.44$	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	$11.2 \\ 11.2$	0.0	0.	0.00
344 345	0.550		0.13	1.00	0.00	6.14	2.01	3.10	3.04	3.10	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	11.2	0.0	0. 0.	0.00
345	0.300		0.13	1.00	0.00	6.12	2.19	3.47	3.40	3.47	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	11.3	0.0	0.	0.00
340		28.06		1.00	0.00	6.09	2.19	3.47	3.40	3.47	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	11.3	0.0	0.	0.00
348		28.06		1.00	0.00	6.05	2.40	3.90	3.86	3.90	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	11.4	0.0	0.	0.00
349	0.300		0.13	1.00	0.00	6.00	2.91	4.15	4.13	4.15	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	11.4	0.0	0.	0.00
350	0.250		0.13	1.00	0.00	5.93	3.21	4.42	4.43	4.42	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	11.4	0.0	0.	0.00
351		28.06		1.00	0.00	5.85	3.55	4.71	4.77	4.71	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	11.5	0.0	0.	0.00
352	0.150		0.13	1.00	0.00	5.73	3.92	5.02	5.15	5.02	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	11.5	0.0	0.	0.00
353	0.100		0.13	1.00	0.00	5.59	4.34	5.36	5.57	5.36	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	11.5	0.0	0.	0.00
354	0.050		0.13	1.00	0.00	5.40	4.81	5.73	6.04	5.73	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	11.6	0.0	0.	0.00
355	0.000		0.13	1.00	0.00	5.16	5.33	6.12	6.57	6.12	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	11.6	0.0	0.	0.00
333	0.000	20.00	0.13	1.00	0.00	J.10	٠. ٥٥	0.12	0.57	0.12	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	11.0	0.0	٠.	0.00

FINAL REPORT HIGH SCHOOL TRIB REACH NO. 8 HIGH SCHOOL TRIB

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L		NO3-N mg/L	PO4-P mg/L		COLI #/100mL	NCM	
238	HDWTR	0.00283	28.06	0.19	14.20	389.20	5.00	0.99	4.01	2.06	4.01	2.25	0.00	0.00	0.00	10.00	0.00	0.00	
248	WSTLD	0.00016	30.00	0.00	0.00	0.00	5.00	23.00	0.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00	
254	WSTLD	0.00013	30.00	0.00	0.00	0.00	5.00	23.00	0.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00	

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

ELEM ENDING SAT REAER BOD1 BOD1 BOD1 BOD2 BOD2 BOD2 BBGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM NCM DIST D.O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY DECAY SETT 1/da 1/da 1/da 1/da 1/da 1/da 1/da \* \* \* 1/da 1/da 1/da \* 1/da 1/da 1/da  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 1.650 7.81  $4.89 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 1.600 7.81 1.550 7.81  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00$  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 1.400 7.81  $4.93 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 1.200 7.81  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 1.150 7.81  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $4.96 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 0.750 7.81 0.700 7.81  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 0.650 7.81  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.02 \quad 2.02 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$ 275 0.250 7.81  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.01 \quad 2.01 \quad 0.49 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.50 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 2.00 \quad 2.00 \quad 0.50 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad$  $5.37 \quad 0.74 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.13 \quad 0.06 \quad 0.00 \quad 1.95 \quad 1.99 \quad 1.99 \quad 0.51 \quad 0.06 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.72 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$ 

### FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

AVG 20 DEG C RATE 4.37 0.51 0.05 0.00 0.00 0.09 0.05 0.00 1.17

\* g/m²/d \*\* mg/L/day

**************************************														*****											
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P 1	ETOT-P	CHL A	PERIP	COLI	NCM
NO.		deg C				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L			mg/L	mg/L		mg/L	mg/L	μg/L	g/m²	#/100mL	
238		28.06		1.00	0.00	5.12	0.99	3.96	2.06	3.96	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
239		28.06		1.00	0.00	5.15	1.00	3.94	2.06	3.94	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
240		28.06		1.00	0.00	5.18	1.00	3.92	2.07	3.92	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
241		28.06		1.00	0.00	5.20	1.01	3.90	2.08	3.90	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
242		28.06		1.00	0.00	5.21	1.03	3.87	2.10	3.87	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
243		28.06		1.00	0.00	5.23	1.06	3.85	2.13	3.85	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
244		28.06		1.00	0.00	5.23	1.11	3.82	2.18	3.82	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
245		28.06		1.00	0.00	5.23	1.20	3.78	2.27	3.78	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
246		28.06		1.00	0.00	5.23	1.35	3.73	2.42	3.73	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
247	1.650		0.18	1.00	0.00	5.21	1.59	3.67	2.66	3.67	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
248		28.06		1.00	0.00	5.20	1.97	3.58	3.04	3.58	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
249		28.06		1.00	0.00	5.19	1.94	3.56	3.01	3.56	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
250		28.06		1.00	0.00	5.19	1.94	3.54	3.00	3.54	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
251		28.06		1.00	0.00	5.18	1.95	3.51	3.02	3.51	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
252		28.06		1.00	0.00	5.17	2.02	3.48	3.09	3.48	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
253		28.06		1.00	0.00	5.16	2.15	3.43	3.22	3.43	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
254		28.06		1.00	0.00	5.15	2.39	3.37	3.46	3.37	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
255		28.06		1.00	0.00	5.15	2.33	3.36	3.40	3.36	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
256		28.06		1.00	0.00	5.15	2.27	3.34	3.34	3.34	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
257		28.06		1.00	0.00	5.15	2.22	3.33	3.29	3.33	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
258		28.06		1.00	0.00	5.15	2.18	3.30	3.25	3.30	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
259		28.06		1.00	0.00	5.15	2.17	3.28	3.23	3.28	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
260		28.06		1.00	0.00	5.15	2.18	3.24	3.25	3.24	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
261		28.06		1.00	0.00	5.14	2.24	3.18	3.30	3.18	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
262		28.06		1.00	0.00	5.12	2.37	3.10	3.43	3.10	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
263		28.06		1.00	0.00	5.09	2.61	2.97	3.68	2.97	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
264		28.06		1.00	0.00	5.06	3.05	2.78	4.12	2.78	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
265		28.06		1.00	0.00	5.01	3.79	2.49	4.86	2.49	2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
266		28.06		1.00	0.00	4.99	4.76	2.13	5.82	2.13	3.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
267		28.06		1.00	0.00	4.97	4.63	2.14	5.70	2.14	3.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
268		28.06		1.00	0.00	4.97	4.50	2.14	5.57	2.14	3.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
269		28.06		1.00	0.00	4.96	4.38	2.14	5.45	2.14	3.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
270		28.06		1.00	0.00	4.97	4.27	2.14	5.34	2.14	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
271		28.06		1.00	0.00	4.97	4.15	2.14	5.22	2.14	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
272		28.06		1.00	0.00	4.98	4.04	2.14	5.11	2.14	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
273		28.06		1.00	0.00	5.00	3.93	2.13	5.00	2.13	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
274	0.300		0.15	1.00	0.00	5.03	3.82	2.12	4.89	2.12	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
275		28.06		1.00	0.00	5.06	3.71	2.09	4.77	2.09	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
276	0.200		0.14	1.00	0.00	5.12	3.58	2.05	4.65	2.05	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
277		28.06		1.00	0.00	5.22	3.45	1.98	4.52	1.98	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
278	0.100	28.06	0.14	1.00	0.00	5.38	3.29	1.87	4.36	1.87	3.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

Subsegment 040603

Originated: June 1, 2011

SELSERS CREEK 040603

SUMMER PROJECTION, 75%, POST AERATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.74	0.00283	0.01791	0.085	1.86	0.100	0.059	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.27	0.03667	0.07398	0.061	1.67	1.295	0.243	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.02	0.03667	0.55965	0.043	1.52	1.295	1.836	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.43	0.03950	0.06829	0.146	3.96	1.395	0.224	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	0.61	0.04363	0.03614	0.274	4.19	1.540	0.119	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	0.64	0.04363	0.03368	0.270	4.80	1.540	0.111	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	0.76	0.04646	0.03196	0.265	5.49	1.640	0.105	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.13	0.05154	0.01278	0.209	19.29	1.820	0.042	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	2.74	0.05290	0.01057	0.165	30.27	1.868	0.035	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.77	0.00489	0.00898	0.183	2.10	0.173	0.029	0.600	6.90

SELSERS CREEK 040603

SUMMER PROJECTION, 75%, POST AERATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 7.33 DAYS = MAXIMUM EFFLUENT = 93.91 PERCENT FLOW = 0.00283 TO 0.05290 DISPERSION = 0.8610 TO 15.2482 m²/s 0.01032 TO 0.55965 VELOCITY m/s DEPTH 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 0.84 BOD DECAY 0.41 TO per day NH3 DECAY 0.00 TO 0.00 per day SOD 0.60 2.71 g/m²/d TO NH3 SED SOURCE = 0.00 TO 0.00 g/m²/d PO4 SED SOURCE = 0.00 TO 0.00 g/m²/d REAERATION 4.71 TO 29.07 per day

# FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.24	TO	0.37	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	28.06	TO	28.06	deg C
DISSOLVED OXYGEN		5.16	TO	6.92	mg/L

#### ST

STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.77	DAYS	
MAXIMUM EFFLUENT	=	•	42.08	PERCENT	
FLOW	=	0.00283	TO	0.00489	m³/s
DISPERSION	=	0.6698	TO	1.1564	m²/s
VELOCITY	=	0.00735	TO	0.01270	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.74	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.99	TO	2.02	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.89	TO	5.37	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.49	TO	0.51	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	28.06	TO	28.06	deg C
DISSOLVED OXYGEN	=	4.96	TO	6.19	mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

SELSERS CREEK 040603 SUMMER PROJECTION, 75%, POST AERATION

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00566	2.45	0.43	1.70	0.72	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.04724	20.41	42.84	1.61	29.35	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.05290	-23.57	-24.35	-27.96	-9.74	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-16.82	31.25	22.89	6.24	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	8.11	7.61	4.86			0.00				0.00
NATURAL REAERATION		385.77										
DAM REAERATION		0.00										
SOD BACKGROUND		-298.53										
BOD1 DECAY		-53.29	-53.29									
BOD1 SETTLING		-4.99	-4.99									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-2.68		-2.68								
BOD2 SETTLING		-3.17		-3.17								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-26.45			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0.00					
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING	TID CIT							0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO		00 01				0.00	0.00		0.00	0 00		
PHYTOPLANKTON GROWTH/PHOTOSY		20.91				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00	0.00	0 00	0 00	0.00		0 00	0.00			
PHYTOPLANKTON DEATH PERIPHYTON GROWTH/PHOTOSYNTH	TROTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYION GROWIH/PHOIOSYNIH PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHTION RESPIRATION/EXCRE	IIION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.05290	429.53	82.64	33.82	41.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05290	-429.50	-82.64	-33.82	-9.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1011111 0011010	0.03230	120.50	02.01	33.02	2.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.03	0.00	0.00	31.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

**Appendix D2 – Summer Projection Justifications** 

rippendin D2 Summer Projection Sustinications													
		DATA TYPE	3 - PROGRAM CONSTANTS										
CONSTANT NAME	<b>VALUE</b>	UNITS	DATA SOURCE										
DISPERSION EQUATION	3		Louisiana Standard Practice										
TIDE HEIGHT	0.158	meters	Water Level data										
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice										
PHYTOPLANKTON OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	LAQUAL Default										
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice										
SETTLING RATE UNITS	2		Louisiana Standard Practice										

			DATA TYP	E 8 - REACH	IDENTI	FICATION DATA
			Upstream	Downstream	Element	
Reach	ID	Name	River	River	Length,	Data Source
			Kilometer	Kilometer	km	
1	SC	HEADWATERS - S OF 190	15.75	14.60	0.0575	ArcMap
2	SC	S OF 190 - OLD COVINGTON HWY	14.60	12.90	0.0500	ArcMap
3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.0500	ArcMap
4	SC	1ST UNNAMED - S OF I-12	12.15	9.60	0.0500	ArcMap
5	SC	S OF I-12 - S OF SISTERS RD.	9.60	7.70	0.0500	ArcMap
6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	5.85	0.0500	ArcMap
7	SC	3RD UNNAMED - S OF HWY 22	5.85	3.75	0.0500	ArcMap
8	HS	HIGH SCHOOL TRIB	2.15	0.00	0.0500	ArcMap
9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	2.50	0.0500	ArcMap
10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	0.0500	ArcMap

Subsegment 040603 Originated: June 1, 2011

		DATA			CTIVE HYDRAULIC CIENTS	DATA			CCTIVE HYDRAULIC CIENTS		DATA TYPE 9 - ADVECTIVE F	IYDRAULI	C COEFFICIENTS
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. ''d''	Depth Exp. "e"	Depth Const. ''f''	Data Source	Slope (unitless)	Data Source	Manning's ''n''	Data Source
1	HEADWATERS - S OF 190	0	0	1.859	Site 3653 X-section	0	0	0.085	Site 3653 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	S OF 190 - OLD COVINGTON HWY	0	0	1 1 669	Interpolation between sites 3653 and 3655	0	0	0.061	Interpolation between sites 3653 and 3655	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	OLD COVINGTON HWY - 1ST UNNAMED	0	0	1.524	Site 3655 X-section	0	0	0.043	Site 3655 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	1ST UNNAMED - S OF I- 12	0	0	3.962	Site 3657 X-section	0	0	0.146	Site 3657 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	S OF I-12 - S OF SISTERS RD.	0	0	4.191	Site 3659 X-section	0	0	0.274	Site 3659 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	S OF SISTERS RD 3RD UNNAMED	0	0	1 4 /9/	Interpolation between sites 3659 and 3661	0	0	02/0	Interpolation between sites 3659 and 3661	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
7	3RD UNNAMED - S OF HWY 22	0	0	5.486	Site 3661 X-section	0	0	0.265	Site 3661 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
8	HIGH SCHOOL TRIB	0	0	2.103	Site 3662 X-section	0	0	0.183	Site 3662 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
9	S OF HWY 22 - N OF WEINBERGER	0	0	1 19 28 /	Interpolation between sites 3661 and 1121	0	0	0 /09	Interpolation between sites 3661 and 1121	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
10	N OF WEINBERGER - SOUTH SLOUGH	0	0	30.267	Site 1121 X-section	0	0	0.165	Site 1121 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

			DATA TYPE 10	- DISPERS	IVE HYDRA	ULIC COEF	FICIENTS	
Reach	Name	Tidal Range	Data Source	Dispersion Coeff. "a"	-	_	Dispersion Coeff. "d"	Data Source
1	HEADWATERS - S OF 190	0.00	BPJ and Calibration	375.000	0.8333	0	1	
2	S OF 190 - OLD COVINGTON HWY	0.00	BPJ and Calibration	375.000	0.8333	0	1	
3	OLD COVINGTON HWY - 1ST UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1	
4	1ST UNNAMED - S OF I- 12	0.00	BPJ and Calibration	375.000	0.8333	0	1	
5	S OF I-12 - S OF SISTERS RD.	0.00	BPJ and Calibration	375.000	0.8333	0	1	Tracor Equation and Calibration values.
6	S OF SISTERS RD 3RD UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1	Campiation values.
7	3RD UNNAMED - S OF HWY 22	0.50	BPJ and Calibration	375.000	0.8333	0	1	
8	HIGH SCHOOL TRIB	0.00	BPJ and Calibration	375.000	0.8333	0	1	
9	S OF HWY 22 - N OF WEINBERGER	1.00	BPJ and Calibration	375.000	0.8333	0	1	
10	N OF WEINBERGER - SOUTH SLOUGH	1.00	BPJ and Calibration	375.000	0.8333	0	1	

		DAT	ГА ТҮ	<b>PE</b> 11	- INITIAL CONDITIONS	DAT	A TYPE 11 - I	NITIAL CONDITIONS
Reach	Name	Temp, deg C		DO, mg/l	Data Source	Chlorophyll <u>a</u>	Macrophytes	Data Source
1	HEADWATERS - S OF 190	28.06	0.09	5.00		10.00	0	
2	S OF 190 - OLD COVINGTON HWY	28.06	0.14	5.00		10.00	0	
3	OLD COVINGTON HWY - 1ST UNNAMED	28.06	0.18	5.00		10.00	0	
4	1ST UNNAMED - S OF I-12	28.06	0.16	5.00		10.00	0	Louisiana Standard Practice
5	S OF I-12 - S OF SISTERS RD.	28.06	0.15	5.00	90th Percentile Summer	10.00	0	
6	S OF SISTERS RD 3RD UNNAMED	28.06	0.15	5.00	temperature. DO criterion.	10.00	0	
7	3RD UNNAMED - S OF HWY 22	28.06	0.14	5.00		10.00	0	
8	HIGH SCHOOL TRIB	28.06	0.19	5.00		10.00	0	
9	S OF HWY 22 - N OF WEINBERGER	28.06	0.14	5.00		10.00	0	
10	N OF WEINBERGER - SOUTH SLOUGH	28.06	0.14	5.00		10.00	0	

Subsegment 040603 Originated: June 1, 2011

			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS											
REACH	NAME	K <sub>2</sub> OPT	Data Source	BKGRND SOD, gmO <sub>2</sub> /m <sup>2</sup> /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)		Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (m/day, ft/day or 1/day)	Data Source			
1	HEADWATERS - S OF 190	15	Louisiana	0.54687		0.377	0.03		0.05	0.05	LTP, BPJ and calibration			
2	S OF 190 - OLD COVINGTON HWY	15	Louisiana	1.25000		0.394	0.03		0.05	0.05	LTP, BPJ and calibration			
3	OLD COVINGTON HWY- 1ST UNNAMED	15	Louisiana	1.17187		0.405	0.03	Mathematical interpolations of Lab bottle rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration			
4	1ST UNNAMED - S OF I-12	15	Louisiana	1.01562	Reduced	0.420	0.031		0.05	0.05	LTP, BPJ and calibration			
5	S OF I-12 - S OF SISTERS RD.	15	Louisiana	0.37500	values as calculated on	0.443	0.031	to Site locations.	0.05	0.05	LTP, BPJ and calibration			
6	S OF SISTERS RD 3RD UNNAMED	15	Louisiana	0.31250	TMDL	0.367	0.031		0.05	0.05	LTP, BPJ and calibration			
7	3RD UNNAMED - S OF HWY 22	15	Louisiana	0.34375	Loading Spreadsheet	0.280	0.03		0.05	0.05	LTP, BPJ and calibration			
8	HIGH SCHOOL TRIB	15	Louisiana	1.17187	-	0.513	0.087	Site 3662 Lab bottle rates	0.05	0.05	LTP, BPJ and calibration			
9	S OF HWY 22 - N OF WEINBERGER	15	Louisiana	1.25000		0.446	0.032	Mathematical interpolations of Lab bottle rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration			
10	N OF WEINBERGER - SOUTH SLOUGH	15	Louisiana	1.56250		0.578	0.034	to Site locations.	0.05	0.05	LTP, BPJ and calibration			

		DATA TYPE	13 - NITROGI COEFFIC	EN AND PHOSPHORUS IENTS	
Reach	Name	NBOD decay rate, 1/day  NBOD settling rate, 1/day		Data Source	
1	HEADWATERS - S OF 190	0.211	0.05		
2	S OF 190 - OLD COVINGTON HWY	0.194	0.05		
3	OLD COVINGTON HWY - 1ST UNNAMED	0.184	0.05	Mathematical interpolations of Lab bottle rates based on	
4	1ST UNNAMED - S OF I-12	0.170	0.05	physical location in reference	
5	S OF I-12 - S OF SISTERS RD.	0.147	0.05	to Site locations.	
6	S OF SISTERS RD 3RD UNNAMED	0.179	0.05	to sic locations.	
7	3RD UNNAMED - S OF HWY 22	0.216	0.05		
8	HIGH SCHOOL TRIB	0.307	0.05	Site 3662 Lab bottle rates	
9	S OF HWY 22 - N OF WEINBERGER	0.215	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	
10	N OF WEINBERGER - SOUTH SLOUGH	0.214	0.05		

			DATA T	YPE 19 - NO	ONPOINT S	OURCES
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	UCBOD2, kg/day or lb/day	Data Source
1	HEADWATERS - S OF 190	1.15	0.15625	0.046875	0.15625	
2	S OF 190 - OLD COVINGTON HWY	1.70	0.03125	0.078125	0.31250	
3	OLD COVINGTON HWY - 1ST UNNAMED	0.75	0.03125	0.03125	0.78125	
4	1ST UNNAMED - S OF I-12	2.55	0.0390625	0.21875	2.18750	Reduced values as
5	S OF I-12 - S OF SISTERS RD.	1.90	0.7437649	0.5454276	0.3636184	calculated on TMDL
6	S OF SISTERS RD 3RD UNNAMED	1.85	2.03125	0.93750	0.078125	Loading Spreadsheet
7	3RD UNNAMED - S OF HWY 22	2.10	1.171875	1.234375	0.28125	Loading Spicausheet
8	HIGH SCHOOL TRIB	2.15	0.62500	0.203125	0.40625	
9	S OF HWY 22 - N OF WEINBERGER	1.25	0.78125	0.46875	1.25000	
10	N OF WEINBERGER - SOUTH SLOUGH	2.50	2.50000	1.09375	1.796875	

		DATA T	YPE 20 - HE	ADWA				TURE, SALINITY, AND
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms		Salinity,	ONSERVATIV Conservative Material I Chlorides		Data Source
HEADWATER	1		0.00283	28.06	0.09	12.6	1 210.35	Site 3653 Field and Lab data for conservatives. Flow is minimum flow as per LTP, 90th Percentile summer temperature.
HIGH SCHOOL TRIB	238		0.00283	28.06	0.19	14.2	I 389.2	Site 3662 Field and Lab data for conservatives. Flow is minimum flow as per LTP, 90th Percentile summer temperature.

	D	DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN										
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	NH <sub>3</sub> -N, mg/l	NO <sub>2</sub> - NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source					
HEADWATER	5	1.8484375	0.691875			2.956875	DO set to criteria value, BOD					
HIGH SCHOOL TRIB	5	2.0621875	2.2453125			4.0128125	components set to reduced values as calculated on TMDI Loading Spreadsheet.					

		DATA 7	<b>TYPE 22 - HE</b> A	ADWAT	ER DATA I	OR					
		PHOSPHO	PHOSPHORUS, CHLOROPHYLL, COLIFORM,								
Headwat	er	Phosphorus,	Chlorophyll a	a,	Data Cour	0.0					
Name		mg/L	ug/L		Date Source						
HEADWAT	ΓER		10								
HIGH SCHO	OOL		10	Louis	siana Standard	l Practice					
TRIB			10								

	DATA TYPE 23 - J	DATA TYPE 23 - JUNCTION DATA							
Junction Name	Computational element number of the element immediately downstream of the element	Computational element number of the element immediately upstream of the element							
HIGH SCHOOL TRIB	281	237							
CONFLUENCE	201	231							

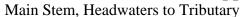
	<b>D</b> A	ATA TYPE	24 - WASTELO	OAD DA	TA FOR FLOV	V, TEMPERAT	TURE, SALINITY, AND CONSERVATIVES			
Wasteload / Withdrawal Name	EL#	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source			
SE Hammond	32	0.033845	30	0.28	37.8	462				
Old Cov Hwy Trib	70	0.00283	28.06	0.07	13.2	154.75				
Pelican Garden Subd	121	0.001095	30							
Sisters Rd. Trib	147	0.00283	28.06	0.1	21.1	220.4	Flow is by permit/application or by LTP for			
Dupre Trailer Park	148	0.0001975	30				tributaries. Temperature is by LTP for permitted			
Hoover Rd. Trib	196	0.00283	28.06	0.11	7.6	232.13	dischargers and 90th percentile temperature for			
GMG Rentals	248	0.0001637	30				tributaries. Salinity and conservative values are			
Rock's Rentals	254	0.0001312	30				repeated from the calibration model.			
Ponchatoula High	266	0.0017612	30							
Esterbrook Trace	285	0.0001975	30							
Creekside Subdivision	310	0.0013587	30	0.36	38.7	707.3				

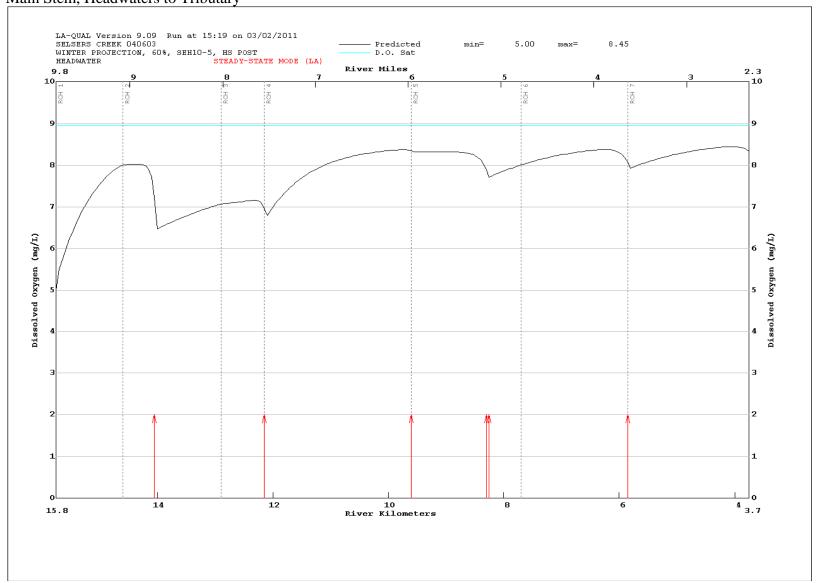
			D.	ATA TYP	E 25 - WAS'	TELOAI	DATA I	FOR DO, BO	DD, AND N	ITROGEN
Wasteload / Withdrawal Name	EL#	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	NH <sub>3</sub> -N, mg/L	NH <sub>3</sub> -N nitrified, percent	NO <sub>2</sub> +NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source
SE Hammond	32	5.00	23		8.6					Permit limits
Old Cov Hwy Trib	70	5.00	2.295625		1.5659375				3.1696875	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
Pelican Garden Subd	121	5.00	23		8.6					Permit limits
Sisters Rd. Trib	147	5.00	0.71		0.165				1.4675	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
Dupre Trailer Park	148	5.00	23		8.6					Permit limits
Hoover Rd. Trib	196	5.00	1.9634375		0.5525				1.95125	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
GMG Rentals	248	5.00	23		8.6					Permit limits
Rock's Rentals		5.00	23		8.6					Permit limits
Ponchatoula High	266	5.00	11.5		8.6					Permit limits
Esterbrook Trace	285	5.00	23		8.6					Permit limits
Creekside Subdivision	310	5.00	23		8.6					Permit limits

	DATA	ATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES										
Wasteload / Withdrawal Name	EL#	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source						
SE Hammond	32		10									
Old Cov Hwy Trib	70		10									
Pelican Garden Subd	121											
Sisters Rd. Trib	147		10									
Dupre Trailer Park	148											
Hoover Rd. Trib	196		10			Louisiana Standard Practice.						
GMG Rentals	248											
Rock's Rentals	254											
Ponchatoula High	266											
Esterbrook Trace	285											
Creekside Subdivision	310											

		DATA TYPI	E 27 - LOWER BOUNDARY CONDITIONS
Parameter	Value	Units	Data Source
TEMPERATURE	28.06	oCelcius	
SALINITY	0.13	ppt	
CONSERVATIVE MATERIAL I	29.5	mg/L	
CHLORIDES	27.3	mg L	
CONSERVATIVE MATERIAL II	267.7	mg/L	
CONDUCTIVITY	207.7	mg L	
DISSOLVED OXYGEN	5	mg/L	
BIOCHEMICAL OXYGEN DEMAND 1	6.858	mg/L	Field and Lab data, Site 3663; Criteria DO value; 90th
BIOCHEMICAL OXYGEN DEMAND 2	6.331	mg/L	percentile temperature.
ORGANIC NITROGEN		mg/L	percentile temperature.
AMMONIA NITROGEN		mg/L	
NITRATE + NITRITE		mg/L	
NBOD	2.189	mg/L	
PHOSPHORUS	0.4	mg/L	
PHYTOPLANKTON	11.6	ug/L	
COLIFORM		#/100 mL	
NONCONSERVATIVE MATERIAL		mg/L	

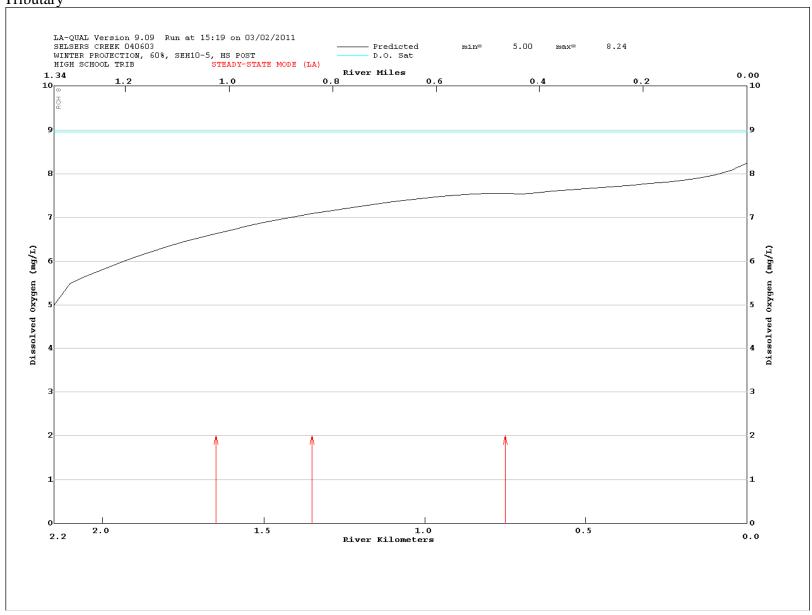
**Appendix D3 – Winter Output Graphs and Input and Output Files** 

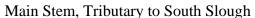


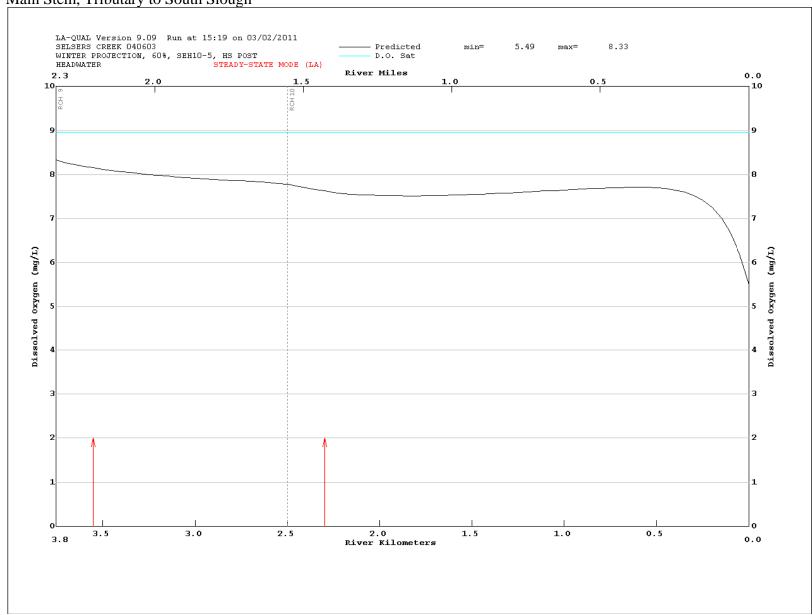


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011









# Selsers Creek, Winter, 75% Reduction Input Data Set

```
! DATA TYPE 01 -- TITLES AND CONTROL DATA
TITLE01 SELSERS CREEK 040603
TITLE02 WINTER PROJECTION, 75%, POST AERATION
CONTROL YES METRIC UNITS
CONTROL YES USE EFFECTIVE CONCENTRATIONS
ENDATA01
! DATA TYPE 02 -- Model Options
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 NO CONSERVATIVE MATERIAL I = CHLORIDES
                                                                     CL
                                                          IN
MODOPT04 NO CONSERVATIVE MATERIAL II = CONDUCTIVITY
                                                                     COND
                                                          IN
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD
MODOPT09 NO PHOSPHORUS SERIES
MODOPT10 NO PHYTOPLANKTON
MODOPT11 NO PERIPHYTON
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL
ENDATA02
! DATA TYPE 03 -- PROGRAM CONSTANTS
PROGRAM SETTLING RATE UNITS
                                      = 2
PROGRAM K2 MAXIMUM
                                     = 25
PROGRAM DISPERSION EQUATION
                                     = 3
PROGRAM TIDE HEIGHT
                                     = 0.158
PROGRAM INHIBITION CONTROL VALUE = 3
ENDATA03
! DATA TYPE 04 -- TEMPERATURE CORRECTION CONSTANTS
ENDATA04
! DATA TYPE 05 -- TEMPERATURE DATA
ENDATA05
! DATA TYPE 06 -- ALGAE CONSTANTS
ENDATA06
! DATA TYPE 07 -- MACROPHYTE CONSTANTS
ENDATA07
! DATA TYPE 08 -- REACH IDENTIFICATION DATA
! - - - -1- - - - -2- - - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
```

Subsegment 040603 Originated: June 1, 2011

			n de de de de de de de de C. C.	national and a second	de de de de de de d	to at all all all all all all	.1.	4.7	to also also also also also also also als	d.
•			******		*****	*****				
	R#				100		RK			LENGTH
			HEADWATERS						5	0.0575
REACH ID			S OF 190 -							0.05
REACH ID			OLD COVING						_	0.05
REACH ID			LST UNNAME				12.15			0.05
REACH ID	5	SC S	S OF I-12	- S OF S	SISTERS	RD.	9.6	7.7	_	0.05
REACH ID	6	SC S	S OF SISTER	RS RD.	- 3RD U	NNAMED	7.7	5.85	)	0.05
REACH ID	./	SC 3	BRD UNNAME	) - S ()	F HWY 2	2	5.85	3.7	5	0.05
REACH ID			HIGH SCHOO					0		0.05
REACH ID			S OF HWY 2:							
REACH ID	10	SC N	OF WEINB	ERGER -	SOUTH	SLOUGH	2.5	0		0.05
ENDATA08										
			ADVECTIVE I	_		_				
			-2							
!23456789			90123456789							
!	***		*****	*	_****	*	_****	*	***	* * *
!		a	b	C	d	е	£			
!		WIL	OTH WIDTH	WIDT	H DEPTH	DEPTH	DEPT	H		
!	R#						CONS	T SLOPE	MANNI	NG
HYDR-1	1	0	0		0		0.085	0.0001	0.03	5
HYDR-1	2	0	0		0		0.061	0.0001	0.03	5
HYDR-1	3	0	0	1.524	0	0	0.043	0.0001	0.03	5
HYDR-1	4	0	0	3.962	0	0	0.146	0.0001	0.03	5
HYDR-1	3 4 5	0	0	4.191	0 0 0	0	0.274	0.0001	0.03	5
HYDR-1	6	0	0	4.797	0	0	0.27	0.0001	0.03	5
HYDR-1	7	0	0	5.486	0 0 0	0	0.265	0.0001	0.03	5
HYDR-1	8	0	0	2.103	0	0	0.183	0.0001	0.03	5
HYDR-1	9	0	0	19.287	0	0	0.209	0.0001	0.03	5
HYDR-1	10	0	0	30.267		0		0.0001		
ENDATA09										
	PF 10	T	DISPERSIVE	HYDRAIII	LTC COE	FFTCTEN	TS			
			-2					6		7
			90123456789							
!			*****						130707	012313070
•		TIDA								
:	ъ#		E a	1	h	С	d			
	1		эв а 375			C	1			
HIDR-Z	7	0								
HYDR-2	2	0		0.833			1			
HYDR-2	3	U	375	0.833			1			
	4			0.833			1			
HYDR-2	5	U	375	0.833	3 0		1			

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
HYDR-2
        6 0
              375
                      0.8333
        7 0.5 375
                      0.8333
                                    1
HYDR-2
                             0
HYDR-2
       8 0
              375
                      0.8333
                                    1
              375
HYDR-2
       9 1
                      0.8333
                             0
                                    1
HYDR-2
       10 1
              375
                      0.8333
                                    1
ENDATA10
! DATA TYPE 11 -- INITIAL CONDITIONS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____********
            TEMP SALINITY
                        DO
                              NH3 N NIT NIT I PHOS CHL A MACROPHYTES
        R#
       1 20.75
                0.09
                                              10
INITIAL
        2 20.75
                0.14
                                              10
INITIAL
       3 20.75
                0.18
                                              10
INITIAL
       4 20.75
                                              10
INITIAL
                0.16
INITIAL
       5 20.75
                0.15
                                              1.0
                                              10
INITIAL
       6 20.75
                0.15
INITIAL
       7 20.75
                0.14
                                              10
INITIAL
      8 20.75
                0.19
                                              10
       9 20.75
INITIAL
                0.14
                                              10
       10 20.75
INITIAL
                0.14
                                              10
ENDATA11
! DATA TYPE 12 -- REAERATION. SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS
!------6----7----8-----9
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
       BOD 1 BOD 1
                                                     BOD 2
                                                            BOD 2
                              SOD DECAY SETT
                                                     DECAY
                                                            SETT
       R# REA KL MIN
COEF-1
       1 15
                            0.546870.377 0.05 1
                                                     0.03 0.05
       2 15
                           1.25 0.394 0.05 1
                                                     0.03 0.05
COEF-1
        3 15
COEF-1
                           1.171870.405 0.05
                                          1
                                                     0.03 0.05
       4 15
                            1.015620.42 0.05
                                                     0.031 0.05
COEF-1
       5 15
                            0.375 0.443 0.05
                                          1
                                                     0.031 0.05
COEF-1
       6 15
                            0.3125 0.367 0.05
COEF-1
                                                     0.031 0.05
       7 15
                            0.343750.28 0.05 1
COEF-1
                                                     0.03 0.05
COEF-1
        8 15
                           1.171870.513 0.05 1
                                                     0.087 0.05
COEF-1
       9 15
                           1.25 0.446 0.05 1
                                                     0.032 0.05
COEF-1
       10 15
                           1.5625 0.578 0.05 1
                                                     0.034 0.05
ENDATA12
! DATA TYPE 13 -- NITROGEN AND PHOSPHOURS COEFFICIENTS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
```

```
Subsegment 040603
Originated: June 1, 2011
      *** _____******
          NBOD
               NBOD
       R# DECAY SETT
COEF-2
       1 0.211 0.05
COEF-2
        2 0.194 0.05
COEF-2
       3 0.184 0.05
COEF-2
       4 0.17 0.05
COEF-2
       5 0.147 0.05
COEF-2
      6 0.179 0.05
COEF-2
       7 0.216 0.05
COEF-2
      8 0.307 0.05
       9 0.215 0.05
COEF-2
COEF-2
      10 0.214 0.05
ENDATA13
! DATA TYPE 14 -- ALGAE AND MACROPHYTE COEFFICIENTS
ENDATA14
! DATA TYPE 15 -- COLIFORM AND NONCONSERVATIVE COEFFICIENTS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____******
ENDATA15
! DATA TYPE 16 -- INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
*** _____*********
       R#
         OUTFLOW INFLOW TEMP SALINITY CHLORIDE COND
INCR-1
       1
INCR-1
        3
INCR-1
INCR-1
INCR-1
                                  13
                                        225
INCR-1
       7
INCR-1
                                  13
                                        225
INCR-1
INCR-1
                                  13
                                        225
INCR-1
       10
                                  13
                                        225
ENDATA16
! DATA TYPE 17 -- INCREMENTAL DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
*** _____********
!
       R#
                        NBOD
                             NH3 N NIT NIT
            DO
                 BOD 1
                                          BOD 2
```

FINAL Selsers Creek Watershed TMDL

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
INCR-2
INCR-2
         2 3.86
INCR-2
         3 2.99
INCR-2
TNCR-2
        5
INCR-2
       6 5.02
INCR-2
        7 5.31
INCR-2
        8
INCR-2
       9 3.07
       10 1.29
INCR-2
ENDATA17
! DATA TYPE 18 -- Incremental Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
!
        R# PHOSPH
                  CHL A COLIFORM NONCONSERVATIVE
INCR-3
        1
INCR-3
INCR-3
         3
INCR-3
INCR-3
INCR-3
         7
INCR-3
         8
INCR-3
INCR-3
INCR-3
        1.0
ENDATA18
! DATA TYPE 19 -- NONPOINT SOURCE DATA
! - - - - 1 - - - - - 2 - - - - 3 - - - - - 4 - - - - 5 - - - - - 6 - - - - - 7 - - - - 8 - - - - 9 - - - - 0 - - - - 1
*** _____********
             BOD 1 NBOD COLIFORM NONCONS
                                                BOD 2
        R#
                                        DO
       1 0.15625 0.046875
                                              0.15625
NONPOINT
         2 0.03125 0.078125
                                              0.3125
NONPOINT
NONPOINT
        3 0.03125 0.03125
                                              0.78125
NONPOINT
         4 0.03906250.21875
                                              2.1875
NONPOINT
         5 0.74376490.5454276
                                              0.3636184
         6 2.03125 0.9375
                                              0.078125
NONPOINT
         7 1.171875 1.234375
                                              0.28125
NONPOINT
       8 0.625 0.203125
                                              0.40625
NONPOINT
        9 0.78125 0.46875
                                              1.25
NONPOINT
       10 2.5 1.09375
                                              1.796875
NONPOINT
```

```
ENDATA19
! DATA TYPE 20 -- HEADWATER DATA FOR FLOW, TEMPERATURE, SAALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
**** _____************
      E#
         NAME
                             FIOW
                                   TEMP SALIN
                                            CHLORIDE COND
HDWTR-1 1
          HEADWATER
                            0.0283 20.75
                                       0.09
                                            12.6
                                                  210.35
HDWTR-1 238 HIGH SCHOOL TRIB
                          0.0283 20.75
                                       0.19
                                            14.2
                                                  389.2
ENDATA 20
! DATA TYPE 21 -- HEADWATER DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
**** _____*********
                  BOD 1 NBOD
                              NH3 N
                                     NIT NIT BOD 2
HDWTR-2 1
          5
                1.84843750.691875
                                          2.956875
HDWTR-2 238 5
                2.06218752.2453125
                                          4.0128125
ENDATA 21
! DATA TYPE 22 -- HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
       E# PHOSPHOR CHL A COLIFORM NCM
HDWTR-3 1
                10
HDWTR-3 238
                10
ENDATA 2.2
! DATA TYPE 23 -- JUNCTION DATA
JUNCTION 281 237 HIGH SCHOOL TRIB CONFLUENCE
ENDATA23
! DATA TYPE 24
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
**** _____************************
      E#
            NAME
                         FLOW
                                 TEMP
                                    SALINITY CHLORIDE COND
WSTLD-1 32
          SE HAMMOND
                        0.033845 30
                                     0.28
                                           37.8
                                                 462
WSTI-D-1 70
                                     0.07
                                           13.2
          OLD COV HWY TRIB
                        0.0283 20.75
                                                 154.75
WSTI-D-1 121
         PELICAN GARDEN SUBD 0.001095 30
WSTLD-1 147
          SISTERS RD TRIB
                        0.0283 20.75
                                     0.1
                                           21.1
                                                 220.4
         DUPRE TRAILER PARK 0.000197530
WSTLD-1 148
          HOOVER RD TRIB
WSTLD-1 196
                        0.0283 20.75
                                     0.11 7.6
                                                 232.13
WSTLD-1 248
          GMG RENTALS
                        0.000163730
WSTLD-1 254
          ROCK'S RENTALS
                        0.000131230
                        0.001761230
WSTLD-1 266
          PONCHATOULA HIGH
```

LOWER BC TEMPERATURE = 20.75
LOWER BC SALINITY = 0.13
LOWER BC CONSERVATIVE MATERIAL I = 29.5
LOWER BC CONSERVATIVE MATERIAL II = 267.7

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
LOWER BC DISSOLVED OXYGEN
                             = 5
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND
                            = 6.858
LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND
                           = 6.331
LOWER BC PO4 PHOSPHORUS
                             = 0.4
LOWER BC PHYTOPLANKTON
                             = 11.6
LOWER BC NBOD
                             = 2.189
ENDATA 2.7
! DATA TYPE 28 -- Dam Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
ENDATA28
! DATA TYPE 29 -- SENSITIVITY ANALYSIS DATA
ENDATA29
! DATA TYPE 30 -- Plot Control Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
PLOT1 SELSERS CREEK
RCH 1 2 3 4 5 6 7
PLOT2 HIGH SCHOOL TRIB
RCH 8
PLOT3 TIDAL
RCH 9 10
ENDATA30
! DATA TYPE 31 -- Overlay Plot Data
! - - - -1- - - - -2- - - - -3- - - - -4- - - -5- - - - -6- - - - -7- - - -8- - - -9- - - -0- - - -1
ENDATA31
```

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

## Selsers Creek, Winter, 75% Reduction Output Data Set

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

LA-OUAL Version 9.09 Louisiana Department of Environmental Quality Input file is C:\Documents and Settings\shanec\My Documents\Modeling\Pontchartrain\040603\Modeling\Winter\Winter75HS5-2allp.txt Running in steady-state mode using LA defaults Output produced at 07:32 on 03/03/2011 \$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$ CARD TYPE CONTROL TITLES TITLE01 SELSERS CREEK 040603 TITLE02 WINTER PROJECTION, 75%, POST AERATION CONTROL YES METRIC UNITS YES USE EFFECTIVE CONCENTRATION CONTROL ENDATA01 \$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$ CARD TYPE MODEL OPTION MODOPT01 NO TEMPERATURE MODOPT02 NO SALINITY MODOPT03 NO CONSERVATIVE MATERIAL I = CHLORIDES IN CLIN COND MODOPT04 NO CONSERVATIVE MATERIAL II = CONDUCTIVITY MODOPT05 YES DISSOLVED OXYGEN MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND BOD2 BIOCHEMICAL OXYGEN DEMAND MODOPT07 YES MODOPT08 YES NBOD MODOPT09 NO PHOSPHORUS SERIES MODOPT10 NO PHYTOPLANKTON MODOPT11 NO PERIPHYTON MODOPT12 NO COLIFORM MODOPT13 NONCONSERVATIVE MATERIAL ENDATA02 \$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$ CARD TYPE DESCRIPTION OF CONSTANT VALUE PROGRAM SETTLING RATE UNITS 2.00000 (values entered as per day) PROGRAM K2 MAXIMUM 25.00000 per day PROGRAM DISPERSION EQUATION 3.00000 (values entered as a function of D,O,Vmean) PROGRAM 0.15800 meters TIDE HEIGHT PROGRAM INHIBITION CONTROL VALUE 3.00000 (inhibit all rates but SOD) ENDATA03

## FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE VALUE DESCRIPTION OF CONSTANT

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	SC	HEADWATERS - S OF 190	15.75	TO	14.60	0.0575	1.15	20	1	20
REACH ID	2	SC	S OF 190 - OLD COVINGTON HWY	14.60	TO	12.90	0.0500	1.70	34	21	54
REACH ID	3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	TO	12.15	0.0500	0.75	15	55	69
REACH ID	4	SC	1ST UNNAMED - S OF I-12	12.15	TO	9.60	0.0500	2.55	51	70	120
REACH ID	5	SC	S OF I-12 - S OF SISTERS RD.	9.60	TO	7.70	0.0500	1.90	38	121	158
REACH ID	6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	TO	5.85	0.0500	1.85	37	159	195
REACH ID	7	SC	3RD UNNAMED - S OF HWY 22	5.85	TO	3.75	0.0500	2.10	42	196	237
REACH ID	8	HS	HIGH SCHOOL TRIB	2.15	TO	0.00	0.0500	2.15	43	238	280
REACH ID	9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	TO	2.50	0.0500	1.25	25	281	305
REACH ID	10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	TO	0.00	0.0500	2.50	50	306	355
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	SC	0.000	0.000	1.859	0.000	0.000	0.085	0.00010	0.035
HYDR-1	2	SC	0.000	0.000	1.669	0.000	0.000	0.061	0.00010	0.035
HYDR-1	3	SC	0.000	0.000	1.524	0.000	0.000	0.043	0.00010	0.035
HYDR-1	4	SC	0.000	0.000	3.962	0.000	0.000	0.146	0.00010	0.035
HYDR-1	5	SC	0.000	0.000	4.191	0.000	0.000	0.274	0.00010	0.035
HYDR-1	6	SC	0.000	0.000	4.797	0.000	0.000	0.270	0.00010	0.035
HYDR-1	7	SC	0.000	0.000	5.486	0.000	0.000	0.265	0.00010	0.035
HYDR-1	8	HS	0.000	0.000	2.103	0.000	0.000	0.183	0.00010	0.035

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

HYDR-1	9	sc		0.000	0.000	19.	287	0.000		0.000	0	0.209	0.00010	0.035						
HYDR-1 ENDATA09	10	SC		0.000	0.000		267	0.000		0.000		0.165	0.00010	0.035						
\$\$\$ DATA T	TYPE 10	(DIS	PERSIV	VE HYDRA	ULIC COEFFI	CIENTS)	\$\$\$													
CARD TYPE	REACH	ID		IDAL ANGE	DISPERSION "A"	DIS	PERSION "B"		ERSION C"		DISPERS	SION								
HYDR	1	SC		0.00	375.000		0.833		.000		1.00									
HYDR	2	SC		0.00	375.000		0.833		.000		1.00									
HYDR	3	SC		0.00	375.000		0.833		.000		1.00									
HYDR	4	SC		0.00	375.000		0.833		.000		1.00									
HYDR	5	SC		0.00	375.000		0.833		.000		1.00									
HYDR HYDR	6 7	SC SC		0.00 0.50	375.000 375.000		0.833 0.833		.000		1.00									
HYDR	8	HS		0.00	375.000		0.833		.000		1.00									
HYDR	9	SC		1.00	375.000		0.833		.000		1.00									
HYDR	10	SC		1.00	375.000		0.833		.000		1.00									
ENDATA10																				
\$\$\$ DATA I	TYPE 11	(INI	TIAL (	CONDITIO	NS) \$\$\$															
CARD TYPE	RI	EACH	ID	TEMP	SALIN	DO	NH3-N	NO3-N		4-P	CHL A		BOD1	BOD2	ORG-N	ORG-P	COLI	NCM	CL	COND
				deg C	ppt	mg/L	mg/L	mg/L	m	g/L	μg/L	g/m²	mg/L	mg/L	mg/L	mg/L	#/100mL			
INITIAL		1	SC	20.75	0.09	5.00	0.00	0.00	0	.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		2	SC	20.75	0.14	5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		3	SC	20.75	0.18	5.00	0.00	0.00	0	.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	SC	20.75	0.16	5.00	0.00	0.00		.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	SC	20.75	0.15	5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		6	SC	20.75	0.15	5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		7	SC	20.75	0.14	5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL		8	HS	20.75	0.19	5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL INITIAL		9 10	SC SC	20.75 20.75	0.14 0.14	5.00 5.00	0.00	0.00		.00	10.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA11		10	SC	20.75	0.14	5.00	0.00	0.00	U	.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
\$\$\$ DATA T	TYPE 12	(REAI	ERATIO	ON, SEDI	MENT OXYGEN	DEMAND,	BOD COE	FICIENT	S) \$\$\$											
GADD 5					***		0	**0 5	v apvie	I	AEROB	DOD	SETTLD	ANAER	AEROB	DCD	2	ANAE		DD2
	RCH RCI				K2	"Е	.2		KGRND	-	BOD	BOD	SOD	BOD	BOD2	BOD		BOD		
TYPE N	NUM II	OP'	T.		"A"	" E	."	'C"	SOD /m²/d		DECAY r day	SETT per day	AVAIL frac	DECAY per day	DECAY per day	SET" per day		DECA per da		DD1 day
								9	/ III / CI	pcı	Laay	per day	IIac	per day	per day	per da	Y	per do	.y per c	ady
COEF-1	1 S	15	LOUIS	SIANA	0.000	0.00	0.0	000	0.547	(	0.377	0.050	1.000	0.000	0.030	0.05	0	0.00	0.1	000
COEF-1	2 S	2 15	LOUIS	SIANA	0.000	0.00	0.0	000	1.250	(	0.394	0.050	1.000	0.000	0.030	0.05	0	0.00	0.0	000
COEF-1	3 S		LOUIS		0.000	0.00			1.172		0.405	0.050	1.000	0.000	0.030	0.05		0.00		000
COEF-1	4 S		LOUIS		0.000	0.00			1.016		0.420	0.050	1.000	0.000	0.031	0.05		0.00		000
COEF-1	5 S		LOUIS		0.000	0.00			0.375		0.443	0.050	1.000	0.000	0.031	0.05		0.00		000
COEF-1	6 S		LOUIS		0.000	0.00			0.312		0.367	0.050	1.000	0.000	0.031	0.05		0.00		000
COEF-1	7 S		LOUIS		0.000	0.00			0.344		0.280	0.050	1.000	0.000	0.030	0.05		0.00		000
COEF-1	8 H	s 15	LOUIS	SIANA	0.000	0.00	0.0	100	1.172	(	0.513	0.050	1.000	0.000	0.087	0.05	U	0.00	·U 0.0	000

## FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

COEF-1	9	SC	15 LOUISIANA	0.000	0.000	0.000	1.250	0.446	0.050	1.000	0.000	0.032	0.050	0.000	0.000
COEF-1	10	SC	15 LOUISIANA	0.000	0.000	0.000	1.562	0.578	0.050	1.000	0.000	0.034	0.050	0.000	0.000
ENDATA12															

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

***	,				, 4	7.7						_
					SETTLD		BKGRND	BKGRND				SETTLD
CARD TYPE	REACH	ID	NBOD	NBOD	ORGN	NH3	NH3	PO4	DENIT	ORGP	ORGP	ORGP
			DECA	SETT	AVAIL	DECA	SRCE	SRCE	RATE	DECA	SETT	AVAIL
			per day	per day	frac	per day	g/m²/d	g/m²/d	per day	per day	per day	frac
COEF-2	1	SC	0.211	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	SC	0.194	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	SC	0.184	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	SC	0.170	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	SC	0.147	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	SC	0.179	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	7	SC	0.216	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	8	HS	0.307	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	9	SC	0.215	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	10	SC	0.214	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENDATA13												

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

BANK	PERIP	PERIP	PERIP	PHYTO	PHYTO	PHYTO	PHYTO	CHL A:	SECCHI	ID	REACH	CARD TYPE
SHADING	RESP	GROW	DEATH	RESP	GROW	DEATH	SETT	ALGAE	DEPTH			
frac	per day	frac	m									

MAX

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE REACH ID COLIFORM NCM NCM
DIE-OFF DECAY SETT
per day per day per day

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW m³/s	INFLOW m³/s	TEMP deg C	SALIN ppt	CL	COND	IN/DIST	OUT/DIST
INCR-1	1	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	3	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	5	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	6	SC	0.00000	0.00000	0.00	0.00	13.00	225.00	0.00000	0.00000
INCR-1	7	SC	0.00000	0.00000	0.00	0.00	13.00	225.00	0.00000	0.00000
INCR-1	8	HS	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	9	SC	0.00000	0.00000	0.00	0.00	13.00	225.00	0.00000	0.00000

MAX

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 INCR-1 10 SC 0.00 0.00000 0.00000 0.00 ENDATA16 \$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$ CARD TYPE REACH ID DO BOD1 NBOD

			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
INCR-2	1	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	SC	3.86	0.00	0.00	0.00	0.00	0.00
INCR-2	3	SC	2.99	0.00	0.00	0.00	0.00	0.00
INCR-2	4	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	5	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	6	SC	5.02	0.00	0.00	0.00	0.00	0.00
INCR-2	7	SC	5.31	0.00	0.00	0.00	0.00	0.00
INCR-2	8	HS	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	9	SC	3.07	0.00	0.00	0.00	0.00	0.00
INCR-2	10	SC	1.29	0.00	0.00	0.00	0.00	0.00
ENDATA17								

0.00

0.00

0.00

0.00

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$ PHYTO CARD TYPE REACH ID PO4 CHL A COLI NCM ORGP mg/L μg/L #/100mL mg/L INCR-3 1 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 3 SC 0.00 0.00 0.00 0.00 0.00 SC 0.00 INCR-3 4 0.00 0.00 0.00 0.00 INCR-3 5 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 6 SC 0.00 0.00 0.00 0.00 0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

13.00

BOD2

225.00 0.00000 0.00000

INCR-3 INCR-3 ENDATA18

INCR-3

INCR-3

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

SC

HS

SC

SC

8

9

10

0.00

0.00

0.00

0.00

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	SC	0.16	0.05	0.00	0.00	0.00	0.16	0.00
NONPOINT	2	SC	0.03	0.08	0.00	0.00	0.00	0.31	0.00
NONPOINT	3	SC	0.03	0.03	0.00	0.00	0.00	0.78	0.00
NONPOINT	4	SC	0.04	0.22	0.00	0.00	0.00	2.19	0.00
NONPOINT	5	SC	0.74	0.55	0.00	0.00	0.00	0.36	0.00
NONPOINT	6	SC	2.03	0.94	0.00	0.00	0.00	0.08	0.00
NONPOINT	7	SC	1.17	1.23	0.00	0.00	0.00	0.28	0.00
NONPOINT	8	HS	0.62	0.20	0.00	0.00	0.00	0.41	0.00
NONPOINT	9	SC	0.78	0.47	0.00	0.00	0.00	1.25	0.00
NONPOINT	10	SC	2.50	1.09	0.00	0.00	0.00	1.80	0.00

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

ENDATA19

ENDATA19									
\$\$\$ DATA TYPE	20 (HEAD	WATER FOR FLOW, TEMPERATUR	E, SALINITY	AND CONSER	VATIVES) \$	\$\$			HDW DISP
CARD TYPE	ELEMENT	NAME UN	FLOW m³/s	FLOW cfs		SALIN ppt	CL	COND	EXCHG frac
HDWTR-1 HDWTR-1 ENDATA20	1 238		0 0.02830 0 0.02830	0.99929 0.99929		0.09 0.19	12.600 14.200	210.350 389.200	0.000
\$\$\$ DATA TYPE	21 (HEAD	WATER DATA FOR DO, BOD, AN	D NITROGEN)	\$\$\$					
CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L	
HDWTR-2 HDWTR-2 ENDATA21	1 238	HEADWATER HIGH SCHOOL TRIB	5.00 5.00	1.85 2.06	0.69 2.25	0.00	0.00	2.96 4.01	
\$\$\$ DATA TYPE	22 (HEAD	WATER DATA FOR PHOSPHORUS,	PHYTOPLANKT	ON, COLIFO	RM, AND NO	NCONSERVA	TIVES) \$\$	\$	
CARD TYPE	ELEMENT	NAME	PO4-P mg/L	CHL A	COLI #/100mL	NCM	ORG-P mg/L		
HDWTR-3 HDWTR-3 ENDATA22	1 238	HEADWATER HIGH SCHOOL TRIB	0.00	10.00	0.00	0.00	0.00		
\$\$\$ DATA TYPE	23 (JUNC	CTION DATA) \$\$\$							
	UNCTION ELEMENT	UPSTRM RIVER NAME ELEMENT KILOM	}						
JUNCTION ENDATA23	281	237 3.75 HIGH SC	HOOL TRIB CC	NFLUENCE					
\$\$\$ DATA TYPE	24 (WAST	CELOAD DATA FOR FLOW, TEMPE	RATURE, SALI	NITY, AND	CONSERVATI	VES) \$\$\$			
CARD TYPE EL	EMENT	RKILO NAME	FLOW m³/s	FLOW cfs		TEMP deg C	SALIN ppt	CL	COND
WSTLD-1		14.05 SE HAMMOND	0.03384	1.19509		30.00	0.28	37.800	462.000
WSTLD-1 WSTLD-1	70 121 147 148 196	12.15 OLD COV HWY TRIB 9.60 PELICAN GARDEN SUBD 8.30 SISTERS RD TRIB 8.25 DUPRE TRAILER PARK 5.85 HOOVER RD TRIB	0.02830 0.00109 0.02830 0.00020 0.02830	0.99929 0.03867 0.99929 0.00697 0.99929	0.646 0.025 0.646 0.005 0.646	20.75 30.00 20.75 30.00 20.75	0.07 0.00 0.10 0.00 0.11	13.200 0.000 21.100 0.000 7.600	154.750 0.000 220.400 0.000 232.130
WSTLD-1	248 254	1.65 GMG RENTALS 1.35 ROCK'S RENTALS	0.00016 0.00013	0.00578 0.00463	0.004	30.00 30.00	0.00	0.000	0.000

FINAL Selsers Creek Watershed TMDL Subsegment 040603

WSTLD-1 310 2.30 CREEKSIDE SUBD 0.00136 0.04798 0.031 30.00 0.36 38.700 707.300

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

					% BOD			8		
CARD TYPE	ELEMENT	NAME	DO	BOD	RMVL	NBOD		NITRIF		BOD2
			mg/L	mg/L		mg/L	mg/L		mg/L	mg/L
WSTLD-2	32	SE HAMMOND	5.00	11.50	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	70	OLD COV HWY TRIB	5.00	2.30	0.00	1.57	0.00	0.00	0.00	3.17
WSTLD-2	121	PELICAN GARDEN SUBD	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	147	SISTERS RD TRIB	5.00	0.71	0.00	0.17	0.00	0.00	0.00	1.47
WSTLD-2	148	DUPRE TRAILER PARK	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	196	HOOVER RD TRIB	5.00	1.96	0.00	0.55	0.00	0.00	0.00	1.95
WSTLD-2	248	GMG RENTALS	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	254	ROCK'S RENTALS	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	266	PONCHATOULA HIGH	5.00	11.50	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	285	ESTERBROOK TRACE	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
WSTLD-2	310	CREEKSIDE SUBD	5.00	23.00	0.00	8.60	0.00	0.00	0.00	0.00
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

				PHYTO			
CARD TYPE	ELEMENT	NAME	PO4-P	CHL A	COLI	NCM	ORG-P
			mg/L	μg/L	#/100mL		mg/L
WSTLD-3	32	SE HAMMOND	0.00	10.00	0.00	0.00	0.00
WSTLD-3	70	OLD COV HWY TRIB	0.00	10.00	0.00	0.00	0.00
WSTLD-3	121	PELICAN GARDEN SUBD	0.00	0.00	0.00	0.00	0.00
WSTLD-3	147	SISTERS RD TRIB	0.00	10.00	0.00	0.00	0.00
WSTLD-3	148	DUPRE TRAILER PARK	0.00	0.00	0.00	0.00	0.00
WSTLD-3	196	HOOVER RD TRIB	0.00	10.00	0.00	0.00	0.00
WSTLD-3	248	GMG RENTALS	0.00	0.00	0.00	0.00	0.00
WSTLD-3	254	ROCK'S RENTALS	0.00	0.00	0.00	0.00	0.00
WSTLD-3	266	PONCHATOULA HIGH	0.00	0.00	0.00	0.00	0.00
WSTLD-3	285	ESTERBROOK TRACE	0.00	0.00	0.00	0.00	0.00
WSTLD-3	310	CREEKSIDE SUBD	0.00	0.00	0.00	0.00	0.00
ENDATA26							

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENT	RATION	
LOWER BC	TEMPERATURE	=	20.750	deg C
LOWER BC	SALINITY	=	0.130	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	29.500	
LOWER BC	CONSERVATIVE MATERIAL II	=	267.700	
LOWER BC	DISSOLVED OXYGEN	=	5.000	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	6.858	mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	=	6.331	mg/L
LOWER BC	PO4 PHOSPHORUS	=	0.400	mg/L
LOWER BC	PHYTOPLANKTON	=	11.600	uq/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

LOWER BC NBOD = 2.189 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE ELEMENT NAME EQN "A" "B" "H"

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

PLOT1

RCH 1 2 3 4 5 6 7

PLOT2

RCH 8

PLOT3

RCH 9 10

ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31

....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 5 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

.....GRAPHICS DATA FOR PLOT 2 WRITTEN TO UNIT 12

.....GRAPHICS DATA FOR PLOT 3 WRITTEN TO UNIT 13

FINAL REPORT HEADWATER SELSERS CREEK 040603

REACH NO. 1 HEADWATERS - S OF 190 WINTER PROJECTION, 75%, POST AERATION

ELEM TYPE FLOW TEMP SALN CLCOND BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A DO BOD1 COLI NCM NO. deg C ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L μg/L #/100mL

1 HDWTR 0.02830 20.75 0.09 12.60 210.35 5.00 0.78 2.96 1.85 2.96 0.69 0.00 0.00 10.00 0.00 0.00

****	**************************************																									
ELEM	ENDING DIST	-						BOD2 DECAY				FULL SOD			-	NH3-N DECAY			-	-						
1.0.	2101	mg/L														1/da										
-	15 600	0.05	05 05	0 00	0 05	0 00	0 00	0 00	0.05	0 00	0 55	0 50	0 50	0 01	0.05	0 00	0 00	0.00	0 00	0 00	0 00	0 50	0 00	0 00	0.00	0.00
	15.693																									
	15.635																									
	15.578																									
	15.520																									
5	15.463																									
6	15.405																									
./	15.348																									
8	15.290																									
9	15.233																									
10	15.175																									
11	15.118																									
12	15.060																									
13	15.003																									
14	14.945																									
15	14.888																									
16	14.830																									
17	14.773																									
18	14.715																									
	14.658																									
20	14.600	8.95	25.37	0.39	0.05	0.00	0.00	0.03	0.05	0.00	0.57	0.59	0.59	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	25.00	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.55			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

<sup>\*</sup> g/m²/d \*\* mg/L/day

****	******	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	CONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
1	15.693	20.75	0.09	1.00	0.00	5.51	0.78	2.96	1.85	2.96	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
2	15.635	20.75	0.10	1.00	0.00	5.77	0.79	2.96	1.85	2.96	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
3	15.578	20.75	0.10	1.00	0.00	6.01	0.79	2.97	1.86	2.97	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
4	15.520	20.75	0.10	1.00	0.00	6.22	0.79	2.97	1.86	2.97	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
5	15.463	20.75	0.10	1.00	0.00	6.42	0.79	2.97	1.86	2.97	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
6	15.405	20.75	0.11	1.00	0.00	6.61	0.79	2.97	1.86	2.97	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
7	15.348	20.75	0.11	1.00	0.00	6.77	0.80	2.97	1.86	2.97	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	15.290	20.75	0.11	1.00	0.00	6.93	0.80	2.98	1.87	2.98	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	15.233	20.75	0.11	1.00	0.00	7.07	0.80	2.98	1.87	2.98	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	15.175	20.75	0.12	1.00	0.00	7.20	0.80	2.98	1.87	2.98	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
11	15.118	20.75	0.12	1.00	0.00	7.32	0.80	2.98	1.87	2.98	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
12	15.060	20.75	0.12	1.00	0.00	7.43	0.80	2.99	1.87	2.99	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	15.003	20.75	0.12	1.00	0.00	7.53	0.81	2.99	1.87	2.99	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

Subsegment 040603

Originated:	June	1,	2011
-------------	------	----	------

14	14.945	20.75	0.12	1.00	0.00	7.62	0.81	2.99	1.88	2.99	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
15	14.888	20.75	0.13	1.00	0.00	7.71	0.81	2.99	1.88	2.99	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
16	14.830	20.75	0.13	1.00	0.00	7.79	0.81	3.00	1.88	3.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
17	14.773	20.75	0.13	1.00	0.00	7.86	0.81	3.00	1.88	3.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
18	14.715	20.75	0.14	1.00	0.00	7.92	0.82	3.00	1.88	3.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
19	14.658	20.75	0.14	1.00	0.00	7.97	0.82	3.00	1.89	3.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
2.0	14.600	20.75	0.14	1.00	0.00	8.01	0.82	3.01	1.89	3.01	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER

REACH NO. 2 S OF 190 - OLD COVINGTON HWY

SELSERS CREEK 040603 WINTER PROJECTION, 75%, POST AERATION

****	*****															*******											
	TYPE	F	LOW				CL	CC															NCM				
NO.				deg C	F	ppt			T	ng/L	mg/L	mg/L	mg/I	mg,	/L	mg/L	mg/L	mg/L	mg/L	μg/L	#/10	00mL					
21	UPR RCH		2830	20.75	0	.14	1.00	Λ	00	3.01	0.82	3.01	1.89	3.0	<b>1</b>	0.70	0.00	0.00	0 00	10.00		0.00	0.00				
	WSTLD		3384	30.00			37.80			5.00		0.00				8.60	0.00	0.00		10.00		0.00	0.00				
****	*****	**************************************														CAL CO	DEFFICI	ENTS **	*****	*****	*****	*****	*****	*****	*****	*****	*******
ELEM	ENDING	CAT	O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD														м миз	או הבאודת	OPC-D	OPC D	DO4	PHYTO	חדםיות	COLT	NCM	NCM	
NO.	DIST																	E RATE						DECAY			
1.0.	2101	mg/L														la 1/d		1/da			*	**	**		1/da		
21	14.550																								0.00	0.00	
22	14.500																									0.00	
23	14.450																									0.00	
24	14.400																									0.00	
25	14.350 14.300																								0.00	0.00	
26 27	14.250																										
28	14.200																										
29	14.150																										
30	14.100																								0.00		
31	14.050																								0.00	0.00	
32	14.000	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.0	5 0.0	0.0	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
33	13.950	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.0	5 0.0	0.0	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
34	13.900	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.0	5 0.0	0.0	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
35	13.850																									0.00	
36	13.800																									0.00	
37	13.750																					0.52				0.00	
38	13.700																					0.52				0.00	
39	13.650																										
40 41	13.600 13.550																										
42	13.500																										
43	13.450																										
	23.130	3.23	23.37	0.11	0.05	0.00	0.00	0.03	0.05	0.00	1.51	1.51	1.51	0.20	0.0				0.00	0.00	3.00	0.52	0.00	0.00	0.00	3.00	

 $44 \quad 13.400 \quad 8.95 \quad 25.37 \quad 0.41 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.31 \quad 1.34 \quad 1.34 \quad 0.20 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL Subsegment 040603

45	13.350	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
46	13.300	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
47	13.250	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
48	13.200	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
49	13.150	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
50	13.100	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
51	13.050	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
52	13.000	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
53	12.950	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
54	12.900	8.95	25.37	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.34	1.34	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	25.00	0.39	0.05	0.00	0.00	0.03	0.05	0.00	1.25			0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN CLCOND BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A COLI DO DIST deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L  $g/m^2 \# /100mL$ NO. ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L 14.550 20.75 0.14 1.00 0.00 8.01 0.00 0.00 0. 0.00 21 0.82 3.01 1.89 3.01 0.70 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 14.500 20.75 0.14 1.00 0.00 8.02 0.82 3.01 1.89 3.01 0.70 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 14.450 20.75 0.14 3.01 3.01 0.70 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 23 1.00 0.00 8.02 0.82 1.89 0.00 0.00 0.0 0. 0.00 14.400 20.75 0.14 1.00 0.00 8.02 0.82 3.02 1.89 3.02 0.71 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 14.350 20.75 0.15 0.83 3.02 1.90 3.02 0.71 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 25 1.00 0.00 8.02 0.0 0. 0.00 0.86 14.300 20.75 0.15 1.00 0.00 8.02 3.01 1.92 3.01 0.73 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 27 14.250 20.75 0.15 1.00 0.00 8.01 0.91 3.00 1.98 3.00 0.77 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 14.200 20.75 2.96 2.12 2.96 28 0.15 1.00 0.00 7.98 1.05 0.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 29 14.150 20.75 0.15 1.00 0.00 7.91 1.37 2.88 2.44 2.88 1.11 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 30 14.100 20.75 0.15 7.71 2.13 2.66 3.20 2.66 1.68 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 10.0 0.0 2.15 2.15 0.00 31 14.050 20.75 0.15 1.00 0.00 7.23 3.94 5.01 3.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 32 14.000 20.75 0.15 1.00 0.00 6.48 6.63 1.39 7.69 1.39 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 33 13.950 20.75 0.16 1.00 0.00 6.51 6.62 1.39 7.69 1.39 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 13.900 20.75 0.16 1.39 7.69 1.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 34 1.00 0.00 6.54 6.62 5.00 0.00 0.00 0.00 10.0 0.0 0. 13.850 20.75 0.16 1.00 0.00 6.58 6.62 1.39 7.69 1.39 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 36 13.800 20.75 0.16 1.00 0.00 6.62 1.39 7.68 1.39 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 6.61 0.0 0. 5.00 37 13.750 20.75 0.16 1.00 0.00 6.64 6.61 1.39 7.68 1.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 38 13.700 20.75 0.16 1.00 0.00 6.67 6.61 1.40 7.68 1.40 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 39 13.650 20.75 0.16 1.00 0.00 6.70 6.61 1.40 7.68 1.40 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 40 13.600 20.75 0.16 1.00 0.00 6.73 6.60 1.40 7.67 1.40 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 1.40 7.67 0.00 0.00 0.00 41 13.550 20.75 0.16 1.00 0.00 6.76 6.60 1.40 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.00 42 13.500 20.75 0.17 0.00 6.79 6.60 1.40 7.67 1.40 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 0.00 0.00 43 13.450 20.75 0.17 1.00 0.00 6.81 6.60 1.40 7.66 1.40 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 0. 13.400 20.75 0.17 1.00 0.00 6.84 6.59 1.41 7.66 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 7.66 45 13.350 20.75 0.17 1.00 0.00 6.87 6.59 1.41 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 7.66 46 13.300 20.75 0.17 1.00 0.00 6.89 6.59 1.41 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 47 13.250 20.75 0.17 1.00 0.00 6.92 6.59 1.41 7.65 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 13.200 20.75 0.17 1.00 0.00 6.94 6.58 1.41 7.65 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 13.150 20.75 0.17 1.00 0.00 6.96 6.58 1.41 7.65 1.41 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 20.75 0.18 1.42 7.65 1.42 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 50 13.100 1.00 0.00 6.99 6.58 0.00 0.00 0.00 0.0 0. 51 13.050 20.75 0.18 1.00 0.00 7.01 6.58 1.42 7.64 1.42 4.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00

Originated:	June	1,	2011	

52	13.000 20.75 0.18	1.00	0.00	7.03	6.57	1.42	7.64	1.42	4.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
53	12.950 20.75 0.18	1.00	0.00	7.05	6.57	1.42	7.64	1.42	4.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
54	12.900 20.75 0.18	1.00	0.00	7.06	6.57	1.43	7.64	1.43	4.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603

REACH NO. 3 OLD COVINGTON HWY - 1ST UNNAMED WINTER PROJECTION, 75%, POST AERATION

****	*****	*****	******	*****	*****	******	*****	******	*****	*****	*****	REACH	INPUTS	*****	*****	*****	*****	*****	*****	*****	*****	****	*****	*****	*****	****
ELEM NO.	TYPE	FI		TEMP deg C	SALN ppt	CL	COND		BOD1 mg/L					NH3-N mg/L				COLI #/100mL	NCM							
55	UPR RCH	0.06	5215 2	20.75	0.18	1.00	0.00	7.06	6.57	1.43	7.64	1.43	4.99	0.00	0.00	0.00	10.00	0.00	0.00							
****	******	*****	******	*****	******	******	* * * * * *	******	*****	** BIOL	OGICAL	AND PHY	SICAL C	COEFFICI	ENTS **	*****	*****	*****	*****	*****	*****	****	*****	*****	*****	****
ELEM NO.	ENDING DIST				BOD1 ABOD1 SETT DECAY																	NCM SETT				
		/ <del>T</del>	1 / 1 -	1 / 1 -	1/3- 1/3-	1/1- 1/		/ 1 /				1/1- 1	/-1- 1/		1/1-	1 / 1 -	1 / 1 -		4.4	1 / 1 -	1/1-	1 / 1 -				

ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
55	12.850	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
56	12.800	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
57	12.750	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
58	12.700	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
59	12.650	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
60	12.600	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
61	12.550	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
62	12.500	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
63	12.450	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
64	12.400	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
65	12.350	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
66	12.300	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
67	12.250	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
68	12.200	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
69	12.150	8.95	25.37	0.42	0.05	0.00	0.00	0.03	0.05	0.00	1.23	1.25	1.25	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 2	O DEG C	RATE	25.00	0.41	0.05	0.00	0.00	0.03	0.05	0.00	1.17			0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A COLI NCM DIST deg C ppt mg/L $g/m^2 \#/100mL$ 1.00 0.00 7.07 0.00 10.0 0. 0.00 12.850 20.75 0.18 6.57 1.44 7.63 1.44 4.98 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 56 12.800 20.75 0.18 1.00 0.00 7.08 6.57 1.45 7.63 1.45 4.98 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 57 12.750 20.75 0.18 1.00 7.09 7.63 1.45 4.98 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0.00

FINAI	L Selsers Cr	eek Wate	rshed TM	DL																				
Subseg	ment 04060	)3																						
Origin	ated: June 1	, 2011																						
58	12.700	20.75	0.17	1.00	0.00	7.10	6.56	1.46	7.63	1.46	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
59	12.650	20.75	0.17	1.00	0.00	7.11	6.56	1.47	7.63	1.47	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
60	12.600	20.75	0.17	1.00	0.00	7.12	6.56	1.48	7.63	1.48	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
61	12.550	20.75	0.17	1.00	0.00	7.13	6.56	1.49	7.63	1.49	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
62	12.500	20.75	0.17	1.00	0.00	7.13	6.56	1.50	7.62	1.50	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
63	12.450	20.75	0.17	1.00	0.00	7.14	6.55	1.51	7.62	1.51	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
64	12.400	20.75	0.17	1.00	0.00	7.15	6.55	1.52	7.62	1.52	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
65	12.350	20.75	0.17	1.00	0.00	7.16	6.54	1.54	7.61	1.54	4.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
66	12.300	20.75		1.00	0.00	7.16	6.52	1.55	7.58	1.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
67	12.250	20.75		1.00	0.00	7.15	6.45	1.59	7.52	1.59	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
68	12.200	20.75		1.00	0.00	7.10	6.27	1.66	7.34	1.66	4.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
69	12.150	20.75	0.16	1.00	0.00	6.96	5.76	1.86	6.83	1.86	4.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.
FINAL	REPORT	HEADV	VATER					S	ELSERS (	CREEK 04	40603													
REACH	NO. 4	1ST U	JNNAMED	- S OF I-1	2			W	INTER PI	ROJECTIO	ON, 75%	, POST A	AERATIO	1										

****	*****	*****	*****	*****	****	*****	*****	*****	*****	*****	*****	*****	****	* REACI	H INPU	TS **	*****	*****	*****	*****	****	*****	*****	*****	****	*****	******	******
ELEM NO.	TYPE	F	LOW	TEMP deg C		ALN ppt	CL	CO	ND n	DO ng/L	BOD1 mg/L	BOD2 mg/L	EBOD1				H3-N 1	NO3-N mg/L	PO4-P mg/L		/ #/10	OLI OmL	NCM					
					_	_																						
	UPR RCH			20.75		16	1.00					1.86	6.83					0.00		10.00		0.00	0.00					
70	WSTLD	0.0	2830	20.75	0.	07	13.20	154.	75 5	5.00	2.30	3.17	2.30	3.17	7 1.	57	0.00	0.00	0.00	10.00	0	0.00	0.00					
****	*****	****	*****	*****	****	*****	*****	*****	*****	****	*****	* BIOL	OGICAL	AND PH	HYSICA	L COE	FFICIE	NTS **	*****	****	*****	*****	*****	*****	****	*****	******	*******
ELEM	ENDING	SAT	REAER			ABOD1			BOD2			FULL							ORG-P			PHYTO			NCM	NCM		
NO.	DIST			DECAY				DECAY			SOD	SOD		HYDR							SRCE				DECAY			
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da		
70	12.100	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
71	12.050																		0.00						0.00			
72	12.000													0.18						0.00		0.52				0.00		
73	11.950	8.95	20.15	0.43	0.05	0.00	0.00													0.00	0.00	0.52	0.00	0.00	0.00	0.00		
74	11.900	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
75	11.850	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
76	11.800	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
77	11.750	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
78	11.700	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
79	11.650	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
80	11.600	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
81	11.550	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
82	11.500	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
83	11.450	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
84	11.400	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
85	11.350	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		
86	11.300	8.95	20.15	0.43	0.05	0.00	0.00	0.03	0.05	0.00	1.06	1.12	1.12	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00		

FINAL Selsers Creek Watershed TMDL Subsegment 040603

 $92 \quad 11.000 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$  $93 \quad 10.950 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.05 \quad 0.00 \quad$  $94 \quad 10.900 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$  $95 \quad 10.850 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$  $98 \quad 10.700 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$  $101 \quad 10.550 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $102 \quad 10.500 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $103 \quad 10.450 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $104 \quad 10.400 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $106 \quad 10.300 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $107 \quad 10.250 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $9.900 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $9.800 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$ 117  $9.750 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $9.700 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $9.650 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$  $9.600 \quad 8.95 \quad 20.15 \quad 0.43 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.06 \quad 1.12 \quad 1.12 \quad 0.18 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00$ AVG 20 DEG C RATE 19.85 0.42 0.05 0.00 0.00 0.03 0.05 0.00 1.02 0.17 0.05 0.00 0.00 0.00 0.00 0.00 0.00

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A BOD1 DIST deg C ppt mq/L mq/L  $q/m^2 \#/100mL$ mq/L mq/L mg/L mg/L uq/L 12.100 20.75 0.16 1.00 0.00 6.79 5.19 2.08 6.26 2.08 3.91 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. 0.00 0.00 10.0 0.0 71 12.050 20.75 0.16 2.08 6.25 2.08 3.90 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 72 12.000 20.75 0.16 1.00 0.00 5.18 2.09 6.24 2.09 3.90 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 73 11.950 20.75 0.16 5.17 2.09 2.09 3.90 0.00 0.00 0.00 1.00 0.00 7.09 6.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 74 11.900 20.75 0.16 1.00 7.17 5.16 2.10 6.23 2.10 3.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 75 11.850 20.75 0.16 1.00 0.00 7.25 5.15 2.10 6.22 2.10 3.89 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 2.11 3.89 0.00 0.00 0.00 0.00 76 11.800 20.75 0.16 1.00 0.00 7.33 5.14 2.11 6.21 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 2.11 3.89 0.00 0.00 0.00 77 11.750 20.75 0.16 1.00 0.00 7.40 5.13 2.11 6.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 78 11.700 20.75 0.16 2.12 6.19 2.12 3.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Origina	ica. June 1	, 2011																							
79	11.650	20.75	0.16	1.00	0.00	7.53	5.11	2.12	6.18	2.12	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
80				1.00	0.00	7.59	5.10	2.13	6.17	2.13	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
81	11.550	20.75		1.00	0.00	7.64	5.09	2.13	6.16	2.13	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
82		20.75		1.00	0.00	7.69	5.08	2.14	6.15	2.14	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
83	11.450			1.00	0.00	7.74	5.08	2.14	6.14	2.14	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
84	11.400			1.00	0.00	7.79	5.07	2.15	6.13	2.15	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
85		20.75		1.00	0.00	7.83	5.06	2.15	6.13	2.15	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
86				1.00	0.00	7.87	5.05	2.16	6.12	2.16	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
87	11.250	20.75		1.00	0.00	7.91	5.04	2.16	6.11	2.16	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
88	11.200	20.75		1.00	0.00	7.94	5.03	2.17	6.10	2.17	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
89	11.150	20.75		1.00	0.00	7.97	5.02	2.17	6.09	2.17	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
90	11.100	20.75	0.16	1.00	0.00	8.00	5.01	2.18	6.08	2.18	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
91	11.050			1.00	0.00	8.03	5.00	2.18	6.07	2.18	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
92	11.000	20.75	0.16	1.00	0.00	8.06	5.00	2.19	6.06	2.19	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
93	10.950	20.75	0.16	1.00	0.00	8.08	4.99	2.19	6.05	2.19	3.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
94	10.900	20.75	0.16	1.00	0.00	8.11	4.98	2.20	6.05	2.20	3.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
95	10.850	20.75	0.15	1.00	0.00	8.13	4.97	2.20	6.04	2.20	3.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
96		20.75		1.00	0.00	8.15	4.96	2.20	6.03	2.20	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
97	10.750	20.75	0.15	1.00	0.00	8.17	4.95	2.21	6.02	2.21	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
98	10.700	20.75	0.15	1.00	0.00	8.19	4.94	2.21	6.01	2.21	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
99	10.650	20.75	0.15	1.00	0.00	8.20	4.93	2.22	6.00	2.22	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
100	10.600	20.75	0.15	1.00	0.00	8.22	4.92	2.22	5.99	2.22	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
101	10.550	20.75	0.15	1.00	0.00	8.23	4.92	2.23	5.98	2.23	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
102	10.500	20.75	0.15	1.00	0.00	8.25	4.91	2.23	5.98	2.23	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
103	10.450	20.75	0.15	1.00	0.00	8.26	4.90	2.24	5.97	2.24	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
104	10.400	20.75	0.15	1.00	0.00	8.27	4.89	2.24	5.96	2.24	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
105	10.350	20.75	0.15	1.00	0.00	8.29	4.88	2.25	5.95	2.25	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
106	10.300	20.75	0.15	1.00	0.00	8.30	4.87	2.25	5.94	2.25	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
107	10.250	20.75	0.15	1.00	0.00	8.31	4.86	2.26	5.93	2.26	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
108	10.200	20.75	0.15	1.00	0.00	8.32	4.86	2.26	5.92	2.26	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
109	10.150	20.75	0.15	1.00	0.00	8.32	4.85	2.27	5.92	2.27	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
110	10.100	20.75	0.15	1.00	0.00	8.33	4.84	2.27	5.91	2.27	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
111	10.050	20.75	0.15	1.00	0.00	8.34	4.83	2.28	5.90	2.28	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
112	10.000	20.75		1.00	0.00	8.35	4.82	2.28	5.89	2.28	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
113		20.75		1.00	0.00	8.35	4.82	2.29	5.88	2.29	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
114				1.00	0.00	8.36	4.81	2.29	5.88	2.29	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
115	9.850	20.75	0.15	1.00	0.00	8.37	4.81	2.29	5.87	2.29	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
116	9.800	20.75	0.15	1.00	0.00	8.37	4.80	2.30	5.87	2.30	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
117	9.750	20.75		1.00	0.00	8.37	4.81	2.30	5.87	2.30	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
118	9.700	20.75		1.00	0.00	8.37	4.81	2.30	5.88	2.30	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
119	9.650	20.75		1.00	0.00	8.37	4.83	2.30	5.90	2.30	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
120	9.600	20.75	0.15	1.00	0.00	8.36	4.87	2.29	5.94	2.29	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603 REACH NO. 5 S OF I-12 - S OF SISTERS RD.

WINTER PROJECTION, 75%, POST AERATION

ELEM TYPE FLOW TEMP SALN COND BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NO. deg C ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L  $\mu$ g/L  $\mu$ f/100mL

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

149

158

8.100 8.95

7.900 8.95

7.850 8.95

7.700 8.95

ELEM ENDING   SAT REAER   BOD1   BOD1   BOD1   BOD2   BOD2   ABOD2   ABOD2   BOD2   ABOD2   BOD2   ABOD2   BOD2   ABOD2   ABOD2   BOD2   ABOD2   BOD2   ABOD2   ABOD	121 147 148	UPR RCH WSTLD WSTLD WSTLD	0.00	2830 0020	20.75 30.00 20.75 30.00	0. 0. 0.	.15 .00 .10 .00	1.00 0.00 21.10 0.00	0. 220. 0.	00 40 00	5.00 2 5.00 5.00 2			0.71 23.00	0.0	00 8 17 0 00 8	.60 .17 .60	0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 10.00 0.00	0 0	0.00	0.00 0.00 0.00 0.00	* * * * * *	****	*******
No.   Post   Dr.   Post   Dr.   Post   Pos	ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
121 9.550 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00		_																									
122 9.500 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00			mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	* *	1/da	1/da	1/da
122 9.500 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	121	9 550	8 95	6 68	0 46	0 05	0 00	0 00	0 03	0 05	0 00	n 39	0 49	0 49	0 15	0 05	0 00	0 00	0 00	0 00	0 00	0 00	0 52	0 00	0 00	0 00	0.00
123 9,450 8,95 6,68 0,46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00																											
124 9.400 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.09 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00																											
125         9,350         8,95         6,68         0.46         0.05         0.00         0.05         0.00 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																											
126 9.300 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00																											
127         9.250         8.95         6.68         0.46         0.05         0.00         0.00         0.09         0.09         0.49         0.49         0.15         0.05         0.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																											
128 9,200 8,95 6,68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00																											
130   9.100   8.95   6.68   0.46   0.05   0.00   0.00   0.03   0.05   0.00   0.39   0.49   0.49   0.15   0.05   0.00				6.68	0.46	0.05	0.00	0.00																			
131 9.050 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	129	9.150	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
132         9.000         8.95         6.68         0.46         0.05         0.00         0.00         0.09         0.49         0.49         0.49         0.15         0.05         0.00 <td< td=""><td>130</td><td>9.100</td><td>8.95</td><td>6.68</td><td>0.46</td><td>0.05</td><td>0.00</td><td>0.00</td><td>0.03</td><td>0.05</td><td>0.00</td><td>0.39</td><td>0.49</td><td>0.49</td><td>0.15</td><td>0.05</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.52</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td></td<>	130	9.100	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
133 8.950 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	131	9.050	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
134 8.900 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	132	9.000	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
135 8.850 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	133	8.950	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
136       8.800       8.95       6.68       0.46       0.05       0.00       0.03       0.05       0.00       0.39       0.49       0.49       0.15       0.05       0.00	134	8.900	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
137       8.750       8.95       6.68       0.46       0.05       0.00       0.00       0.00       0.39       0.49       0.49       0.15       0.05       0.00	135	8.850	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
138       8.700       8.95       6.68       0.46       0.05       0.00       0.03       0.05       0.00       0.39       0.49       0.49       0.15       0.05       0.00	136	8.800	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
8.650 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	137	8.750	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
140       8.600       8.95       6.68       0.46       0.05       0.00       0.03       0.05       0.00       0.39       0.49       0.49       0.15       0.05       0.00	138	8.700	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
141 8.550 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	139	8.650	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
142 $8.500$ $8.95$ $6.68$ $0.46$ $0.05$ $0.00$ $0.00$ $0.03$ $0.05$ $0.00$ $0.39$ $0.49$ $0.49$ $0.15$ $0.05$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.52$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.01$ $0.00$	140	8.600	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
143 8.450 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.49 0.49 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	141	8.550	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
144 $8.400$ $8.95$ $6.68$ $0.46$ $0.05$ $0.00$ $0.00$ $0.03$ $0.05$ $0.00$ $0.39$ $0.48$ $0.48$ $0.15$ $0.05$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.52$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.01$ $0.01$ $0.02$ $0.03$ $0.05$ $0.00$ $0.03$ $0.05$ $0.00$ $0.03$ $0.05$ $0.00$ $0.05$	142	8.500	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
145 $8.350$ $8.95$ $6.68$ $0.46$ $0.05$ $0.00$ $0.00$ $0.03$ $0.05$ $0.00$ $0.39$ $0.48$ $0.48$ $0.15$ $0.05$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.52$ $0.00$	143	8.450	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.49	0.49	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
146 8.300 8.95 6.68 0.46 0.05 0.00 0.00 0.03 0.05 0.00 0.39 0.48 0.48 0.15 0.05 0.00 0.00 0.00 0.00 0.00 0.00	144	8.400	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.48	0.48	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
	145	8.350	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.48	0.48	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
147 0 000 0 00 7 00 0 46 0 00 0 00 0 00 0	146	8.300	8.95	6.68	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.48	0.48	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
147 $8.250$ $8.95$ $7.98$ $0.46$ $0.05$ $0.00$ $0.00$ $0.03$ $0.05$ $0.00$ $0.39$ $0.47$ $0.47$ $0.15$ $0.05$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.00$ $0.52$ $0.00$ $0.00$ $0.00$ $0.00$	147	8.250	8.95	7.98	0.46	0.05	0.00	0.00	0.03	0.05	0.00	0.39	0.47	0.47	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

 $7.99 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 0.39 \quad 0.47 \quad 0.47 \quad 0.15 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

AVG 20 DEG C RATE 6.99 0.44 0.05 0.00 0.00 0.03 0.05 0.00 0.38

*	g/m²/d	**	mg/L/day

****	*****	*****	*****	*******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	******	*****	******	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	тот-и	EORG-N	ETOT-N	ORG-P	PO4-P	тот-р	EORG-P	TTOT-P	CHI. A	PERIP	COLI	NCM
NO.	_	deg C	ppt	CL	COND	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L	mg/L	mg/L		mg/L	ug/L	g/m²	#/100mL	11011
			PP-			5/ =	5/ =	5, =		5/ =	5/ =	5/ =		57 =	5, =	5/ =			5, =	57 =		F-57 =	5,		
121	9.550	20.75	0.15	1.00	0.00	8.35	4.93	2.28	6.00	2.28	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
122	9.500	20.75	0.15	1.00	0.00	8.35	4.91	2.28	5.98	2.28	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
123	9.450	20.75	0.15	1.00	0.00	8.34	4.90	2.28	5.97	2.28	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
124	9.400	20.75	0.15	1.00	0.00	8.34	4.88	2.28	5.95	2.28	3.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
125	9.350	20.75	0.15	1.00	0.00	8.34	4.87	2.28	5.93	2.28	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
126	9.300	20.75	0.15	1.00	0.00	8.34	4.85	2.28	5.92	2.28	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
127	9.250	20.75	0.15	1.00	0.00	8.34	4.83	2.28	5.90	2.28	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
128	9.200	20.75	0.15	1.00	0.00	8.34	4.82	2.28	5.89	2.28	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
129	9.150	20.75	0.15	1.00	0.00	8.34	4.80	2.28	5.87	2.28	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
130	9.100	20.75	0.15	1.00	0.00	8.34	4.79	2.28	5.86	2.28	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
131		20.75		1.00	0.00	8.34	4.77	2.28	5.84	2.28	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
132		20.75		1.00	0.00	8.34	4.75	2.28	5.82	2.28	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
133		20.75		1.00	0.00	8.34	4.74	2.28	5.81	2.28	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
134		20.75		1.00	0.00	8.34	4.72	2.28	5.79	2.28	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
135	8.850	20.75	0.15	1.00	0.00	8.33	4.70	2.28	5.77	2.28	3.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
136		20.75		1.00	0.00	8.33	4.68	2.28	5.75	2.28	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
137		20.75		1.00	0.00	8.33	4.65	2.27	5.72	2.27	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
138		20.75		1.00	0.00	8.32	4.63	2.27	5.70	2.27	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
139		20.75		1.00	0.00	8.31	4.59	2.27	5.66	2.27	3.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
140		20.75		1.00	0.00	8.30	4.56	2.26	5.62	2.26	3.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
141		20.75		1.00	0.00	8.28	4.51	2.25	5.57	2.25	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
142		20.75		1.00	0.00	8.25	4.44	2.24	5.51	2.24	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
143		20.75		1.00	0.00	8.20	4.36	2.23	5.43	2.23	3.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
144		20.75		1.00	0.00	8.14	4.25	2.21	5.32	2.21	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
145		20.75		1.00	0.00	8.04	4.11	2.18	5.18	2.18	3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
146		20.75		1.00	0.00	7.90	3.91	2.14	4.98	2.14	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
147		20.75		1.00	0.00	7.72	3.68	2.09	4.74	2.09	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
148		20.75		1.00	0.00	7.75	3.68	2.09	4.74	2.09	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
149		20.75		1.00	0.00	7.78	3.67	2.09	4.74	2.09	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
150		20.75		1.00	0.00	7.81	3.66	2.08	4.73	2.08	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
151		20.75		1.00	0.00	7.84	3.65	2.08	4.72	2.08	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
152		20.75		1.00	0.00	7.87	3.64	2.08	4.71	2.08	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
153		20.75		1.00	0.00	7.89	3.64	2.08	4.70	2.08	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
154		20.75		1.00	0.00	7.92	3.63	2.08	4.70	2.08	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
155		20.75		1.00	0.00	7.94	3.62	2.08	4.69	2.08	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
156		20.75		1.00	0.00	7.97	3.61	2.08	4.68	2.08	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	10.0	0.0	0.	0.00
157		20.75		1.00	0.00	7.99	3.61	2.08	4.68	2.08	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
158	7.700	20.75	0.15	1.00	0.00	8.01	3.60	2.08	4.67	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER

REACH NO. 6 S OF SISTERS RD. - 3RD UNNAMED

SELSERS CREEK 040603 WINTER PROJECTION, 75%, POST AERATION

****	*****	*****	*****	*****	****	*****	*****	*****	****	*****	*****	*****	****	** REA(	CH INE	PUTS *	*****	*****	*****	*****	*****	*****	*****	*****	****	*****	:*****
ET.EM	TYPE	E-	LOW	TEMP	Q7	ALN	CL	CC	ND	DO	BOD1	BOD2	EBOD1	l EBOI	12 OE	PC_N :	NH3-N	N∪3 -N	DO4_D	CHL A		COLI	NCM				
NO.	1111	Ι.		deg C		ppt	CI	CO			mg/L	mg/L	mg/I				mg/L	mg/L	mg/L		#/10		IVCI				
159	UPR RCH	0.1	2004	20.75	0 .	.15	1.00	0.	00	3.01	3.60	2.08	4.6	7 2.0	08 2	2.87	0.00	0.00	0.00	10.00	(	0.00	0.00				
****	******	*****	******	*****	****	*****	*****	*****	****	*****	*****	* BIOI	LOGICAI	L AND I	PHYSIC	CAL CO	EFFICIE	NTS **	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	N NH3-	N-SHN N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM	
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	T DECA	Y SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT	
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	a 1/d	a *	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da	
159	7.650	8 95	7 47	0.38	0 05	0 00	0 00	0 03	0 05	0 00	0 33	0 41	0 41	0 19	0 05	5 0 0	n n nn	0 00	0 00	0.00	0 00	0.52	0.00	0.00	0 00	0.00	
160		8.95																		0.00						0.00	
161	7.550																			0.00						0.00	
162	7.500																			0.00						0.00	
163	7.450	8.95																		0.00						0.00	
164	7.400	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.41	0.41	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
165	7.350	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.41	0.41	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
166	7.300	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.41	0.41	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
167	7.250	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.41	0.41	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
168	7.200	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.41	0.41	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
169	7.150	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.40	0.40	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
170	7.100																			0.00						0.00	
171	7.050																			0.00						0.00	
172	7.000																			0.00						0.00	
173	6.950																			0.00						0.00	
174	6.900																			0.00						0.00	
175	6.850																			0.00						0.00	
176	6.800																			0.00						0.00	
177 178	6.750 6.700																			0.00						0.00	
179	6.650																			0.00						0.00	
180	6.600																			0.00						0.00	
181	6.550																			0.00						0.00	
182	6.500																			0.00						0.00	
183	6.450																			0.00						0.00	
184	6.400																			0.00						0.00	
185	6.350																			0.00						0.00	
186	6.300																			0.00						0.00	
187	6.250																			0.00						0.00	
188	6.200			0.38	0.05												0.00			0.00						0.00	
189	6.150	8.95	7.47	0.38	0.05														0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
190	6.100	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.40	0.40	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
191	6.050	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.40	0.40	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
192	6.000	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.40	0.40	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
193	5.950																			0.00						0.00	
194	5.900	8.95	7.47	0.38	0.05	0.00	0.00	0.03	0.05	0.00	0.33	0.40	0.40	0.19	0.05	5 0.0	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	

FINAL Selsers Creek Watershed TMDL Subsegment 040603

\*  $g/m^2/d$  \*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VALU	JES ***	*****	*****	*****	*****	*****	*****	*****	*****	******	****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N I	EORG-N I	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P I	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
159			0.15	1.00	0.00	8.03	3.60	2.08	4.67	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
160		20.75		1.00	0.00	8.05	3.59	2.08	4.66	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
161		20.75	0.15	1.00	0.00	8.07	3.59	2.08	4.66	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
162		20.75	0.15	1.00	0.00	8.09	3.58	2.08	4.65	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
163		20.75		1.00	0.00	8.11	3.58	2.08	4.65	2.08	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
164			0.15	1.00	0.00	8.13	3.58	2.08	4.64	2.08	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
165			0.15	1.00	0.00	8.15	3.57	2.08	4.64	2.08	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
166			0.15	1.00	0.00	8.16	3.57	2.08	4.64	2.08	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
167			0.15	1.00	0.00	8.18	3.56	2.07	4.63	2.07	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
168		20.75	0.15	1.00	0.00	8.20	3.56	2.07	4.63	2.07	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
169			0.15	1.00	0.00	8.21	3.55	2.07	4.62	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
170		20.75	0.15	1.00	0.00	8.22	3.55	2.07	4.62	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
171	7.050	20.75	0.15	1.00	0.00	8.24	3.55	2.07	4.61	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
172	7.000	20.75	0.15	1.00	0.00	8.25	3.54	2.07	4.61	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
173	6.950	20.75	0.15	1.00	0.00	8.26	3.54	2.07	4.61	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
174	6.900	20.75	0.15	1.00	0.00	8.28	3.53	2.07	4.60	2.07	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
175	6.850	20.75	0.15	1.00	0.00	8.29	3.53	2.07	4.60	2.07	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
176	6.800	20.75	0.15	1.00	0.00	8.30	3.53	2.07	4.59	2.07	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
177	6.750	20.75	0.14	1.00	0.00	8.31	3.52	2.07	4.59	2.07	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
178	6.700	20.75	0.14	1.00	0.00	8.32	3.52	2.07	4.58	2.07	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
179	6.650	20.75	0.14	1.00	0.00	8.33	3.51	2.06	4.58	2.06	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
180	6.600	20.75	0.14	1.00	0.00	8.34	3.51	2.06	4.58	2.06	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
181	6.550	20.75	0.14	1.00	0.00	8.35	3.50	2.06	4.57	2.06	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
182	6.500	20.75	0.14	1.00	0.00	8.35	3.50	2.06	4.57	2.06	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
183	6.450	20.75	0.14	1.00	0.00	8.36	3.49	2.06	4.56	2.06	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
184	6.400	20.75	0.14	1.00	0.00	8.37	3.49	2.06	4.56	2.06	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
185	6.350	20.75	0.14	1.00	0.00	8.37	3.48	2.06	4.55	2.06	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
186	6.300	20.75	0.14	1.00	0.00	8.38	3.47	2.06	4.54	2.06	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
187	6.250	20.75	0.14	1.00	0.00	8.38	3.47	2.06	4.53	2.06	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
188	6.200	20.75	0.14	1.00	0.00	8.38	3.46	2.06	4.52	2.06	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
189	6.150	20.75	0.14	1.00	0.00	8.37	3.44	2.05	4.51	2.05	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
190	6.100	20.75	0.14	1.00	0.00	8.36	3.43	2.05	4.50	2.05	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
191	6.050	20.75	0.14	1.00	0.00	8.34	3.41	2.05	4.48	2.05	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
192	6.000	20.75	0.14	1.00	0.00	8.31	3.38	2.05	4.45	2.05	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
193	5.950	20.75	0.14	1.00	0.00	8.26	3.35	2.05	4.42	2.05	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
194	5.900	20.75	0.14	1.00	0.00	8.19	3.30	2.04	4.37	2.04	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
195	5.850	20.75	0.14	1.00	0.00	8.07	3.24	2.04	4.31	2.04	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603

FINAL Selsers Creek Watershed TMDL Subsegment 040603

REACH NO. 7 3RD UNNAMED - S OF HWY 22

WINTER PROJECTION, 75%, POST AERATION

****	:*****	*****	*****	*****	*****	*****	*****	*****	****	* * * * * *	*****	****	****	* REAC	ים אי	TTS **	*****	*****	*****	*****	****	*****	: * * * * * *	*****	*****	********
ELEM NO.	TYPE	FI	COM	TEMP deg C		ALN opt	CL	CC	)ND r	DO ng/L	BOD1 mg/L	BOD2 mg/L	EBOD1					mg/L	Mg/L	CHL A µg/I	4/10	COLI OmL	NCM			
196	UPR RCH	0.12	2004	20.75	0.	.14	1.00	0.	00 8	3.07	3.24	2.04	4.31	2.0	)4 2	. 49	0.00	0.00	0.00	10.00	) (	0.00	0.00			
196	WSTLD	0.02	2830	20.75	0.	.11	7.60	232.	13 5	5.00	1.96	1.95	1.96	1.9	5 0	. 55	0.00	0.00	0.00	10.00	) (	0.00	0.00			
****	******	*****	******	*****	*****	*****	*****	*****	****	*****	******	* BIOL	OGICAL	AND F	PHYSICA	AL COE	FFICIE	NTS ***	*****	*****	*****	*****	*****	*****	*****	*********
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
NO.	DIST	D.O. mg/L		DECAY 1/da							SOD *	SOD *		HYDR 1/da				RATE 1/da		SETT	SRCE *	PROD **	PROD **		DECAY 1/da	
		IIIg/L	1/ua	1/ua	1/ua	1/ua	1/ua	1/ua	1/ua	1/ua				1/ua	1/ua	1/ua		1/ua	1/ua	1/ua				1/ua	1/ua	1/ da
196	5.800	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
197	5.750			0.29	0.05												0.00			0.00		0.52			0.00	0.00
198	5.700			0.29																0.00						0.00
199	5.650 5.600																			0.00						0.00
200 201	5.550			0.29																0.00						0.00
202	5.500			0.29																0.00						0.00
203	5.450																			0.00						0.00
204	5.400			0.29	0.05		0.00										0.00			0.00						0.00
205	5.350	8.95		0.29																0.00					0.00	0.00
206	5.300	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
207	5.250	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
208	5.200	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
209	5.150	8.95																		0.00						0.00
210	5.100																			0.00						0.00
211	5.050																			0.00						0.00
212	5.000																			0.00						0.00
213	4.950																			0.00						0.00
214	4.900																			0.00						0.00
215	4.850 4.800			0.29																0.00						0.00
216 217	4.750			0.29																0.00						0.00
218	4.700																			0.00						0.00
219	4.650			0.29													0.00			0.00		0.52				0.00
220	4.600			0.29																0.00						0.00
221	4.550			0.29																0.00					0.00	0.00
222	4.500	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
223	4.450	8.95	8.13	0.29																0.00					0.00	0.00
224	4.400	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
225	4.350	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
226	4.300	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
227	4.250																			0.00						0.00
228	4.200																			0.00						0.00
229	4.150	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	υ.00	υ.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

230	4.100	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
231	4.050	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
232	4.000	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
233	3.950	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
234	3.900	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
235	3.850	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
236	3.800	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
237	3.750	8.95	8.13	0.29	0.05	0.00	0.00	0.03	0.05	0.00	0.36	0.43	0.43	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	8.01	0.28	0.05	0.00	0.00	0.03	0.05	0.00	0.34			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

ENDING TEMP SALN CLCOND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A PERIP COLI NCM ELEM DIST deg C NO. ppt mg/L μg/L g/m² #/100mL 196 5.800 20.75 0.14 1.00 0.00 7.93 3.16 2.03 4.23 2.03 2.38 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 197 5.750 20.75 0.14 1.00 0.00 7.95 3.16 2.03 4.23 2.03 2.38 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 3.15 2.37 0.00 198 5.700 20.75 0.14 1.00 0.00 7.98 2.03 4.22 2.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0. 0.00 0.0 2.03 199 5.650 20.75 0.14 1.00 0.00 8.01 3.15 4.22 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 200 5.600 20.75 0.14 3.15 2.03 4.21 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 1.00 0.00 8.03 0.00 0.0 0. 201 5.550 20.75 0.14 1.00 0.00 8.06 3.14 2.03 4.21 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.500 20.75 0.14 1.00 0.00 8.08 3.14 2.03 4.21 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 202 0.0 0. 5.450 20.75 0.14 1.00 0.00 8.10 3.13 2.03 4.20 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 204 5.400 20.75 0.14 1.00 0.00 8.12 3.13 2.03 4.20 2.03 2.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 5.350 20.75 0.14 8.14 3.13 2.03 4.19 2.03 2.36 0.00 0.00 205 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 206 5.300 20.75 0.14 1.00 0.00 8.16 3.12 2.03 4.19 2.03 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 0.00 207 5.250 20.75 0.14 0.00 8.18 3.12 2.03 4.19 2.03 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 1.00 0.0 0. 8.20 3.11 2.03 2.36 0.00 0.00 0.00 0.00 208 5.200 20.75 0.14 1.00 0.00 4.18 2.03 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 209 5.150 20.75 0.14 1.00 0.00 8.22 3.11 2.03 4.18 2.03 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 0. 210 5.100 20.75 0.14 1.00 0.00 8.23 3.11 2.03 4.18 2.03 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 0.0 0. 211 5.050 20.75 0.14 1.00 0.00 8.25 3.10 2.03 4.17 2.03 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 212 5.000 20.75 0.14 1.00 0.00 8.26 3.10 2.03 4.17 2.03 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 213 4.950 20.75 0.14 1.00 0.00 8.28 3.10 2.02 4.16 2.02 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 214 8.29 3.09 2.02 4.16 2.02 2.35 0.00 4.900 20.75 0.14 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 215 4.850 20.75 0.14 1.00 0.00 8.31 3.09 2.02 4.16 2.02 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 216 4.800 20.75 0.14 1.00 0.00 8.32 3.08 2.02 4.15 2.02 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 217 4.750 20.75 0.14 1.00 0.00 8.33 3.08 2.02 4.15 2.02 2.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 218 4.700 20.75 3.08 2.02 4.14 2.02 2.35 0.00 0.00 0.00 0.00 10.0 0.00 0.14 1.00 0.00 8.35 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0. 219 4.650 20.75 0.14 1.00 0.00 8.36 3.07 2.02 4.14 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 3.07 2.02 2.02 0.00 0.00 0.00 0.00 0.00 220 4.600 20.75 0.14 1.00 0.00 8.37 4.14 2.34 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 221 4.550 20.75 0.14 1.00 0.00 8.38 3.07 2.02 4.13 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 222 4.500 20.75 0.14 1.00 0.00 8.39 3.06 2.02 4.13 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 3.06 2.02 4.12 2.34 223 4.450 20.75 0.14 1.00 0.00 8.40 2.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 224 4.400 20.75 0.14 1.00 0.00 8.41 3.05 2.02 4.12 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 225 4.350 20.75 0.14 1.00 0.00 8.42 3.05 2.02 4.12 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 226 4.300 20.75 0.14 1.00 0.00 8.42 3.04 2.02 4.11 2.02 2.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 227 20.75 0.14 8.43 3.04 2.03 4.11 2.03 2.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 4.250 1.00 0.00 0.00 0.0 0. 228 4.200 20.75 0.14 1.00 0.00 8.44 3.03 2.03 4.10 2.03 2.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00

Subsegment 040603	Subse	gment	040	603
-------------------	-------	-------	-----	-----

U	*																					
229	4.150 20.75 0.14	1.00	0.00 8	3.44 3.03	2.03	4.09	2.03	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
230	4.100 20.75 0.14	1.00	0.00 8	3.45 3.02	2.04	4.08	2.04	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
231	4.050 20.75 0.14	1.00	0.00 8	3.45 3.01	2.04	4.07	2.04	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
232	4.000 20.75 0.14	1.00	0.00 8	3.45 2.99	2.06	4.06	2.06	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
233	3.950 20.75 0.14	1.00	0.00 8	3.44 2.98	2.07	4.05	2.07	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
234	3.900 20.75 0.14	1.00	0.00 8	3.43 2.96	2.09	4.02	2.09	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
235	3.850 20.75 0.14	1.00	0.00 8	3.41 2.93	2.12	4.00	2.12	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
236	3.800 20.75 0.14	1.00	0.00 8	3.38 2.89	2.16	3.96	2.16	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
237	3 750 20 75 0 14	1 00	0 00 8	34 284	2 22	3 90	2 22	2 33	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10 0	0 0	Ο	0 00

FINAL REPORT HEADWATER

REACH NO. 9 S OF HWY 22 - N OF WEINBERGER

SELSERS CREEK 040603 WINTER PROJECTION, 75%, POST AERATION

****	*****	*****	*****	*****	*****	*****	*****	*****	****	*****	*****	*****	*****	** REAC	H INPU	TS ***	*****	*****	*****	****	*****	*****	*****	*****	*****	*****	******	*****	:****
ELEM	TYPE	F	LOW	TEMP deg C		ALN ppt	CL	CC	)ND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1					NO3-N mg/L	PO4-P mg/L	CHL A µg/L	#/10	COLI OmL	NCM						
281	UPR RCH TRIB WSTLD	0.0	4834 3036 0020	20.75 20.75 30.00	0	.14 .14 .00	1.00 1.00 0.00	0.	00	8.24	2.84 2.72 23.00	2.22 2.37 0.00	3.90 3.79 23.00	2.3	7 2.	34 (	0.00	0.00 0.00 0.00	0.00 0.00 0.00	10.00 10.00 0.00	C	0.00	0.00 0.00 0.00						
****	*****	*****	****	*****	****	*****	*****	* * * * * * *	****	*****	*****	* BIOI	JOGICAL	L AND P	HYSICA	L COE	FICIEN	NTS **	* * * * * *	*****	*****	*****	*****	*****	****	*****	*****	*****	*****
ELEM NO.	ENDING DIST	SAT D.O. mg/L	RATE	BOD1 DECAY 1/da	SETT	ABOD1 DECAY 1/da	HYDR	DECAY	SETT	ABOD2 DECAY 1/da	SOD	FULL SOD *	CORR SOD *			DECAY	SRCE	RATE		SETT	SRCE				NCM DECAY 1/da				
281 282 283 284 285 286	3.700 3.650 3.600 3.550 3.500 3.450	8.95 8.95 8.95 8.95	6.30 6.30 6.30 6.30 6.30	0.46 0.46 0.46	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.03 0.03 0.03 0.03	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	1.31 1.31 1.31 1.31	1.36 1.36 1.36 1.36	1.36 1.36 1.36 1.36	0.23 0.23 0.23 0.23 0.23 0.23	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.52 0.52 0.52 0.52 0.52 0.52	0.00 0.00 0.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00			
287 288 289 290 291 292	3.400 3.350 3.300 3.250 3.200 3.150	8.95 8.95 8.95 8.95	6.30 6.30 6.30 6.30	0.46 0.46	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.03 0.03 0.03 0.03	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	1.31 1.31 1.31 1.31	1.36 1.36 1.36 1.36	1.36 1.36 1.36 1.36	0.23 0.23 0.23 0.23 0.23 0.23	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.52 0.52 0.52 0.52 0.52 0.52	0.00 0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00			
293 294 295 296 297 298	3.100 3.050 3.000 2.950 2.900 2.850	8.95 8.95 8.95 8.95	6.30 6.30 6.30	0.46 0.46 0.46	0.05 0.05 0.05 0.05	0.00	0.00 0.00 0.00 0.00	0.03 0.03 0.03 0.03	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	1.31 1.31 1.31 1.31	1.36 1.36 1.36 1.36	1.36 1.36 1.36 1.36	0.23 0.23 0.23 0.23 0.23	0.05 0.05 0.05 0.05	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.52 0.52 0.52 0.52 0.52 0.52	0.00 0.00 0.00 0.00	0.00	0.00				
299 300	2.800 2.750	8.95	6.30	0.46	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.36	1.36	0.23	0.05	0.00	0.00	0.00	0.00		0.00	0.52	0.00	0.00	0.00	0.00			

 $2.700 \quad 8.95 \quad 6.30 \quad 0.46 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.03 \quad 0.05 \quad 0.00 \quad 1.31 \quad 1.36 \quad 1.36 \quad 0.23 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

302	2.650	8.95	6.30	0.46	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.36	1.36	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
303	2.600	8.95	6.30	0.46	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.36	1.36	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
304	2.550	8.95	6.30	0.46	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.36	1.36	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
305	2.500	8.95	6.30	0.46	0.05	0.00	0.00	0.03	0.05	0.00	1.31	1.36	1.36	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	6.21	0.45	0.05	0.00	0.00	0.03	0.05	0.00	1.25			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

<sup>\*</sup> g/m²/d \*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU:	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	*****	****
ELEM	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N I	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P :	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
281	3.700	20.75	0.14	1.00	0.00	8.26	2.76	2.31	3.83	2.31	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
282	3.650	20.75	0.14	1.00	0.00	8.22	2.75	2.31	3.82	2.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
283	3.600	20.75	0.14	1.00	0.00	8.19	2.74	2.31	3.80	2.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
284	3.550	20.75	0.14	1.00	0.00	8.16	2.73	2.31	3.79	2.31	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
285	3.500	20.75	0.14	1.00	0.00	8.12	2.72	2.31	3.78	2.31	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
286	3.450	20.75	0.14	1.00	0.00	8.10	2.70	2.31	3.77	2.31	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
287	3.400	20.75	0.14	1.00	0.00	8.07	2.69	2.31	3.75	2.31	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
288	3.350	20.75	0.14	1.00	0.00	8.05	2.67	2.31	3.74	2.31	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
289	3.300	20.75	0.14	1.00	0.00	8.02	2.65	2.31	3.72	2.31	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
290	3.250	20.75	0.14	1.00	0.00	8.00	2.64	2.31	3.71	2.31	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
291	3.200	20.75	0.14	1.00	0.00	7.98	2.62	2.31	3.69	2.31	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
292	3.150	20.75	0.14	1.00	0.00	7.97	2.61	2.31	3.68	2.31	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
293	3.100	20.75	0.14	1.00	0.00	7.95	2.59	2.31	3.66	2.31	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
294	3.050	20.75	0.14	1.00	0.00	7.93	2.58	2.32	3.65	2.32	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
295	3.000	20.75	0.14	1.00	0.00	7.92	2.56	2.32	3.63	2.32	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
296	2.950	20.75	0.14	1.00	0.00	7.91	2.55	2.32	3.62	2.32	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
297	2.900	20.75	0.14	1.00	0.00	7.89	2.53	2.32	3.60	2.32	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
298	2.850	20.75	0.14	1.00	0.00	7.88	2.52	2.32	3.59	2.32	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
299	2.800	20.75	0.14	1.00	0.00	7.87	2.51	2.32	3.57	2.32	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
300	2.750	20.75	0.14	1.00	0.00	7.86	2.49	2.32	3.56	2.32	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
301	2.700	20.75	0.14	1.00	0.00	7.85	2.48	2.32	3.54	2.32	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
302	2.650	20.75	0.14	1.00	0.00	7.83	2.46	2.32	3.53	2.32	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
303	2.600	20.75	0.14	1.00	0.00	7.82	2.45	2.32	3.52	2.32	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
304	2.550	20.75	0.14	1.00	0.00	7.80	2.44	2.32	3.50	2.32	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
305	2.500	20.75	0.14	1.00	0.00	7.78	2.42	2.32	3.49	2.32	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 10 N OF WEINBERGER - SOUTH SLOUGH WINTER PROJECTION, 75%, POST AERATION

ELEM TYPE FLOW TEMP SALN BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM mg/L mg/L NO. deg C ppt mg/L mg/L mg/L  $\mu$ g/L #/100mL 306 UPR RCH 0.17889 20.75 1.00 0.00 0.00 0.00 0.14 7.78 2.42 2.32 3.49 2.32 2.17 0.00 0.00 0.00 10.00 310 WSTLD 0.00136 30.00 0.36 38.70 707.30 5.00 23.00 0.00 23.00 0.00 8.60 0.00 0.00 0.00 0.00 0.00 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

****	*****	****	*****	****	*****	*****	****	*****	*****	*****	*****	* BIOL	OGICAL	AND F	HYSIC	AL COEF	FICIEN	NTS ***	*****	*****	*****	*****	*****	*****	****	*********	***
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	РНҮТО	PERIP	COLI	NCM	NCM	
NO.	DIST							DECAY				SOD				DECAY								DECAY		SETT	
		mg/L						1/da			*					1/da		1/da				**		1/da		1/da	
306	2.450	8.95	7.23	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	
307	2.400																							0.00			
308	2.350																							0.00			
309	2.300																							0.00			
310	2.250															0.00									0.00		
311	2.200																							0.00			
312	2.150																							0.00			
313	2.100															0.00									0.00		
314	2.050																							0.00			
315 316	2.000 1.950																							0.00			
317	1.900																							0.00			
318	1.850																							0.00			
319	1.800																							0.00			
320	1.750																							0.00			
321	1.700																							0.00			
322	1.650																							0.00			
323	1.600	8.95	8.21	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	
324	1.550	8.95	8.29	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	
325	1.500	8.95	8.36	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	
326	1.450	8.95	8.44	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	
327	1.400	8.95	8.52	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.67	1.67	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	
328	1.350															0.00									0.00		
329	1.300																							0.00			
330	1.250																							0.00			
331	1.200																							0.00			
332	1.150																							0.00			
333	1.100																							0.00			
334 335	1.050 1.000															0.00								0.00	0.00		
335	0.950																							0.00			
337	0.900															0.00									0.00		
338	0.850																							0.00			
339	0.800															0.00									0.00		
340	0.750																							0.00			
341	0.700																							0.00			
342	0.650	8.95																						0.00			
343	0.600	8.95	9.87	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.67	1.67	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	
344	0.550	8.95														0.00									0.00		
345	0.500	8.95																							0.00	0.00	
346	0.450	8.95	10.13	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
347	0.400	8.95	10.22	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
348	0.350	8.95	10.30	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.68	1.68	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
349	0.300																										
350	0.250																										
351	0.200	8.95	10.57	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.69	1.69	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	

Subsegment 040603 Originated: June 1, 2011

352	0.150	8.95	10.66	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.70	1.70	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
353	0.100	8.95	10.74	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.71	1.71	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
354	0.050	8.95	10.83	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.72	1.72	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
355	0.000	8.95	10.92	0.60	0.05	0.00	0.00	0.04	0.05	0.00	1.64	1.73	1.73	0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	8.75	0.58	0.05	0.00	0.00	0.03	0.05	0.00	1.56			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	******	*****	*****	*****	*****	*****	**** W	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
005																									
306		20.75		1.00	0.00	7.74	2.41	2.32	3.48	2.32	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	10.0	0.0	0.	0.00
307		20.75		1.00	0.00	7.70	2.40	2.31	3.48	2.31	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	10.1	0.0	0.	0.00
308			0.14	1.00	0.00	7.67	2.41	2.31	3.48	2.31	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	10.1	0.0	0.	0.00
309		20.75		1.00	0.00	7.63	2.42	2.31	3.50	2.31	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	10.1	0.0	0.	0.00
310		20.75		1.00	0.00	7.60	2.45	2.30	3.54	2.30	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	10.2	0.0	0.	0.00
311		20.75		1.00	0.00	7.58	2.43	2.30	3.52	2.30	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	10.2	0.0	0.	0.00
312			0.14	1.00	0.00	7.57	2.41	2.30	3.50	2.30	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	10.2	0.0	0.	0.00
313		20.75		1.00	0.00	7.55	2.39	2.30	3.48	2.30	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	10.3	0.0	0.	0.00
314		20.75		1.00	0.00	7.54	2.37	2.29	3.46	2.29	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	10.3	0.0	0.	0.00
315			0.14	1.00	0.00	7.54	2.34	2.29	3.45	2.29	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	10.3	0.0	0.	0.00
316	1.950		0.14	1.00	0.00	7.53	2.32	2.29	3.43	2.29	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	10.4	0.0	0.	0.00
317	1.900		0.14	1.00	0.00	7.53	2.30	2.29	3.41	2.29	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	10.4	0.0	0.	0.00
318		20.75		1.00	0.00	7.52	2.28	2.29	3.39	2.29	2.11	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	10.4	0.0	0.	0.00
319		20.75		1.00	0.00	7.52	2.26	2.29	3.38	2.29	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	10.4	0.0	0.	0.00
320		20.75		1.00	0.00	7.52	2.24	2.29	3.36	2.29	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	10.5	0.0	0.	0.00
321	1.700		0.14	1.00	0.00	7.53	2.22	2.29	3.34	2.29	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	10.5	0.0	0.	0.00
322		20.75		1.00	0.00	7.53	2.20	2.29	3.33	2.29	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	10.5	0.0	0.	0.00
323		20.75		1.00	0.00	7.54	2.18	2.29	3.31	2.29	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	10.6	0.0	0.	0.00
324		20.75		1.00	0.00	7.54	2.16	2.29	3.29	2.29	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	10.6	0.0	0.	0.00
325		20.75		1.00	0.00	7.55	2.14	2.29	3.28	2.29	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	10.6	0.0	0.	0.00
326	1.450		0.14	1.00	0.00	7.56	2.12	2.28	3.26	2.28	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	10.7	0.0	0.	0.00
327	1.400	20.75	0.14	1.00	0.00	7.57	2.10	2.28	3.25	2.28	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	10.7	0.0	0.	0.00
328	1.350	20.75	0.14	1.00	0.00	7.57	2.08	2.28	3.23	2.28	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	10.7	0.0	0.	0.00
329	1.300	20.75	0.14	1.00	0.00	7.58	2.07	2.28	3.22	2.28	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	10.8	0.0	0.	0.00
330	1.250	20.75	0.13	1.00	0.00	7.59	2.05	2.28	3.20	2.28	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	10.8	0.0	0.	0.00
331	1.200	20.75	0.13	1.00	0.00	7.60	2.03	2.28	3.19	2.28	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	10.8	0.0	0.	0.00
332		20.75	0.13	1.00	0.00	7.62	2.01	2.28	3.17	2.28	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	10.9	0.0	0.	0.00
333	1.100		0.13	1.00	0.00	7.63	2.00	2.28	3.16	2.28	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	10.9	0.0	0.	0.00
334	1.050	20.75	0.13	1.00	0.00	7.64	1.98	2.29	3.15	2.29	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	10.9	0.0	0.	0.00
335	1.000	20.75	0.13	1.00	0.00	7.65	1.97	2.29	3.14	2.29	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	11.0	0.0	0.	0.00
336	0.950	20.75	0.13	1.00	0.00	7.66	1.96	2.29	3.13	2.29	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	11.0	0.0	0.	0.00
337	0.900	20.75	0.13	1.00	0.00	7.67	1.94	2.30	3.12	2.30	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	11.0	0.0	0.	0.00
338	0.850	20.75	0.13	1.00	0.00	7.68	1.94	2.31	3.12	2.31	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	11.1	0.0	0.	0.00
339	0.800	20.75	0.13	1.00	0.00	7.69	1.93	2.32	3.11	2.32	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	11.1	0.0	0.	0.00
340	0.750	20.75	0.13	1.00	0.00	7.70	1.93	2.33	3.11	2.33	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	11.1	0.0	0.	0.00
341	0.700	20.75	0.13	1.00	0.00	7.71	1.93	2.35	3.12	2.35	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	11.2	0.0	0.	0.00
342	0.650	20.75	0.13	1.00	0.00	7.71	1.94	2.38	3.13	2.38	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	11.2	0.0	0.	0.00
343	0.600	20.75	0.13	1.00	0.00	7.71	1.96	2.42	3.15	2.42	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	11.2	0.0	0.	0.00

 $9.57 \quad 0.53 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.09 \quad 0.05 \quad 0.00 \quad 1.23 \quad 1.28 \quad 1.28 \quad 0.32 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad 0.00 \quad 0.00 \quad 9.57 \quad 0.53 \quad 0.05 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.52 \quad 0.00 \quad$ 

FINAL Selsers Creek Watershed TMDL Subsegment 040603

258	1.100	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
259	1.050	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
260	1.000	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
261	0.950	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
262	0.900	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
263	0.850	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
264	0.800	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
265	0.750	8.95	9.57	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
266	0.700	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
267	0.650	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
268	0.600	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
269	0.550	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
270	0.500	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
271	0.450	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
272	0.400	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
273	0.350	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
274	0.300	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
275	0.250	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
276	0.200	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
277	0.150	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
278	0.100	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
279	0.050	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
280	0.000	8.95	9.93	0.53	0.05	0.00	0.00	0.09	0.05	0.00	1.23	1.28	1.28	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 2	O DEG C R	RATE	9.54	0.51	0.05	0.00	0.00	0.09	0.05	0.00	1.17			0.31	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $q/m^2/d$  \*\* mq/L/day

ELEM ENDING TEMP SALN CLCOND BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A PERIP COLI NCM DO BOD1 #/100mL NO. DIST deg C mg/L uq/L q/m² ppt 238 2.100 20.75 0.19 1.00 0.00 5.49 1.00 4.01 2.07 4.01 2.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 239 2.050 20.75 0.19 1.00 0.00 5.66 1.00 4.01 2.07 4.01 2.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 0. 240 2.000 20.75 0.19 1.00 0.00 5.81 1.00 4.01 2.07 4.01 2.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 241 1.950 20.75 0.19 1.00 0.00 5.96 1.01 4.01 2.08 4.01 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.900 20.75 0.18 6.09 1.01 4.01 2.08 4.01 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 242 1.00 0.00 0.00 0.00 0.0 0. 243 1.850 20.75 0.18 1.00 0.00 6.22 1.02 4.01 2.09 4.01 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 244 1.800 20.75 0.18 1.00 0.00 6.34 1.03 4.00 2.10 4.00 2.21 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 2.11 4.00 0.00 0.00 0.00 0.00 245 1.750 20.75 0.18 1.00 0.00 6.45 1.04 4.00 2.21 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 1.700 20.75 0.18 1.00 0.00 1.06 4.00 2.13 4.00 2.21 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 246 6.55 0.0 0. 2.16 247 1.650 20.75 0.18 1.00 0.00 6.64 1.09 3.99 3.99 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.600 20.75 0.18 0.00 6.73 1.14 3.98 2.21 3.98 2.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.00 248 1.00 0.0 0. 249 1.550 20.75 0.18 1.00 0.00 6.82 1.15 3.98 2.22 3.98 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0.00 250 1.500 20.75 0.17 1.00 0.00 6.90 1.15 3.98 2.22 3.98 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 1.450 20.75 0.17 1.16 3.98 2.23 3.98 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 251 1.00 0.00 6.97 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 252 1.400 20.75 0.17 1.00 0.00 7.04 1.18 3.97 2.25 3.97 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 0.00 253 1.350 20.75 0.17 1.00 0.00 7.11 1.20 3.97 2.27 3.97 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 254 1.300 20.75 0.17 1.00 0.00 7.16 1.24 3.96 2.31 3.96 2.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00 2.31 3.96 2.23 0.00 0.00 0.00 10.0 0.00 255 1.250 20.75 0.17 1.00 0.00 7.22 1.24 3.96 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0. 256 1.200 20.75 0.17 1.00 0.00 7.28 1.25 3.96 2.31 3.96 2.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.0 0.0 0. 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

~ .			-		
()r1	gins	ited:	lune	1	2011

•																						
257	1.150 20.75 0.17	1.00 0	.00 7.33	1.25	3.95	2.32	3.95	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
258	1.100 20.75 0.17	1.00 0	.00 7.37	1.26	3.95	2.32	3.95	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
259	1.050 20.75 0.16	1.00 0	.00 7.42	1.27	3.95	2.33	3.95	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
260	1.000 20.75 0.16	1.00 0	.00 7.46	1.28	3.94	2.35	3.94	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
261	0.950 20.75 0.16	1.00 0	.00 7.49	1.30	3.93	2.37	3.93	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
262	0.900 20.75 0.16	1.00 0	.00 7.52	1.34	3.92	2.41	3.92	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
263	0.850 20.75 0.16	1.00 0	.00 7.55	1.40	3.89	2.47	3.89	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
264	0.800 20.75 0.16	1.00 0	.00 7.56	1.48	3.86	2.55	3.86	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
265	0.750 20.75 0.16	1.00 0	.00 7.56	1.62	3.80	2.69	3.80	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
266	0.700 20.75 0.16	1.00 0	.00 7.55	1.83	3.72	2.89	3.72	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
267	0.650 20.75 0.16	1.00 0	.00 7.58	1.83	3.72	2.89	3.72	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
268	0.600 20.75 0.15	1.00 0	.00 7.61	1.82	3.72	2.89	3.72	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
269	0.550 20.75 0.15	1.00 0	.00 7.64	1.83	3.71	2.89	3.71	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
270	0.500 20.75 0.15	1.00 0	.00 7.67	1.83	3.71	2.90	3.71	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
271	0.450 20.75 0.15	1.00 0	.00 7.70	1.83	3.70	2.90	3.70	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
272	0.400 20.75 0.15	1.00 0	.00 7.72	1.84	3.68	2.91	3.68	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
273	0.350 20.75 0.15	1.00 0	.00 7.75	1.85	3.66	2.92	3.66	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
274	0.300 20.75 0.15	1.00 0	.00 7.78	1.87	3.63	2.94	3.63	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
275	0.250 20.75 0.15	1.00 0	.00 7.81	1.91	3.57	2.97	3.57	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
276	0.200 20.75 0.14	1.00 0	.00 7.85	1.96	3.49	3.03	3.49	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
277	0.150 20.75 0.14	1.00 0	.00 7.90	2.05	3.36	3.11	3.36	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
278	0.100 20.75 0.14	1.00 0	.00 7.97	2.18	3.16	3.25	3.16	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
279	0.050 20.75 0.14	1.00 0	8.08	2.39	2.85	3.46	2.85	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
280	0.000 20.75 0.14	1.00 0	.00 8.24	2.72	2.37	3.79	2.37	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

SELSERS CREEK 040603

WINTER PROJECTION, 75%, POST AERATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.07	0.02830	0.17910	0.085	1.86	0.999	0.588	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.04	0.06215	0.44012	0.061	1.67	2.194	1.444	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.01	0.06215	0.94832	0.043	1.52	2.194	3.111	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.19	0.09045	0.15636	0.146	3.96	3.194	0.513	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	0.26	0.12004	0.08617	0.274	4.19	4.239	0.283	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	0.23	0.12004	0.09268	0.270	4.80	4.239	0.304	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	0.24	0.14834	0.10203	0.265	5.49	5.238	0.335	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	0.33	0.17889	0.04437	0.209	19.29	6.317	0.146	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	0.80	0.18025	0.03607	0.165	30.27	6.365	0.118	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	0.33	0.03036	0.07560	0.183	2.10	1.072	0.248	0.600	6.90

SELSERS CREEK 040603

## FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

WINTER PROJECTION, 75%, POST AERATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME MAXIMUM EFFLUENT	=	8	2.17	DAYS PERCENT	
FLOW	=	0.02830	TO	0.18025	$m^3/s$
DISPERSION	=	2.9929	TO	25.8377	m²/s
VELOCITY	=	0.03582	TO	0.94832	m/s
DEPTH	=	0.04	TO	0.27	m
WIDTH	=	1.52	TO	30.27	m
BOD DECAY	=	0.29	TO	0.60	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	0.40	TO	1.73	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	6.30	TO	25.37	per day
BOD SETTLING	=	0.05	TO	0.05	per day
NBOD DECAY	=	0.15	TO	0.23	per day
NBOD SETTLING	=	0.05	TO	0.05	per day
TEMPERATURE	=	20.75	TO	20.75	deg C
DISSOLVED OXYGEN	=	5.49	TO	8.45	mg/L
STREAM SUMMARY REP	∩D.TT •	שומש פמו	TOOT. T	מדסי	
SIREAM SUMMARI REP	JKI.	IIIGII SCI	1001	IKIB	
	=	night bei			
TRAVEL TIME MAXIMUM EFFLUENT		iiigii gei	0.33	DAYS PERCENT	
TRAVEL TIME	=	0.02830	0.33	DAYS	m³/s
TRAVEL TIME MAXIMUM EFFLUENT	=		0.33	DAYS PERCENT	m³/s m²/s
TRAVEL TIME MAXIMUM EFFLUENT FLOW	= =	0.02830	0.33 6.77 TO	DAYS PERCENT 0.03036	
TRAVEL TIME MAXIMUM EFFLUENT FLOW DISPERSION	= = = =	0.02830 6.6977	0.33 6.77 TO	DAYS PERCENT  0.03036 7.1843	m²/s
TRAVEL TIME MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY	= = = = =	0.02830 6.6977 0.07354	0.33 6.77 TO TO	DAYS PERCENT  0.03036 7.1843 0.07888	m²/s m/s
TRAVEL TIME MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH	= = = = =	0.02830 6.6977 0.07354 0.18	0.33 6.77 TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18	m²/s m/s m
TRAVEL TIME MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = = = =	0.02830 6.6977 0.07354 0.18 2.10	0.33 6.77 TO TO TO TO	DAYS PERCENT 0.03036 7.1843 0.07888 0.18 2.10	m²/s m/s m
TRAVEL TIME MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10	0.33 6.77 TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10 0.53	m²/s m/s m m
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00	0.33 6.77 TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00	m²/s m/s m m
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28	0.33 6.77 TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28	m²/s m/s m m  per day per day g/m²/d
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00	0.33 6.77 TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00 0.00	0.33 6.77 TO TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00 0.00 9.51	0.33 6.77 TO TO TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00 0.00 9.93	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00 0.00 9.51 0.05	0.33 6.77 TO TO TO TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00 0.00 9.93 0.05	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00 0.00 9.51 0.05 0.31	0.33 6.77 TO TO TO TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00 0.00 9.93 0.05 0.32	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day per day
TRAVEL TIME MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING		0.02830 6.6977 0.07354 0.18 2.10 0.53 0.00 1.28 0.00 0.00 9.51 0.05 0.31 0.05	0.33 6.77 TO TO TO TO TO TO TO TO TO TO TO	DAYS PERCENT  0.03036 7.1843 0.07888 0.18 2.10  0.53 0.00 1.28 0.00 0.00 9.93 0.05 0.32 0.05	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

SELSERS CREEK 040603 WINTER PROJECTION, 75%, POST AERATION

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.05660	24.45	4.34	17.04	7.18	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.12365	53.42	53.78	16.11	34.38	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.18025	-85.56	-79.77	-90.83	-33.45	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-55.39	55.77	55.94	4.59	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	8.11	7.61	4.86			0.00				0.00
NATURAL REAERATION		298.78										
DAM REAERATION		0.00										
SOD BACKGROUND		-188.39										
BOD1 DECAY		-38.18	-38.18									
BOD1 SETTLING		-4.04	-4.04									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-2.45		-2.45								
BOD2 SETTLING		-3.43		-3.43								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-14.15			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	14.95				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.18025	391.60	121.99	96.71	51.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.18025	-391.59	-121.99	-96.71	-33.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.00	0.00	0.00	17.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

**Appendix D4 – Winter Projection Justifications** 

пррени	A D T - 11	inter i roject	ion Justineations
		DATA TYPE	3 - PROGRAM CONSTANTS
CONSTANT NAME	<b>VALUE</b>	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Louisiana Standard Practice
TIDE HEIGHT	0.158	meters	Water Level data
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
PHYTOPLANKTON OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	LAQUAL Default
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

			DATA TYPE 8 - REACH IDENTIFICATION DATA			
			Upstream	Downstream	Element	
Reach	ID	Name	River	River	Length,	Data Source
			Kilometer	Kilometer	km	
1	SC	HEADWATERS - S OF 190	15.75	14.60	0.0575	ArcMap
2	SC	S OF 190 - OLD COVINGTON HWY	14.60	12.90	0.0500	ArcMap
3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.0500	ArcMap
4	SC	1ST UNNAMED - S OF I-12	12.15	9.60	0.0500	ArcMap
5	SC	S OF I-12 - S OF SISTERS RD.	9.60	7.70	0.0500	ArcMap
6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	5.85	0.0500	ArcMap
7	SC	3RD UNNAMED - S OF HWY 22	5.85	3.75	0.0500	ArcMap
8	HS	HIGH SCHOOL TRIB	2.15	0.00	0.0500	ArcMap
9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	2.50	0.0500	ArcMap
10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	0.0500	ArcMap

		DATA			CTIVE HYDRAULIC CIENTS	DATA			CCTIVE HYDRAULIC CIENTS		DATA TYPE 9 - ADVECTIVE F	IYDRAULI	C COEFFICIENTS
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. ''d''	Depth Exp. "e"	Depth Const. ''f''	Data Source	Slope (unitless)	Data Source	Manning's ''n''	Data Source
1	HEADWATERS - S OF 190	0	0	1.859	Site 3653 X-section	0	0	0.085	Site 3653 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	S OF 190 - OLD COVINGTON HWY	0	0	1 1 669	Interpolation between sites 3653 and 3655	0	0	0.061	Interpolation between sites 3653 and 3655	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	OLD COVINGTON HWY - 1ST UNNAMED	0	0	1.524	Site 3655 X-section	0	0	0.043	Site 3655 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	1ST UNNAMED - S OF I- 12	0	0	3.962	Site 3657 X-section	0	0	0.146	Site 3657 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	S OF I-12 - S OF SISTERS RD.	0	0	4.191	Site 3659 X-section	0	0	0.274	Site 3659 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	S OF SISTERS RD 3RD UNNAMED	0	0	1 4 /9/	Interpolation between sites 3659 and 3661	0	0	02/0	Interpolation between sites 3659 and 3661	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
7	3RD UNNAMED - S OF HWY 22	0	0	5.486	Site 3661 X-section	0	0	0.265	Site 3661 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
8	HIGH SCHOOL TRIB	0	0	2.103	Site 3662 X-section	0	0	0.183	Site 3662 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
9	S OF HWY 22 - N OF WEINBERGER	0	0	1 19 28 /	Interpolation between sites 3661 and 1121	0	0	0 /09	Interpolation between sites 3661 and 1121	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
10	N OF WEINBERGER - SOUTH SLOUGH	0	0	30.267	Site 1121 X-section	0	0	0.165	Site 1121 X-section	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

		DATA TYPI	E 10 - DISPERSIVE HYDRAULIC COEFFICIENTS	DA'	TA TYPE 10 -	DISPERSI	VE HYDRA	ULIC COEFFICIENTS
Reach	Name	Tidal Range	Data Source D		-	Dispersion Coeff. "c"	-	Data Source
1	HEADWATERS - S OF 190	0.00	BPJ and Calibration	375.000	0.8333	0	1	
2	S OF 190 - OLD COVINGTON HWY	0.00	BPJ and Calibration	375.000	0.8333	0	1	
3	OLD COVINGTON HWY - 1ST UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1	
4	1ST UNNAMED - S OF I- 12	0.00	BPJ and Calibration	375.000	0.8333	0	1	
5	S OF I-12 - S OF SISTERS RD.	0.00	BPJ and Calibration	375.000	0.8333	0	1	Tracor Equation and Calibration value.
6	S OF SISTERS RD 3RD UNNAMED	0.00	BPJ and Calibration	375.000	0.8333	0	1	value.
7	3RD UNNAMED - S OF HWY 22	0.50	BPJ and Calibration	375.000	0.8333	0	1	
8	HIGH SCHOOL TRIB	0.00	BPJ and Calibration	375.000	0.8333	0	1	
9	S OF HWY 22 - N OF WEINBERGER	1.00	BPJ and Calibration	375.000	0.8333	0	1	
10	N OF WEINBERGER - SOUTH SLOUGH	1.00	BPJ and Calibration	375.000	0.8333	0	1	

		DA	TA T	YPE 1	1 - INITIAL CONDITIONS	DAT	'A TYPE 11 - I	NITIAL CONDITIONS		
Reach	Name	Temp, deg C		DO, mg/l	Data Source	Chlorophyll <u>a</u>	Macrophytes	Data Source		
1	HEADWATERS - S OF 190	20.75	0.09	5.00		10.00	0			
2	S OF 190 - OLD COVINGTON HWY	20.75	0.14	5.00		10.00	0			
3	OLD COVINGTON HWY - 1ST UNNAMED	20.75	0.18	5.00		10.00	0			
4	1ST UNNAMED - S OF I-12	20.75	0.16	5.00		10.00	0			
5	S OF I-12 - S OF SISTERS RD.	20.75	0.15	5.00	90th Percentile Winter	10.00	0	Louisiana Standard Practice		
6	S OF SISTERS RD 3RD UNNAMED	20.75	0.15	5.00	temperature. DO criterion.	10.00	0			
7	3RD UNNAMED - S OF HWY 22	20.75	0.14	5.00		10.00	0			
8	HIGH SCHOOL TRIB	20.75	0.19	5.00		10.00	0			
9	S OF HWY 22 - N OF WEINBERGER	20.75	0.14	5.00		10.00	0			
10	N OF WEINBERGER - SOUTH SLOUGH	20.75	0.14	5.00		10.00	0			

					DATA T	YPE 12 - REA	ERATION, SE	DIMENT OXYGEN DEMAND AND BO	D COEFFI	CIENTS	
REACH	NAME	K <sub>2</sub> OPT	Data Source	BKGRND SOD, gmO <sub>2</sub> /m <sup>2</sup> /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)		Data Source	BOD1 SETT RATE (1/day)	RATE (m/day, ft/day or 1/day)	Data Source
1	HEADWATERS - S OF 190	15	Louisiana	0.54687		0.377	0.03		0.05	0.05	LTP, BPJ and calibration
2	S OF 190 - OLD COVINGTON HWY	15	Louisiana	1.25000		0.394	0.03		0.05	0.05	LTP, BPJ and calibration
3	OLD COVINGTON HWY - 1ST UNNAMED	15	Louisiana	1.17187		0.405	0.03	Mathematical interpolations of Lab bottle	0.05	0.05	LTP, BPJ and calibration
4	1ST UNNAMED - S OF I-12	15	Louisiana	1.01562		0.420	0.031	rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration
5	S OF I-12 - S OF SISTERS RD.	15	Louisiana	0.37500	Reduced values as calculated on	0.443	0.031	to Site locations.	0.05	0.05	LTP, BPJ and calibration
6	S OF SISTERS RD 3RD UNNAMED	15	Louisiana	0.31250	TMDL Loading	0.367	0.031		0.05	0.05	LTP, BPJ and calibration
7	3RD UNNAMED - S OF HWY 22	15	Louisiana	0.34375	Spreadsheet	0.280	0.03		0.05	0.05	LTP, BPJ and calibration
8	HIGH SCHOOL TRIB	15	Louisiana	1.17187		0.513	0.087	Site 3662 Lab bottle rates	0.05	0.05	LTP, BPJ and calibration
9	S OF HWY 22 - N OF WEINBERGER	15	Louisiana	1.25000		0.446	0.032	Mathematical interpolations of Lab bottle rates based on physical location in reference	0.05	0.05	LTP, BPJ and calibration
10	N OF WEINBERGER - SOUTH SLOUGH	15	Louisiana	1.56250		0.578	0.034	to Site locations.	0.05	0.05	LTP, BPJ and calibration

		DATA TYP	PE 13 - NITRO	GEN AND PHOSPHORUS COEFFICIENTS
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	HEADWATERS - S OF 190	0.211	0.05	
2	S OF 190 - OLD COVINGTON HWY	0.194	0.05	
3	OLD COVINGTON HWY - 1ST UNNAMED	0.184	0.05	Mathematical interpolations of Lab bottle rates based
4	1ST UNNAMED - S OF I-12	0.170	0.05	on physical location in reference to Site locations.
5	S OF I-12 - S OF SISTERS RD.	0.147	0.05	on physical location in reference to suc locations.
6	S OF SISTERS RD 3RD UNNAMED	0.179	0.05	
7	3RD UNNAMED - S OF HWY 22	0.216	0.05	
8	HIGH SCHOOL TRIB	0.307	0.05	Site 3662 Lab bottle rates
9	S OF HWY 22 - N OF WEINBERGER	0.215	0.05	Mathematical interpolations of Lab bottle rates based
10	N OF WEINBERGER - SOUTH SLOUGH	0.214	0.05	on physical location in reference to Site locations.

			DATA T	YPE 19 - N(	ONPOINT S	OURCES
Reach	Reach Name	Length of Reach, km	<b>´</b>	NBOD, kg/day	UCBOD2, kg/day or lb/day	Data Source
1	HEADWATERS - S OF 190	1.15	0.15625	0.046875	0.15625	
2	S OF 190 - OLD COVINGTON HWY	1.70	0.03125	0.078125	0.31250	
3	OLD COVINGTON HWY - 1ST UNNAMED	0.75	0.03125	0.03125	0.78125	
4	1ST UNNAMED - S OF I-12	2.55	0.0390625	0.21875	2.18750	Reduced values as
5	S OF I-12 - S OF SISTERS RD.	1.90	0.7437649	0.5454276	0.3636184	calculated on TMDL
6	S OF SISTERS RD 3RD UNNAMED	1.85	2.03125	0.93750	0.078125	Loading Spreadsheet
7	3RD UNNAMED - S OF HWY 22	2.10	1.171875	1.234375	0.28125	Loading Spreadsheet
8	HIGH SCHOOL TRIB	2.15	0.62500	0.203125	0.40625	
9	S OF HWY 22 - N OF WEINBERGER	1.25	0.78125	0.46875	1.25000	
10	N OF WEINBERGER - SOUTH SLOUGH	2.50	2.50000	1.09375	1.796875	

		DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND											
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms		Salinity,	ONSERVATIV Conservative Material I Chlorides		Data Source					
HEADWATER	1		0.0283	20.75	0.09	12.6	210.35	Site 3653 Field and Lab data for conservatives. Flow is minimum flow as per LTP, 90th Percentile winter temperature.					
HIGH SCHOOL TRIB	238		0.0283	20.75	0.19	14.2	389.2	Site 3662 Field and Lab data for conservatives. Flow is minimum flow as per LTP, 90th Percentile winter temperature.					

	D	DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN										
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	NH <sub>3</sub> -N, mg/l	NO <sub>2</sub> - NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source					
HEADWATER	5	1.8484375	0.691875			2.956875	DO set to criteria value, BOD components set to reduced					
HIGH SCHOOL TRIB	5	2.0621875	2.2453125			4.0128125	values as calculated on TMDL Loading Spreadsheet.					

		DATA TY	DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL,									
			COLIFORM, AND NONCONSERVATIVES									
He	adwater	Phosphorus,	Chlorophyll a,	Data Carres								
I	Name	mg/L	ug/L	#/100 mL	Material	Date Source						
HEA	DWATER		10									
HIGH	SCHOOL		10			Louisiana Standard Practice						
,	TRIB		10									

	DATA TYPE 23 - JUNCTION DATA									
Junction Name	Computational element number of the element immediately downstream of the element	Computational element number of the element immediately upstream of the element								
HIGH SCHOOL TRIB	281	237								
HIGH SCHOOL TRIB CONFLUENCE	281	237								

	<b>D</b> A	ATA TYPE	24 - WASTELO	OAD DA	TA FOR FLOV	V, TEMPERA	TURE, SALINITY, AND CONSERVATIVES
Wasteload / Withdrawal Name	EL#	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
SE Hammond	32	0.033845	30	0.28	37.8	462	
Old Cov Hwy Trib	70	0.0283	20.75	0.07	13.2	154.75	
Pelican Garden Subd	121	0.001095	30				
Sisters Rd. Trib	147	0.0283	20.75	0.1	21.1	220.4	Flow is by permit/application or by LTP for
Dupre Trailer Park	148	0.0001975	30				tributaries. Temperature is by LTP for permitted
Hoover Rd. Trib	196	0.0283	20.75	0.11	7.6	232.13	dischargers and 90th percentile temperature for
GMG Rentals	248	0.0001637	30				tributaries. Salinity and conservative values are
Rock's Rentals	254	0.0001312	30				repeated from the calibration model.
Ponchatoula High	266	0.0017612	30				
Esterbrook Trace	285	0.0001975	30				
Creekside Subdivision	310	0.0013587	30	0.36	38.7	707.3	

			D	ATA TYP	E 25 - WAS'	TELOAI	DATA I	FOR DO, BO	DD, AND N	ITROGEN
Wasteload / Withdrawal Name	EL#	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	NH <sub>3</sub> -N, mg/L	NH <sub>3</sub> -N nitrified, percent	NO <sub>2</sub> +NO <sub>3</sub> , mg/L	UCBOD2, mg/l	Data Source
SE Hammond	32	5.00	23		8.6					Permit limits
Old Cov Hwy Trib	70	5.00	2.295625		1.5659375				3.1696875	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
Pelican Garden Subd	121	5.00	23		8.6					Permit limits
Sisters Rd. Trib	147	5.00	0.71		0.165				1.4675	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
Dupre Trailer Park	148	5.00	23		8.6					Permit limits
Hoover Rd. Trib	196	5.00	1.9634375		0.5525				1.95125	Criteria DO, BOD values calculated from TMDL Loading Spreadsheet.
GMG Rentals	248	5.00	23		8.6					Permit limits
Rock's Rentals	254	5.00	23		8.6					Permit limits
Ponchatoula High	266	5.00	11.5		8.6					Permit limits
Esterbrook Trace	285	5.00	23		8.6					Permit limits
Creekside Subdivision	310	5.00	23		8.6					Permit limits

	DATA	Г <b>ҮРЕ 26 -</b> WA			OSPHORUS, CHI SERVATIVES	LOROPHYLL, COLIFORM,
Wasteload / Withdrawal Name	EL#	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
SE Hammond	32		10			
Old Cov Hwy Trib	70		10			
Pelican Garden Subd	121					
Sisters Rd. Trib	147		10			
Dupre Trailer Park	148					
Hoover Rd. Trib	196		10			Louisiana Standard Practice.
GMG Rentals	248					
Rock's Rentals	254					
Ponchatoula High	266					
Esterbrook Trace	285					
Creekside Subdivision	310					

		DATA TYPI	E 27 - LOWER BOUNDARY CONDITIONS
Parameter	Value	Units	Data Source
TEMPERATURE	20.75	oCelcius	
SALINITY	0.13	ppt	
CONSERVATIVE MATERIAL I	29.5	mg/L	
CHLORIDES	27.5	mg L	
CONSERVATIVE MATERIAL II	267.7	mg/L	
CONDUCTIVITY	207.7	mg L	
DISSOLVED OXYGEN	5	mg/L	
BIOCHEMICAL OXYGEN DEMAND 1	6.858	mg/L	Field and Lab data, Site 3663; Criteria DO value; 90th
BIOCHEMICAL OXYGEN DEMAND 2	6.331	mg/L	percentile temperature.
ORGANIC NITROGEN		mg/L	percendie temperature.
AMMONIA NITROGEN		mg/L	
NITRATE + NITRITE		mg/L	
NBOD	2.189	mg/L	
PHOSPHORUS	0.4	mg/L	
PHYTOPLANKTON	11.6	ug/L	
COLIFORM		#/100 mL	
NONCONSERVATIVE MATERIAL		mg/L	

## Appendix E – Projection Model Development

										Appe	ndix E	1 – Sum	mer Loa	ading-	-75%	Reduc	ction												
<b>Summer Projection</b>	, Non-I	Point E	Benthio	Load	Input	and TM	IDL C	alculation	ons:	• • •																			
Modeled water body:			SI	ELSERS (	CREEK (S	UBSEGM	IENT 04	0603)	1																				
Shaded cells are input value	s for calc	ulations.		MARGIN	OF SAFET	Y (MOS) (%	6) = [MO0	3 + MOU] =	20%																				
Values to be used in the pro	ection m	odels.		Note: Ma	rgin of Safe	ty applies o	nly to Mar	n-Made loads	s, not Backg																				
			Calibra	ation Model	Values										Reduce	ed Man-Mad	de Loads				Projected	Model Loads							
Reach Number and Description	Non-Point UCBOD1	Non-Point UCBOD2	Total Non- Point UCBOD	Total Non- Point UNBOD	SOD @ 20°C	Total Calb.  Benthic  Load  (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Man-Made Benthic Load	Percentage Reduction of man-made sources	Reduced Man- Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced UCBOD2 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non- Point UCBOD INPUTS	Non-Point UNBOD INPUTS	Total MOS at Projection Temp.		Non-Point UCBOD2 LA	Non-Point UCBOD LA	Non-Point UNBOD LA	SOD LA at Projection Temp.
	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	$\begin{array}{c} g \ O_2 \ / \\ [(m^2)(day)] \end{array}$	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	Kilo- meters	Meters	(deg Celcius)	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	%	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day
Reach 1Headwaters - S of 190	0.234	0.234	0.468	0.070	1.75	2.288	1.15	1.859	28.06	2.29	75%	0.57	0.71	0.13	0.13	0.25	0.04	1.55	0.547	0.156	0.156	0.313	0.047	0.46	0.13	0.13	0.25	0.04	1.55
Reach 2S of 190 - Old Covington Hwy	0.035	0.352	0.388	0.088	4.00	4.476	1.70	1.669	28.06	4.48	75%	1.12	1.40	0.03	0.25	0.28	0.06	4.71	1.250	0.031	0.313	0.344	0.078	1.26	0.03	0.25	0.28	0.06	4.71
Reach 3Old Covington Hwy - 1st Unnamed	0.087	2.187	2.275	0.087	3.75	6.112	0.75	1.524	28.06	6.11	75%	1.53	1.91	0.03	0.63	0.65	0.03	1.78	1.172	0.031	0.781	0.813	0.031	0.61	0.03	0.63	0.65	0.03	1.78
Reach 41st Unnamed - S of I-12	0.012	0.693	0.705	0.069	3.25	4.025	2.55	3.962	28.06	4.02	75%	1.01	1.26	0.03	1.75	1.78	0.18	13.64	1.016	0.039	2.188	2.227	0.219	3.90	0.03	1.75	1.78	0.18	13.64
Reach 5S of I-12 - S of Sisters Rd.	0.299	0.146	0.445	0.219	1.20	1.864	1.90	4.191	28.06	1.86	75%	0.47	0.58	0.60	0.29	0.89	0.44	3.97	0.375	0.744	0.364	1.107	0.545	1.32	0.60	0.29	0.89	0.44	3.97
Reach 6S of Sisters Rd 3rd Unnamed	0.732	0.028	0.761	0.338	1.00	2.099	1.85	4.797	28.06	2.10	75%	0.52	0.66	1.63	0.06	1.69	0.75	3.69	0.313	2.031	0.078	2.109	0.938	1.53	1.63	0.06	1.69	0.75	3.69
Reach 73rd Unnamed - S of Hwy 22	0.326	0.078	0.404	0.343	1.10	1.846	2.10	5.486	28.06	1.85	75%	0.46	0.58	0.94	0.23	1.16	0.99	5.26	0.344	1.172	0.281	1.453	1.234	1.85	0.94	0.23	1.16	0.99	5.26
Reach 8High School Trib	0.442	0.288	0.730	0.144	3.75	4.624	2.15	2.103	28.06	4.62	75%	1.16	1.44	0.50	0.33	0.83	0.16	7.04	1.172	0.625	0.406	1.031	0.203	2.01	0.50	0.33	0.83	0.16	7.04
Reach 9S of Hwy 22 - N of Weinberger	0.104	0.166	0.270	0.062	4.00	4.332	1.25	19.287	28.06	4.33	75%	1.08	1.35	0.63	1.00	1.63	0.38	40.05	1.250	0.781	1.250	2.031	0.469	10.51	0.63	1.00	1.63	0.38	40.05
Reach 10N of Weinberger - South Slough	0.106	0.076	0.182	0.046	5.00	5.228	2.50	30.267	28.06	5.23	75%	1.31	1.63	2.00	1.44	3.44	0.88	157.13	1.563	2.500	1.797	4.297	1.094	40.36	2.00	1.44	3.44	0.88	157.13
Sub-Total						<u> </u>				36.89		9.22	11.53	6.49	6.09	12.58	3.89	238.82		8.11	7.61	15.72	4.86	63.82	6.49	6.09	12.58	3.89	238.82

Summer TMDL Calculations for Point Sour	ce loads:										
SELS	ERS CREEK (SUB	<b>SEGMENT 040603</b> )									
								 	led cells		

																	Input data	into the shad	ed cells.	`	1	
	1			·		· · · · ·		P	oint Sour	e Loading	Calculations			1				1				
							Propo	osed Permit	Limits		UCBO	D			U	NBOD			Sub-Total	of Point Source	BOD Loads	
Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/ design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (gpd)	Flow with MOS (cms)	CBOD <sub>5</sub> (mg/l)	NH <sub>3</sub> N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	WLA (lbs/day)	Reserve/ MOS (kg/day)	Reserve/ MOS (lbs/day)
				A		A1 = A/(1-E)	В	С	E	$F = 2.3 \times B$	G = (86.4)(A1)(F)	$\mathbf{H} = (1-\mathbf{E}) \times \mathbf{G}$	I = (E)(G)	<b>J</b> = 4.3 x <b>C</b>	$\mathbf{K} = (86.4)(\mathbf{A1})(\mathbf{J})$	L = (1-E) x K	M = (D)(K)	G + K + N	H+L+O	H+L+O	I + M + P	I + M + P
2South East Hammond	Selsers Creek	Yes	618,000	0.02708	772,500	0.033845	5.0	2.0	20%	11.50	33.63	26.90	6.73	8.60	25.15	20.12	5.03	58.78	47.02	103.66	11.76	25.92
5Pelican Gardens	Selsers Creek	Yes	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.32
5Dupre's Trailerpark	Selsers Creek	Yes	3,600	0.00016	4,500	0.000197	10.0	2.0	20%	23.00	0.39	0.31	0.08	8.60	0.15	0.12	0.03	0.54	0.43	0.95	0.11	0.24
8GMG Rentals	Selsers Creek	Yes	3,000	0.00013	3,750	0.000164	10.0	2.0	20%	23.00	0.33	0.26	0.07	8.60	0.12	0.10	0.02	0.45	0.36	0.79	0.09	0.20
8Rock's Rentals	Selsers Creek	Yes	2,400	0.00011	3,000	0.000131	10.0	2.0	20%	23.00	0.26	0.21	0.05	8.60	0.10	0.08	0.02	0.36	0.29	0.63	0.07	0.16
8Ponchatoula High	Selsers Creek	Yes	32,160	0.00141	40,200	0.001761	5.0	2.0	20%	11.50	1.75	1.40	0.35	8.60	1.31	1.05	0.26	3.06	2.45	5.39	0.61	1.35
9Esterbrook Trace	Selsers Creek	Yes	3,600	0.00016	4,500	0.000197	10.0	2.0	20%	23.00	0.39	0.31	0.08	8.60	0.15	0.12	0.03	0.54	0.43	0.95	0.11	0.24
10Creekside Subdivision	Selsers Creek	Yes	24,800	0.00109	31,000	0.001358	10.0	2.0	20%	23.00	2.70	2.16	0.54	8.60	1.01	0.81	0.20	3.71	2.97	6.54	0.74	1.64
Ponchatoula Animal Hospital	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.03
Delatte Recycling LLC	Selsers Creek	No	100	0.00000	125	0.000005	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.01	0.01	0.03	0.00	0.01
Omni Storage	Selsers Creek	No	300	0.00001	375	0.000016	10.0	2.0	20%	23.00	0.03	0.03	0.01	8.60	0.01	0.01	0.00	0.04	0.04	0.08	0.01	0.02
Smith's Nursery & Landscaping	Selsers Creek	No	80	0.00000	100	0.000004	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.01
CLC Rentals	Selsers Creek	No	2,400	0.00011	3,000	0.000131	10.0	2.0	20%	23.00	0.26	0.21	0.05	8.60	0.10	0.08	0.02	0.36	0.29	0.63	0.07	0.16
Berthelot Mobile Home Park	Selsers Creek	No	1,800	0.00008	2,250	0.000099	10.0	2.0	20%	23.00	0.20	0.16	0.04	8.60	0.07	0.06	0.01	0.27	0.22	0.47	0.05	0.12
A&M Container Sales & Rentals LLC	Selsers Creek	No	60	0.00000	75	0.000003	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.00
Thompson Pump & Equipment	Selsers Creek	No	140	0.00001	175	0.000008	10.0	2.0	20%	23.00	0.02	0.01	0.00	8.60	0.01	0.00	0.00	0.02	0.02	0.04	0.00	0.01
Cretin Homes LLC	Selsers Creek	No	220	0.00001	275	0.000012	10.0	2.0	20%	23.00	0.02	0.02	0.00	8.60	0.01	0.01	0.00	0.03	0.03	0.06	0.01	0.01
Estes Express Lines WWTP	Selsers Creek	No	300	0.00001	375	0.000016	10.0	2.0	20%	23.00	0.03	0.03	0.01	8.60	0.01	0.01	0.00	0.04	0.04	0.08	0.01	0.02
Cretin Homes LLC - Sales Office WWTP	Selsers Creek	No	200	0.00001	250	0.000011	10.0	2.0	20%	23.00	0.02	0.02	0.00	8.60	0.01	0.01	0.00	0.03	0.02	0.05	0.01	0.01
Howard Warner - JR's Barber Shop	Selsers Creek	No	270	0.00001	338	0.000015	10.0	2.0	20%	23.00	0.03	0.02	0.01	8.60	0.01	0.01	0.00	0.04	0.03	0.07	0.01	0.02
MCP Group LLC - Auto Image of Hammond	Selsers Creek	No	40	0.00000	50	0.000002	10.0	2.0	20%	23.00	0.00	0.00	0.00	8.60	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Coastal Truck Driving School - Coastal College	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.03
Bennett's Towing & Recovery	Selsers Creek	No	20	0.00000	25	0.000001	10.0	2.0	20%	23.00	0.00	0.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Apostolic Truth Fellowship Center Inc	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.03
Airport Garden Center	Selsers Creek	No	160	0.00001	200	0.000009	10.0	2.0	20%	23.00	0.02	0.01	0.00	8.60	0.01	0.01	0.00	0.02	0.02	0.04	0.00	0.01
Mt. Pleasant Baptist Church	Selsers Creek	No	1,500	0.00007	1,875	0.000082	10.0	2.0	20%	23.00	0.16	0.13	0.03	8.60	0.06	0.05	0.01	0.22	0.18	0.40	0.04	0.10
Pell Automotive	Selsers Creek	No	5,000	0.00022	6,250	0.000274	10.0	2.0	20%	23.00	0.54	0.44	0.11	8.60	0.20	0.16	0.04	0.75	0.60	1.32	0.15	0.33
4-Way Cash & Dash	Selsers Creek	No	120	0.00001	150	0.000007	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.02	0.01	0.03	0.00	0.01
Masterliner Inc	Selsers Creek	No	420	0.00002	525	0.000023	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.01	0.00	0.06	0.05	0.11	0.01	0.03
Pizzolato's Body Shop	Selsers Creek	No	5,000	0.00022	6,250	0.000274	10.0	2.0	20%	23.00	0.54	0.44	0.11	8.60	0.20	0.16	0.04	0.75	0.60	1.32	0.15	0.33
Mo-Dad Utilities LLC - Dunson Park	Selsers Creek	No	17,700	0.00078	22,125	0.000969	10.0	2.0	20%	23.00	1.93	1.54	0.39	8.60	0.72	0.58	0.14	2.65	2.12	4.67	0.53	1.17
Mo-Dad Utilities LLC - Greenleaf Subdivision	Selsers Creek	No	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.32
Windcrest Mobile Home Park	Selsers Creek	No	8,400	0.00037	10,500	0.000460	10.0	2.0	20%	23.00	0.91	0.73	0.18	8.60	0.34	0.27	0.07	1.26	1.00	2.22	0.25	0.55
Mo-Dad Utilities LLC - STP	Selsers Creek	No	12,400	0.00054	15,500	0.000679	10.0	2.0	20%	23.00	1.35	1.08	0.27	8.60	0.50	0.40	0.10	1.85	1.48	3.27	0.37	0.82
Density Utilities of Louisiana LLC - Madison Trace Subdivision	Selsers Creek	No	21,600	0.00095	27,000	0.001183	10.0	2.0	20%	23.00	2.35	1.88	0.47	8.60	0.88	0.70	0.18	3.23	2.58	5.70	0.65	1.42
Charles Rose Mobile Home Park (Pretty Acres)	Selsers Creek	No	12,600	0.00055	15,750	0.000690	10.0	2.0	20%	23.00	1.37	1.10	0.27	8.60	0.51	0.41	0.10	1.88	1.51	3.32	0.38	0.83

Originated. June 1, 2011																						
Summer TMDL Calcula	tions for Poi	<u>nt Source loa</u>	ıds:																			
		SELSERS C	CREEK (SUB	SEGMENT	7 040603)																	
																	Input data	into the shade	ed cells.			
								I	Point Sour	ce Loading	Calculations											
							Propo	osed Permit			UCBO				U	NBOD			Sub-Total o	of Point Source	BOD Loads	-
Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/ design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (gpd)	Flow with MOS (cms)	CBOD <sub>5</sub> (mg/l)	NH <sub>3</sub> N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	WLA (lbs/day)	Reserve/ MOS (kg/day)	Reserve/ MOS (lbs/day)
				A		A1 = A/(1-E)	В	С	E	$F = 2.3 \times B$	G = (86.4)(A1)(F)	$\mathbf{H} = (1-\mathbf{E}) \times \mathbf{G}$	I = (E)(G)	<b>J</b> = 4.3 x <b>C</b>	K = (86.4)(A1)(J)	L = (1-E) x K	M = (D)(K)	G + K + N	H+L+O	H+L+O	I+M+P	I+M+P
Shelby Development LLC - Fairfield Farms Subdivision	Selsers Creek	No	16,000	0.00070	20,000	0.000876	10.0	2.0	20%	23.00	1.74	1.39	0.35	8.60	0.65	0.52	0.13	2.39	1.91	4.22	0.48	1.05
JAMB Building & Development Corp Grand Center Townhomes Apartments	Selsers Creek	No	24,000	0.00105	30,000	0.001314	10.0	2.0	20%	23.00	2.61	2.09	0.52	8.60	0.98	0.78	0.20	3.59	2.87	6.33	0.72	1.58
Mo-Dad Utilities LLC - Olde Mill Subdivision	Selsers Creek	No	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.32
Rafaels Truck Wash	Selsers Creek	No	1,500	0.00007	1,875	0.000082	10.0	2.0	20%	23.00	0.16	0.13	0.03	8.60	0.06	0.05	0.01	0.22	0.18	0.40	0.04	0.10
Mac's Tire & Auto DBA Whittington Tire & Rim	Selsers Creek	No							20%													
Time Square Investments	Selsers Creek	No							20%													
Coinmach	Selsers Creek	No							20%													
Maxin Properties LLC - TruckPro	Selsers Creek	No							20%													
All Star Transmissions	Selsers Creek	No							20%													
Gemma Holdings LLC - Covan Worldwide Moving Inc	Selsers Creek	No							20%													
Davie Shoring Inc - Davie Drive Estates	Selsers Creek	No							20%													
Pentecostal One Way Holy Church of God	Selsers Creek	No							20%													
Old School Lounge	Selsers Creek	No							20%													
ABC Well & Sewage Inc	Selsers Creek	No							20%												<b></b> '	
Overmier's Auto	Selsers Creek	No							20%												<u> </u>	
Daniel Utility Construction  Berthelots Heating & Air	Selsers Creek Selsers Creek	No No							20%													
Conditioning Fellowship Baptist Church	Selsers Creek	No				+			20%				<del>                                     </del>				+ -					+
New Star Missionary Baptist Church	Selsers Creek	No				+			20%								+					+
Autumn Breeze Apartments	Selsers Creek	No							20%													
Full Faith Christian Fellowship Baptist	Selsers Creek	No							20%													
Church Crazy Cones	Selsers Creek	No							20%												<u> </u>	
Crazy Colles	Seisers Creek	140				+ -			2070				<del> </del>				+					+
SUB-TOTAL Loads											60.54	48.43	12.11		35.87	28.69	7.17	96.41	77.13	170.04	19.28	42.51
50D-101AL Luaus	I	i.						1		1	00.04	70.73	12,11	I	33.07	20.07	/.1/	70.41	11.13	1/0.07	17.20	74.31

<b>Summer TMDL calculation</b>	s and P	roject	tion m	odel c	alculat	ions fo	or Hea	adwater	/Tribu	tary load	:ak											
						_																
SELSERS CREEK	(SUBSEG	<u>EMENT</u>	040603)	<u> </u>																		
Shaded cells are input values for calculation	ons.			M	ARGIN OF SA	AFFTY (MOS	S) (%) =															
Values to be used in the projection model				i i	ng the nitro		, , ,															
	Headwater / Tributary Load Determinations  FROM CALIBRATION Reduced Man-Made Loads PROJECTION VALUES																					
	Headwater / Tributary Load Determinations  FROM CALIBRATION  Reduced Man-Made Loads  PROJECTION VALUES  From Percent Reduced Projection Project																					
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg O <sub>2</sub> /L)	UCBOD2 (mg O <sub>2</sub> /L)	UCBOD	UNBOD (mg O <sub>2</sub> /L)	Total UNBOD (mg O <sub>2</sub> /L)	Chlorop hyll A (ug/L)	Percent reduction of Man-Made loads	Reduced UCBOD load (kg O <sub>2</sub> /day)	UNBOD load	Chlorophydl A	Projection UCBOD1 input conc. (mg O <sub>2</sub> /L)	Projection UCBOD2 input conc. (mg O <sub>2</sub> /L)	Projection UCBOD input conc. (mg O <sub>2</sub> /L)	Projection UNBOD input conc. (mg O <sub>2</sub> /L)	Projection Chlorophyll A input conc. (ug/L)	Total MOS (kg O2/day)	I			Total NBOD LA (kg O2/day)	Total Chlorophyll A LA (g/day)
1Headwaters	0.00283	5.92	9.46	15.38	2.21	2.21	10.00	75%	0.94	0.14	0.61	1.848	2.957	4.805	0.692	3.13	0.27	0.36	0.58	0.94	0.14	0.61
4Old Covington Highway Trib	0.00283	7.35	10.14	17.49	5.01	5.01	10.00	75%	1.07	0.31	0.61	2.296	3.170	5.465	1.566	3.13	0.34	0.45	0.62	1.07	0.31	0.61
5Sisters Road Trib	0.00283	2.27	4.70	6.97	0.53	0.53	10.00	75%	0.43	0.03	0.61	0.710	1.468	2.178	0.165	3.13	0.11	0.14	0.29	0.43	0.03	0.61
7Hoover Road Trib	0.00283	6.28	6.24	12.53	1.77	1.77	10.00	75%	0.77	0.11	0.61	1.963	1.951	3.915	0.553	3.13	0.22	0.38	0.38	0.77	0.11	0.61
8High School Trib	0.00283	6.60	12.84	19.44	7.19	7.19	10.00	75%	1.19	0.44	0.61	2.062	4.013	6.075	2.245	3.13	0.41	0.40	0.78	1.19	0.44	0.61
SUB-TOTAL TMDL LOADING									4.39	1.02	3.06						1.35	1.74	2.65	4.39	1.02	3.06

										Appo	endix E	22 – Wir	iter Loa	ding—	<b>-75%</b> ]	Reduc	tion												
Winter Projection, No	n-Poi	nt Bent	thic Lo	ad Inp	ut and	IDMT b	_ Cal	culation	ns:																				
Modeled stream or water body:			SEI	LSERS C	REEK (S	UBSEGN	ENT 0	40603)																					
Shaded cells are input values	for calcula	ations.		ARGIN OF	SAFETY	(MOS) (%)	= [MOG	6 + MOU] =	20%																				
Values to be used in the project	ction mod	dels.																											
		_	Calibrat	tion Model V	/alues	_									Reduce	ed Man-Ma	de Loads				Projected	Model Loads				1			
Reach Number and Description	Non-Point UCBOD1	Non-Point UCBOD2	Total Non- Point UCBOD	Total Non- Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Man-Made Benthic Load	Percentage Reduction of man-made sources	Reduced Man- Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced UCBOD2 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non- Point UCBOD INPUTS	Non-Point UNBOD INPUTS	Total MOS at Projection Temp.				Non-Point UNBOD LA	SOD LA at Projection Temp.
	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	Kilo- meters	Meters	(deg Celcius)	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	%	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	g O <sub>2</sub> / [(m <sup>2</sup> )(day)]	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day	kg O <sub>2</sub> /day					
Reach 1Headwaters - S of 190	0.234	0.234	0.468	0.070	1.75	2.288	1.15	1.859	20.75	2.29	75%	0.57	0.71	0.13	0.13	0.25	0.04	0.98	0.547	0.156	0.156	0.313	0.047	0.32	0.13	0.13	0.25	0.04	0.98
Reach 2S of 190 - Old Covington Hwy	0.035	0.352	0.388	0.088	4.00	4.476	1.70	1.669	20.75	4.48	75%	1.12	1.40	0.03	0.25	0.28	0.06	2.97	1.250	0.031	0.313	0.344	0.078	0.83	0.03	0.25	0.28	0.06	2.97
Reach 3Old Covington Hwy - 1st Unnamed	0.087	2.187	2.275	0.087	3.75	6.112	0.75	1.524	20.75	6.11	75%	1.53	1.91	0.03	0.63	0.65	0.03	1.12	1.172	0.031	0.781	0.813	0.031	0.45	0.03	0.63	0.65	0.03	1.12
Reach 41st Unnamed - S of I-12	0.012	0.693	0.705	0.069	3.25	4.025	2.55	3.962	20.75	4.02	75%	1.01	1.26	0.03	1.75	1.78	0.18	8.61	1.016	0.039	2.188	2.227	0.219	2.64	0.03	1.75	1.78	0.18	8.61
Reach 5S of I-12 - S of Sisters Rd.	0.299	0.146	0.445	0.219	1.20	1.864	1.90	4.191	20.75	1.86	75%	0.47	0.58	0.60	0.29	0.89	0.44	2.50	0.375	0.744	0.364	1.107	0.545	0.96	0.60	0.29	0.89	0.44	2.50
Reach 6S of Sisters Rd 3rd Unnamed	0.732	0.028	0.761	0.338	1.00	2.099	1.85	4.797	20.75	2.10	75%	0.52	0.66	1.63	0.06	1.69	0.75	2.33	0.313	2.031	0.078	2.109	0.938	1.19	1.63	0.06	1.69	0.75	2.33
Reach 73rd Unnamed - S of Hwy 22	0.326	0.078	0.404	0.343	1.10	1.846	2.10	5.486	20.75	1.85	75%	0.46	0.58	0.94	0.23	1.16	0.99	3.32	0.344	1.172	0.281	1.453	1.234	1.37	0.94	0.23	1.16	0.99	3.32
Reach 8High School Trib	0.442	0.288	0.730	0.144	3.75	4.624	2.15	2.103	20.75	4.62	75%	1.16	1.44	0.50	0.33	0.83	0.16	4.44	1.172	0.625	0.406	1.031	0.203	1.36	0.50	0.33	0.83	0.16	4.44
Reach 9S of Hwy 22 - N of Weinberger	0.104	0.166	0.270	0.062	4.00	4.332	1.25	19.287	20.75	4.33	75%	1.08	1.35	0.63	1.00	1.63	0.38	25.27	1.250	0.781	1.250	2.031	0.469	6.82	0.63	1.00	1.63	0.38	25.27
Reach 10N of Weinberger - South Slough	0.106	0.076	0.182	0.046	5.00	5.228	2.50	30.267	20.75	5.23	75%	1.31	1.63	2.00	1.44	3.44	0.88	99.16	1.563	2.500	1.797	4.297	1.094	25.87	2.00	1.44	3.44	0.88	99.16
Sub-Total	-									36,89		9.22	11.53	6.49	6.09	12.58	3.89	150.71		8.11	7.61	15.72	4.86	41.79	6.49	6.09	12.58	3.89	150.71
Sub-10tai	1			I						30.89		7.22	11.33	0.47	0.09	12.36	3.07	150.71		0.11	7.01	13.72	4.00	41./7	0.49	0.09	12.50	3.09	150./1

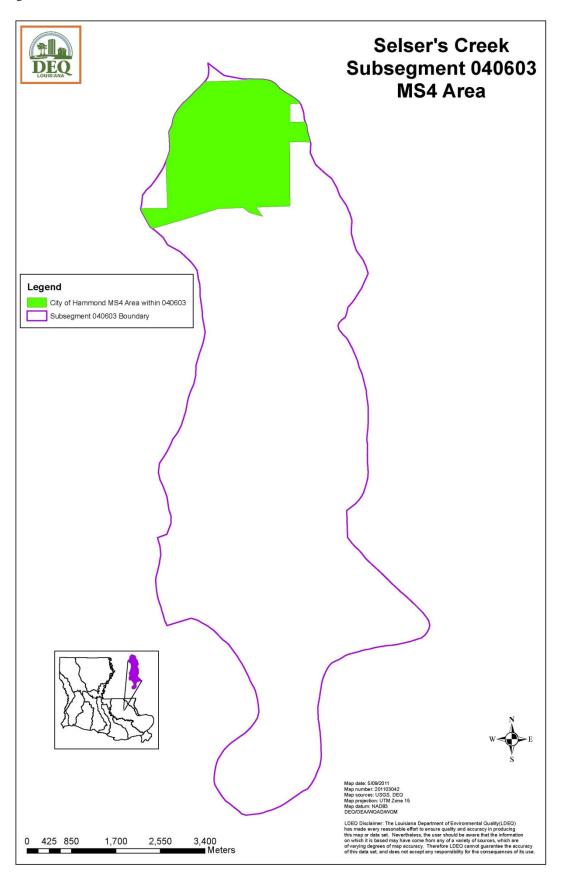
Vinter TMDL Calculation																						
<u> </u>	SE	LSERS CREEK	K (SUBSEGM	ENT 0406	03)																	
																	Input data	into the shad	ed cells.			
		-		1				Point S	Source Lo	ading Calc	ulations			0				1				
							Propo	sed Permit l	Limits		UCBO	D			U	NBOD			Sub-Total	of Point Source	BOD Loads	
		Included in the	Anticipated/	Anticipated/						Ultimate	1		Reserve/	Ultimate	1		Reserve/			<u> </u>	Reserve/	Res
t. Source / Facility Description and	Receiving Stream	Projection Model	design flow	design flow	Flow with	Flow with MOS	CBOD <sub>5</sub>	NH <sub>3</sub> N	MOS	Conc. (mg/l)	Loads (kg/day)	WLA	MOS Load	Conc. (mg/l)	Loads (kg/day)	WLA	MOS Load	Loads	WLA	WLA	MOS	M
Reach #		(Yes/No)	(gpd)	(cms)	MOS (gpd)	(cms)	(mg/l)	(mg/l)	(%)	(2)	(1)	(kg/day)	(kg/day)	(2)	(1)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(lbs/day)	(kg/day)	(lbs/
											G =	H =			<b>K</b> =	L =						
				A		A1 = A/(1-E)	В	С	E	F = 2.3  x B	(86.4)( <b>A1</b> )( <b>F</b> )	(1- <b>E</b> ) x <b>G</b>	$\mathbf{I} = (\mathbf{E})(\mathbf{G})$	$\mathbf{J} = 4.3 \times \mathbf{C}$	(86.4)(A1)(J)	(1- <b>E</b> ) x <b>K</b>	$\mathbf{M} = (\mathbf{D})(\mathbf{K})$	G+K+N	H+L+O	H+L+O	I + M + P	I + 1
2South East Hammond	Selsers Creek	Yes	618,000	0.02708	772,500	0.033845	5.0	2.0	20%	11.50	33.63	26.90	6.73	8.60	25.15	20.12	5.03	58.78	47.02	103.66	11.76	25
5Pelican Gardens	Selsers Creek	Yes	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.
5Dupre's Trailerpark	Selsers Creek	Yes	3,600	0.00016	4,500	0.001093	10.0	2.0	20%	23.00	0.39	0.31	0.08	8.60	0.15	0.12	0.03	0.54	0.43	0.95	0.00	0.
8GMG Rentals	Selsers Creek	Yes	3,000	0.00013	3,750	0.000164	10.0	2.0	20%	23.00	0.33	0.26	0.07	8.60	0.12	0.10	0.02	0.45	0.36	0.79	0.09	0.
8Rock's Rentals	Selsers Creek	Yes	2,400	0.00011	3,000	0.000131	10.0	2.0	20%	23.00	0.26	0.21	0.05	8.60	0.10	0.08	0.02	0.36	0.29	0.63	0.07	0
8Ponchatoula High	Selsers Creek	Yes	32,160	0.00141	40,200	0.001761	5.0	2.0	20%	11.50	1.75	1.40	0.35	8.60	1.31	1.05	0.26	3.06	2.45	5.39	0.61	1.
9Esterbrook Trace	Selsers Creek	Yes	3,600	0.00016	4,500	0.000197	10.0	2.0	20%	23.00	0.39	0.31	0.08	8.60	0.15	0.12	0.03	0.54	0.43	0.95	0.11	0.
10Creekside Subdivision	Selsers Creek	Yes	24,800	0.00109	31,000	0.001358	10.0	2.0	20%	23.00	2.70	2.16	0.54	8.60	1.01	0.81	0.20	3.71	2.97	6.54	0.74	1.
Ponchatoula Animal Hospital	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.
Delatte Recycling LLC	Selsers Creek	No	100	0.00000	125	0.000005	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.01	0.01	0.03	0.00	0.
Omni Storage Smith's Nursery & Landscaping	Selsers Creek Selsers Creek	No No	300 80	0.00001	375 100	0.000016 0.000004	10.0	2.0	20%	23.00	0.03	0.03	0.01	8.60 8.60	0.01	0.01	0.00	0.04	0.04	0.08	0.01	0
CLC Rentals	Selsers Creek	No	2,400	0.00000	3,000	0.00004	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.
Berthelot Mobile Home Park	Selsers Creek	No	1,800	0.00001	2,250	0.000099	10.0	2.0	20%	23.00	0.20	0.16	0.04	8.60	0.07	0.06	0.01	0.27	0.23	0.47	0.07	0.
&M Container Sales & Rentals LLC	Selsers Creek	No	60	0.00000	75	0.000003	10.0	2.0	20%	23.00	0.01	0.01	0.00	8.60	0.00	0.00	0.00				7	1
																		0.01	0.01	0.02	0.00	0.0
Thompson Pump & Equipment	Selsers Creek	No	140	0.00001	175	0.000008	10.0	2.0	20%	23.00	0.02	0.01	0.00	8.60	0.01	0.00	0.00	0.02	0.02	0.04	0.00	0.0
Cretin Homes LLC	Selsers Creek	No	220	0.00001	275	0.000012	10.0	2.0	20%	23.00	0.02	0.02	0.00	8.60	0.01	0.01	0.00	0.03	0.03	0.06	0.01	0.
Estes Express Lines WWTP  Cretin Homes LLC - Sales Office	Selsers Creek	No	300	0.00001	375	0.000016	10.0	2.0	20%	23.00	0.03	0.03	0.01	8.60	0.01	0.01	0.00	0.04	0.04	0.08	0.01	0.
WWTP	Selsers Creek	No	200	0.00001	250	0.000011	10.0	2.0	20%	23.00	0.02	0.02	0.00	8.60	0.01	0.01	0.00	0.03	0.02	0.05	0.01	0.
Howard Warner - JR's Barber Shop	Selsers Creek	No	270	0.00001	338	0.000015	10.0	2.0	20%	23.00	0.03	0.02	0.01	8.60	0.01	0.01	0.00	0.04	0.03	0.07	0.01	0.
MCP Group LLC - Auto Image of	Selsers Creek	No	40	0.00000	50	0.000002	10.0	2.0	20%	23.00	0.00	0.00	0.00	8.60	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.0
Hammond				******								****						0.01	0.00	0.01	0.00	0.
Coastal Truck Driving School - Coastal College	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.
Bennett's Towing & Recovery	Selsers Creek	No	20	0.00000	25	0.000001	10.0	2.0	20%	23.00	0.00	0.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.0
Apostolic Truth Fellowship Center	Selsers Creek	No	500	0.00002	625	0.000027	10.0	2.0	20%	23.00	0.05	0.04	0.01	8.60	0.02	0.02	0.00	0.07	0.06	0.13	0.01	0.
Inc																						
Airport Garden Center	Selsers Creek	No No	160	0.00001	200	0.000009	10.0	2.0	20%	23.00	0.02	0.01	0.00	8.60	0.01	0.01	0.00	0.02	0.02	0.04	0.00	0.
Mt. Pleasant Baptist Church Pell Automotive	Selsers Creek Selsers Creek	No No	1,500 5,000	0.00007 0.00022	1,875 6,250	0.000082 0.000274	10.0	2.0	20%	23.00	0.16 0.54	0.13	0.03	8.60 8.60	0.06	0.05	0.01	0.22	0.18	0.40	0.04	0.
4-Way Cash & Dash	Selsers Creek	No No	120	0.00022	150	0.000274	10.0	2.0	20%	23.00	0.54	0.44	0.11	8.60	0.20	0.16	0.04	0.75	0.60	1.32 0.03	0.15	0.
Masterliner Inc	Selsers Creek	No	420	0.00001	525	0.000007	10.0	2.0	20%	23.00	0.05	0.01	0.00	8.60	0.02	0.00	0.00	0.02	0.01	0.03	0.00	0.
Pizzolato's Body Shop	Selsers Creek	No	5,000	0.00022	6,250	0.000274	10.0	2.0	20%	23.00	0.54	0.44	0.11	8.60	0.20	0.16	0.04	0.75	0.60	1.32	0.15	0.
o-Dad Utilities LLC - Dunson Park	Selsers Creek	No	17,700	0.00078	22,125	0.000969	10.0	2.0	20%	23.00	1.93	1.54	0.39	8.60	0.72	0.58	0.14	2.65	2.12	4.67		
	Geisels Cleek	110	17,700	0.00078	22,123	0.000707	10.0	2.0	2070	23.00	1.73	1.34	0.37	5.00	0.72	0.56	0.14	2.05	2,12	4.07	0.53	1.
Mo-Dad Utilities LLC - Greenleaf Subdivision	Selsers Creek	No	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.
Windcrest Mobile Home Park	Selsers Creek	No	8,400	0.00037	10,500	0.000460	10.0	2.0	20%	23.00	0.91	0.73	0.18	8.60	0.34	0.27	0.07	1.26	1.00	2.22	0.25	0.
Mo-Dad Utilities LLC - STP	Selsers Creek	No	12,400	0.00054	15,500	0.000679	10.0	2.0	20%	23.00	1.35	1.08	0.27	8.60	0.50	0.40	0.10	1.85	1.48	3.27	0.23	0.
Density Utilities of Louisiana LLC -	Selsers Creek	No	21,600	0.00095	27,000	0.001183	10.0	2.0	20%	23.00	2.35	1.88	0.47	8.60	0.88	0.70	0.18					
Madison Trace Subdivision Charles Rose Mobile Home Park			·															3.23	2.58	5.70	0.65	1.4
(Pretty Acres)	Selsers Creek	No	12,600	0.00055	15,750	0.000690	10.0	2.0	20%	23.00	1.37	1.10	0.27	8.60	0.51	0.41	0.10	1.88	1.51	3.32	0.38	0.

Winter TMDL Calculation	ns for Point Source le	oads:																				
	CE	T GEDG GDEEK	CIDGEGM	ENTE 0 40 C	22																	
	SE	LSERS CREEK	(SUBSEGM	ENT 04060	03)			1														
																	Input data	into the shad	ed cells.			
								Point S	Source Lo	ading Calc	ulations	'										
							Propo	osed Permit l	Limits		UCBO	D			U	NBOD			Sub-Total	of Point Source	BOD Loads	
Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/ design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (gpd)	Flow with MOS (cms)	CBOD <sub>5</sub> (mg/l)	NH <sub>3</sub> N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	WLA (lbs/day)	Reserve/ MOS (kg/day)	Reserve/ MOS (lbs/day)
				A		A1 = A/(1-E)	В	С	E	$F = 2.3 \times B$	G = (86.4)(A1)(F)	$\mathbf{H} = (1 - \mathbf{E}) \times \mathbf{G}$	I = (E)(G)	$J = 4.3 \times C$	$\mathbf{K} = (86.4)(\mathbf{A1})(\mathbf{J})$	L = (1-E) x K	M = (D)(K)	G + K + N	H+L+O	H+L+O	I+M+P	I + M + P
Shelby Development LLC - Fairfield Farms Subdivision	Selsers Creek	No	16,000	0.00070	20,000	0.000876	10.0	2.0	20%	23.00	1.74	1.39	0.35	8.60	0.65	0.52	0.13	2.39	1.91	4.22	0.48	1.05
JAMB Building & Development Corp - Grand Center Townhomes Apartments	Selsers Creek	No	24,000	0.00105	30,000	0.001314	10.0	2.0	20%	23.00	2.61	2.09	0.52	8.60	0.98	0.78	0.20	3.59	2.87	6.33	0.72	1.58
Mo-Dad Utilities LLC - Olde Mill Subdivision	Selsers Creek	No	20,000	0.00088	25,000	0.001095	10.0	2.0	20%	23.00	2.18	1.74	0.44	8.60	0.81	0.65	0.16	2.99	2.39	5.27	0.60	1.32
Rafaels Truck Wash	Selsers Creek	No	1,500	0.00007	1,875	0.000082	10.0	2.0	20%	23.00	0.16	0.13	0.03	8.60	0.06	0.05	0.01	0.22	0.18	0.40	0.04	0.10
Mac's Tire & Auto DBA Whittington Tire & Rim	Selsers Creek	No							20%													
Time Square Investments	Selsers Creek	No							20%													<u> </u>
Coinmach	Selsers Creek	No							20%													
Maxin Properties LLC - TruckPro	Selsers Creek	No							20%													
All Star Transmissions	Selsers Creek	No							20%													
Gemma Holdings LLC - Covan Worldwide Moving Inc	Selsers Creek	No							20%													
Davie Shoring Inc - Davie Drive Estates	Selsers Creek	No							20%													
Pentecostal One Way Holy Church of God	Selsers Creek	No							20%													
Old School Lounge	Selsers Creek	No							20%													
ABC Well & Sewage Inc	Selsers Creek	No							20%													
Overmier's Auto	Selsers Creek	No							20%													
Daniel Utility Construction	Selsers Creek	No							20%													<b></b>
Berthelots Heating & Air Conditioning	Selsers Creek	No							20%													
Fellowship Baptist Church	Selsers Creek	No							20%													
New Star Missionary Baptist Church	Selsers Creek	No							20%													
Autumn Breeze Apartments	Selsers Creek	No							20%													
Full Faith Christian Fellowship Baptist Church	Selsers Creek	No							20%			1										
Crazy Cones	Selsers Creek	No							20%													
																						<u> </u>
SUB-TOTAL Loads											60.54	48.43	12.11	<u> </u>	35.87	28.69	7.17	96.41	77.13	170.04	19.28	42.51

Winter TMDL calculations	and Pro	jection	model c	alculatio	ons for l	Heady	vater / T	ributar	y loads	<u>:</u>													
					_																		
SELSERS CREEK	(SUBSEG	MENT 0	40603)																				
Shaded cells are input values for calculation	ons.			MARGIN OF S	SAFETY (MOS)	(%) =																	
Values to be used in the projection models	S.		If mod	eling the nit	rogen series	, be sur																	
										<u> </u>													
									Headwate	er / Tribut	tary Load I	) eterminati	ons					1					
			FROM CALIB	RATION					Reduc	ced Man-Ma	de Loads			PRO	DJECTION VAI	LUES							
	Cassanal		Tota	1	Total	Chlana	Percent	Reduced	Reduced	Reduced	Reduced	Reduced	Projection	Projection	Projection	Projection	Projection		Total	Total	Total CROD	Total NROD	Total

										Headwat	er / Tribu	tary Load I	Determinati	ions										
			FROM	CALIBRA	TION					Redu	ced Man-M	ade Loads			PRO	OJECTION VA	LUES							
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)		UCBOD2 (mg O <sub>2</sub> /L)	I UCBOD	UNBOD (mg O <sub>2</sub> /L)	UNBOD		Percent reduction of Man-Made loads	Reduced UCBOD1 load (kg O <sub>2</sub> /day)	Reduced UCBOD2 load (kg O <sub>2</sub> /day)	Reduced UCBOD load (kg O <sub>2</sub> /day)	(kg O /day)	Reduced Chlorophyll A load (g/day)	Projection UCBOD1 input conc. (mg O <sub>2</sub> /L)	Projection UCBOD2 input conc. (mg O <sub>2</sub> /L)	Projection UCBOD input conc. (mg O <sub>2</sub> /L)	Projection UNBOD input conc. (mg O <sub>2</sub> /L)	Projection Chlorophyll A input conc. (ug/L)	Total MOS (kg O2/day)	Total CBOD1 LA (kg O2/day)	Total CBOD2 LA (kg O2/day)			Total Chlorophyll A LA (g/day)
1Headwaters	0.02830	5.92	9.46	15.38	2.21	2.21	10.00	75%	3.62	5.78	9.40	1.35	6.11	1.848	2.957	4.805	0.692	3.13	2.69	3.62	5.78	9.40	1.35	6.11
4Old Covington Highway Trib	0.02830	7.35	10.14	17.49	5.01	5.01	10.00	75%	4.49	6.20	10.69	3.06	6.11	2.296	3.170	5.465	1.566	3.13	3.44	4.49	6.20	10.69	3.06	6.11
5Sisters Road Trib	0.02830	2.27	4.70	6.97	0.53	0.53	10.00	75%	1.39	2.87	4.26	0.32	6.11	0.710	1.468	2.178	0.165	3.13	1.15	1.39	2.87	4.26	0.32	6.11
7Hoover Road Trib	0.02830	6.28	6.24	12.53	1.77	1.77	10.00	75%	3.84	3.82	7.66	1.08	6.11	1.963	1.951	3.915	0.553	3.13	2.18	3.84	3.82	7.66	1.08	6.11
8High School Trib	0.02830	6.60	12.84	19.44	7.19	7.19	10.00	75%	4.03	7.85	11.88	4.39	6.11	2.062	4.013	6.075	2.245	3.13	4.07	4.03	7.85	11.88	4.39	6.11
SUB-TOTAL TMDL LOADING									17	27	43.89	10.21	30.56						13.53	17.37	26.52	43.89	10.21	30.56

# Appendix E3 – MS4 Calculations



MS4 C	alcs	for	040	603 Sel	ser's Cre	ek	
LIA MANAONII A roc	for Hamm	and Inc	arparated w	vithin subsegmer	ot 040603	1437.65	ooroo
HAMMON ATE	i ioi naiiiii	oria iric	orporated v	vitriiri subsegmei	11 040603	1437.03	acres
SA Tota	l Area of S	ubsegm	nent 040603	3 =	10376.0600	acres	
% of subsegme	ent 040603	covered	by HAMM	OND =	(SLIDELL/SA) * 100	)	
% of subsegme			•		13.86		
Summer 7	LMDI -						
	LA			MOS			
Nonpoint Loads	:=	575		144			
HAMMOND =	LA	*	0.1386	MOS *	0.1386		
HAMMOND =		80		20		100	
Remaining Non	point LA =	LA - H	AMMOND L	.A			
Remaining Non	point LA =		495				
Remaining Non	point MOS	= MOS	S - HAMMC	ND MOS			
Remaining Non	•		124				
Winter TM	IDI ·						
	LA			MOS			
Nonpoint Loads	i =	488		122			
HAMMOND =	LA	*	0.1386	MOS *	0.1386		
HAMMOND =		68		17		85	
Remaining Non	point LA =	LA - HA	AMMOND L	_A			
Remaining Non	point LA =		420				
Remaining Non	point MOS	= MOS	S - HAMMC	ND MOS			
Remaining Non	point MOS	=	105				

## Appendix E4 – Reference Stream Data

From Rep	ort by DeEt	te "BOD S	STATISTIC	S for the RE	FERENCE	STREAMS	" dated Jul	y 18, 1997		
Stream	Date	Time/	Site	BOD Dilution*	CBODu	kd	NBODu	kn	BODu	BOD60
		Sample		NS, S (mg/l)	(mg/l)	(1/day)	(mg/l)	(1/day)	(mg/l)	(mg/l)
Beaucoup	10/10/1995	1315	1	100, 100	4.65	0.06	4.12	0.17	9.95	7.8
Creek		1330	1	100, 100	1.8	0.096	4.78	0.17	7.68	5.5
		1335	1	100, 100	1.7	0.172	8.5	0.18	9.49	6.9
Big Roaring	10/10/1995	1000	1	100, 100	3.57	0.194	4.51	0.017	6.23	6.5
Bayou		1010	1	100, 100	4.06	0.211	6.07	0.017	8.33	8
		1020	1	100, 100	2.82	0.141	5.66	0.015	6.43	6.3
Chemin-	10/10/1995	1845	1	100, 100	2.81	0.182	6.52	0.017	7.25	7.1
a-Haut		1900	1	100, 100	1.4	0.226	3.77	0.017	4.27	4.1
		1915	1	100, 100	2.48	0.126	3.58	0.018	4.7	4.9
Mid Fork B.	8/14/1995	1830	1	100, 100	1.35	0.081	13.09	0.021	11.44	9
D'Arbonne		1840	1	100, 100	0.65	0.226	13.46	0.023	15.75	9.5
		1850	1	100, 100	0.58	0.226	10.36	0.033	13.08	8.6
Indian	10/9/1995	1200	1	100, 100	3.27	0.106	7.66	0.018	8.61	8.1
Bayou		1215	1	100, 100	3.31	0.119	6.83	0.018	8.61	7.8
		1230	1	100, 100	2.25	0.111	7.3	0.017	8.5	6.8
Kisatchie	10/25/1995	805	1	200, 300	1.7	0.187	3.55	0.018	3.84	4.1
Bayou		0840-2	2	200, 300	1.2	0.187	3.85	0.021	3.83	4
		0840-3	3	200, 300	1.69	0.141	2.6	0.017	3.26	3.4
Leading	10/10/1995	1100	1	100, 100	1.04	0.182	7.7	0.018	7.24	6.1
Bayou		1105	1	100, 100	0.94	0.191	8.15	0.017	7.88	6.3
		1110	1	100, 100	1.02	0.221	7.62	0.021	6.93	6.4
Meridian	8/15/1995	740	1	200, 300	0.61	0.226	9.87	0.023	9.17	7.1
Creek		805	2	200, 300	0.81	0.226	9.03	0.038	9.43	7.8
		850	3	200, 300	0.81	0.226	9.85	0.023	9.45	7.2
Pearl	10/17/1995	730	1	200, 300	2.71	0.119	2.24	0.035	4.6	4.7
Creek		830	2	200, 300	2.06	0.035	2.23	0.02	4.06	3.3
		1135	3	200, 300	2.25	0.035	0.92	0.02	3.68	2.8
		1115-trib	Trib	200, 300	2.25	0.035	0.28	0.226	2.7	2.4
Saline	10/24/1995	800	1	200, 300	1.69	0.111	2.98	0.018	3.7	3.7
Bayou		830	2	200, 300	1.5	0.172	3.46	0.017	3.68	3.6
		2000	3	200, 300	1.7	0.187	3.94	0.018	4.22	4.4
Kisatchie	8/20/1996	800	1	300, 300	1.54	0.141	4.2	0.018	4.52	4.09
Bayou		1303	3	300, 300	1.51	0.096	4.23	0.018	5.65	4.11
		1935	4	300, 300	1.68	0.081	4.49	0.018	5.15	4.66
	8/22/1996	215	5	300, 300	2.59	0.05	2.73	0.02	5.44	4.23
Sixmile	9/17/1996	805	1	300, 300	0.9	0.202	4.01	0.018	4.21	3.61
Creek		958	2	300, 300	2.26	0.187	2.46	0.016	4	4.17
		1730	3	300, 300	1.78	0.187	4.58	0.018	4.7	4.6
Meridian	8/7/1996	755	1	300, 300	14.47	0.03	0.22	0.02	15.12	12.3
Creek		1000	2	300, 300	6.86	0.033	4.92	0.018	14.11	9.54
		1250	3	300, 300	4.06	0.048	7.73	0.018	12.89	9.1
Calcasieu	9/4/1996	830	1	300, 300	2.36	0.035	3.08	0.018	5.79	4.15
River		952	2	300, 300	2.24	0.035	3.56	0.018	6.06	4.34
		1533	2A	300, 300	9.58	0.035	10.92	0.017	23.25	15.5
		1612	3	300, 300	3.15	0.035	3.13	0.017	7.38	4.85
Average					2.57		5.44			

Originated: June 1, 2011

#### REFERENCE STREAM NONPOINT LOADING TOTAL BENTHIC LOAD DISSOLVED NONPOINT NONPOINT SOD @ 20 SOD @ NONPOINT NONPOINT STREAM BENTHIC LOAD REFERENCE NONPOINT **TEMPERATURE** @ STREAM WIDTH OXYGEN NBOD<sub>U</sub> $CBOD_U$ deg C STREAM TEMP NBOD<sub>U</sub> (gm $CBOD_U$ TEMP @ 20 deg C TEMP FLOW (cfs/mi) (gm STREAM (ft) (deg C) LEVEL (lb/mi/day) O<sub>2</sub>/m2/day) (lb/mi/day) (gm O<sub>2</sub>/m2/day) (gm O₂\m²-d) (deg C) $(gm O_2 \backslash m^2 - day)$ (mg/L) $(gm O_2 \backslash m^2 - day)$ O<sub>2</sub>\m<sup>2</sup>-day) 52 5.35 0.095 38.70 0.688 20.150 5.880 1.45 2.234 20.15 1.466 2.249 Big Roaring 0.187 17.170 5.530 3.171 17.17 2.410 2.631 Chemin-a-haut 40 1.46 0.034 8.10 2.95 72 6.97 6.280 1.52 20.80 Indian Bayou 0.090 16.95 0.218 20.820 1.827 1.609 1.917 Leading Bayou 10 0.238 0.022 0.34 0.031 14.250 7.640 2.23 2.278 14.25 1.476 1.529 Middle fork d'Arbonne 42 15.26 0.336 13.55 0.298 28.820 4.510 1.22 1.850 28.82 2.281 2.915 26 0.498 4.75 0.169 16,450 3.530 4.867 16.45 3.260 3.927 Beaucoup 14 Salline Bayou 0.77 61.93 1.637 20.08 16.110 8.280 4.417 16.11 1.704 35 0.531 2.25 3.872 54 0.45 24.180 0.000 0.00 0.000 7.770 0.00 0.000 24.18 0.000 0.000 Sixmile Bayou Kisatchie Bayou N/A N/A N/A N/A 14.34 9.61 N/A N/A N/A N/A N/A N/A (1995, sites 2-3) Kisatchie Bayou 56 Not Done Not Done Not Done Not Done 28.77 7.38 Not Done Not Done 28.77 Not Done Not Done (1996, Sites 3-4) Kisatchie Bayou 59 Not Done Not Done Not Done Not Done 27.70 6.61 Not Done Not Done 27.70 Not Done Not Done (1996, Sites 4-5) Meridian Creek 17.21 N/A N/A N/A N/A 25.00 5.52 N/A N/A 25.00 N/A N/A (1995, Sites 2-3) Meridian Creek 18.04 0 0.000 0.00 1.000 1.510 1.510 0.000 25.770 5.140 1.00 25.77 (1996, Sites 2-3) Pearl Creek (Sites 2-0 17.9 0.00 9.220 0.00 15.87 0.000 0.000 0.000 15.870 0.000 0.000 Calcasieu River 72 Not Done Not Done Not Done Not Done 27.86 7.72 Not Done Not Done 27.86 Not Done Not Done Sites 2-3) 10.5208 0.271 10.25 0.21 6.71 2.16 22.06 1.57 2.055 Average 0.61 21.55 1.68

Jiigiiia	ica. Juni	21, 2011					•									_							
Site ID	Waterbod			Collection	Collection	LAB ID	Chloride, Ion Chromatograp	Sulfate	Specific Conductance	Sodium	SALINITY	Alkalinity	Hardness	pH, Ultimat e BOD	TDS	TSS	Turbidity		Ammonia- Nitrogen	Nitrate+ Nitrite Nitroge	TKN (pp	TOC (pp	TP
Number	у	Site Description	Subsegment	Date	Time	NUMBER	h (ppm)	(ppm)	(umhos/cm)	(ppm)	(ppt)	(ppm)	(ppm)	survey	(ppm)	(ppm)	(NTU)	(PCU)	(ppm)		m)	m)	(ppm)
0447	Anacoco	north of Rosepine, downstream of	110506	1/29/2003	11:00:00 AM	AF01822	4.6	3.2	45.3	12.9		9.7	13.9	5.96	52.7	15.2	19		ND	0.09	0.41	6.1	0.09
****	Bayou	bridge on Hawkins Road		10/8/2003	11:30:00 AM	AF22918	9.2	4.4	120	10.7		36.4	32.3	6.6	75.3	6.5	7.6	35	ND	0.56	0.25	5.1	0.1
0450	Little Kisatchie	north of Leesville, downstream of bridge on LA Hwy 118 in Kisatchie	101103	10/8/2003	10:05:00 AM	AF04741 AF22923	2.8	4.5 5.9	30.7 50.5	2.5 5		3.5 7.6	5.6 8.8	6.65 6.92	59.3 67.3	6.5 ND	12 2.6	25	ND ND	ND ND	ND 0.1	3.7	0.08
0430	Bayou	National Forest	101103	3/11/2004	9:10:00 AM	AG06009	2.9	4.4	31.5	3		3.9	6.7	6.55	56	4	13	20	ND	ND	0.11	4	0.08
	Chemin-A-	north of Bastrop, upstream of		11/20/2002	10:10:00 AM	AE25657	14.7	4.5	133	11.6		43.6	40.5	6.52	99.3	ND	8.1		ND	ND	0.7	9.9	0.07
0457	Haut Creek	bridge on Chem Cutoff Road	80401	10/22/2003	9:50:00 AM	AF24138	18.1	ND	204	16.5		83.2	70.2	6.89	114	ND	2.8		ND	0.06	0.27	7.3	0.07
	Bayou	northeast of Bastrop, upstream of		11/20/2002	11:00:00 AM	AE25662	15.2	12.6	133	9.1		41.6	46.2	6.32	125	18	58		ND	0.18	0.89	8.1	0.23
0458	Bartholeme	bridge on Knox Ferry Road	80401	10/22/2003	10:25:00 AM	AF24143	19.9	6.4	231	15.7		89.7	92.7	7.07	150	23.3	22		ND	0.08	0.31	7.2	0.11
	W	,		1/28/2004	9:15:00 AM	AG02244	8.9	6.4	111	6.7		30.4	34.9	6.65	111	29	80		ND	ND	8.0	12	0.27
0466	Duck	east of Pineville, upstream of	101501	11/20/2002	11:50:00 AM 11:15:00 AM	AE25667	2.4	ND ND	48.5	2.9		15.4 8.9	21.1	5.89	91.3	30.7	16		0.16 ND	ND	1.93	30.7	0.11
	Slough	bridge on Muddy Bayou Road in		1/28/2004	11:15:00 AM 11:10:00 AM	AG02249 AE25672	2.1	ND ND	37.3 49.3	1.8 2.1		20.3	14.9 26.5	NR 5.93	62 105	9.5	17 22		ND ND	ND ND	1.01	27 33.2	0.05
0486				1/28/2004	12:00:00 PM	AG02254	1.8	ND	49.3	1.5		14	21.7	NR	72.7	6	18		Nd	ND	1.69	34.8	
		north of Simpson, downstream of		1/20/2004	12.00.00 F W	AF04746	3.2	5.3	35.7	2.9		4	6.9	5.93	53.3	4.5	11		ND	ND	ND	3.1	0.08
0487	Little Bayou	bridge on LA Hwy 118 in Kisatchie	101103	10/8/2003	9:45:00 AM	AF22928	5.1	9.2	64.6	7.1		10.1	12.1	6.85	88	ND	4	25	ND	ND	ND	3.5	0.07
	Pierre	National Forest		3/11/2004	9:10:00 AM	AG06013	3.1	5.5	37.2			4.2	7.9	6.49	65.3	16.5	13		ND	ND	0.19	5.1	0.07
0488	BearHead	west/northwest of DeQuincy,	30807	1/29/2003	12:10:00 PM	AF01827	9.6	1.8	45.2	5.2		ND	9.1	6.07	70	9.5	25		ND	ND	0.83	9.1	ND
0400	Creek	downstream of bridge on LA Hwy	30007	10/8/2003	1:10:00 PM	AF22933	5.1	2	37.6	3.7		2.6	11.5	6.49	75.3	4.7	9.3	180	ND	ND	0.66	20.4	0.08
	Bechwith	north of DeQuincy, downstream of		1/29/2003	1:34:00 PM	AF01842	8.2	2.4	49.5	5.2		6.3	12.7	5.53	64.7	14.3	23		ND	ND	0.31	7.4	0.11
0489	Creek	bridge on Smokey Cove	30803	10/8/2003	1:50:00 PM	AF22938	5.2	2.4	50.9	3.2		9.5	16.6	6.44	80.7	9.3	13	110	ND	ND	1.11	14.1	0.1
	Contor	Pentecostal Church Road		3/11/2004 1/29/2003	9:10:00 AM 10:45:00 AM	AG06017 AF01847	6.9 5.4	1.6 2.7	52.8 49.2	4.3		8.5 12.7	14.7 14.4	6.51 6.3	74 87.3	7	20 44		ND 0.15	0.06	0.7	13.9 7.2	ND 0.13
0490	Castor Creek	east of Oberlin, downstream of bridge on Parish Road 146	50303	10/8/2003	10:45:00 AM	AF01847 AF22943	6.6	2.7	49.2 77	4.3		22.5	22.7	6.83	77.3	14 8	13	110	ND	0.14 ND	1.04	12.9	
		<del>_</del>		1/29/2003	11:30:00 AM	AF01852	12.9	4.1	93.2	10.7		16.6	19.7	6.26	108	34.7	64	110	0.13	0.44	0.94	7.3	0.17
0491	Bayou	northwest of mamou, upstream of	50301	10/8/2003	11:45:00 AM	AF22948	33.1	6.3	290	43.1		85.2	46.2	8.07	219	6	37	90	0.18	0.33	1.54	14.1	0.26
	Nezpique	bridge on LA Hwy. 376		3/11/2004	9:10:00 AM	AG06029	6.6	2.5	79			23.3	22.7	6.94	135	21.5	82		0.12	0.26	1.4	17.2	0.22
	Bogue	near Sheridan, downstream of		11/20/2002	10:53:00 AM	AE25687	4	ND	22.2	2		2.2	ND	5.08	26.7	4	3.7		ND	0.07	0.36	6.8	0.14
0494	Lusa Creek	bridge on LA Hwy 439	90401			AF24148	3.9	ND	22.3	2.2		2.9	ND	7.42	22.7	ND	2.9		ND	0.08	0.2	4.1	0.07
					11:20:00 AM	AG02259	3.9	ND	24.1	2		2.5	5.4	6.66	ND	ND	4.3		ND	0.09	0.54	4.9	ND
	T = b = 6 = 4=			11/20/2002	9:30:00 AM 10:40:00 AM	AE25692	5.3 5	ND 3.2	45.2	3.1		9.2	11.5	5.49	30	9	9.2		ND ND	0.81	0.51	3	0.11
0495	Tchefuncte River	west of Wilmer, downstream of bridge on LA Hwy 10	40801	1/28/2004	10:40:00 AM	AF24153 AG02264	5.3	ND	37.6 48.6	1		6.5 8.2	8.4 10.8		22 23.3	ND	4.3 7.1		0.23	0.84	0.19	ND 3.6	0.08
	KIVEI	blidge of LATTWy To		3/11/2004	9:10:00 AM	AG02204 AG06041	5.1	ND	47.4			8.3	11.9		37.3	9	9.2		0.14	0.84	0.35	2.7	0.11
						AF04751	4	ND	34.1	2.4		7.1	8.3	6.38	34	6.3	7.8		ND	0.18	ND	ND	0.07
0496	Crittenden Creek	north of Greensburg, upstream of bridge on LA Hwy 441	40501	10/8/2003	2:25:00 PM	AF22958	4.1	ND	32.7	3		6.9	7.2	7.36	30	5	4.2	25	ND	0.19	ND	ND	0.07
	Cleek	blidge off LA Hwy 441		3/11/2004	9:10:00 AM	AG06103	3.7	ND	34.9			7.8	9.5	6.78	ND	8	9.2		ND	0.19	0.2	3.3	0.07
						AF04756	3.7	ND	35.2	3.5		7.9	7.9		36.7	16.5	15		ND	0.07	ND	ND	0.07
0497				1/29/2003	9:35:00 AM	AF01857	4.1	ND	31.9	3.7		8	7.7	6.56	22	4.5	6	45	ND	0.07	ND	ND	0.07
				10/8/2003 3/11/2004	3:35:00 PM 9:10:00 AM	AF22968 AG06107	3.9 3.7	ND 1.3	30.6 34.5	3.4		7.6 7.5	7.8 8.2	6.8 6.76	38.7 17.3	31 7	13 9.7	15	ND ND	0.08 80.0	0.21	ND 3	0.08
	Middle			3/11/2004	9.10.00 AW	AF04766	5.9	5.6	60.5	5.4		12.3	12.9	6.6	46	6.5	7.1	1	ND	ND	ND	ND	ND
	Fork	north of Jackson, downstream of		11/20/2002	10:30:00 AM	AE25707	6.4	4.3	60.8	6.6		15.3	15	0.0	50.7	ND	3.9		ND	0.09	0.21	ND	0.05
0498	Thopmson	bridge on LA Hwy 421	70502	10/22/2003	10:30:00 AM	AF24158	7.6	2.6	66.4	7.5		17.7	13.9	6.61	52.7	4	2.5		ND	0.05	ND	ND	0.07
	Creek	,		1/28/2004	11:15:00 AM	AG02269	4.7	4.7	52.7	4.1		8.9	11.3	NR	42.7	7	26		ND	0.2	0.56	4.2	0.07
						AF04771	6.7	9.6	90.7	7.7		23.5	22.2	6.8	132	11	10		ND	ND	0.16	2.2	0.09
	West Fork	north of Jackson, upstream of		11/20/2002	11:45:00 AM	AE25712	8.7	7.3	107	12.6		32.8	24.7	6.26	76	4	6.5		ND	0.44	0.41	2.3	0.06
0525	Thompson	bridge on Laurel Hill Creek	70502	10/22/2003	9:45:00 AM	AF24163	8.3	4.3	93.7	10.6		30.4	21.1	0.50	66.7	ND	2.9	1	ND	0.1	0.19	2.2	0.06
	Creek	Rd./Harris Conner Rd.		1/28/2004	10:05:00 AM	AG02274	5.7	7.6	84.8 85.3	6.6		17.6 17.5	20.1	6.58	65.3	9.5 8	26 27	<u> </u>	ND ND	0.5 0.5	0.32	5.6	0.13
				1/28/2004	10:05:00 AM	AG02279 AF04776	5.6 8.7	7.8 2.3	85.3 66	6.6 6.7		17.5	20.4 14.5	6.61 6.5	58.7 47.3	10.5	10.1	1	ND ND	0.5	0.27	5.3	0.06
	Little	northeast of Norwood, downstream		11/20/2002	9:05:00 AM	AF04776 AE25717	8.9	1.8	67.2	7.3		14.6	15.2	6.02	55.3	ND	6.9	l	ND	0.24	0.27	2.3	0.09
0526	Comite	of bridge on Parish Rd, 1 mi east of	40101	10/22/2003	11:30:00 AM	AF24173	9.1	1.7	60.1	7.8		12	11.9	6.25	46.7	5.5	6.3	1	ND	0.37	0.49	2.2	
	Creek	LA Hwy 19	<u> </u>	1/28/2004	12:50:00 PM	AG02284	7.3	2.9	65.5	5.4		11.2	14.4	6.57	53.3	5	19		ND	0.42	0.85	5.7	80.0
	Bogue	north of Folsum, downstream of		10/22/2003	12:45:00 PM	AF24183	3.9	ND	25.7	2.4		4.6	5.9	6.39	24.7	5.5	3.3		ND	0.07	0.33	3.1	ND
0527	Falaya	bridge on Joseph Road	40804	1/28/2004	10:00:00 AM	AG02289	4.5	ND	29.6	2.4		4	6.9	6.44	ND	ND	3.8		0.12	0.07	0.51	4.7	ND
	River	ago cocopad		3/11/2004	9:10:00 AM	AG06111	3.9	ND	27.5			4.4	6.6	6.86	29.3	ND	4.5		ND	0.06	0.19	6.1	ND

 $\label{lem:spendix} \textbf{Appendix} \ \textbf{F} - \textbf{Survey Data Measurements and Analysis Results}$ 

**Appendix F1 – Water Quality Data** 

			1-PP'	man I I	*******	ci Quanty D					
	Selsers Creek In Situ Data										
						Cond				Depth	Secchi
Site	Site ID	Date	Time	Temp (°C)	рН	(uhmos/cm)	DO	DO%	Salinity	(m)	(in)
SELC001	3653	6/11/2008	8:30 AM	25.46	7.37	201.6	6.26	77.0	0.09	0.15	n/a
PTSC001	3654	6/11/2008	11:15 AM	28.90	6.80	462.0	1.1	14.8	0.23		
SCTR005	3664	6/11/2008	11:05 AM	25.99	6.99	266.5	1.45	18.1	0.13	0.15	
SCTR001	3656	6/11/2008	12:40 PM	26.80	6.90	152.3	2.77	34.6	0.07	0.15	
SELC002	3655	6/11/2008	12:00 PM	30.91	7.75	367.9	9.07	122.0	0.18	0.15	
SELC003	3657	6/11/2008	8:35 AM	25.60	7.28	334.5	2.60	32.0	0.16	0.50	6
SCTR002	3658	6/11/2008	12:15 PM	25.35	7.52	220.4	5.99	73.0	0.10	5 in	
SELC004	3659	6/11/2008	12:30 PM	30.05	8.49	306.2	12.55	166.3	0.15	5 in	
SCTR003	3660	6/11/2008	9:00 AM	25.14	7.14	230.5	2.86	34.8	0.11	0.15	6
SELC005	3661	6/11/2008	1:15 PM	28.86	7.68	282.7	10.32	134.0	0.14	0.50	12
SCTR004	3662	6/11/2008	11:15 AM	25.63	7.36	389.2	1.13	13.9	0.19	1.00	18
SELC006	1121	6/11/2008	12:00 PM	28.55	7.14	298.1	3.58	46.1	0.14	0.50	36
SCLB001	3663	6/11/2008	2:10 PM	28.55	6.81	275.9	2.21	28.5	0.13	0.50	24

				Sels	sers Creel	ers Creek (040603) WQ Lab Report											
SITE ID NUMBER	Chloride	Sulfate	Hardness	Alkalinity	рН	Specific Conductance	Sodium	тос	TP	TDS	TSS	Ammonia- Nitrogen	Nitrate+Nitrite Nitrogen	TKN	Color	Turbidity	ChI A
1121	16.1	15.0	35.1	121	7.81	31.8	53.0	16.1	0.65	195	18.0	0.19	0.37	1.24	110	20.8	22.6
3653	12.6	10.7	55.9	72.4	7.58	212	23.8	14.7	0.14	162	135	0.14	0.28	1.10	230	161	11.4
3655	23.5	12.0	32.0	141	7.38	368	66.2	18.1	1.66	322	11.0	1.89	0.69	3.72	270	96.9	
3657	25.2	10.4	36.2	126	7.11	352	58.5	17.3	1.43	241	10.0	1.62	0.66	3.14	210	39.3	6.1
3658	21.2	1.7	48.2	82.7	6.91	238	30.9	13.4	0.64	152	12.5	0.12	0.07	0.66	52	17.0	
3659	23.2	12.1	31.9	108	7.26	321	58.5	14.2	1.16	229	89.0	0.10	1.73	1.17	210	72.9	
3660	7.6	5.9	25.7	105	7.30	237	43.7	13.0	0.86	164	34.0	0.15	0.23	0.86	100	17.2	3.6
3661	18.1	15.4	28.3	103	7.38	296	51.5	13.9	0.75	195	5.0		0.92	0.96	110	15.2	4.5
3662	14.2	6.6	31.1	185	7.08	392	76.9	17.1	1.50	280	21.0	1.13		2.78	200	31.5	33.8
3663	29.5	9.8	33.3	80.0	7.11	284	46.3	15.7	0.40	183	12.0	0.20	0.10	1.15	560	13.3	11.6
3664	13.2	21.3	60.5	98.7	6.91	277	32.8	19.5	0.26	319	30.0	1.02	0.08	2.08	230	201	
AI121582	38.7	38.6	41.9	279	7.00	723	99.1	85.4	6.33	386	42.0	25.75	0.08	42.70	230	81.1	
AI40040	37.8	20.3	20.5	167	1.97	480	89.5	29.0	3.75	316	17.0	3.52	0.07	8.00	100	26.0	64.0

						Cha	rt of	Inte	erpolatio	ns						
	River								•			CBOD1		CBOD2		NBOD
Site	Kilometer	Width	Depth	Salinity	Chlorides	Conductivity	Temp	DO	Phosphorus	Chlorophyll A	CBOD1	Decay	CBOD2	Decay	NBOD	Decay
3653	15.720	1.859	0.085	0.09	12.60	210.35	28.60	4.99	0.14	11.40	5.915	0.377	9.462	0.030	2.214	0.211
3655	12.240	1.524	0.043	0.18	23.50	385.27	28.42	2.99	1.66		4.178	0.280	14.448	0.046	9.367	0.548
3657	11.200	3.962	0.146	0.16	25.20	337.54	28.44	3.06	1.43	6.10	11.259	0.083	4.353	0.031	8.465	0.595
3659	8.240	4.191	0.274	0.15	23.20	314.16	28.04	4.77	1.16		2.646	0.443	11.428	0.031	1.912	0.147
3661	5.110	5.486	0.265	0.14	18.10	283.89	27.60	4.31	0.75	4.50	4.912	0.280	8.211	0.030	2.672	0.216
1121	1.860	30.267	0.165	0.14	16.10	270.88	28.14	1.29	0.65	22.60	4.422	0.578	8.425	0.034	3.359	0.214
Reach 2																
Midpoint	13.750	1.669	0.061	0.14	18.77	309	28.50	3.86	1.00	9.09	5.054	0.394	9.980	0.030	2.134	0.194
Reach 3																
Midpoint	12.525									7.65	4.519	0.405	10.302	0.030	2.085	0.184
Reach 4																
Midpoint	10.875										3.798	0.420	10.735	0.031	2.018	0.170
Reach 5																
Midpoint	8.650									5.43						
Reach 6																
Midpoint		4.797	0.270	0.15	20.81	300	27.83	4.55	0.97	4.94	3.707	0.367	9.922	0.031	2.268	0.179
Reach 9																
Midpoint	3.300	19.287	0.209	0.14	16.99	277	27.90	2.63	0.69	14.58	4.639	0.446	8.330	0.032	3.055	0.215

Appendix F2 – Cross Sections and Discharge Measurements

	Selsers Creek 040603									
Field Data Summary Discharges and Cross Sections										
Site #	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Drogue Velocity (ft/s)	Flow (cfs) (note 1)	Flow (cms)	Tape Down (ft)		
3653/SELC001	6.10	1.859	0.28	0.085		0.100	0.003			
3655/SELC002	5.00	1.524	0.14	0.043		0.453	0.013			
3657/SELC003	13.00	3.962	0.48	0.146		0.625	0.018			
3659/SELC004	13.75	4.191	0.90	0.274		0.448	0.013			
3660/SCTR003	5.25	1.600	0.24	0.073		0.218	0.006			
3661/SELC005	18.00	5.486	0.87	0.265		0.878	0.025			
3662/SCTR004	6.90	2.103	0.60	0.183		0.126	0.004	_		
3664/SCTR005	12.00	3.658	0.53	0.162		0.000	0.000	_		
1121/SELC006	99.30	30.267	0.54	0.165		8.560	0.242	_		

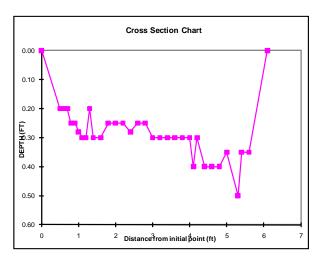
#### STREAM CROSS-SECTION SPREADSHEET

Site Number:	3653	Su	bsegment:	r	04
Site Description:	Upstream of	HWY 190			
Type of Equipment:	Fathon	eter Hydrotrac	Manual		
Initial Bank:	<b>✓</b> RDB	LDB			
Tapedown:					
Guage Height:					
Date:	6/11/2008	<u>.</u>			

WIDTH <sup>1</sup> (ft):	6.10
AREA <sup>2</sup> (ft <sup>2</sup> ):	1.70
AVG. DEPTH <sup>3</sup> (ft):	0.28

Waterbody: Selsers Creek

	Date:	6/11/2008			
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>
1	0.0	0.25	0.00	0.00	
2	0.50	0.30	0.20	0.06	3.53%
3	0.60	0.10	0.20	0.02	1.18%
4	0.70	0.10	0.20	0.02	1.18%
5	0.80	0.10	0.25	0.03	1.47%
6	0.90	0.10	0.25	0.03	1.47%
7	1.00	0.10	0.28	0.03	1.65%
8	1.10	0.10	0.30	0.03	1.76%
9	1.20	0.10	0.30	0.03	1.76%
10	1.30	0.10	0.20	0.02	1.18%
11	1.40	0.15	0.30	0.05	2.64%
12	1.60	0.20	0.30	0.06	3.53%
13	1.80	0.20	0.25	0.05	2.94%
14	2.00	0.20	0.25	0.05	2.94%
15	2.20	0.20	0.25	0.05	2.94%
16	2.40	0.20	0.28	0.06	3.29%
17	2.60	0.20	0.25	0.05	2.94%
18	2.80	0.20	0.25	0.05	2.94%
19	3.00	0.20	0.30	0.06	3.53%
20	3.20	0.20	0.30	0.06	3.53%
21	3.40	0.20	0.30	0.06	3.53%
22	3.60	0.20	0.30	0.06	3.53%
23	3.80	0.20	0.30	0.06	3.53%
24	4.00	0.15	0.30	0.05	2.64%
25	4.10	0.10	0.40	0.04	2.35%
26	4.20	0.15	0.30	0.05	2.64%
27	4.40	0.20	0.40	0.08	4.70%
28	4.60	0.20	0.40	0.08	4.70%
29	4.80	0.20	0.40	0.08	4.70%
30	5.00	0.25	0.35	0.09	5.14%
31	5.30	0.20	0.50	0.10	5.88%
32	5.40	0.15	0.35	0.05	3.09%
33	5.60	0.35	0.35	0.12	7.20%
34	6.10	0.25	0.00	0.00	0.00%
35					
36					
37					
38					
39					
40					
	Total	6.10		1.70	100.00%



Data Collection Crew	Keith, Earles, Alleman	Office Data Work	
Measurement made by:	Bryan Alleman	Data Inputed by / Date:	Alleman/ 6-26-2008
Notetaker/Recorder:		Data Input Checked by / Date:	Earles/ 6-26-2008
Other:			

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

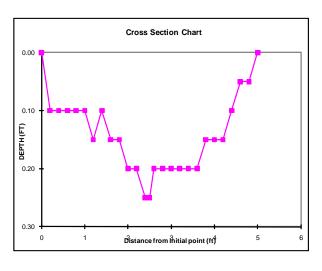
Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

#### STREAM CROSS SECTION SPREADSHEET

	SIKEAMU	(USS-SECTION SPREA	ADSHEEI			
Site Number:	3655	Subsegment:	040603	Waterbody:	Selsers Creek	
Site Description:	Selsers Creek a	as it parallels Old Covington I	Iwy. at abandon	ed bridge		
Type of Equipment:	Fathometer	Hydrotrac Manual				
Initial Bank:	<b>⊻</b> RDB ∟LD	В		WIDTH <sup>1</sup> (ft):		5.00
Tapedown:				AREA <sup>2</sup> (ft <sup>2</sup> ):		0.71
Guage Height:	·			AVG. DEPTH <sup>3</sup> (	(ft):	0.14

	Date:	6/11/2008			
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>
1	0.0	0.10	0.00	0.00	
2	0.20	0.20	0.10	0.02	2.81%
3	0.40	0.20	0.10	0.02	2.81%
4	0.60	0.20	0.10	0.02	2.81%
5	0.80	0.20	0.10	0.02	2.81%
6	1.00	0.20	0.10	0.02	2.81%
7	1.20	0.20	0.15	0.03	4.21%
8	1.40	0.20	0.10	0.02	2.81%
9	1.60	0.20	0.15	0.03	4.21%
10	1.80	0.20	0.15	0.03	4.21%
11	2.00	0.20	0.20	0.04	5.61%
12	2.20	0.20	0.20	0.04	5.61%
13	2.40	0.15	0.25	0.04	5.26%
14	2.50	0.10	0.25	0.03	3.51%
15	2.60	0.15	0.20	0.03	4.21%
16 17	2.80	0.20	0.20	0.04	5.61%
18	3.00	0.20	0.20	0.04	5.61%
19	3.20 3.40	0.20	0.20	0.04	5.61%
20	3.60	0.20	0.20	0.04	5.61% 5.61%
21	3.80	0.20	0.15	0.04	4.21%
22	4.00	0.20	0.15	0.03	4.21%
23	4.20	0.20	0.15	0.03	4.21%
24	4.40	0.20	0.10	0.03	2.81%
25	4.60	0.20	0.05	0.01	1.40%
26	4.80	0.20	0.05	0.01	1.40%
27	5.00	0.10	0.00	0.00	0.00%
28	5.00	****			
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	5.00		0.71	100.00%



Data Collection Crew	Earles, Alleman, Keith	Office Data Work	
Measurement made by:	Chad Keith	Data Inputed by / Date:	Keith - 06/26/08
Notetaker/Recorder:		Data Input Checked by / Date:	Earles - 06/26/08
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

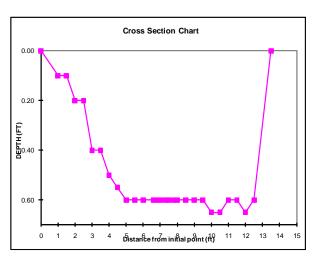
Subsegment 040603

Originated: June 1, 2011

#### $STREAM\,CROSS\text{-}SECTION\,SPREADSHEET$

Site Number:	3657	Subsegment:	040603	Waterbody:	Selsers Creek	
Site Description:	Bridge on S. Coburn					
Type of Equipment:	Fathometer Hydrot	rac Manual				
Initial Bank:	RDB ✓ LDB			WIDTH <sup>1</sup> (ft):		13.00
Tapedown:	16.90	_		AREA <sup>2</sup> (ft <sup>2</sup> ):		6.28
Guage Height:	N/A			AVG. DEPTH <sup>3</sup>	(ft):	0.48
Date:	6/11/2008	<del>_</del>				

	Date:	6/11/2008			
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>
1	0.0		0.00		
2	1.0	0.75	0.10	0.08	1.20%
3	1.5	0.50	0.10	0.05	0.80%
4	2.0	0.50	0.20	0.10	1.59%
5	2.5	0.50	0.20	0.10	1.59%
6	3.0	0.50	0.40	0.20	3.19%
7	3.5	0.50	0.40	0.20	3.19%
8	4.0	0.50	0.50	0.25	3.98%
9	4.5	0.50	0.55	0.28	4.38%
10	5.0	0.50	0.60	0.30	4.78%
11	5.5	0.50	0.60	0.30	4.78%
12	6.0	0.55	0.60	0.33	5.26%
13	6.6	0.40	0.60	0.24	3.82%
14	6.8	0.20	0.60	0.12	1.91%
15	7.0	0.25	0.60	0.15	2.39%
16	7.3	0.25	0.60	0.15	2.39%
17	7.5	0.25	0.60	0.15	2.39%
18	7.8	0.25	0.60	0.15	2.39%
19	8.0	0.35	0.60	0.21	3.35%
20	8.5	0.50	0.60	0.30	4.78%
21	9.0	0.50	0.60	0.30	4.78%
22	9.5	0.50	0.60	0.30	4.78%
23	10.0	0.50	0.65	0.33	5.18%
24	10.5	0.50	0.65	0.33	5.18%
25	11.0	0.50	0.60	0.30	4.78%
26	11.5	0.50	0.60	0.30	4.78%
27	12.0	0.50	0.65	0.33	5.18%
28	12.5	0.75	0.60	0.45	7.17%
29	13.5	0.50	0.00	0.00	0.00%
П					
ΠÌ	Total	13.00		6.28	100.00%



Data Collection Crew	T. Yoes, N. Smith, A. Tieben	Office Data Work	A. Tieben, T. Yoes
Measurement made by:	A. Tieben	Data Inputed by / Date:	A. Tieben 06/26/2008
Notetaker/Recorder:	N. Smith, T. Yoes	Data Input Checked by / Date:	N. Smith
Other:	•		_

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

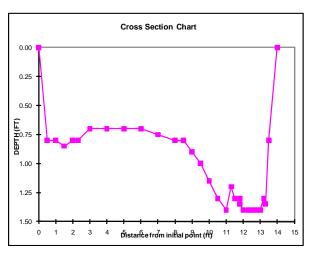
Subsegment 040603

Originated: June 1, 2011

#### STREAM CROSS-SECTION SPREADSHEET

	SI KEAM CKOSS-	SECTION STRE	ADSHEEL				
Site Number:	3659	Subsegment:	040603	Waterbody:	Selser's Creek		
Site Description:	At bridge on Sisters Ro	oad		=" =			
Type of Equipment:	Fathometer Hyd	rotrac Manual					
Initial Bank:	RDB ✓ LDB			WIDTH <sup>1</sup> (ft):	1	13.75	
Tapedown:	17.61	<u></u>		AREA <sup>2</sup> (ft <sup>2</sup> ):	1	2.44	
Guage Height:	N/A	<u> </u>		AVG. DEPTH <sup>3</sup> (	ft):	0.90	
Date:	6/11/2008			_			

_	Date.	6/11/2008			
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>
1	0.0		0.00		
2	0.5	0.50	0.80	0.40	3.22%
3	1.0	0.50	0.80	0.40	3.22%
4	1.5	0.50	0.85	0.43	3.42%
5	2.0	0.40	0.80	0.32	2.57%
6	2.3	0.50	0.80	0.40	3.22%
7	3.0	0.85	0.70	0.60	4.78%
8	4.0	1.00	0.70	0.70	5.63%
9	5.0	1.00	0.70	0.70	5.63%
10	6.0	1.00	0.70	0.70	5.63%
11	7.0	1.00	0.75	0.75	6.03%
12	8.0	0.75	0.80	0.60	4.82%
13	8.5	0.50	0.80	0.40	3.22%
14	9.0	0.50	0.90	0.45	3.62%
15	9.5	0.50	1.00	0.50	4.02%
16	10.0	0.50	1.15	0.58	4.62%
17	10.5	0.50	1.30	0.65	5.23%
18	11.0	0.40	1.40	0.56	4.50%
19	11.3	0.25	1.20	0.30	2.41%
20	11.5	0.25	1.30	0.33	2.61%
21	11.8	0.15	1.30	0.20	1.57%
22	11.8	0.10	1.35	0.14	1.09%
23	12.0	0.25	1.40	0.35	2.81%
24	12.3	0.25	1.40	0.35	2.81%
25	12.5	0.25	1.40	0.35	2.81%
26	12.8	0.25	1.40	0.35	2.81%
27	13.0	0.20	1.40	0.28	2.25%
28	13.2	0.15	1.30	0.20	1.57%
29	13.3	0.15	1.35	0.20	1.63%
30	13.5	0.35	0.80	0.28	2.25%
31	14.0	0.25	0.00	0.00	0.00%
32					
	Total	13.75		12.44	100.00%



Data Collection Crew	T. Yoes, N. Smith, A. Tieben	Office Data Work	T. Yoes, A. Tieben
Measurement made by:	A. Tieben	Data Inputed by / Date:	6/26/2008
Notetaker/Recorder:	N. Smith, T. Yoes	Data Input Checked by / Date:	N. Smith
Other:			

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the wath column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Subsegment 040603

Originated: June 1, 2011

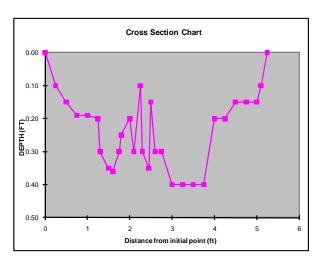
#### STREAM CROSS-SECTION SPREADSHEET

Site Number:	3660	Subsegment:	040603
Site Description:	Hoover Rd. North	of Hwy. 22	
Type of Equipment:	Fathometer	Hydrotrac 🛂 Manual	
Initial Bank:	✓ RDB LDB		
Tapedown:	15.75 ft.		
Guage Height:			
Date:	6/11/2008		

WIDTH <sup>1</sup> (ft):	5.25
AREA <sup>2</sup> (ft <sup>2</sup> ):	1.25
AVG. DEPTH <sup>3</sup> (ft):	0.24

Waterbody: Selsers Creek Tributary 003

Date: 6/11/2008					
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>
1	0.00	0.13	0.00	0.00	
2	0.25	0.25	0.10	0.03	2.00%
3	0.50	0.25	0.15	0.04	3.00%
4	0.75	0.25	0.19	0.05	3.80%
5	1.00	0.25	0.19	0.05	3.80%
6	1.25	0.15	0.20	0.03	2.40%
7	1.30	0.13	0.30	0.04	3.00%
8	1.50	0.15	0.35	0.05	4.20%
9	1.60	0.13	0.36	0.05	3.60%
10	1.75	0.10	0.30	0.03	2.40%
11	1.80	0.13	0.25	0.03	2.50%
12	2.00	0.15	0.20	0.03	2.40%
13	2.10	0.13	0.30	0.04	3.00%
14	2.25	0.10	0.10	0.01	0.80%
15	2.30	0.10	0.30	0.03	2.40%
16	2.45	0.10	0.35	0.04	2.80%
17	2.50	0.08	0.15	0.01	0.90%
18	2.60	0.13	0.30	0.04	3.00%
19	2.75	0.20	0.30	0.06	4.80%
20	3.00	0.25	0.40	0.10	8.01%
21	3.25	0.25	0.40	0.10	8.01%
22	3.50	0.25	0.40	0.10	8.01%
23	3.75	0.25	0.40	0.10	8.01%
24	4.00	0.25	0.20	0.05	4.00%
25	4.25	0.25	0.20	0.05	4.00%
26	4.50	0.25	0.15	0.04	3.00%
27	4.75	0.25	0.15	0.04	3.00%
28	5.00	0.18	0.15	0.03	2.10%
29	5.10	0.13	0.10	0.01	1.00%
30	5.25	0.08	0.00	0.00	0.00%
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	5.25		1.25	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Hicks	Data Inputed by / Date:	Jones 6/16/2008
Notetaker/Recorder:	Jones	Data Input Checked by / Date:	Hicks 6/16/2008
Other:			

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Subsegment 040603 Originated: June 1, 2011

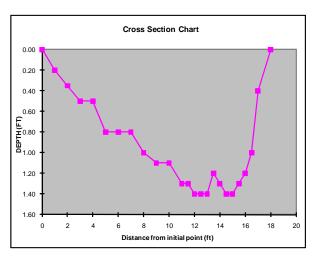
#### STREAM CROSS-SECTION SPREADSHEET

	DITEDITION DESC					
Site Number:	3661 St	ıbsegment:	040603	Waterbody:	Selsers Cr	eel
Site Description:	Hwy. 22	·		=' =		
Type of Equipment:	Fathometer Hydrotrac	✓ Manual				
Initial Bank:	✓ RDB LDB			WIDTH <sup>1</sup> (ft):		

Tapedown: 22.51 ft. Guage Height:

WIDTH <sup>1</sup> (ft):	18.00
AREA <sup>2</sup> (ft <sup>2</sup> ):	15.58
AVG. DEPTH <sup>3</sup> (ft):	0.87

Date: 6/11/2008								
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>			
1	0.00	0.50	0.00	0.00				
2	1.00	1.00	0.20	0.20	1.28%			
3	2.00	1.00	0.35	0.35	2.25%			
4	3.00	1.00	0.50	0.50	3.21%			
5	4.00	1.00	0.50	0.50	3.21%			
6	5.00	1.00	0.80	0.80	5.14%			
7	6.00	1.00	0.80	0.80	5.14%			
8	7.00	1.00	0.80	0.80	5.14%			
9	8.00	1.00	1.00	1.00	6.42%			
10	9.00	1.00	1.10	1.10	7.06%			
11	10.00	1.00	1.10	1.10	7.06%			
12	11.00	0.75	1.30	0.98	6.26%			
13	11.50	0.50	1.30	0.65	4.17%			
14	12.00	0.50	1.40	0.70	4.49%			
15	12.50	0.50	1.40	0.70	4.49%			
16	13.00	0.50	1.40	0.70	4.49%			
17	13.50	0.50	1.20	0.60	3.85%			
18	14.00	0.50	1.30	0.65	4.17%			
19	14.50	0.50	1.40	0.70	4.49%			
20	15.00	0.50	1.40	0.70	4.49%			
21	15.50	0.50	1.30	0.65	4.17%			
22	16.00	0.50	1.20	0.60	3.85%			
23	16.50	0.50	1.00	0.50	3.21%			
24	17.00	0.75	0.40	0.30	1.93%			
25	18.00	0.50	0.00	0.00	0.00%			
26								
27								
28								
29								
30								
31		İ						
32								
33								
34								
35								
36								
37								
38								



Data Collection Crew		Office Data Work	
Measurement made by:	Jones	Data Inputed by / Date:	Jones 6/16/2008
Notetaker/Recorder:		Data Input Checked by / Date:	Hicks 6/16/2008
Other:			

100.00%

15.58

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Total

18.00

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

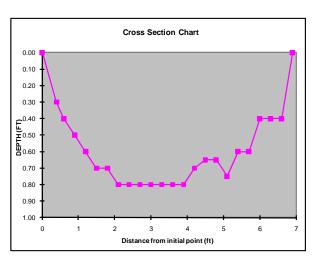
Subsegment 040603

Originated: June 1, 2011

#### STREAM CROSS-SECTION SPREADSHEET

	011111111111111111111111111111111111111	DD DE CITOT, DI II.			
Site Number:	3662	Subsegment:	040603	_Waterbody:	Selsers Creek Tributary 004
Site Description:	Ridgell Rd.				
Type of Equipment:	Fathometer	Hydrotrac 🗹 Manual			
Initial Bank:	RDB ✓ LDB			WIDTH <sup>1</sup> (ft):	6.90
Tapedown:				AREA <sup>2</sup> (ft <sup>2</sup> ):	4.17
Guage Height:				AVG. DEPTH <sup>3</sup>	(ft): 0.60
Date	6/11/2008	<del></del>			

	Date: 6/11/2008								
Subsection	Distance from initial point (ft)	Width <sup>4</sup> (ft)	Depth (ft)	Area <sup>5</sup> (sq.ft.)	Area of element as % of Total Area <sup>6 &amp; 7</sup>				
1	0.00	0.20	0.00	0.00					
2	0.40	0.30	0.30	0.09	2.16%				
3	0.60	0.25	0.40	0.10	2.40%				
4	0.90	0.30	0.50	0.15	3.60%				
5	1.20	0.30	0.60	0.18	4.32%				
6	1.50	0.30	0.70	0.21	5.04%				
7	1.80	0.30	0.70	0.21	5.04%				
8	2.10	0.30	0.80	0.24	5.76%				
9	2.40	0.30	0.80	0.24	5.76%				
10	2.70	0.30	0.80	0.24	5.76%				
11	3.00	0.30	0.80	0.24	5.76%				
12	3.30	0.30	0.80	0.24	5.76%				
13	3.60	0.30	0.80	0.24	5.76%				
14 15	3.90 4.20	0.30	0.80	0.24	5.76%				
16	4.20	0.30	0.70	0.21	5.04% 4.68%				
17	4.80	0.30	0.65	0.20	4.68%				
18	5.10	0.30	0.75	0.23	5.40%				
19	5.40	0.30	0.60	0.18	4.32%				
20	5.70	0.30	0.60	0.18	4.32%				
21	6.00	0.30	0.40	0.12	2.88%				
22	6.30	0.30	0.40	0.12	2.88%				
23	6.60	0.30	0.40	0.12	2.88%				
24	6.90	0.15	0.00	0.00	0.00%				
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
	Total	6.90		4.17	100.00%				



Data Collection Crew		Office Data Work	
Measurement made by:	Hicks	Data Inputed by / Date:	Jones 6/16/2008
Notetaker/Recorder:		Data Input Checked by / Date:	Hicks 6/16/2008
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

Subsegment 040603 Originated: June 1, 2011

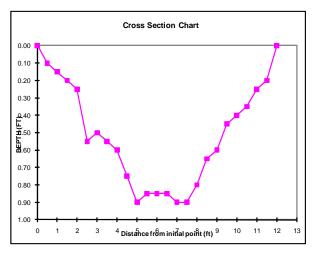
#### STREAM CROSS-SECTION SPREADSHEET

	DITELLINI CHOD	D DECITOR DI	LIDOILL
Site Number:	3664	Subsegment:	040603
Site Description:	Selsers Canal at Ind	ustrial Access Rd.	
Type of Equipment:	Fathometer H	lydrotrac 🛂 Manual	
Initial Bank:	✓ RDB LDB		
Tapedown:			
Guage Height:			
Date:	6/11/2008		

WIDTH <sup>1</sup> (ft):	12.00
AREA <sup>2</sup> (ft <sup>2</sup> ):	6.30
AVG. DEPTH <sup>3</sup> (ft):	0.53

Waterbody: Selsers Creek

	Date:	6/11/2008			
Subsection	Distance from initial point (ft) Width <sup>4</sup> (ft) Depth (ft) Area <sup>5</sup> (sq.ft.)		Area of element as % of Total Area <sup>6 &amp; 7</sup>		
1	0.0	0.25	0.00	0.00	
2	0.50	0.50	0.10	0.05	0.79%
3	1.00	0.50	0.15	0.08	1.19%
4	1.50	0.50	0.20	0.10	1.59%
5	2.00	0.50	0.25	0.13	1.98%
6	2.50	0.50	0.55	0.28	4.37%
7	3.00	0.50	0.50	0.25	3.97%
8	3.50	0.50	0.55	0.28	4.37%
9	4.00	0.50	0.60	0.30	4.76%
10	4.50	0.50	0.75	0.38	5.95%
11	5.00	0.50	0.90	0.45	7.14%
12	5.50	0.50	0.85	0.43	6.75%
13	6.00	0.50	0.85	0.43	6.75%
14	6.50	0.50	0.85	0.43	6.75%
15	7.00	0.50	0.90	0.45	7.14%
16	7.50	0.50	0.90	0.45	7.14%
17	8.00	0.50	0.80	0.40	6.35%
18	8.50	0.50	0.65	0.33	5.16%
19	9.00	0.50	0.60	0.30	4.76%
20	9.50	0.50	0.45	0.23	3.57%
21	10.00	0.50	0.40	0.20	3.17%
22	10.50	0.50	0.35	0.18	2.78%
23	11.00	0.50	0.25	0.13	1.98%
24	11.50	0.50	0.20	0.10	1.59%
25	12.00	0.25	0.00	0.00	0.00%
26					
27					
28					
29					
30					
31					
32					
33					
34					
35 36					
36					
38 39					
40					
40					
	Total	12.00		6.30	100.00%



Data Collection Crew	Earles, Keith, Alleman	Office Data Work	
Measurement made by:	Keith	Data Inputed by / Date:	Earles - 6/25/08
Notetaker/Recorder:	Earles	Data Input Checked by / Date:	Alleman- 6/25/08
Other:	·		•

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width\*Depth for element
Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

#### **Appendix F3 – Field Notes**

	Selsers Creek In Situ Data										
						Cond				Depth	Secchi
Site	Site ID	Date	Time	Temp (°C)	рΗ	(uhmos/cm)	DO	DO%	Salinity	(m)	(in)
SELC001	3653	6/11/2008	8:30 AM	25.46	7.37	201.6	6.26	77.0	0.09	0.15	n/a
PTSC001	3654	6/11/2008	11:15 AM	28.90	6.80	462.0	1.1	14.8	0.23		
SCTR005	3664	6/11/2008	11:05 AM	25.99	6.99	266.5	1.45	18.1	0.13	0.15	
SCTR001	3656	6/11/2008	12:40 PM	26.80	6.90	152.3	2.77	34.6	0.07	0.15	
SELC002	3655	6/11/2008	12:00 PM	30.91	7.75	367.9	9.07	122.0	0.18	0.15	
SELC003	3657	6/11/2008	8:35 AM	25.60	7.28	334.5	2.60	32.0	0.16	0.50	6
SCTR002	3658	6/11/2008	12:15 PM	25.35	7.52	220.4	5.99	73.0	0.10	5 in	
SELC004	3659	6/11/2008	12:30 PM	30.05	8.49	306.2	12.55	166.3	0.15	5 in	
SCTR003	3660	6/11/2008	9:00 AM	25.14	7.14	230.5	2.86	34.8	0.11	0.15	6
SELC005	3661	6/11/2008	1:15 PM	28.86	7.68	282.7	10.32	134.0	0.14	0.50	12
SCTR004	3662	6/11/2008	11:15 AM	25.63	7.36	389.2	1.13	13.9	0.19	1.00	18
SELC006	1121	6/11/2008	12:00 PM	28.55	7.14	298.1	3.58	46.1	0.14	0.50	36
SCLB001	3663	6/11/2008	2:10 PM	28.55	6.81	275.9	2.21	28.5	0.13	0.50	24

Selsers Creek
(040603)
Project # 2008002
Survey Report
June 2008

Selsers Creek originates near the Hammond Municipal Airport and flows south to South Slough near the Joyce Wildlife Management Area. The survey was conducted on June 9<sup>th</sup> through June 13<sup>th</sup>, 2008. Land use along the Creek is primarily forested, industrial and residential.

Water Quality samples were taken throughout the length of the creek along with In-Situ field readings. Discharge measurements were taken at locations (3653, 3655, 3657, 3659, 3660, 3661, 3662, 3667, and 1121.) Discharge measurements were not taken at locations 3656 because it was not flowing. No flow measurements were made at (3654, 3656, 3658, 3664, and 3668) due to limited or no flow in these areas.

Nine (9) Continuous Monitors and two (2) Bubble Meters were set up to log during the course of the survey. Data from the dye study, which includes GPS, dye concentration log, stream cross-sections and field logs, are also included. Cross-sections for survey sites that were within the dye study area can be used for additional dye calculations. Included with this report are all survey data including: field notes, discharge measurements, site GPS, stream cross-sections, continuous monitor data, and water quality sample records. Electronic copies of this data are available on the Watershed Shared Network (ws\_surveys).

# Selsers C-K Survey

Site Information
Site #: 3653 Subsegment: 040603 Date: 6/10/08 Time: 0940
Waterhody: Selsers Creek
Tapedown 1: 10, 20 Staff Gauge 1: Gauge Height 1:
Site Location : Upstream of Hwy 190
Personnel: Farles, Alleman, Keith
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear □         Hot >85° □         <1 □
Cloud Cover. 0 −10% ☐ 11 − 40% ☑ 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics:
Waterbody Type: Stream W Flowing: Measurable Flow: 7 Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence:
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present Sedimentation/Turbidity Present In Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 76-100%
Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
B.O.,
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 4355.
Continuous Monitor Retrieved: Continuous Monitor Depth (m): 0: 15 m
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \
Instrument ID:
Stream velocity Monitor Deployed (2) Indiana.
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement:  Site GPS: Cross Section GPS:
† All work is done within 100 yard radius of Site

<u>.</u>	Site 3653 Date: 6/10/08
Photos Taken: Picture File #s:	\$~\ .
Tapedown Established:	
Time of Travel Measurement: Type of Site: Injection	Collection
Sand/Silt P Rock/Gravel/Silt Co Control Structure Present: Location: Type: Man Made Dam Flow Regulation Device Land Use: Agriculture Forestry: Municipal Andustrial	ard Clay Soft Silt
Recon Information: Discharge Measurement: Wading ☐ Boat ☐ SI  Continuous Monitor Deployment: Fixed: ☐  Boat Accessible: ☐ Nearest Launch: Bridge ☐ Bridge Safe: ☐ Bridge Height:	ream?Depth (ft):
Profiling Measurements:           Time:         Temp.(°C); ≠ pH:           D.O.:         D.O. %:         Salinity:           Time:         Temp.(°C); pH:         pH:           D.O.:         D.O. %:         Salinity:	Spcond(µhmos/cm): Depth (m): Spcond(µhmos/cm):
D.O.: D.O.%: Salinity:	Depth (m): Spcond(µhmos/cm): Depth (m):
the second of th	ere a culvert (storm drain dst downstream of bridge
(IA case of rain event - storm we	ter runoff will influence
References         Convert Feet to Meters       Convert Celsius to Fabrenheit         0.5 ft ≈ 0.15 m       20 = 68       25 ≠ 77         1.0 ft = 0.30 m       21 = 69.8       26 = 78.8         1.5 ft = 0.45 m       22 = 71.6       27 = 80.6         2.0 ft = 0.60 m       23 = 73.4       28 = 82.4         2.5 ft = 0.75 m       24 = 75.2       29 = 84.2	

Field Site Survey.do Revision 4.

Site #: 3653	Subsegment: 040603 Date: 6/11/08 Time: 0800
Waterbody: Selsers	Cark
Tapedown 1: 10.17	Staff Gauge 1: Gauge Height 1:
	tream of Hwy 190
Personnel: _ Earles	s, Alleman, Keith
Type of Work: Recon	Data Collection
Weather Conditions: Clear  Overcast  Drizzle/Light Rain  Showers	Temperature (°F):   Wind (mph):   Wind Direction:
Cloud Cover. 0 -10% 🗹	11 – 40% 🗌 41 – 70% 🗍 71 – 100% 🗍
Stream Characteristics:	
Waterbody Type: Str	Flow: Flow Direction Upstream Downstream Tidally Influenced
Wind Influence:	Wind Influence Direction: Upstream Downstream
Waterbody Type: Lai	ke [ Wind Influence: Tidally Influenced: [
None Descript	Sedimentation/Turbidity Present in Water Column Depetation % Surface Coverage: <1 1-25% 26-50% 26-50%
Floating/Aquatic veg	51-75% 76-100%
Water Quality Samples Ta	ken: Water Quality Field Parameters: Profiling:
	Water Quality Field Parameters IB
D.O.: 6.26 D.O. InSitu Probe ID: 43	Wester Christity Field Parameters
D.O.: 6.26 D.O. InSitu Probe ID: 43	Water Quality Field Parameters  18 (°C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49
D.O.: 6.26 D.O. InSitu Probe ID: 43	Water Quality Field Parameters  18 (°C): <u>25,46</u> pH: <u>7.37</u> SpCond(μhmos/cm): <u>201.6</u> 0. %: <u>77.0</u> Salinity: <u>0.09</u> Depth (m): <u>./5m</u> Secchi (in): <u>3549</u> loyed: □ Continuous Monitor ID:
D.O.: 6.26 D.O. InSitu Probe ID: 4: Continuous Monitor Depli Continuous Monitor Retri	Water Quality Field Farameters  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  Depth (m): .15m Secchi (in): 35.49  Toyed: Continuous Monitor ID: Continuous Monitor Depth (m): Continuous Monitor Depth (m):
D.O.: 6.26 D.O. In Situ Probe ID: 43 Continuous Monitor Deple Continuous Monitor Retri Water Level Monitor Deple	Water Quality Field Farameters  18  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  Depth (m):/5m Secchi (in):  35.49    Oyed:
D.O.: 6.26 D.O. InSitu Probe ID: 4: Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: V	Water Quality Field Farameters  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  Depth (m): .15m Secchi (in): 35.49  Toyed: Continuous Monitor ID: Continuous Monitor Depth (m): Continuous Monitor Depth (m):
D.O.: 6.26 D.O. InSitu Probe ID: 4: Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: V	Water Quality Field Farameters  18  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49  loyed: Continuous Monitor ID:
D.O.: 6.26 D.O. InSitu Probe ID: 42 Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: 12 Instrument ID: Flow Stream Velocity Monitor Velocity Estimated	Water Quality Field Farameters  18  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49  loyed: Continuous Monitor ID:
D.O.: 6.26 D.O. InSitu Probe ID: 4: Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: V Instrument ID: Flow Stream Velocity Monitor Velocity Estimated	Water Quality Field Farameters  IB  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  Depth (m): ./5m Secchi (in):  35.49  loyed: Continuous Monitor ID: loyed: Continuous Monitor Depth (m):  oyed: Instrument ID: Moving Boat  Type of Measurement: Wading P Stationary Moving Boat  where Condition Farameters  IB  Secchi (in):  Type of Measurement: Wading P Stationary Moving Boat  where Comments on Teverse  d: Drogue Estimate: Dye Estimate:
D.O.: 6.26 D.O. InSitu Probe ID: 4: Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: V Instrument ID: Flow Stream Velocity Monitor Velocity Estimated Right Descend	Water Quality Field Farameters  (*C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49  Noyed: Continuous Monitor ID: Continuous Monitor Depth (m):
D.O.: 6.26 D.O. InSitu Probe ID: 42 Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: 12 Instrument ID: Flow Stream Velocity Monitor Velocity Estimated Right Descend	Water Quality Field Farameters  (*C): 25,46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49  Noyed: Continuous Monitor ID:
D.O.: 6.26 D.O. InSitu Probe ID: 42 Continuous Monitor Deple Continuous Monitor Deple Water Level Monitor Deple Flow Measurement: 12 Instrument ID: Flow Stream Velocity Monitor Velocity Estimated Right Descend	Water Quality Field Farameters  (°C): 25.46 pH: 7.37 SpCond(µhmos/cm): 201.6  0. %: 77.0 Salinity: 0.09 Depth (m): .15m Secchi (in): 35.49  Noyed: Continuous Monitor ID:

† All work is done within 100 yard radius of Site

* 9			Site <b>3653</b>	Date: 6/11/08
Photos Taken:	Pictu	ure File #s:		
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ . \ \ .
Tapedown Establish		spedown Location:		
Benchmark Establishe Survey Equipment Use		nchmark Location:	42 45 5 11	
Time of Travel Meast Amount of Dye		Type of Site: Inject	ion Collection	
Physical Site Charac Man-Ma	teristics: Natural Wa	aterbody: Man	Altered Waterbody:	
Stream Dry/Inte Stream Boltom Sand/S	: Sandy Clay	Gravel□ Gravel/Silt □	Hard Clay  Concrete	Soft Silt 🗌
Control Structu Type: N	re Present: Location	on:	evice Beaver Dar	m Log Jam [
Percent Tree C	anopy Cover 0-25%	26-50%	51-75% 76-1	00%
Recon Information:	surement: Wading	☐ Boat ☐	Stream Depth (ft):_	N.
		or Deployment: Fi		
Bost Accessin	le: Nearest Lauric	. ·		
Bridge Br		Bridge Height:	1 7 7	
	P	rofiling Measurem	ents:	
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos Depth (m)	
Time:	Temp.( °C); D.O. %:	pH: Salinity:	Spcond(μhmos Depth (m):	
Time:	Temp.( °C):	pH:	Spcond(μhmos Depth (m):	
Comments: <+	eam cond	lititions	+ depth (	2"-3") m
C1	urement	difficult	to obt	ain -
		<u> </u>		
	• '',	<del></del>		
				1 2
References	Convert Celsius to F	ahrenheit		
0.5 ft = 0.15 m	20 ≅ 68	25 ≅ 77		
1.0 ft ≡ 0.30 m	21 ≘ 69.8 ·	26 ≅ 78.8		
1.5 ft $\equiv$ 0.45 m	22  ≡ 71.6	27 = 80.6		
2.0 ft ≡ 0.60 m	23 ≡ 73.4 .	28 ≡ 82.4		*
2.5 ft ≡ 0.75 m	24 # 75.2	29 ≅ 84.2		

Originated: June 1, 2011

### Selsers Creek Survey

Site #: 3(053 Subsegment: 040(003 Date: 06/12/08 Time: 0944h
Waterbody: Select Creek
Tapedown 1: 10.9 Staff Gauge 1: Gauge Height 1:
Site Location t: () PStream of HWY 190
Personnel: C. Keith, B. Alleman
Type of Wark: Recon ☐ Data Collection ☐
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear
Cloud Cover: 0 −10% ☐ 11 − 40% ☐ 41 − 70% 🗹 71 ~ 100% ☐
Stream Characteristics: Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced: Wind Influence: Wind Influence: Downstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Present in Water Column — Floating/Aquatic Vegetation % Surface Coverage: <1 — 1-25% — 26-50% — 51-75% — 76-100% —
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 43551
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimale: Dye Estimate: D
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Falhometer ID:
GPS Measurement:  Site GPS: Cross Section GPS:
† All work is done within 100 yard radius of Site

Photos Taken: Picture File #s:  Tapedown Established: Tapedown Location:  Benchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (mt):  Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody: Man-Ma	
Tapedown Established: Tapedown Location:	
Senchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:   Man-Made Waterbody:   Survey Equipment Used: Site: Injection Collection  Amount of Dye Injected (ml):  Man-Made Waterbody:   Man-Made Waterbody:   Survey Equipment Used: Man-Made Waterbody:   Benchmark Location:  Type of Site: Injection Collection  Amount of Dye Injected (ml):	
Senchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:   Man-Made Waterbody:   Survey Equipment Used: Site: Injection Collection  Amount of Dye Injected (ml):  Man-Made Waterbody:   Man-Made Waterbody:   Survey Equipment Used: Man-Made Waterbody:   Benchmark Location:  Type of Site: Injection Collection  Amount of Dye Injected (ml):	nem Man
Survey Equipment Used:  Time of Travel Measurement:  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody:  Man-Made Waterbody:   Man-Made Waterbody:   Man-Made Waterbody:   Type of Site: Injection  Collection  Amount of Dye Injected (ml):	
Amount of Dye Injected (mil):  Physical Site Characteristics: Natural Waterbody:  Man-Made Wa	
Man-Made Waterbody: 🖸	
Stream Dry/Intermittent:	
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Nock/Gravel/Silt Concrete	
Control Structure Present:	Log Jam []
Recon Information: Discharge Measurement: Wading   Boat   Stream Depth (ft):	
Continuous Monitor Deployment: Fixed: Bouy: D	
Boat Accessible: ☐ Nearest Launch: Bridge ☐ Bridge Safe: ☐ Bridge Height:	
Profiling Measurements:	
Time: Temp.( °C); PH: Spcond(µhmos/cm):  D.O.: Salinity: Depth (m):	
Time: Temp.( °C); pH: Spcond(μhmos/cm): D.O.: D.O. %: Salinity: Depth (m):	0
Time: Temp.( °C): pH: Spcond(µhmos/cm):	
Comments:	
· · · · · · · · · · · · · · · · · · ·	9
The second secon	
References	160
Convert Feet to Meters Convert Celsius to Fahrenheit	
0.5 ft = 0.15 m 20 = 68 . 25 = 77	
1.0 ft ≡ 0.30 m 21 ≡ 69.8 : 26 ≅ 78.8	
1.5 ft $\equiv$ 0.45 m	
2.0 ft = 0.60 m 23 = 73.4 . 28 = 82.4	
2.5 ft ≡ 0.75 m 24 ≡ 75.2 . 29 ≡ 84.2	

Field Site Survey.do Revision 4.

### Selsers Creek Survey

Site #: 3655 Subsegment: 040603 Date: 6/10/08 Time: 1028 Waterbody: Selsers Creek Staff Gauge 1: \_\_\_ Tapedown 1: 12.65 Gauge Height 1: Site Location : Selsers Greek as it parallels Old Covington Hwy @ abandonded Personnel: Larles, Keith, Alleman Data Collection Type of Work: Recon . Wind (mph): Wind Direction: Temperature (°F): Weather Conditions: <1 | 1-5 | 1-5 | 6-10 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | Hot >85° □ Clear 📝 Warm > 75° \( \begin{align\*}
\text{Mild} > 65° \( \begin{align\*}
\text{Cool} > 60° \( \begin{align\*}
\text{Cold} < 60° \( \begin{align\*}
\text{Cold} < 60° \( \begin{align\*}
\text{Cold} \end{align\*} Overcast Drizzle/Light Rain Variable [ Showers 🗌 Cloud Cover. 71 – 100% 🔲 41 - 70% 0-10% Stream Characteristics: Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced: Wind Influence Direction: Upstream 

Downstream Wind Influence: Wind Influence: ☐ Tidally Influenced: ☐ Waterbody Type: Lake Algae Present Sedimentation/Turbidity Present in Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 76-100% 26-50% 76-100% Water Quality Samples Taken: Water Quality Field Parameters: Water Quality Field Parameters Time: \_\_\_\_\_ Temp.( °C): \_\_\_\_ pH: \_\_\_\_ SpCond(µhmos/cm): Depth (m): \_\_\_\_\_ Secchi (in): \_\_\_\_ D.O. %: \_\_\_\_\_ Salinity: \_\_\_\_ D.O.: \_\_\_\_ InSitu Probe ID: \_\_\_ Continuous Monitor Deployed: Continuous Monitor ID: 43552 Continuous Monitor Depth (m): \_0.15m Continuous Monitor Retrieved: Water Level Monitor Deployed: ☐ Instrument ID: \_ Flow Measurement: Type of Measurement: Wading Stationary Moving Boat Instrument ID: Stream Velocity Monitor Deployed Instrument ID: Dye Estimate: Drogue Estimate: Velocity Estimated: Right Descending Bank Distance (II): \_\_\_\_\_ Time (s): \_\_\_\_ Mid Stream Distance (ft): \_\_\_\_\_\_ Time (s): \_\_\_\_ Left Descending Bank Distance (II): \_\_\_\_\_ Time (s): \_\_\_\_ Cross Section Measurement: Type of Measurement Manual: Fathometer ID: Cross Section GPS: Site GPS: GPS Measurement:

<sup>†</sup> All work is done within 100 yard radius of Site

Photos Taken: Picture File #s:  Tapedown Established: Benchmark Established: Benchmark Location:  Benchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Stream Dry/Intermittent: Gream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Concrete Control Structure Present: Location:  Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Andustrial Field/Pasture Wetland Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%
Tapedown Established:
Benchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody:   Man-Made Waterbody: Stream DryIntermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt   Sand/Silt Rock/Gravel/Silt Concrete Countrol Structure Present: Location:  Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Benchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Stream DryIntermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Stream Bottom: SandySilt Rock/Gravel/Silt Concrete Concrete Concrete Structure Present: Location:  Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Benchmark Established: Benchmark Location:  Survey Equipment Used: Type of Site: Injection Collection  Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Stream DryIntermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Stream Bottom: SandySilt Rock/Gravel/Silt Concrete Concrete Concrete Structure Present: Location:  Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Survey Equipment Used:  Time of Travel Measurement: Type of Site: Injection Collection Amount of Dye Injected (ml): Type of Site: Injection Collection Amount of Dye Injected (ml): Type of Site: Injection Collection  Physical Site Characteristics: Natural Waterbody: Man-Made Waterbody: Stream DryIntermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Stream Bottom: Sandy Clay Gravel/Silt Concrete Control Structure Present: Location: Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Amount of Dye Injected (ml):  Physical Site Characteristics: Natural Waterbody:  Man Altered Waterbody:  Stream Dry/Intermittent:  Stream Bottom: Sandy  Clay  Gravel  Hard Clay  Soft Silt  Sand/Silt  Soft Silt  Concrete  Control Structure Present:  Control Structure Present:  Flow Regulation Device  Beaver Dam  Log Jam  Land Use: Agriculture  Forestry:  Municipal Industrial  Field/Pasture  Wetland
Man-Made Waterbody:  Stream Dry/Intermittent:  Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt  Sand/Silt Rock/Gravel/Silt Concrete  Control Structure Present: Cocation: Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam  Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Stream Dry/Intermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Stream Bottom: Sandy Clay Gravel/Silt Concrete Control Structure Present: Location: Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam Land Use: Agriculture Forestry: Municipal Industrial Field/Pasture Wetland
Sand/Sitt ☐ Rock/Gravel/Sitt ☐ Concrete ☐  Control Structure Present: ☐ Location:  Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐  Land Use: Agriculture ☐ Forestry: ☐ Municipal ☑ Industrial ☐ Field/Pasture ☐ Wetland ☐
Type: Man Made Dam☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐ Land Use: Agriculture ☐ Forestry ☐ Municipal ☑ Industrial ☐ Field/Pasture ☐ Wetland ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☑Industrial ☐ Field/Pasture ☐ Wetland ☐
Recon Information: Discharge Measurement: Wading Boat Stream Depth (ft):
Continuous Monitor Deployment: Fixed: Bouy:
Boat Accessible: Nearest Launch: Bridge Gafe: Bridge Safe: Bridge Height:
The state of the s
Profiling Messurements:   Time:
Time: Temp.( °C); pH: Spcond(μhmos/cm): D.O.: D.O. %: Salinity: Depth (m):
Time: Temp.( °C): pH: Spcond(μhmos/cm): D.O.; D.O. %: Salinity: Depth (m):
D.O. 76. 77 Samity. Deptit (iii).
Comments: Cont. manifor deployed in deepest area
found ~ 20 vds upstream of bridge on reba
Texas No you aprican or bringe. On 1 = 200
<u> </u>
References
Convert Feet to Meters Convert Celsius to Fahrenheit
$0.5 \text{ ft} \equiv 0.15 \text{ m}$ $20 \equiv 68$ $25 \equiv 77$
$0.5 R \equiv 0.15 m$ $20 \equiv 68$ $25 \equiv 77$ $1.0 R \equiv 0.30 m$ $21 \equiv 69.8$ $26 \equiv 78.8$
1.0 $\Omega \equiv 0.30 \text{ m}$ 21 $\equiv 69.8$
1.0 ft = 0.30 m 21 = 69.8 26 = 78.8 1.5 ft = 0.45 m 22 = 71.6 .27 = 80.6

### Selsers Creek Survey

Site Information
Site #: 3655 Subsegment: 040603 Date: 04/11/08 Time/200
Waterbody: Selsers Creek
Tapedown 1: 12.62 Staff Gauge 1: Gauge Height 1:
Site Location : Solsers Creek as it parallells Old Coungen they at abandonded bridge
Personnel: J. Earles, B. Alleman, C. Keith
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear
0 -10%
Waterbody Characteristics: Waterbody Type: Stream Flowing: Measurable Flow: Flow Direction Upstream Downstream Wind Influence: Wind Influence Direction: Upstream Downstream Waterbody Type: Lake Mind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Present in Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1 1-25% 26-50% 76-100%  Water Quality Samples Taken: Water Quality Field Parameters: Profiling: 76-76
Water Quality Field Parameters  1
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement:  Type of Measurement: Wading  Stationary  Moving Boat  Instrument ID:  Flow tracker  B  Instrument ID:  Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID: Flow Tracker
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
Photos Taken: Picture File #s:

 $^{\dagger}$  All work is done within 100 yard radius of Site

			Site 3655 Da	te: 06/n/08
	9			
Tapedown Establish	ed: 🗍	Tapedown Location	1:	e.
Benchmark Establishe	_		1:	,
Survey Equipment Use	id:			
Time of Travel Measu Amount of Dye		Type of Site: Inj	ection Collection .	
Man-Ma	de Waterbody:	Waterbody: Ma	an Altered Waterbody:	
Waterbody Bott Sand/S		k/Gravel/Silt	iravel Hard Clay Concrete	Soft Silt [
Type: M Land Use: Agric	re Present: ☐ Loc an Made Dam☐ culture ☐ Forestry anopy Cover 0-25	Flow Regulation	Device Beaver Dam dustrial Field/Pasture 51-75% 76-100	Wetland 🗍
Recon Information:				
Discharge Mea	asurement: Wadi		Stream Depth (ft):	
	Continuous Mo	nitor Deployment:	Fixed: Bouy:	
Boat Accessib Bridge 🔲 🛚 Br	le:  Nearest La ldge Safe:	unch: Bridge Height:		
Time:		Profiling Measure	ements:	
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cr Depth (m):	n):
Time:		pH: Salinity:	Spcond(µhmos/cr Depth-(m):	n):
Time:	Temp.( °C):	pH: Salinity:	Spcond(μhmos/cr	n):
D.O.;	D.O. %:	Salinity:	Depth (m):	
Comments:	i		. 7	
			1711	
	0 0			10-10-2
		100		
<del></del>				
2.5.				
References Convert Feet to Meters	Convert Celsius t	a Fahranhait		
0.5 ft ≅ 0.15 m	20 ≡ 68	25 ≡ 77		
1.0 R ≡ 0.30 m	21 ≡ 69.8	26 = 78.8		
1.5 0 ≈ 0.45 m	22 ≅ 71.6	27 ≡ 80.6	1	
2.0 ft ≈ 0.60 m	23 ≅ 73.4	28 ≅ 82.4		
2.5 ft ± 0.75 m	24 = 75.2	29 ≡ 84.2		

selsers Cr	eek Survey Site Information
	Site # 3655 Subsegment: 040603 Date: 6/12/08 Time: 1255
	Wassenson Selsers Creek
	Tapedows 1: /2.66 Staff Gauge 1: Gauge Height 1:
	SHE LOCAHONT: Selsers Creek as it parallels Old Covington Huy.
	Personnel: Keith, Alleman
	Type of Work: Recon ☐ Data Collection ☑
	Weather Conditions:         Temperature (*F):         Wind (mph):         Wind Direction:           Clear
	Cloud Cover. 0 −10% ☐ 11 − 40% ☐ 41 − 70% ☑ 71 − 100% ☐
	Waterbody Characteristics: Waterbody Type: Stream V Flow Signation Hostroam Downstream V Tidaily Influenced:
	Flowing: Measurable Flow: Flow Direction Opsiteding Sounds Carlot
	Wind Influence: Wind Influence Direction: Upstream Downstream
	Waterbody Type: Lake Wind Influence: Tidally Influenced:
ę	Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☑ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐
	Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐
	Water Quality Field Parameters
	Time: Temp.( °C): pH: SpCond(μhmos/cm):
	D.O.: D.O. %: Salinity: Depth (m): Secchi (in): InSitu Probe ID:
	Continuous Monitor Deployed: Continuous Monitor ID: 43552
	Continuous Monitor Retrieved: Continuous Monitor Depth (m): 0.15 m
	Water Level Monitor Deployed:  Instrument ID:
	Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
	Instrument ID:
	Velocity Monitor Deployed \( \square\) Instrument iD:
	Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
	Velocity Estimated:       ☐       Drogue Estimate:       ☐       Dye Estimate:       ☐         Right Descending Bank Distance (ft):
	Mid Stream Distance (ft): Time (s):
	Left Descending Bank Distance (ft): Time (s):
	Cross Section Measurement: Type of Measurement Manual: Fathometer
	Cross Section Measurement:
	GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
	Photos Taken: Picture File #s:
	<sup>†</sup> All work is done within 100 yard radius of Site

Site	3655	Date:	6-12-08
one	2033	Date:	80-08

Tapedown Establishe	ed: 🔲	Tapedown Location: _	90 miles e	
Benchmark Establishe	d: 🗌 E			
Survey Equipment Use	d: 🗌	4		
Fime of Travel Measu Amount of Dye		Type of Site: Injection	on Collection	*
hysical Site Charact	eristics: Natural	Waterbody: Man A	Altered Waterbody:	
Man-Ma Waterbody Dry/	de Waterbody:			
Waterbody Bott Sand/Si	om: Sandy Roc	k/Gravel/Silt	el Hard Clay C	Soft Silt [
Type: M.	e Present: Loca	Flow Regulation De	vice Beaver Dam	Log Jam
Land Use: Agric	culture Forestry	Municipal Indus	trial Field/Pasture Wella 51-75% 76-100%	and
Recon Information:				****
Discharge Mea	surement: Wadii	ng 🗌 💮 Boat 🗌	Stream Depth (ft):	_
	Continuous Mo	nitor Deployment: Fix	ked: 🔲 Bouy: 🛄	.,
Boat Accessib	le: Nearest La	unch:		
	idge Safe:			
Time:	T (20)	Profiling Measureme		
D.O.;	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(μhmos/cm): _ Depth (m):	
Time: D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm):	
D.O			Depth (m):	
Time:	Temp.( °C):	pH: Salinity:	Spcond(μhmos/cm):	
D.O.:	D.O. %:	Salinity:	Depth (m):	
Comments:	**			
\				
References				
Convert Feet to Meters	Convert Celsius			
0.5 ft ± 0.15 m	20 ≅ 68	25 ≡ 77		
$1.0 \text{ ft} \equiv 0.30 \text{ m}$	21 ≡ 69.8	26 ≈ 78.8		
$1.5~\mathrm{ft} \cong 0.45~\mathrm{m}$	22 = 71.6	27 ≅ 80.6		
$2.0 \text{ ft} \equiv 0.60 \text{ m}$	23 ≅ 73.4	28 ≈ 82.4		
2.5 ft = 0.75 m	24 = 75 2	29 = 84 2		

Field Site Survey.do Revision 4.

Selsers	Creek Survey Sile Information
	Site # 3656 Subsegment: 040603 Date: 6/10/08 Time: 1100
	Wasarpagy: Un named trib
	Tanadawa 1: 12.25 Siaff Gauge 1: Gauge Height 1:
	Sie Location : Immediately upstream of crossing of Old Covington Huy
	Personnel: <u>Earles</u> , Keith, Alleman
	Type of Wark: Recon Data Collection
	Weather Conditions: Temperature (°F): Wind (mph): Wind Direction: Clear
	Clear LP
	Weather Conditions:
	Cloud Cover: 0 ~10% ☐ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐
	Waterbody Characteristics: Waterbody Type: Stream
	Flowing: Measurable Flow: Flow Direction Opstream Downstream Thomas Minds Not Street Thomas Measurable Flow: Measurable Flow Direction Opstream Downstream
	Wind Influence:
	Waterbody Type: Lake Wind Influence: Tidally Influenced:
×	Algae Present Sedimentation/Turbidity Present in Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
	Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐
	Water Quality Field Parameters
	· ·
	Time: Temp.( °C): pH: SpCond(μhmos/cm):
	D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
	InSitu Probe ID:
	Continuous Monitor Deployed: Continuous Monitor ID: 42506
	Continuous Monitor Retrieved: Continuous Monitor Depth (m): 0.15m
	Water Level Monitor Deployed: Instrument ID:
	Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
	Instrument ID:
	Velocity Monitor Deployed Instrument ID:
	Valocity Estimated: ☐ Droque Estimate: ☐ Dye Estimate: ☐ .
	Velocity Estimated.
	Hight besterioning 24th 54th 14th 14th 14th 14th 14th 14th 14th 1
	Wild different Property of the
	Lett Descending Court State Court
	Cross Section Measurement: 1799e of Measurement Manager
	Fathometer ID:
	GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
	Photos Taken: Picture File #s:

<sup>1</sup> All work is done within 100 yard radius of Site

Site	3656	Date:	6	110	108
			-	100	100

Tapedown Establishe	d: 🗌	Tapedown Location: _		
Benchmark Established	d:	Benchmark Location:		
Survey Equipment Used	J: 🔲	ne		
Time of Travel Measur Amount of Dye I		Type of Site: Injectio	on Collection	
Physical Site Characte			Itered Waterbody:	
Man-Mad Waterbody Dry/I	de Waterbody:   ntermittent:			
Waterbody Botto Sand/Sil	om: Sandy☐ t ☐ Roc	k/Gravel/Silt	el Hard Clay Concrete	Soft Silt [
	e Present: Loca		vice Beaver Dam	 Log Jam □
Land Use: Agric	ulture 🔲 Forestry	Municipal Indust	trial  Field/Pasture  We 51-75% 76-100%	lland [
Recon Information: Discharge Mea	surement: Wadi	ng 🗌 Boat 🗍	Stream Depth (ft):	
	Continuous Mo	nitor Deployment: Fix	ed: Bouy: D	
Boat Accessible	e: Nearest La	unch:		
		Bridge Height:		
Ti	T (20):	Profiling Measureme		
Time: D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(μhmos/cm): Depth (m):	
Time:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(μhmos/cm): Depth (m):	
Time:	Temp.( °C):	pH:	Spcond(μhmos/cm):	
D.O.:	D.O. %:	Salinity:	Depth (m):	
Comments:				
References	······································			
Convert Feet to Meters	Convert Celsius	to Fahrenheit		
0.5 ft = 0.15 m	20 ≡ 68	25 ≅ 77		
$1.0 \text{ ft} \equiv 0.30 \text{ m}$	21 = 69.8	26 ≡ 78.8		
$1.5 \text{ ft} \equiv 0.45 \text{ m}$	22 ≅ 71.6	27 ≅ 80.6		
2.0 ft ≈ 0.60 m	23 ≅ 73.4	28 ≡ 82.4		
2.5 ft ≈ 0.75 m	24 ≡ 75.2	29 ≅ 84,2		

## Selsers Creek Survey

	Site Information	
Site #: 3654	Subsegment: <u>040603</u> Date: <u>06/11/08</u> Time: <u>/2,40</u>	
Lancard Lancard Land	-: b	
Tapedown 1: /2.25	Staff Gauge 1: Gauge Height 1:	-
Site Location : 4 Joining	g selsons week immediately washing of wasing of old lov.	Hwy
Personnel: J. Earles, B. F		
Type of Work: Recon	Data Collection	
Weather Conditions: Clear	Temperature (°F):       Wind (mph):       Wind Direction:         Hot >85°	
	- 40% <b>□</b> 41 - 70% □ 71 - 100% □	
Waterbody Characteristics:	To NOT Flowing	
Waterbody Type: Stream Flowing: Measurable Flow	NOT Flowing Tidally Influenced	i: 🗌
Wind Influence: ☐ Wi	ind Influence Direction: Upstream Downstream	
Waterbody Type: Lake		
Algae Present ☐ Floating/Aquatic Vegetatio	Sedimentation/Turbidity Present in Water Column on % Surface Coverage: <1 1 1-25% 26-50% 76-100%	
Water Quality Samples Taken:	Water Quality Field Parameters: Profiling:	
water downly compact	Water Quality Field Parameters	
10.10		
Time:/40 Temp.( °C):	26.80 pH: 6.90 SpCond(µhmos/cm): 152.3	
D.O.: 2,77 D.O. %:	34,6 Salinity: 0.07 Depth (m): -15 Secchi (in):	
InSitu Probe ID: 4354		
Continuous Monitor Deployed:	Continuous Monitor ID:	
Continuous Monitor Retrieved:		
	Instrument ID:	
Flow Measurement:   YP	pe of Measurement: Wading  Stationary  Moving Boat	
Instrument ID:	NOT Flowing	
Velocity Monitor Deployed L	Instrument ID:	
Velocity Estimated:		
Right Descending Ba	ank Distance (ft): Time (s):	
Mid Stree	eam Distance (ft): Time (s):	
Left Descending Ba	ank Distance (ft): Time (s):	_
Cross Section Measurement:		
Fathometer ID:		
GPS Measurement:	Site GPS: ☐ Cross Section GPS: ☐	
Photos Taken:	Picture File #s:	

Site	3050	Date:	06/11/08	
			500/11/00	

Tapedown Establishe	nd: []	Tanada		
Benchmark Establishe				
Survey Equipment Use	Managed	Benchmark Location:		
Time of Travel Measu Amount of Dye		Type of Site: Inject	ion .Collection.	
Waterbody Dry/ Waterbody Bott Sand/S Control Structur	de Waterbody:  Intermittent:  om: Sandy itt  Roc re Present:  Loca	Clay☐ Gra k/Gravel/Silt ☐ ation:	vel Hard Clay Concrete	Soft Silt  Log Jam
Land Use: Agric Percent Tree Co	culture  Forestry anopy Cover 0-25	Municipal Indu Control Municipal Indu Control Municipal Indu Control Municipal Indu	evice Beaver Dam Strial Field/Pasture Wetli 51-75% 76-100%	and []
		onitor Deployment: F	Stream Depth (ft):ixed:  Bouy:	
	le:    Nearest Lai idge Safe:	Bridge Height:		
Time: D.O.:	Temp.( °C): D.O. %:	Profiling Measurem pH: Salinity:	Spcond(μhmos/cm):	
Time:	Temp.(^°C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):	
Time: D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):	
Comments:	Fran Ti	ib not 7	Clowing.	1 .6.
-				
References				
Convert Feet to Meters	Convert Celsius t	o Fahrenheit		
0.5 ft \( 0.15 m	20 ≡ 68	25 ≡ 77		
1.0 ft ≅ 0.30 m	21 ≈ 69.8	26 ≅ 78.8		
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≅ 80,6		
2.0 ft = 0.60 m	23 = 73.4	28 ≅ 82.4		e e
$2.5 \text{ ft} \equiv 0.75 \text{ m}$	24 ≅ 75.2	29 ≅ 84.2		

### Selsars Creek Survey

Site #: 3656 Subsegment: 040603 Date: (0-12-08 Time: 1240 hrs
Waterbody: Unnamed Tr; 6
Tapedown 1: 12 22 ft Staff Gauge 1: Gauge Height 1:
Site Location : manediately up tream of cossing of all cainging Hwy.  Personnel: D. Alleman + C. Ke; +h
4
Type of Work: Recon Data Collection .
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear (□):         Hot >85° □         <1 □
Cloud Cover. 0 -10% 11 - 40% 41 - 70% 54 71 - 100% 1
Stream Characteristics: Waterbody Type: Stream X NoT Flowing Flowing: Measurable Flow: Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence:   Wind Influence Direction: Upstream   Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Present in Water Column Signature Sedimentation Sedime
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):  D O %: Salinity: Depth (m): Secchi (in):
b.o.:
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 42500
Continuous Monitor Retrieved: Continuous Monitor Depth (m):/ 5 / m
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):
. Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (fl): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Falhometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
† All work is done within 100 yard radius of Site

			Site 3656 Date:	06/12/08
Photos Taken:	: · · · Picture	File #s:		
			6-	
Tapedown Establish	red: 🗌 . Tap	edown Location:		
· Benchmark Establish		hmark Location:		4,
Survey Equipment Us	ed:	-		14
Time of Travel Meass		ype of Site: Injecti	ion  Gollection	
Physical Site Charac	teristics: Natural Wate	erbody:   Man	Altered Waterbody:	
Man-Ma	ade Waterbody: 🗓 🐪			
<ul> <li>Stream Dry/Int</li> <li>Stream Bottom</li> </ul>		Gravel	Hard Clay ☐ So	ft Silt 🗌
Sand/S	Silt Rock/Gra	avel/Silt 🗌	Concrete	Om C
Control Structu	re Present: ☐ Location Man Made Dam ☐ : F	: low Regulation De	evice Beaver Dam	Log Jam
<ul> <li>Land Use: Agri</li> </ul>	culture  Forestry I I	Municipal Indus	strial Field/Pasture We 51-75% 76-100%	etland 🔲
Recon Information:			W	
	asurement: Wading [	]∵ Boat □	Stream Depth (ft):	
$T_{ij}$ , $T_{ij}$	Continuous Monitor	Deployment: Fix	ked: Bouy: D	<i>3</i> ·
Boat Accessit	ole: Nearest Launch		_	
, 'Rilode □ Bi	ridge Safe: ☐ B	ridge Height:	1 7 7	
		filing Measurem		
Time:	Temp.( °C); ~	pH: Salinity:	Spcond(μhmos/cm): Depth (m):	<del></del>
	· · · · · · · · · ·			-
Time:	Temp.( °C); D.O. %: .	pH: Salinity:	Spcond(μhmos/cm): Depth (m):	
., Time:	Temp.( °C):	pH:	Spcond(µhmos/cm):	
D.O.:	D.O. %: :-:	Salinity:	Depth (m):	
:Comments:	13.			3
y Zee se		•	**	
· · · · · · · · · · · · · · · · · · ·	****			
<del></del>				
	\$ ·-			
<i>[</i>	. 420			7
Pilanana				
References .	Course Coloins to Hab	analists		
Convert Feet to Meters	Convert Celsius to Fah			
0.5 ft ≤ 0.15 m		5 ≡ 77		
1.0 ft ⊆ 0.30 m	21 ≡ 69.8 · : -26			
1.5 ft ≤ 0.45 m	0.4	≥ 80.6		
2.0 ft ≅ 0.60 m		≡ 82.4		-
2.5 ft ≅ 0.75 m	24 € 75.2 29	≅ 84.2		4

Field Site Survey.do
Revision 4.

Site Information
Site #: 3657 Subsegment: 040603 Date: 6:10-05 Time: 1050
Waterbody: Sales - Creek
Tapedown 1: Staff Gauge 1: Gauge Height 1:
Site Location! Selsers Creek & bridge on S Caburn Rd
Personnel: N Smith, A. Tieben, Ty Yoes
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear
Cloud Cover. 0 -10% ☐ 11 - 40% ☑ 41 - 70% ☐ 71 - 100% ☐
Stream Characteristics: Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced: Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1  ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐
Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐
Water Quality Field Parameters
Time: Temp.(°C): pH: SpCond(μhmos/cm): D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 43534
Continuous Monitor Deployed: Continuous Monitor Depth (m): 15 m
Water Level Monitor Deployed: Instrument ID:
Flow Measurement:  Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed   Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending 8ank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
<sup>†</sup> All work is done within 100 yard radius of Site

,			Site 3657 Date: 6-10-08
Photos Taken:		Picture File #s:	
Tapedown Establi Benchmark Establis Survey Equipment L	shed:	Tapedown Location: Benchmark Location:	
Time of Travel Mea Amount of D	surement:  /e Injected (ml):	Type of Site: Injecti	on Collection
Stream Dry/in Stream Botto Sand Control Struc Type: Land Use: Ag Percent Tree	wade Waterbody: L htermittent:  m: Sandy Cli //Silt Re Lure Present: Lo Man Made Dam riculture Forest	ay Gravel Cock/Gravel/Silt Cocation:  Flow Regulation Decry Municipal Cocation Decry Cocation	Altered Waterbody:  Hard Clay Soft Silt Concrete  Vice Beaver Dam Log Jam Itrial Field/Pasture Wetland  51-75% 76-100%
Recon Information: Discharge M	easurement: Wac	_	Stream Depth (ft):
Boat Accessi Bridge 🗌 E	ble: Nearest La	Bridge Height:	
Time: D.O.:	Temp.( °C); D.O. %:	Profiling Measureme pH: Salinity:	nts: Spcond(μhmos/cm): Depth (m):
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Time:	Temp.( °C): D.O. %;	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Comments:			
		-	
References			
Convert Feet to Meters	Convert Celsius to	Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≘ 63	25 ≅ 77	
1.0 ft = 0.30 m	21 ≈ 69.8	26 ≡ 78.8	
1.5 ft ≡ 0.45 m	22 ≘ 71.6	27 ≅ 80.6	
2.0 ft = 0.60 m	23 ≅ 73.4	28 ≡ 82.4	
2.5 ft ≈ 0.75 m	24 ≡ 75.2	29 ≅ 84.2	

	Site Information
	Site #:
	Waterbody: Selsers Creek
	Tapédown 1: 16.90 Staff Gauge 1: Gauge Height 1:
	Site Location 1: Bridge on S Coburn
	Personnel: Ty loes A. Tieben N. Smith
	Type of Work: Recon Data Collection
	Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear
	Cloud Cover: 0 −10% \( \subseteq \); 11 − 40% \( \subseteq \) 41 − 70% \( \subseteq \) 71 − 100% \( \subseteq \)
	Stream Characteristics: Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced: Wind Influence: Wind Influence: Direction: Upstream Downstream
	Waterbody Type: Lake Wind Influence: Tidally Influenced:
	Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐
	Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
	Water Quality Field Parameters
1BV-75	Time: <u>N.35</u> Temp.(°C): <u>A5.60</u> pH: <u>7.28</u> SpCond(μhmos/cm): <u>334</u> . 5  D.O.: <u>2.60</u> D.O. %: <u>32.0</u> Salinity: <u>0.16</u> Depth (m): <u>0.5</u> Secchi (in): <u>6</u> in
	Continuous Monitor Deployed: Continuous Monitor ID:
	Continuous Monitor Retrieved: Continuous Monitor Depth (m):
	Water Level Monitor Deployed: Instrument ID:
	Marios Root
	Instrument ID: FT4A Stream Velocity Monitor Deployed Instrument ID: File# 3657 - D1
	Stream Velocity Monitor Deployed Instrument ID.
	Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
	Right Descending Bank Distance (ft): Time (s):
	Mid Stream Distance (ft): Time (s):
	Left Descending Bank Distance (ft): Time (s):
	Cross Section Measurement: Type of Measurement Manual: Fathometer
	Fathometer ID:
	GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
	† All work is done within 100 yard radius of Site

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

			Site 3657 Date: 04/1/08
Photos Taken:		Picture File #s:	
Tapedown Establis	shed: 🗌	Tapedown Loca	tion:
Benchmark Establis Survey Equipment U	hed: [] sed: []	Benchmark Loca	tion:
Time of Travel Meas		Type of Site:	Injection Collection
Physical Site Chara	cteristics: Na	tural Waterbody:	Man Altered Waterbody:
Stream Drv/In	Made Waterbod		,
Stream Botton	n: Sandy	Clay Grave Rock/Gravel/Silt	Hard Clay Soft Silt
Control Struct	ure Present: I	l ocation:	
Type:	Man Made Dan	Flow Regulati	on Device Beaver Dam Log Jam Industrial Field/Pasture Wetland
Percent Tree	riculture [] For Canopy Cover	estry   Municipal   0-25%   26-50	Industrial ☐ Field/Pasture ☐ Wetland ☐ % ☐ 51-75% ☐ 76-100% ☐
Recon Information: Discharge Me	easurement: V	Vading \( \begin{array}{c} \text{Boat } \( \ext{C}  \)	Stream Depth (ft):
			Fixed: Bouy:
Post Assessit			Pixeo. [] Body. []
Bridge B	ridge Safe:	t Launch: Bridge Height:	
-		Profiling Measu	rements:
Time: D.O.:	Temp.( %	C): pH:	Spcond(µhmos/cm): Depth (m):
D.O.:	Temp.( */ D.O. %	C): pH: : Salinity:	Spcond(µhmos/cm): Depth (m):
Time: D.O.;	Temp.( °C	C): pH: : Salinity:	Spcond(μhmos/cm):
		Sammy.	Depth (m):
Comments: Dy	PRISE	NT 17 5/1E	
eferences			
onvert Feet to Meters	ovaries cons	us to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≡ 77	
1.0 /t ≡ 0.30 m	21 ≡ 69.8	26 ≅ 78.8	
1.5 ft ≅ 0.45 m	22 ≡ 71.6	27 ≅ \$0.6	
2.0 ft ≡ 0.60 m	23 ≅ 73.4	28 ≅ 82.4	•
2.5 ft ≅ 0.75 m	24   75.2	29 ≅ 84.2	ف
		2.0	
			a distribution of the second
			Field Site Survey.doc Revision 4.1
			Revised 06/21/2007

Site #: 3657 Subsegment 040603 Date: 6/12/08 Time: 1052 hr Waterbody: 5elsers Creek Tapedown 1: 16.91 Staff Gauge 1: Gauge Height 1:
Kalana Crack
Causa Haight 1:
Tapedown 1: II.O. 91 Staff Gauge 1: Gauge III
Site Location : @ bridge on S. Coburn Rd.
Personnel: Smith tieben
Type of Work: Recon ☐ Data Collection 2
Weather Conditions:         Temperature (°F):         Wind (moh):         Wind Direction:           Clear ☐         Hot >85° ☒         <1 ☐
Cloud Cover: 0 −10% ☐ 11 − 40% ☐ 41 − 70% ☐ 71 − 100% ☑
Stream Characteristics: Waterbody Type: Stream  Flowing: Measurable Flow:
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐
Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐
Water Quality Field Parameters
Tomp (°C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in): _
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 43534
Continuous Monitor Retrieved: 🔀 Continuous Monitor Depth (m):
Water Level Monitor Deployed: Nostrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (It): Time (s):
Cross Section Measurement: Type of Measurement Manual: Falhometer
Falhometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

† All work is done within 100 yard radius of Site

	į.		Site 3657 Date: 6/12/08	
Photos Taken:		Picture File #s:	· · · · · · · · · · · · · · · · · · ·	
The test remain.		ictore rile vs.		
Tapedown Establis Benchmark Establis Survey Equipment U	hed:	Tapedown Location		
Time of Travel Meas Amount of Dy	surement:  e Injected (ml):	Type of Site: In	ijection Collection	
Man-N Stream Dryllr Stream Botton Sandd Control Struct Type: Land Use: An	fade Waterbody: termittent: ☐  n: Sandy☐ Cla  Silt ☐ Roc  ure Present: ☐ Loc  Man Made Dam☐  riculture ☐ Forestn	J sy Gravel[ ck/Gravel/Silt   cation: Flow Regulation y Municipal   1	fan Altered Waterbody:   Hard Clay Soft Silt Concrete  Device Beaver Dam Log Jam nudustrial Field/Pasture Wetland 51-75% 76-100%	
Recon Information: Discharge Me			Stream Depth (it):	
Boat Accessi Bridge 🔲 B		Bridge Height:		
Time:	Temp.( °C): D.O. %:	Profiling Measur pH: Salinity:	ements: Spcond(µhmos/cm): Depth (m):	
			Spcond(μhmos/cm): Depth (m):	
Time:	Temp.( °C): D.O. %:	pH; Salinity:	Spcond(μhmos/cm): Depth (m):	
Comments:				
		***		
References				
Convert Feet to Meters	Convert Celsius to	Fahrenheit		
0.5 fi = 0.15 m	20 ≡ 68	25 ≅ 77		
$1.0 \text{ ft} \equiv 0.30 \text{ m}$	21 = 69.8	26 ≡ 78.8		
1.5 ft \(\pm 0.45 m\)	22 ≡ 71.6	27 ≡ 80.6		
2.0 ft @ 0.60 m	23 ≅ 73.4	28 ≡ 82.4	2	
2.5 ft <u>@</u> 0.75 m	24 = 75.2	29 ≘ 84.2		

Site Information
1216/
Site #: 3659 Subsegment: 0 40603 Date: 6-11-08 Time: 12/5h
Waterhady: Trib 2.
Tanedown 1: N/A Staff Gauge 1: Gauge Height 1:
Sile Location!: Trib joining Selsers just before bridge on Sisters Rd
Personnel: Noes, Smith, Teben
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear □
Weather Conditions.         NW □ N □ NE □           Clear □ Overcast □ Warm > 75° □ 1-5 □ SW □ S □ SE □           Drizzle/Light Rain □ Mild > 65° □ 6-10 □ E □ W □
Overcas/L
Orizzle/Light Rain ☐         Mild > 65° ☐         6-10 ☐         E ☐ W ☐           Showers ☐         Cool > 60° ☐         11-15 ☐         Variable ☐
Showers (
Cloud Cover. 0 −10% ☐ 11 − 40% ☐ 41 − 70% ☐ 71 − 100% ☐
0-10%
Stream Characteristics:
Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced:
Deumstreem []
Wind Influence: Wind Influence Direction: Opstream Downstream
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present Sedimentation/Turbidity Present in Water Column
Flooting/Aquatic Vegetation % Surface Coverage: <1   1-23% 2  20-30 %
51-75% . 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: 1215hr (Temp. (°C): 25.35 pH: 7.52. SpCond(µhmos/cm): 220.4
Time: 12/3/hr (einp.( c).23/33 pm 10 ponth /m); Secchi (in);
D.O.: 5.99 D.O. %: 73. D Salinity: • 10 Depth (m): 5.2 Secchi (in):
Insitu Probe ID: 43538 1B/ 7.5 1BA -10.6
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement:  Type of Measurement: Wading  Stationary  Moving Boat
Instrument ID: Sft in 41./s
Instrument ID: 5 ft in 47.7 s  Stream Velocity Monitor Deployed Instrument ID: 1.2 ft. w/3 in dee
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
And the second s
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
Site GPS: Cross Section GPS:
GPS Measurement:
•

		Site 3658 Date: 6-11-09	
Photos Taken:		Picture File #s:	
Tapedown Establis Benchmark Establis Survey Equipment U	hed:	Tapedown Location:  Benchmark Location:	
Time of Travel Meas Amount of Dy	surement:  e Injected (mi):	Type of Site: Injection ☐ Collection☐	
Physical Site Characteristics: Natural Waterbody:			
Recon Information: Discharge Me	asurement: Wa	ading Depth (ft):  Monitor Deployment: Fixed: Bouy: D	
Boat Accessil Bridge 🗌 B	ole:  Nearest ridge Safe:	Bridge Height:	
D.O.:	Temp.( °C D.O. %:	Profiling Measurements:  :	
D.O.:	Yemp.( °C) D.O. %:	): pH: Spcond(μhmos/cm): Salinity: Depth (m):	
Time:	Temp.( °C) D.O. %:	): pH: Spcond(μhmos/cm): Salinity: Depth (m):	
comments: could not got a chlor-A because trib			
References			
Convert Feet to Meters	Convert Celsius	s to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≘ 68	25 ≡ 77	
1.0 ft $\equiv 0.30 \text{ m}$	2! ≡ 69.8	26 ≅ 78.8	
1.5 ft $\equiv$ 0.45 m	22 \$ 71.6	27 ≡ 80.6	
$2.0~{\rm ft} \equiv 0.60~{\rm m}$	23 ≅ 73.4	28 ≘ 32.4	
2.5 ft ≅ 0.75 m	<b>2</b> 4 ≡ <b>7</b> 5.2	29 ≅ 84.2	

Site Information
Site #: 3659 Subsegment: 040603 Date: 6-10-08 Time: 11:20
Waterbody Solsers Cree K
Tapadown 1: 17.68 Staff Gauge 1: Gauge Height 1:
Site Location: Selsers Creek @ bridge on Sisters Rd
Personnel: N. Smithy A. Tieben, Ty Yoes
Type of Work. Recon Data Collection 7
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear
0 -10%  11 - 40%  41 - 70%  71 - 100%
Stream Characteristics: Waterbody Type: Stream Flow Direction Upstream Downstream Tidatly Influenced: Wind Influence: Wind Influence: Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1
Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐ .
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: A Continuous Monitor ID: 42511
Continuous Marines Vernes
Water Level Monitor Deployed: Instrument iD:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed [ Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement:  Site GPS:  Cross Section GPS:

			Site 3637 Date: 6-10-08
Photos Taken:		Picture File #s:	
Tapedown Establ Benchmark Establ Survey Equipment	ished:	Tapedown Location: _	
Time of Travel Me Amount of D	asurement:  Oye Injected (ml):	Type of Site: Injection	on Collection
Stream Dry/ Stream Bott San Control Stru Type Land Use: A	Intermittent: One Intermittent Intermitent Intermittent Intermittent Intermittent Intermittent Intermit	ay Gravel Gravel Callon:  Flow Regulation Decry Market Gravel Advanced Callon Decry Callon	Hard Clay Soft Sift Sift Sift Sift Sift Sift Sift Si
Recon Information Discharge M	teasurement: Wad	ing Boat Donitor Deployment: Fixe	on our part (ii).
Boat Access Bridge	sible: Nearest (a	Bridge Height:	
Time: D.O.:	Temp.( °C): D.O. %:	Profiling Measuremer pH: Salinity:	nts: Spcond(µhmos/cm): Depth (m):
Time:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm):
Time: D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Comments:			
eferences			
onvert Feet to Meters	Convert Celsius to	Fahrenheit	
0.5 ft ≡ 0.15 m	20 ≅ 68	25 ≡ 77	
1.0 ft ≈ 0.30 m	21 ≈ 69.8	26 ≅ 78.8	
1.5 ft ≈ 0.45 m	22 ≅ 71.6	27 ≡ 80.6	
2.0 ft $\equiv$ 0.60 m	23 ≡ 73.4	28 ≘ 82.4	
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≡ \$4.2	

Site Information
Site #: 3659 Subsegment: 0 40603 Date: 6-11-08 Time: 1230 WS
Waterbody: Solsers Creek
× 0.1 0 ×
Tapedown 1: 17.61 Staff Gauge 1: Gauge Height 1:  Site Location : @ bridge on Sisters Rd.
Site Location': 10, Grage on Sister Start
Personnel: Ty Yoes, A Tieben, N Smith
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:  NW □ N □ N □ N □ N □ N □ N □ N □ N □ N □
Clear   Warm > 75°   1.5   SW S S S S S
Overcast 2
Cool > 60°
Cloud Cover. 0 −10% ☐ 11 − 40% ☐ 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics:
Waterbody Type: Stream
Wind Influence: ☐   Wind Influence Direction: Upstream ☐   Downstream ☐
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ Floating/Aquatic Vegetation % Surface Coverage: <1.75% ☐ 76-100% ☐
31-73/12
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Samples (Mater Quality Field Parameters
Time: 1230 Temp.(°C):30.05 pH: 8.49 SpCond(µhmos/cm):300.2
D.O.: 12.55 D.O. %: 166.3 Salinity: 0.15 Depth (m): 5/A Secchi (in):
Insitu Probe ID: 43538 JBV -7.5 IBa - 10.7
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Water Level Monitor Deployed.     Matter Level Monitor Deployed.   Matter Level Monitor Deployed.   Monito
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID: <u>FT4A</u>
Instrument ID: File #3659.  Stream Velocity Monitor Deployed ☐ Instrument ID: File #3659.
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Velocity Lowins 2
Right Descending Bank Distance (ity)
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
T

			Site <u>3659</u> Date: <u>6-/1-0</u> 8
Photos Taken:		Picture File #s:	
Tapedown Establis Benchmark Establis Survey Equipment U	hed: 🔲	Tapedown Location: Benchmark Location:	
Time of Travel Meas Amount of Dy	surement:  e Injected (ml):	Type of Site: Injecti	on Collection
Stream Dry/In Stream Botton Sand/ Control Struct Type: I Land Use: Agr Percent Tree (	termittent:  n: Sandy Cla Silt Roger Present: Clo Man Made Dam joulture Forest	ay Gravel Gravel Cock/Gravel/Silt Cocation:  Flow Regulation Decry Municipal Cocation	Hard Clay Soft Sift Concrete Log Jam Lirial Field/Pasture Welland 51-75% 76-100%
Recon Information: Discharge Me	asurement: Wad	ing Boat	Stream Depth (ft):
w.	Continuous M	onitor Deployment: Fix	
Boat Accessil Bridge 🔲 B	ole: □ Nearest La	nunch: Bridge Height:	
Time: D.O.:	Temp.( °C): D.O. %:		Spcond(µhmos/cm): Depth (m):
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(μhmos/cm); Depth (m);
Time: D,O.:	Temp.( °C): D.O. %;		Spcond(μhmos/cm): Depth (m):
Comments: Du	e prise	ut _	
could not	get ch		11b 3655 come
	TIME N	at this	5.17
References			
Convert Feet to Meters	Convert Celsius to	Fahrenheit	
0.5 ft = 0.15 m	20 ≅ 68	25 ≡ 77	
1.0 ft ≈ 0.30 m	21 ≅ 69.8	26 a 78.8	
1.5 ft ≡ 0.45 m	22 <b>=</b> 71.6	27 ≡ 80.6	
2.0 ft $\cong$ 0.60 m	23 ≅ 73.4	28 ≡ 82.4	
2.5 ft a 0.75 m	24 ≈ 75.2	29 ≘ 84.2	

Site Information .			
Site #: _3659 Subsegment: 04 06 03 Date: 6-/2-09 Time: 1240			
Waterbody: Selser's Creek			
Waterbody: Sers Clears Gauge Height 1: Gauge Height 1:			
Site Location : Six ters Rd			
Personnel: T. UDES A. Tichen			
Type of Work: Recon ☐ Data Collection ☑			
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear ☐         Hot >85° ☐         <1 ☐			
Cloud Cover. 0 –10% ☐ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐			
Stream Characteristics: Waterbody Type: Stream Stream Downstream Tirially Influenced:			
Flowing: Measurable Flow: Flow Direction Opsiteant Downstream Thomas Tho			
Wind Influence: Wind Influence Direction: Upstream Downstream			
Waterbody Type: Lake Wind Influence: Tidally Influenced:			
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐			
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:			
Water Quality Field Parameters			
Time: Temp.( °C): pH: SpCond(µhmos/cm): Depth (m): Secchi (in):			
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):			
InSitu Probe ID:			
Continuous Monitor Deployed: Continuous Monitor ID: 4251			
Continuous Monitor Retrieved: Continuous Monitor Depth (m): 5:n			
Water Level Monitor Deployed: Instrument ID:			
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat			
Instrument ID:			
Stream Velocity Monitor Deployed   Institution			
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐			
Right Descending Bank Distance (It): Time (s):			
Mid Stream Distance (It): Time (s):			
Left Descending Bank Distance (ft): Time (s):			
Cross Section Measurement: Type of Measurement Manual: Falhometer			
Fathometer ID:			
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐			
† All work is done within 100 yard radius of Site			

 $1.5 \, \mathrm{ft} \equiv 0.45 \, \mathrm{m}$ 

2.0 ft ≅ 0.60 m

2.5 ft = 0.75 m

 $22 \equiv 71.6$ 

23 ≅ 73.4

 $24 \equiv 75.2$ 

*	6	Site 3659 Date: 6-12-08
Photos Taken:	Picture File #s:	
Tapedown Established:  Benchmark Established:  Survey Equipment Used:		
Time of Travel Measurement: Amount of Dye Injected (ml)	Type of Site: Injectio	n Collection
Physical Site Characteristics: Nat Man-Made Waterbod Stream Dry/Intermittent: Stream Bottom: Sandy Sand/Sitt Control Structure Present: Type: Man Made Dan Land Use: Agriculture For Percent Tree Canopy Cover	y:   Clay Gravel Gravel  Rock/Gravel/Silt   Location:  Flow Regulation Develostry Municipal Industr	Hard Clay Soft Silt Concrete Log Jam Log Jam Lial Field/Pasture Wetland
Continuou	s Monitor Deployment: Fixe	
		nts: Spcond(µhmos/cm): Depth (m): Spcond(µhmos/cm): Depth (m):
Time: Temp.(° D.O. %	C): pH: :: Salinity:	Spcond(µhmos/cm): Depth (m):
Comments:	•	
Ø 0		
References		
Convert Feet to Meters Convert Col	sius to Fahrenheit	*1
$0.5 \text{ ft} \equiv 0.15 \text{ m}$ $20 \equiv 68$ $1.0 \text{ ft} \equiv 0.30 \text{ m}$ $21 \equiv 69.8$	25 ≅ 77 26 ≅ 78.8	

Field Site Survey.doc Revision 4,1 Revised 06/21/2007

27 ≅ 80.6 28 ≅ 82.4

29 ≅ 84.2

Site Information
Site #: 3660 Subsegment: 040603 Date: 6/10/08 Time: 1045 hr
Waterbody: Selsers Creek Tributary, 003 Tapedown 1: 15,7 ft. Staff Gauge 1: Gauge Height 1:
Tapedown 1: 15,1 tt. Stall Gauge 1: Gauge Reight 1
Site Location t: Hower Rd. N. of they 22  Personnel: JMES, Hicks
Type of Work. Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:  Clear   Clear   Hol >85° □ , <1 □ N □ N □ N □ N □ N □ N □ N □ N □ N □
Warm > 75° D 1-5 D SW S SEL
Drizzle/Light Rain Mild > 65° 6-10 6-10 6-10 W
Showers
Cloud Cover. 0 -10%
Stream Characteristics: Waterbody Type: Stream
Flowing: Measurable Flow: Flow Direction Upstream Downstream V Indaily Initiatives.
Wind Influence: Wind Influence Direction: Upstream Downstream
Walerbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Presentin Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 ( 1-25%  26-50% 76-100% 76-
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Samples Taker. Water Guality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 1002
Continuous Monitor Retrieved: Continuous Monitor Depth (m): \$\sigma 25 m\$
Water Level Monitor Deployed: Instrument ID:
Flow Measurement:  Type of Measurement: Wading  Stationary  Moving Boat
instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
ARIOCHA COMPANION CO.
Right Descending Bank Distance (It): Time (s):
Mid Stream Distance (II): Time (s):
Left Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
GPS MEdStrenient.
×

¥		Site <u>3660</u> Date: <u>6/</u>	10/08
Photos Taken:	Picture File #s:		
Tapedown Established:  Benchmark Established:  Survey Equipment Used:	Tapedown Location: _ Benchmark Location: _		
Time of Travel Measurement: Amount of Dye Injected (mi	Type of Site: Injection:	on Collection	
Percent Tree Canopy Cover	dy: U  Clay[] Grave[]  Rock/Gravel/Silt [v]  Location: Flow Regulation De- trestry [] Municipal [v] Jodes	Hard Clay Soft Sift Concrete	
Recon Information: Discharge Measurement: Continuor Boat Accessible: Neare Bridge Bridge Sale:	us Monitor Deployment: Fixe st Launch:		
Time:Temp.(	Profiling Measuremen		
D.O.: D.O. 9		Spcond(μhmos/cm): Depth (m):	
Time: Temp.( D.O. 9	6: Salinity:	Spcond(µhmos/cm):	
Time: Temp.(*D.O.: *D.O.: *D.O	PC): pH: Salinity:	Spcond(µhmos/cm): Depth (m):	
Comments:			
References			
	ius to Fahrenheit		
0.5 ft ≡ 0.15 m 20 ≘ 68	25 ≘ 77		
1.0 ft ≡ 0.30 m \ 21 ≡ 69.8	26 ≡ 78.8		
1.5 ft ≡ 0.45 m \ 22 ≘ 71.6	27 a 80.6		
2.0 fi ≡ 0.60 m 23 ± 73.4	28 = \$2,4		
2.5 ft ≡ 0.75 m 24 ≡ 75.2	29 ≡ 34.2		

Site Information
Site #: 3660 Subsegment: 040603 Date: 6/11/08 Time: 0900 hrs
Sile #: 3660 Subsegment: 040603 Date: 6/11/08 Time: 0900 MTS  Waterbody: Selsers Creek Tributary 003
Tapedown 1: 15,75 ft. Slaff Gauge 1: Gauge Height 1:
Site Location T: Hoover Rd. N. of Hw 22
Personnel: Thres, Hicks
Weather Conditions: Temperature F): Wind (meth): Wind Oirection: Clear W Hol >85° ✓ <1 ✓ NW □ N□ N□ □
Overcast
Showers Cool > 60° 11-15 Variable
Cloud Cover: >16 ☐
0 - 10% 11 - 40% 41 - 70% 71 - 100%
Stream Characteristics:
Waterbody Type: Stream
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Sedimentation/Turbidity Present in Water Column
Algee Present
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: 0900 hrs Temp. (°C): 25.14 pH: 17.14 SpCond(µhmos/cm): 230, 5
D.O.: 2.86 D.O. %: 34.8 Salinity: 11 Depth (m): 15m Secchi (in): 6in.
InSitu Probe ID: 43544
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Y Stationary Moving Boat
Instrument ID: FT4 B
Stream Velocity Monitor Deployed Instrument ID:
Volocity Estimated:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (II): Time (s):
Left Descending Bank Distance (It): Time (s):
Cross Section Measurement: Y Type of Measurement Manual: Fathometer
Fathometer ID:
Site GPS: Cross Section GPS:
GPS Measurement: Sile GPS: Cross Section GPS.

All work is done within 100 yard radius of Site

Site 3660	Date:	6	111	108
Site 366	Date:	6	111	100

Photos Taken:		Picture File #s:	
Tapedown Establ		Tapedown Location:	
Survey Equipment		Benchmark Location:	
Time of Travel Me Amount of D	asurement: [] )ye Injecled (ml):	Type of Site: Injection	on Callection
Man- Stream Dry/ Stream Bottl San Control Stru Type Land Use: A Percent Tree	-Made Walerbody: L Intermiltent:   om: Sandy	ay Gravel Gravel Color Gravel Silt Color Gravel Silt Color Gravel Silt Color Gravel Gr	Hard Clay Soft Sill Concrete Concrete Log Jam Crial Field/Pasture Welland 51-75% 76-100%
	leasurement: Wad Continuous M	onitor Deployment: Fixe	Stream Depth (ft):
Boat Access Bridge 🗌	sible:  Nearest La Bridge Sale:	Bridge Height:	
Time: D.O.:	Temp.( °C): D.O. %;	Profiling Measuremer pH: Salinity:	nts: Spcond(µhmos/cm): Depth (m):
Time: D.O.:			
Time: D.O.:	Temp.( °C):		Spcond(µhmos/cm): Depth (m):
Comments:			
0.4			
References Convert Feet to Meters	Convert Celsius to	Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≈ 68	25 ≡ 77	
1.0 ft ± 0.30 m	21 ≅ 69.8	26 ≡ 78.8	
1.5 ( $t \equiv 0.45 \text{ m}$	22 = 71.6	27 ≡ 80.6	
2.0 ft ≡ 0.60 m	23 ≥ 73.4	28 ≡ 82.4	
2.5 ft ≡ 0.75 m	24 ≘ 75.2	29 ≡ 84.2	

Site Information
7
Site #: 3660 Subsegment: 040603 Date: 6-12-08 Time: 1045
Waterbody: Trib 3 Tapedown 1: 15,65 ft. Staff Gauge 1: Gauge Height 1:
Site Location to Mover Rd
Personnel: Ty Yoes, Adam Tiebeh
·
Wind Charles
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction: Clear ☐ Hot >85° ☐ <1 ☐ NW ☐ N ☐ NE ☐
Clear Overcast Warm > 75° 1-5 Z SW S Z SE O
Orizzle/Light Rain Mild > 65° 6-10 E W D
Weather Conditions:         Internal New   N   NE             Clear   Hot >85°
Cloud Cover: 0 −10% ☐ 11 − 40% ☐ 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics: Waterbody Type: Stream
Flowing: Measurable Flow: Flow Direction Upstream Downstream Flowing: Flow Direction Upstream
Wind Influence:
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Samples Taken. Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: ☐ Continuous Monitor ID:
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathomeler
Fathometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

			2	Site 3660	Date: 6-12-00
Photos Taken:		Picture File #s:		·	
Tapedown Establish		Tanadawa Lagat	ion		
Benchmark Establish	-				
Survey Equipment Use		Delicilitate Eddal			
Time of Travel Measu Amount of Dye		Type of Site: I	njection	Collection	
Stream Dry/Inte Stream Bottom Sand/S Control Struclu Type: M Land Use: Agri	ade Waterbody: ermittent:  : Sandy C Silt R re Present: L fan Made Dam culture Fores	☐ Gravel	D I	Hard Clay  Concrete  Beaver Dar	Soft Silt
Boat Accessib	Continuous M	nding Boat  Monitor Deployment: aunch: Bridge Height:	Fixed:	1 (A) A	
Time: D.O.: Time: D.O.: Time: D.O.:	Temp.( °C) D.O. %:	Profiling Measu : pH:  Salinity: : pH:  Salinity: : pH:  Salinity:		Spcond(µhmos Depth (m): Spcond(µhmos Depth (m): Spcond(µhmos Depth (m):	/cm):
Comments:			g	The state of the s	
					*
2	×	<i>Y</i>			
2					-0 1 1
References					
Convert Feet to Meters	Convert Celsiu	s to Fahrenheit			
0.5 ft = 0.15 m	20 ≡ 68	25 ≡ 77			
$1.0~\mathrm{ft} \equiv 0.30~\mathrm{m}$	21 ≅ 69.8	26 ≅ 78.8			
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≡ 80.6			
2.00 = 0.60 m	23 = 73.4	28 = 82 4			

29 = 84.2

 $24 \equiv 75.2$ 

2.5 ft æ 0.75 m

Site #: 3661 Subsegment: 040603 Date: 6/10/08 Time: 1/00 hrs
WEIGHOODS SPISERS Creek
Tapedown 1: ad. 5 A. Staff Gauge 1: Gauge Height 1:
Site Location t: Hwy. 22
Personnel: Jones, Hicks
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (>F):         Wind (mph):         Wind Direction:           Clear □         Hot >85° □         <1 □         NW □ N □ NE □           Overcast □         Warm > 75° □         1-5 □         SW □ S □ SE □           Drizzle/Light Rain □         Mild > 65° □         6-10 □         E □ W □           Showers □         Cool > 60° □         11-15 □         Variable □
Cloud Cover. 0 -10%   11 - 40%   41 - 70%   71 - 100%
Stream Characteristics:
Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Furbidity Present in Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1.25% 25-50% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Proliting:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
5.0
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 100 18 (43535)
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor. Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
. Velocity Estimate: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (II): Time (s):
Left Descending Bank Distance (fi): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

			Sile 3661 Dale: 6/10/08
Photos Taken:		Picture File #s:	
Tapedown Establish Benchmark Establish Survey Equipment Use	ed:	Tapedown Loca Benchmark Loca	tion:
Time of Travel Measu Amount of Dye		Type of Site:	Injection Callection
Man-Ma Stream Dry/Inte Stream Botton Sand/S Control Structu Type: M Land Use: Agric	ide Walerbody:	lay Gravel/Silt Cocation: Flow Regulation	Man Altered Waterbody:   Hard Clay Soft Sill Concrete  Oevice Beaver Dam Log Jam Industrial Field/Pasture Wetland 51-75% 76-100%
Boat Accessib	e: 🗍 Nearest L dge Safe: 🦳	donitor Deployment aunch: Bridge Height:	_ <del></del>
Time:	D.O. %;	Salinity:	Saconduhmagiani
Time:			Spcond(µhmos/cm): Depth (m):
Comments:	`\		1 2
References			
Onvert Feet to Meters  0.5 ft = 0.15 m  1.0 ft = 0.30 m  1.5 ft = 0.45 m	Convert Celsius 20 ≡ 68 21 ≡ 69.8 22 ≡ 71.6	25 ≅ 77 26 ≡ 78.8 27 ≅ 30.6	
2.0 ft $\equiv$ 0.60 m 2.5 ft $\equiv$ 0.75 m	23 ≡ 73.4 24 ≡ 75.2	28 = 82,4 29 = 84.2	

Site Information
Site #: 3661 Subsegment: 040603 Date: 6/11/08 Time: 13/5 hrs
Walerbody: Selsers Creek
Tapedown 1: 22.5/ft. Staff Gauge 1: Gauge Height 1:
Site Location ! Hwy 22
Personnel: Jimes, Hicks
Type of Work: Recon Dala Collection
Weather Conditions:         Temperature (%):         Wind (mph):         Wind Direction:           Clear ☐         Hot >85° ☐         <1 ☐
Cloud Cover. 0 - 10%
Stream Characteristics: Walerbody Type: Stream W
Flowing: W Measurable Flow: Flow Direction Upstream Downstream I Hoally Inhoenced.
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentalion/Turbidity Present in Water Column Floating/Aquatic Vegetation % Surface Coverage: <1 1 -25% 26-50% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: 1315 Temp.(°C): 2886 pH: 7.68 SpCond(µhmos/cm): 282.7  D.O.: 1037 D.O. %: 134.0 Salinity: 14 Depth (m): 55m Secchi (in): 12
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument IO:
Flow Measurement: Type of Measuremen:: Wading Stationary Moving Boat
Instrument ID: F74B  Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Falhometer ID:
GPS Measurement:  Site GPS:  Cross Section GPS:
T All work is done within 100 yard radius of Site

			Site 3661 Date: 611108
Photos Taken:		Picture File #s:	
Tapedown Establishe Benchmark Establishe Survey Equipment Use	d: 🔲	Tapedown Location:	
Time of Travel Measur Amount of Dye I	rement:  njected (ml):	Type of Site: Injection	on Collection
Stream Dry/Inter Stream Bottom: Sand/Sil Control Structure Type: Ma Land Use: Agricu Percent Tree Ca	se Waterbody: [ millent:  Sandy Cla t Ro Present: Lo in Made Dam	ay Gravel Gravel Calion:  Flow Regulation Dev	Hard Clay Soft Sill Concrete Use Heaver Dam Log Jam Crist Field/Pasture Wetland 51-75% 75-100%
Recon Information: Discharge Meas  Boat Accessible Bridge Bridge	Continuous M	onilor Deployment: Fixe	
Time:	Temp.( °C): D.O. %:	Profiling Measuremen pH: Salinity:	Spcond(µhmos/cm):
Time: D.O.:			Spcond(µhmos/cm):  Depth (m):  Spcond(µhmos/cm):  Depth (m):
Comments:			
References			
0.5 ft ≡ 0.15 m 1.0 ft ≘ 0.30 m 1.5 ft ≡ 0.45 m	Convert Celsius to 20 ± 68 21 ± 69.8 22 ± 71.6 23 ± 73.4	Pahrenheit 25 ≅ 77 26 ≅ 78.8 27 ≅ 80.6 28 ≅ 82.4	
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2	

Site Information
1010 112 Date: (-12-06 Time: 12 10
Site #: 3661 Subsegment: 040603 Date: 6-12-86 Time: 1210  Waterbody: Selsers Creek
+ 6 1.
Personnel: Ty Yors, Adam Ticken
Type of Work: Recon Data Collection
13000
Weather Conditions: Temperature (1).
Mild's 65° I O-10 L L L C C L
Drizzle/Light Rain
Cloud Cover. 0 -10% 11 - 40% 1 41 - 70% 71 - 100% 1
Stream Characteristics: Waterbody Type: Stream
Flowings Measurable Flow: Flow Direction Opstream: Downstream
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 76-100% ☐
Floating/Aquatic Vegetation % Surface Coverage. 75-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 43535
Continuous Monitor Retrieved: 🖂
Water Level Monitor Deployed: Instrument iD:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Velocity Estimated:
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Falhometer
Falhometer ID:
Site GPS: Cross Section GPS:
GPS Measurement:
† All work is done within 100 yard radius of Site
Unit metric as seen a s

			. Site 3661 Date: 616	-00
Photos Taken;		Picture File #s:		
Tapedown Establish Benchmark Establish Survey Equipment Us	ned:	Tapedown Location: _ Benchmark Location: _	8	
Time of Travel Meas Amount of Dys	urement: [] Injected (ml);	Type of Site: Injection	n Collection	
Man-Mi Stream Dry/Int Stream Bottom Sand/S Control Structu Type: N Land Use: Agri	ade Waterbody: ermittent: n: Sandy Cia Silt Roo ire Present: Loo Man Made Dami	y Gravel Gravel Ck/Gravel/Silt Ccation: Flow Regulation Dev	Hard Clay Soft Silt Concrete Log Log Field/Pasture Wetland	Jam 🔲
Recon Information: Discharge Me		7.0	Stream Depth (it):	
Boat Accessib Bridge [] Br	le: Nearest La	Bridge Height:		
Time:			Spcond(µhmos/cm): Depth (m):	
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):	
Time:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):	_
Comments:				
		<del></del>		
References				
Convert Feet to Meters	Convert Celsius to	Fahrenheit	,	
0.5 ft = 0.15 m	20 = 68	25 ≅ 77		
1.0 ft ≥ 0.30 m	21 ≡ 69.8	26 ≡ 78.8		
1.5 ft ≡ 0.45 m	22 ≘ 71.6	27 ≡ 80.6		
2.0 ft ≡ 0.60 m	23 ≅ 73.4	28 ≡ 82.4		
2.5 ft æ 0.75 m	24 ≡ 75.2	29 ≘ 84.2		

Site Information
Site #: 3662 Subsegment: 040603 Date: 6/11/08 Time: 1115 hrs
Walerbody: Selsers Creek Tributary 004
Tapedown 1: Staff Gauge 1: Gauge Height 1:
Site Location : Ridgell Rd
Personnel: Twe S, Hicks
Type of Work: Recon Data Collection
Weather Conditions:         Temperature (*F):         Wind (nph):         Wind Direction:           Clear (V)         Hot >85° (V)         <1 (V)
Cloud Cover: 0 -10%
Stream Characteristics: Water Gody Type: Stream Flow Direction Upstream Downstream Tidally Influenced: Flowing: Measurable Flow: Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence:
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: 1115 Temp.(°C): 25.63 pH: 7.36 SpCond(µhmos/cm): 389.2  D.O.: 1113 D.O. %: 13.9 Salinity: 19 Depth (m): 11 Secchi (in): 18.6  InSitu Probe ID: 43544
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitar Retrieved: Continuous Monitar Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat Instrument ID: F14B  Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (II): Time (s):
Left Descending Bank Distance (ft): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement: Site GPS: Cross Section GPS:
T All work is done within 100 yard radius of Site

			Site 3662 Date: 6/11/08
Photos Taken:		Picture File #s:	
Tapedown Establis Benchmark Establisi Survey Equipment U	ned:	Tapedown Location Benchmark Location	
Time of Travel Meas Amount of Dy	urement:  e Injected (ml):	Type of Site: Inje	ction Collection
Man-M Stream Dry/In Stream Botton Sand/ Control Struct Type: Land Use: Agi	lade Waterbody: termittent:   n: Sandy   CSilt   R  Bure Present:   Unan Made Dam  Ciculture   Fores	Gravel   Ock/Gravel/Silt   Ock/Gravel/Silt   Occation:   Flow Regulation   Octation   Octation	Hard Clay Soft Silt Concrete Log Jam Ustrial Field/Pasture Welland 51-75% 76-100%
Boat Accessil	ole: Nearest L	ding Boat Monitor Deployment: Fiaunch: Bridge Height:	Fixed: Bouy:
Time:	Temp.( °C) D.O. %:	Profiling Measuren : pH: Salinity:	nents: Spcond(µhmos/cm): Depth (m):
D.O.:	Temp.( °C) D.O. %:	pH: Salinity:	Spcond(μhmos/cm): Depth (m):
Time:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(μhmos/cm):  Depth (m):
Comments:			
References			
0.5 ft = 0.15 m 1.0 ft = 0.30 m 1.5 ft = 0.45 m	Convert Celsius 20 = 68 21 = 69.8 22 = 71.6	to Fahrenheit 25 ≡ 77 26 ≡ 78.8 27 ≡ 80.6	
2.0 ft ≈ 0.60 m 2.5 ft ≈ 0.75 m	23 ≡ 73.4 24 ≡ 75.2	28 ≅ 82.4 29 ≡ 84.2	

Site Information
Site #: 1121 (SELCOCK) Subsegment: 040603 Date: 6/9/08 Time: 1325
Waterbody: Scheets Eveck
Staff Gauge 1: Gauge Reight 1:
Site Location! downstream of Wein berger Rd-
Personnel: 6 y/ Stewart Board
Type of Work: Recon   Data Collection
Weather Conditions:         Temperature (F):         Wind (mph):         Wind Direction:           Clear ☐         Hot >85° ☐         <1 ☐
Cloud Cover. 0 -10%
Stream Characteristics: Waterbody Type: Stream Characteristics  Waterbody Type: Stream Characteristics  Downstream Downstream Characteristics
Clawing: Measurable Flow: Flow Direction Opsireal.
Wind Influence: Wind Influence Direction: Upstream Countries Count
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present  Sedimentation/Turbidity Present in Water Column  26-50%  26-50%  26-50%  76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Proliting:
Water Obality Samples  Water Ouality Field Parameters
Time: Temp.( °C): pH: SpCond(µhmos/cm): D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID: Station #4
Water Level Monitor Deployed.  Type of Measurement: Wading Stationary Moving Boat  Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:  Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
GPS Measurement:  Site GPS:  Cross Section GPS:
All work is done within 100 yard radius of Site

,			·- · · · · · · · · · · · · · · · · ·
		*	Sile 1121 Dale: 6 9 08
Photos Taken:		Picture File #s:	
Tonada F			
Tapedown Estab Benchmark Estab		Tapedown Localid	n:
Survey Equipment	Used:	Benchmark Location	n:
Time of Travel Me Amount of C	asurement: [] )ye Injected (ml):	Type of Site: Inj	ection Callection
Stream Dry/ Stream Botti Sani Control Stru Type Land Use: A	Intermittent: Om: Sandy down:	Clay Gravel Gravel CRock/Gravel/Sit CLocation:	Hard Clay Soft Sill Concrete Log Jam Log Jam Striat Field/Pasture Wetland 51-75% 76-100%
Discharge N	: leasurement: W	ading Boat	Current
		Monitor Deployment:	5
Boat Access Bridge	ible:  Nearest Bridge Safe:	Launch:Bridge Height:	· ·
Time:	To / 20	Profiling Measure	
D.O.:	Temp.( °C D.O. %:	Salinity:	Spcond(µhmos/cm):  Depth (m):
Time: D.O.:	Temp.( °C D.O. %:	): pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Time: D.O.:	Temp.( °C D.O. %:	Salinity:	Spcond(µhmos/cm):  Depth (m):
Surface.	Ter depth	b 1'9"; m	neter deployed 7" below
	·	· .	
References			
Convert Feet to Meters	Convert Celsius	to Fabreobeit	
0.5 ft ≈ 0.15 m	20 <u>=</u> 6S	25 ≥ 77	
1.0 ft ± 0.30 m	21 ≡ 69.8	26 ∉ 78.8	
1.5 ft ≘ 0.45 m	22 = 71.6	27 ≡ 80.6	
2.0 fi ≡ 0.60 m	23 ≅ 73.4	28 ≘ 82.4	
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 = 84.2	

Site Information
Site #: 1121 (SELC 006) Subsegment: 046603 Date: 6/10/08 Time: 1310
Walerbody: Selser's Creek
Tapedown 1: Staff Gauge 1: Gauge Height 1:
Site Location! downstream of weinberger va
Personnel: Guyl, Stewart Brand
Type of Work: Recon   Data Collection
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear ☐         Hol >85° ☐         <1 ☐
Cloud Cover. 0 -10% 11 - 40% 5 4170% 71 - 100% 1
Stream Characteristics: Waterbody Type: Stream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Present in Water Column  Algae Present Sedimentation/Turbidity Present in Water Column  1-25% 26-50%  1-25% 26-50%  76-100%  76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
•
Time: Temp.( °C): pH: SpCond(µhmos/cm): Secchi (in):
Time: Temp.(-C): Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID: 42505
Commoda Moment
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
loctorment ID:
Stream Velocity Monitor Deployed [ ] Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (It): Time (s):
Left Descending Bank Distance (II): Time (s):
Salhomelar
Cross Section Measurement: Type of Measurement Manual: Fathometer D:
GPS Measurement:  Sile GPS:  Cross Section GPS:  GPS Measurement:
All work is done within 100 yard radius of Site

			Site 1121 Date: 6/10/08
Photos Taken:		Picture File #s:	
Tapedown Estab Benchmark Estab Survey Equipment	lished:	Tapedown Location: Benchmark Location:	
Time of Travel Me Amount of (	asurement:   Dye Injected (ml):	Type of Site: Injec	ction Collection
Stream Dryi Stream Bott San Control Stru Type Land Use: A	Intermittent: Om: Sandy Com: Sandy Cod/Silt Recture Present: Code: Man Made Dam Griculture Forester Canopy Cover 0-2	lay Gravel Gravel Dock/Gravel/Silt Docation: Flow Regulation D	Allered Waterbody:   Hard Clay
Discharge M Boat Access	Continuous M	lonitor Deployment: Fi	Stream Depth (ft):
Time:	Temp.( °C): D.O. %:	pH:	Spcond(µhmos/cm): Depth (m): Spcond(µhmos/cm): Depth (m):
D.O.:	D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
eferences			
0.5 ft = 0.15 m	Convert Celsius 10 20 ± 68	Fabrenheit 25 ≡ 77	
1.0 ft $\equiv 0.30 \text{ m}$ 1.5 ft $\equiv 0.45 \text{ m}$ 2.0 ft $\cong 0.60 \text{ m}$	21 = 69.8 22 = 71.6 23 = 73.4	26 ≘ 78.8 27 ≡ 30.6	
2.5 ñ ≡ 0.75 m	23 ≘ 73.4 24 ≡ 75.2	28 ≡ 82.4 29 ≅ 84.2	

Site Information
Site #: 1/21 Subsegment: 040603 Date: 6-11-08 Time: 1200  Waterbody: Selsov's Creek  12.1-0 Staff Gauge 1: Gauge Height 1:
Site #: 1121 Subsequient O 7040
Taradawa 1: / C-100 Statt Gauge 1.
Site Location! downstream of Weinberger Rd- bridge
Personnel: S. Beard, G. LAFleur
<b>S</b>
Type of Work. Wind Direction:
Weather Conditions: Temperature ( F). WW □ N □ NE □
Clear (X)
Drizzle/Light Hain
Cloud Cover. 0 −10% ☐ 11 − 40% ⊠ 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics: Waterbody Type: Stream Stream Stream Downstream Tidally Influenced:
Measurable Flow: IX Flow Direction Opsiream C
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present S Sedimentation/Turbidity Present in Water Column S 26-50%
Algae Present Sedimentation (1000) 1-25%  26-50%  26-50%  26-50%  76-100%  26-50%  26
Water Quality Samples Taken: ₩ Water Quality Field Parameters: ₩ Profiling: ☐
Water Quality Samples Total Samples Water Quality Field Parameters
20 00 000 000 000 000 000 000 000 000 0
Time: 1200 Temp.(°C): 28.55 pH: 7.14 SpCond(μhmos/cm): 298.)  D.O.: 3.58 D.O. %: 46.1 Salinity: 0.14 Depth (m): 0.5 Secchi (in): 30
0.0.: 3,58 D.O. %: 46/ Salinity: 0,71
InSitu Probe ID: LDO 25
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: C Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement:  Type of Measurement: Wading Stationary Moving Boal
Instrument ID: RC30B
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):  Mid Stream Distance (II): Time (s):
Mid Stream Distance (ii).
Lett Descending Bank Distance (II): Time (s):  Section Measurement: Type of Measurement Manual: Fathometer
Cross Section Mesos
Fathometer ID:
GPS Measurement: Site GPS: Cross Section GPS: C
All work is done within 100 yard radius of Site

			Sile 1121 Dale: 6-11-08
Photos Taken:	 <del> </del>	Picture File #s:	
Tapedown Estab Benchmark Estab Survey Equipment	lished [7]	Tapedown Locati	ion:
Time of Travel Me Amount of (	asurement:   Dye Injected (ml):	Type of Site: In	njection Callection
Physical Site Cha. Man Stream Dry. Stream Bolt San Control Stru Type Land Use: A	racteristics: Natural Made Waterbody: Intermittent: Omerows Sandy Odd/Sitt Omerows Sandy Od	Clay Gravel Gravel Clay Gravel Clay Gravel Silt Clay Cocalion:	Concrete Dam Log Jam
Discharge N	Continuous N	Monitor Deployment:	Fixed: Bouy:
Time: D.O.: Time: D.O.:	Temp.( °C): D.O. %;	pH: Salinity:	
Comments:		commy.	Depth (m);
teferences			
0.5 ft = 0.15 m 1.0 ft = 0.30 m 1.5 ft = 0.45 m 2.0 ft = 0.60 m 2.5 ft = 0.75 m	Convert Celsius II 20 ≡ 68 21 ≅ 69.8 22 ≡ 71.6 23 ≡ 73.4	25 ≥ 77 26 ≈ 78.8 27 = 80.6 28 ≥ 82.4	
	24 ≥ 75.2	29 ≡ 84.2	

Site Information
Site #: 1/2/ Subsegment: 040603 Date: 6-12-08 Time: 1/00
Colonic (seek
Tanadows 1: 17.38 Staff Gauge 1: Gauge Height 1:
Sile Location : Jauns Tream of Weinberger Na.
Personnel: G. LAFleur, S. Beard
Type of Work: Recon ☐ Data Collection ☑
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear S         Hot >85° S         <1 □
Cloud Cover. 0 -10% ☐ 11 - 40% ☑ 41 - 70% ☐ 71 - 100% ☐
Stream Characteristics: Waterbody Type: Stream  Flowing: Measurable Flow: Flow Direction Upstream Downstream  Wind Influence: Downstream  Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present X Sedimentation/Turbidity Present in Water Column X Algae Present X Sedimentation/Turbidity Present in Water Column X 26-50% ☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☑ 26-50% ☐ 76-100% ☐
Water Quality Samples Taken: Water Quality Field Parameters: ☐ Profiling: ☐
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm):
D.O.: D.O. %: Salinity: Oepth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
lectument ID:
Stream Velocity Monitor Deployed [ Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): Time (s):
'Mid Stream Distance (It): Time (s):
Lett Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Fathometer ID:
Site GPS: □ Cross Section GPS: □
GPS Measurement:

1 All work is done within 100 yard radius of Sile

Site 1/2/ Date: 6-/2-08	
Photos Taken: Picture File #s:	
Tapedown Established: Tapedown Localion:  6enchmark Established: Benchmark Location:  Survey Equipment Used:	
Time of Travel Measurement: Type of Site: Injection Collection  Amount of Dye Injected (ml):	==
Physical Site Characteristics: Natural Waterbody:   Man-Made Waterbody:   Stream Dry/Intermittent:   Stream Bottom: Sandy:   Clay:   Gravel: Hard Clay:   Soft Sit:   Sand/Sit:   Control Structure Present:  Location:   Type: Man Made Dam:  Flow Regulation Device:  Beaver Dam:  Log Jam:  Percent Tree Canopy Cover 0-25%:  26-50%:  51-75%:  76-100%:	_
Recon Information: Discharge Measurement: Wading	
Profiling Measurements:           Time:         Temp.( °C):         pH:         Spcond(μhmos/cm):           D.O.:         Salinity:         Depth (m):           Time:         Temp.( °C):         pH:         Spcond(μhmos/cm):           D.O.:         D.O.%:         Salinity:         Depth (m):           Time:         Temp.( °C):         pH:         Spcond(μhmos/cm):           D.O.:         D.O.%:         Salinity:         Depth (m):	5
Comments:	
References  Convert Feet to Meters — Convert Celsius to Fabrenbeit  0.5 ft = 0.15 m = 20 = 68 = 25 = 77	
1.0 ft = 0.30 m 21 = 69.8 26 = 78.8 1.5 ft = 0.45 m 22 = 71.6 27 = 80.6 2.0 ft = 0.60 m 23 = 73.4 28 = 82.4 2.5 ft = 0.75 m 24 = 75.2 29 = 84.2	

Site Information
Site #: (121Subsegment: 04/0603Data: 6-13-08 Time: 102-0
1 Const
Tapedown 1: Stan Garden of Weinberger Rd.
Personnel: S. Beard, T. Hicks, A. Tieben, Ty. 1085
Type of Word (mob): Wind Direction:
Weather Conditions:         Temperature (*F):         WIII (mgst):         NW □ N □ NE □           Clear         Hot >85° □         <1 □
Overcast Warm > 75° 150 E W Drizzle/Light Rain Mild > 65° 50 S-10 Variable
Drizzle/Light Rain ☐ Mild > 65 ☐ 11-15 ☐ Variable ☐ Showers ☐ Cool > 60 ☐ 11-15 ☐ Variable ☐ Cold < 60 ° ☐ > 16 ☐
Cloud Cover. 0 -10%
Stream Characteristics: Waterbody Type: Stream 7
Waterbody Type: Stream  Waterbody Type: Stream  Flow Direction Upstream  Downstream  Tidally Influenced:  Flowing:  Neasurable Flow:  Flow Direction Upstream  Downstream
Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Aigae Present Sedimentation/Turbidity Present in Water Column California Sedimentation Sedim
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(µhmos/cm): Secchi (in):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
A S
Continuous Monitor Deployed: Continuous Monitor ID:  Continuous Monitor Depth (m):
Continuous Monitor Retrieved: Continuous Monitor Depth (11).  Retrieved Water Level Monitor Deployed: Instrument ID: Station # 4
Water Level Monitor Dapleysel: M Instrument ID: JAnn + 1
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Valority Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Velocity Commonwell
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (II): Time (s):
Left Descending Bank Distance (II):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Falhometer ID:
GPS Measurement: Site GPS: Cross Section GPS:
Gro mosson
All work is done within 100 year radius of Site

			Sile
Photos Taken:		Picture File #s:	
Tapedown Estab Senchmark Estab Survey Equipment	lished:	Tapedown Location: Benchmark Location:	
Time of Travel Me Amount of I	asurement:   Dye Injected (ml);	Type of Site: Injecti	on Collection
Stream Dry, Stream Bolt San Control Stru Type Land Use: A	Intermittent: Com: Sandy Com: Sandy Com: Sandy Com: Com: Com: Com: Com: Com: Com: Com:	ay Gravel Ock/Gravel/Sill Cock/Gravel/Sill Cockion:	Hard Clay Soli Sili Concrete Seaver Dam Log Jam Crist Field/Pasture Welland Seaver Sea
Discharge M Boat Access	Continuous M	onitor Deployment: Fixe	Stream Depth (II):
Time:	Temp.( °C):	Salinity:	nts: Spcond(µhmos/cm): Depth (m): Spcond(µhmos/cm):
Time:	Temp.( °C):	Salinity:  ———————————————————————————————————	Depth (m):  Spcond(µhmos/cm):  Depth (m):
Comments: Wa	ter and	s level m	picked up at
References			
Convert Feet to Meters	Convert Celsius to	Fahrenbeit	
0.5 fi ≡ 0.15 m	20 ≘ 68	25 ≡ 77	
$1.0 \text{ ft} \approx 0.30 \text{ m}$	21 = 69.8	26 ≅ 78.8	*
1.5 ft ≥ 0.45 m 2.0 ft ≡ 0.60 m	22 ≘ 71.6	27 ≈ 80.6	
2.5 ft = 0.75 m	23 ≘ 73.4 24 ≘ 75.2	28 ≡ 82.4 29 ≡ 84.2	
		-r = 011.Z	

Site Information
Site #: 3663 Subsegment: 040603 Date: 6-10-08 Time: 14/0
$C \cdot H \cdot C / /$
Site Location!: downs treton of confluence with Selser's
Personnel: Beard, La Fleur
Type of Work: Recon ☐ Data Collection ☑
Weather Conditions:         Temperature (°F):         Wind (mph):         Wind Direction:           Clear □         Hol >85° □         <1 □
Cloud Cover. 0 −10% ☐ 11 − 40% Ø 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics: Waterbody Type: Stream  Flowing: Measurable Flow: Flow Direction Upstream Downstream  Wind Influence: Wind Influence: Downstream  Wind Influence: Wind Influence Direction: Upstream Downstream
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☒  Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☒ 26-50% ☐  51-75% ☐ 76-100% ☐
.   Water Quality Samples Taken:   Water Quality Field Parameters:   Profiling:
Water Quality Field Parameters
C=Cand(uhmos(cm):
Time: Temp.( °C): pH: SpCond(μhmos/cm): D.O.: D.O. %: Salinity: Depth (m): Secchi (in):
InSilu Probe ID:
Continuous Monitor Deployed:  Continuous Monitor ID: 43550  Continuous Monitor Depth (m): 0, 60
Continuous Monitor Retrieved:
Water Level Monitor Deployed: N Instrument ID: Station 3
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed [] Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (ft): Time (s):
Left Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Faihometer ID:
GPS Measurement: Site GPS: Cross Section GPS:
<sup>1</sup> All work is done within 100 yard radius of Site

			Site 3663 Date: 6-10-08
Photos Taken:		Picture File #s:	
Tapedown Estab Benchmark Estab Survey Equipment	lished: []	Tapedown Localio	n:
Time of Travel Me Amount of (	asurement: [] Dye Injected (ml):	Type of Site: Inj	ection Collection
Stream Dryi Stream Bolt San Control Stru Type Land Use: A Percent Tree	Intermittent:  om: Sandy Od/Sill  R d/Sill  R Collure Present:  Man Made Dam griculture  Fores e Canopy Cover 0-2	lay Gravel Gravel Cock/Gravel/Sill Cocation: Slow Regulation Iry Municipal Inc. 25% 25-50%	Concrete Dam Cog Jam Device Beaver Dam Cog Jam Dustrial Field/Pasture Welland S 51-75% 76-100
Discharge A	leasurement: Wa	ding Boat D	Stream Depth (II):
Boat Access Bridge	ible - Nearest I	aunch:Bridge Height:	
Time:	Ta ( 00)	Profiling Measurer	menis:
D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Time: D.O.:		pH; Salinity:	Spcond(µhmos/cm): Depth (m):
Time: D.O.:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/cm): Depth (m):
Comments:			
References			
Convert Feet to Meters	Convert Celsius to	Fahrenbeit	*
0.5 ft = 0.15 m	20 ≥ 68	25 ≡ 77	
1.0 ft ≡ 0.30 m	21 ≥ 69.8	26 ± 78.8	
$1.5 \text{ ft} \equiv 0.45 \text{ m}$	22 = 71.6	27 ≡ 80.6	
2.0 ft ≅ 0.60 m	23 ≡ 73.4	28 ≥ 82.4	
2.5 fc ≡ 0.75 m	24 ≡ 75.2	29 ≘ 84.2	

Field Sile Survey.doo Revision 4.1

Site Information
Site #: 3663 Subsegment: 040603 Date: 6 11 08 Time: 1410
( ) ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
Gauge Height 1:
Site Location T: downstream of confluence w Selser's Creek
Personnel: Lafteur Beard
Type of mount
Weather Conditions: Temperature NW N N N N N N N N N N N N N N N N N N
Clear
Drizzle/Light Hain ☐ Cool > 60° ☐ 11-15 ☐ Variable ☐ .
Cold < 60°L
Cloud Cover. 0 - 10% [] 11 - 40% [2] 41 - 70% [] 71 - 100% []
Stream Characteristics:
Waterbody Type: Stream Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence:   Wind Influence Direction: Upstream   Downstream
Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐
Algae Present Sedimentation/Turbidity Present in Water Column Algae Present Sedimentation/Turbidity Present in Water Column 26-50%
Algae Present Section 1-25% 26-50% Floating/Aquatic Vegetation % Surface Coverage: <1 1 1-25% 26-50% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Samples Takerite) Water Quality Field Parameters
Time: 1410 Temp.(°C): 28.55 pH: 6.81 SpCond(µhmos/cm): 375.9
00: 78-5 C. D.O. %: ##= 1 Saintly. OF (
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Betrieved: Continuous Monitor Depth (m):
Water Level Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID: Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s): Time (s):
Mid Stream Distance (ii).
Lett Descending Ballik Olstande (kf).
Cross Section Made
Fathometer IO:
GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐
***************************************

			Site 3663 Dale: 6/11/08
Photos Taken:		Picture File #s:	
Tapedown Establi		Tapedown Location:	
Benchmark Establis Survey Equipment C	shed: 🗌 Jsed: 🔲	Benchmark Localion:	
Time of Travel Mea	surement: [] ye Injected (mt):	Type of Site: Injec	tion Collection
Stream Dry/ir Stream Botto Sand Control Struct Type: Land Use: Ao	ntermitlent:  m: Sandy /Silt  fure Present:  Man Made Dam	Clay Gravel Gravel Gravel Gravel Gravel/Sill Goodlion: Gravel Gra	Altered Wateroody:   Hard Clay Soft Silt Concrete Log Jam Log Jam Striat Field/Pasture Welland S1-75% 76-100%
Recon Information:			
Discharge Me	easurement: W		Stream Depth (II):
		Monitor Deployment: Fix	red: Bouy: D
Boat Accessi Bridge	ble: Nearest ridge Safe:	Launch: Bridge Height:	
7:		Profiling Measureme	nis:
Time: D.O.:	Temp.( °C)	): pH;	C
Time: D.O.:	Temp.( °C) D.O. %:	: pH: Salinity:	Spcond(μhmos/cm): Depth (m):
Time:	Temp.( °C) D.O. %:	pH: Salinity:	Spcond(µhmos/cm):
Comments:			
References			
Convert Feet to Meters	Convert Celsius	to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≡ 77	
1.0 ft ± 0.30 m	21 ≥ 69.8	26 ≘ 78.8	
1.5 ft ≅ 0.45 m	22 ≘ 71.6	27 ≡ 30.6	4
2.0 fi = 0.60 m	23 ≘ 73.4	28 ≘ 82.4	
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2	

Site Information
Sile #: 3663 Subsegment: 040603 Date: 6-12-08 Time: 1150
waterbody: South Slough
Waterbody: South Slough Tapedown 1:  Site Location T: Sownstream of Confluence with Selser's
site Location: Lownstream of confluence with Selser's
Personnel: S. Beard, G. Lattleur
Type of Work: Recon ☐ Data Collection ☑
Wind Direction:
Clear
Overcast   Wallhamid For 6-10
Showers Cold < 60° >16 >
Cloud Cover. 0 −10% ☐ 11 − 40% ☑ 41 − 70% ☐ 71 − 100% ☐
Stream Characteristics:
Waterbody Type: Stream  Waterbody Type: Stream  Flow Direction Upstream  Downstream  Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Upownstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
On the potation (Turbirdity Present in Water Column
Algae Present ☐ Sedimentation Follows ☐ 1-25% ☒ 26-50%☐ Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☒ 76-100%☐ 76-100%☐
Water Quality Samples Taken: Water Quality Field Parameters: Proliting:
Water Quality Field Parameters
Time: Temp.( °C): pH: SpCond(μhmos/cm): D.O.: D.O.%: Salinity: Depth (m): Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Retrieved: Continuous Monitor Depth (m):
Water Lavel Monitor Deployed: Instrument ID:
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID:
Stream Velocity Monitor Deployed Instrument ID:
Velocity Estimated: Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (II): Time (s):
Mid Stream Distance (ft): Time (s):
Leli Descending Bank Distance (II): Time (s):
Cross Section Measurement: Type of Measurement Manual: Fathometer
Cross Section Measurement: Type of Measurement:
GPS Measurement: C
All work is done within 100 yard radius of Site

			Sile 3663	Dale: 6-12-08
Photos Taken: [	]	Picture File #s:		
Tapedown Estat	dished:	Tapedown Localic	on:	
Survey Equipmen	Used:	benchmark Localio	n:	
Time of Travel Me Amount of	easurement: [] Dye Injected (ml);	Type of Site: In	ection Coffection	
Stream Dry Stream Bot Sar Control Stru Type Land Use: A	/Intermittent:  tom: Sandy  tom: Sandy  chd/Silt   Ricture Present:   E: Man Made Dam  Agriculture   Fores  e Canopy Cover 0-:	Clay Gravel Rock/Gravel/Sill  ocation:	Concrete Device Beaver Dadustrial Field/Pasture	Soft Sift [
Discharge I	Measurement: Wa  Continuous M  sible:   Nearest I	Monitor Deployment:	Stream Depth (it):_ Fixed: Bouy: D	
=	pridge Sale:	Bridge Height:		
Time: D.O.:	Temp.( °C): D.O. %:	Profiling Measure pH: Salinity:	Connedt L	'cm):
Time: D.O.;	Temp.( °C): D.O. %:	Salinity: _	Spcond(µhmos/ Depth (m):	cm):
Time:	Temp.( °C): D.O. %:	pH: Salinity:	Spcond(µhmos/ Depth (m):	cm):
Comments:		ı,		
	·			
			,	
eferences				
onvert Feet to Meters	Convert Celsius II	Fabrenheit		
0.5 ft = 0.15 m	20 ≡ 68	25 ≡ 77		
1.0 ñ ≥ 0.30 m	21 ≈ 69.8	26 = 78.8		
$1.5~\mathrm{ft} \equiv 0.45~\mathrm{m}$	22 ≣ 71.6	27 ≡ 30.6		
2.0 fi = 0.60 m	23 ≘ 73.4	28 ≘ 82.4		
$2.5~\mathrm{ft}\equiv0.75~\mathrm{m}$	2-1 = 75.2	29 = 84.2		

Site Information
Site #: 3663 Subsegment: 040603 Date: 6-73-08 Time: 1055
St St St St St
Waterbody: Gauge Height 1:
Tapedown 1: Stall Gauge 1: Gauge Height 1:  Site Location to downs trans of confluence with Selser's Cr.
Site Location!: County ( Commerce and )
Personnel: S- Beard, T. Hicks
Type of Work: Recon ☐ Data Collection ☑ .
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction: NW □ N □ N □ N □ □
Weather Conditions:       1.5 NW N NE N
Drizzle/Light Rain
Cold < 60° ☐ >16 ☐
Cloud Cover. 0-10% 11-40% 41-70% 71-100% 1
Stream Characteristics: Waterbody Type: Stream Steen Discoing Undergood Downstream Tidally Influenced:
Clowing: Measurable Flow: Flow Direction Opsing The Provided Top Street Top S
Wind Influence: Direction: Upstream Downstream
Waterbody Type: Lake Wind Influence: Tidally Influenced:
Algae Present Sedimentation/Turbidity Present in Water Column 26-50%
Algae Present Sedimentation/Turbuoty Present 26-50% Floating/Aquatic Vegetation % Surface Coverage: <1 1 1-25% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Water Quality Field Parameters
Time:       Temp.( °C):       pH:       SpCond(μhmos/cm):         D.O.:       D.O. %:       Salinity:       Depth (m):       Secchi (in):
InSitu Probe ID:
Continuous Monitor Deployed: Continuous Monitor ID:
Continuous Monitor Depth (m):
Water Level Monitor Septement ID: Station 3
Flow Measurement: Type of Measurement: Wading Stationary Moving Boat
Instrument ID: Instrument ID:
Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Sisters (1)
Mid Stream distance (ii).
Left Descending Bank Distance (it).
Cross Section Measurement: Type of Measurement Manual: Faihometer
Fathometer IO:
GPS Measurement: Sile GPS: Cross Section GPS:
All work is done within 100 yard radius of Sile

			Sile 3663 Dale: 6-13-08
Photos Taken:		Picture File #s:	
Tapedown Estat Benchmark Estat Survey Equipmen	lished:	Tapedown Location: Benchmark Location:	
Time of Travel Me	easurement:	Type of Site: Injection	
Amount of	Dye Injected (ml):		A
Stream Dry Stream Bot Sar Control Stru Type Land Use: A	/Intermittent: [] Itom: Sandy [] Cond/Silt [] R Iticlure Present: [] Lice   Lic	lay Gravel Gravel ock/Gravel/Silt Cock/Gravel/Silt Flow Regulation Dev	Hard Clay Soft Sill Concrete Log Jam rial Field/Pasture Welland 51-75% 76-100%
Recon Information	n: Measurement: Wa		
		donitor Deployment: Fixe	Siream Depih (II):
Boat Acces Bridge 🗌	sible - Newscott		- Souy: []
Time:	Taxa (100)	Profiling Measuremen	nis:
0.0.:	D.O. %:	pH: Salinity:	Spcond(µhmos/cm):  Depth (m):
D.O.:	Temp.( °C): D.O. %:		Spcond(µhmos/cm):
Time: D.O.:	Temp.( °C): D.O. %;	pH: Salinity:	Spcond(µhmos/cm):  Depth (m):
Comments:	ter leve	monitor re	trieved
References Convert Feet to Meters			
0.5 /i = 0.15 m	Convert Celsius In		
1.0 ft ≡ 0.30 m	20 ≥ 68	25 ≘ 77	
1.5 ft = 0.45 m	21 ≡ 69.8	26 = 78.8	
2.0 ft ≈ 0.60 m	22 ≅ 71.6	27 ≅ 80.6	
2.5 ft = 0.75 m	23 ≈ 73.4 24 ≡ 75.2	23 ≅ S2.4	
	24 ≡ 73.2	29 = 84.2	2

## Selsers Creek Survey

Site #:   Subsequent:   Office   Offi	Site Information	
State   Stat	Site #:	
Site Location   Siters   Care   Andertical cares	Waterbody: Calcar C. and	
Site Location   Siters   Care   Andertical cares	Tapedown 1: Staff Gauge 1: Gauge Height 1:	
Type of Work: Recon   Date Collection	Site Location : Selsers Canal at industrial access road	19
Weather Conditions:	Personnel: J. Earles, C. Ketto, B. Alleman	
Clear	Type of Work: Recon Data Collection	
Stream Characteristics:   NOT   Flow   Tidally Influenced:   Waterbody Type: Stream   NOT   Flow   Downstream   Tidally Influenced:   Waterbody Type: Stream   Wind Influence Direction: Upstream   Downstream   Tidally Influenced:   Wind Influence Direction: Upstream   Downstream   Downstream   Waterbody Type: Lake   Wind Influence:   Tidally Influenced:   Algae Present   Water Sedimentation/Turbidity Present in Water Column   Profit Ingle Profit Ingle Present   Water Column   Profit Ingle Present   Water Column   Profit Ingle Present   Profit Ingle Profit I	Nw   N   NE	
Water Douglity Stream   Measurement   Flow Direction Upstream   Downstream   Tidally Influenced:	Cloud Cover. 0 −10% ☐ 11 − 40% ☑ 41 − 70% ☐ 71 − 100% ☐	
Water Quality Samples Taken:   Water Quality Field Parameters:   Profiling:   Pro	Waterbody Type: Stream	u.
Water Quality Field Parameters  Time:	Floating/Aquatic Vegetation % Surface Coverage: <1   1-25% bd 26-30 %	
Time:		:73
Continuous Monitor Retrieved: Continuous Monitor Depth (m):  Water Level Monitor Deployed: Instrument ID:  Flow Measurement: Type of Measurement: Wading Stationary Moving Boat  Instrument ID:  Stream Velocity Monitor Deployed Instrument ID:  Velocity Estimated: Drogue Estimate: Dye Estimate:   Right Descending Bank Distance (II): Time (s):  Mid Stream Distance (II): Time (s):  Left Descending Bank Distance (II): Time (s):  Fathometer ID:  Fathometer ID:	Time: /// Sha Temp.(°C): 25.99 pH: 6.99 SpCond(μhmos/cm): 266.5  D.O.: 1.45 D.O. %: /8.1 Salinity: 0.13 Depth (m): Secchi (in):	
Continuous Monitor Retrieved: Continuous Monitor Depth (m):  Water Level Monitor Deployed: Instrument ID:  Flow Measurement: Type of Measurement: Wading Stationary Moving Boat  Instrument ID:  Stream Velocity Monitor Deployed Instrument ID:  Velocity Estimated: Drogue Estimate: Dye Estimate:   Right Descending Bank Distance (II): Time (s):  Mid Stream Distance (II): Time (s):  Left Descending Bank Distance (II): Time (s):  Fathometer ID:  Fathometer ID:	Continuous Monitor Deployed: Continuous Monitor ID:	
Water Level Monitor Deployed:		
Flow Measurement:	Commission (Commission Commission	
Instrument ID:  Stream Velocity Monitor Deployed Instrument ID:  Velocity Estimated: Drogue Estimate: Dye Estimate:   Right Descending Bank Distance (II): Time (s):  Mid Stream Distance (II): Time (s):  Left Descending Bank Distance (II): Time (s):  Fathometer ID:  Sin Cas: Description GPS: Des		
Stream Velocity Monitor Deployed Instrument ID:  Velocity Estimated: Drogue Estimate: Dye Estimate:   Right Descending Bank Distance (II): Time (s):   Mid Stream Distance (II): Time (s):   Left Descending Bank Distance (II): Time (s):   Cross Section Measurement: Type of Measurement Manual: Fathometer ID:   Sin Case: Cross Section GPS:   Cross		
Velocity Estimated:       □ Drogue Estimate:       □ Dye Estimate:         Right Descending Bank Distance (II):       Time (s):         Mid Stream Distance (II):       Time (s):         Left Descending Bank Distance (II):       Time (s):         Cross Section Measurement:       Type of Measurement Manual:       Fathometer □	Instrument ID:	
Right Descending Bank Distance (II): Time (s):  Mid Stream Distance (II): Time (s):  Left Descending Bank Distance (II): Time (s):  Cross Section Measurement: Type of Measurement Manual: Faithometer  Fallhometer ID:	Stream Velocity Monitor Deployed (	
Mid Stream Distance (II): Time (s):  Left Descending Bank Distance (II): Time (s):  Cross Section Measurement: Type of Measurement Manual: Fathometer  Fathometer ID:	Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐	
Left Descending Bank Distance (II): Time (s):  Cross Section Measurement: Type of Measurement Manual: Fathometer  Fathometer ID:	right besterioning some time.	
Cross Section Measurement: Type of Measurement Manual: Fathometer   Fathometer   Fathometer   Cross Section GPS:	WIO October 5 to 1	
Falhometer ID:	Left Descending Data States (1)	
City Case C Cross Section GPS:	Cross Section Measurement: Type of Measurement Manual: 🖸 Fathometer	
GPS Measurement:  Site GPS: Cross Section GPS:	Falhometer ID:	
	GPS Measurement:  Site GPS: Cross Section GPS:	

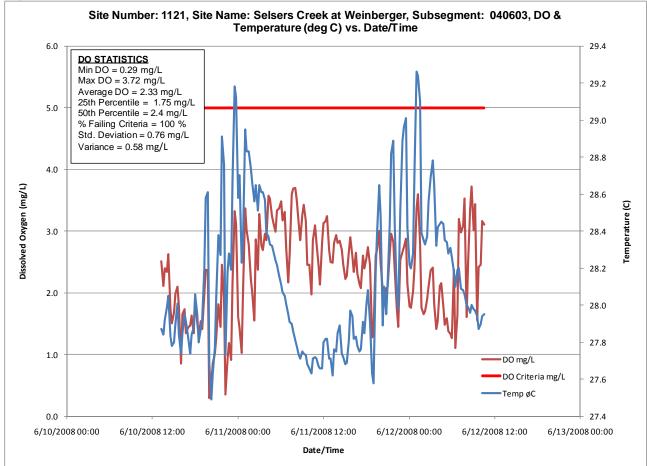
† All work is done within 100 yard radius of Site

Site 3464 Date: 06/11/08	•
Photos Taken: ☐ Picture File #s:	
	_
Tapedown Established: Tapedown Location:	
Benchmark Established: Benchmark Location:	
Survey Equipment Used:	
Time of Travel Measurement: Type of Site: Injection Collection Amount of Dye Injected (ml):	
Physical Site Characteristics: Natural Waterbody:  Man Altered Waterbody:  Stream Dry/Intermittent:	
Stream Boltom: Sandy Clay Gravel Hard Clay Soft Silt Cand/Silt PRock/Gravel/Silt Concrete Cand/Silt Candrol Structure Present: Location:	
Type: Man Made Dam : Flow Regulation Device : Beaver Dam : Log Jam ! Land Use: Agriculture : Forestry : Municipal : Industrial : Field/Pasture : Wetland : Percent Tree Canopy Cover 0:25% : 26-50% : 51-75% : 76-100% : T6-100% :	<u> </u>
Recon Information: Discharge Measurement: Wading Boat Stream Depth (ft):	
Continuous Monitor Deployment: Fixed: Bouy: C	
Boat Accessible: ☐ Nearest Launch: Bridge ☐ Bridge Sate: ☐ Bridge Height:	
Profiling Measurements:	
Time: Temp.( °C); PH: Spcond(μhmos/cm):  D.O.: D.O. %: Salinity: Depth (m):	
Time: Temp.( °C); pil: Spcond(μhmos/cm): D.O.; D.O. %: Salinity: Depth (m):	
Time: Temp.( °C): pH: Spcond(μhmos/cm): D.O. ; D.O. %: Salinity: Depth (m):	
Comments:	
N. C.	
Ž:	
Defendance	
References  Convert Feet to Meters  Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m 20 ≡ 68 . 25 ≡ 77	
1.0 ft ≡ 0.30 m 21 ≡ 69.8 ·26 ≡ 78.8	
1.5 ft ≅ 0.45 m 22 ≅ 71.6 . 27 ≅ 80.6	
2.0 ft ≡ 0.60 m 23 ≡ 73.4 . , 28 ≡ 82.4	
2,5 ft ≡ 0.75 m 24 ≡ 75.2 29 ≡ 84.2	

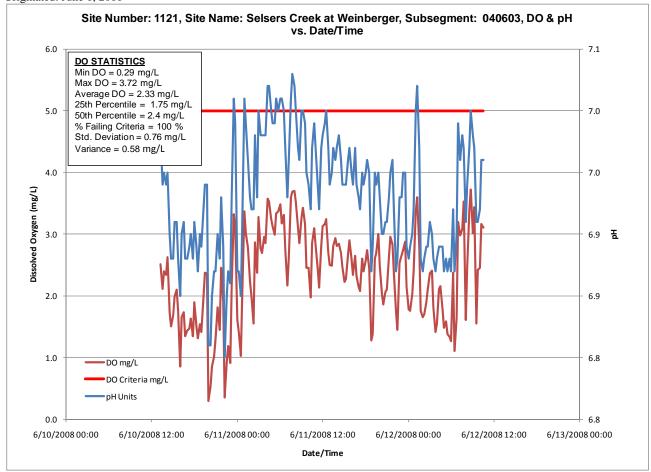
## Appendix F4 – Continuous Monitor

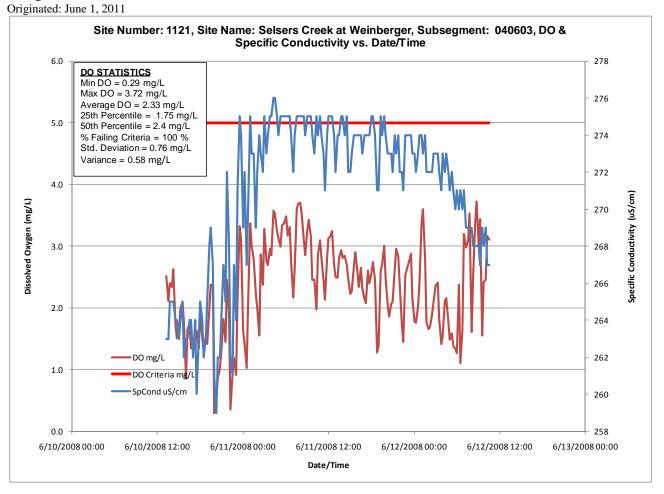
Ţ.						
Selsers Creek (040603)						
Continuous Monitoring Averages						
Site ID	Temp	рН	Sp Cond	DO Sat	DO	
1121	28.14	6.93	270.88	29.88	2.33	
3653	28.60	7.26	210.35	64.60	4.99	
3655	28.42	7.37	385.27	62.66	4.71	
3656	25.43	6.81	154.75	26.09	2.14	
3657	28.44	7.32	337.54	56.26	4.31	
3659	28.04	7.85	314.16	97.17	7.44	
3660	26.31	7.06	232.13	35.78	2.88	
3661	27.60	7.74	283.89	92.24	7.18	
3663	29.13	6.79	267.70	37.81	2.89	
	Solo	ore Cro	ok (040	603)		
	26120	eis Cie	ek (040	003)		
С	ontinuo	us Mon	itoring N	/linimun	ns	
Site ID	Temp	рН	Sp Cond	DO Sat	DO	
1121	27.49	6.80	259.00	3.70	0.29	
3653	23.96	6.84	176.00	53.80	4.29	
3655	24.85	7.15	361.00	25.30	1.99	
3656	23.55	6.75	149.00	19.30	1.51	
3657	25.58	7.17	328.00	25.40	2.06	
3659	24.14	7.26	299.00	47.50	3.77	
3660	24.66	7.01	223.00	29.20	2.34	
3661	24.85	7.40	271.00	52.90	4.31	
3663	28.01	6.65	246.00	18.90	1.47	
	Solo	ore Cro	ek (040	6U3)		
			•	•		
Co	ontinuo	us Mon	itoring $N$	1aximur	ms	
Site ID	Temp	рН	Sp Cond	DO Sat	DO	
1121	29.26	7.03	276.00	47.60	3.72	
3653	35.49	8.01	248.00	96.00	6.98	
3655	35.26	8.11	416.00	168.70	11.66	
3656	28.53	6.84	159.00	34.20	2.71	
3657	31.71	7.57	365.00	108.90	7.99	
3659	33.79	8.97	332.00	200.80	14.53	
3660	28.06	7.15	243.00	45.70	3.60	
3661	31.11	8.45	295.00	171.40	12.81	
3663	30.52	6.96	308.00	65.20	4.97	





Originated: June 1, 2011





Site Number:	1121	Site Name:	Selsers Creek at	Weinb	erger
Subsegment #:	40603				
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L
Minimum	27.49	6.80	259.00	3.70	0.29
Maximum	29.26	7.03	276.00	47.60	3.72
Average	28.14	6.93	270.88	29.88	2.33
Geometric Mean	28.14	6.93	#NUM!	27.94	2.16
25th Percentile	27.83	6.89	268.00	22.43	1.75
30th Percentile	27.86	6.90	269.00	24.26	1.89
40th Percentile	27.94	6.92	272.00	27.46	2.15
50th Percentile	28.05	6.94	272.50	30.85	2.40
Standard Deviation	0.40	0.05	4.27	9.61	0.76
Variance	0.16	0.00	18.20	92.27	0.58
Data Row Count		182			
Total Values					
Failing DO Criteria		182			
Percent failing DO					
Criteria		100.00	%		

## Selsers Creek, Site 1121, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	13:15:00	27.9	7.0	263	32	2.5	0.1
6/10/2008	13:30:00	27.8	6.9	263	27	2.1	0.1
6/10/2008	13:45:00	27.9	7.0	265	31	2.4	0.1
6/10/2008	14:00:00	28.0	6.9	265	30	2.3	0.1
6/10/2008	14:00:00	28.1	7.0	265	34	2.6	0.1
6/10/2008	14:30:00	27.8	6.9	264	22	1.7	0.1
6/10/2008	14:30:00	27.8 27.8	6.9	264	19	1.7	0.1
6/10/2008	15:00:00	27.8 27.8	6.9	263	21	1.7	0.1
6/10/2008	15:00:00	27.8 27.9	6.9	263 264	25	2.0	0.1
		28.0		265	25 27	2.0	
6/10/2008	15:30:00 15:45:00		6.9				0.1
6/10/2008		27.8	6.9	262	23	1.8	0.1
6/10/2008	16:00:00	27.7	6.9	263	11	0.9	0.1
6/10/2008	16:15:00	27.9	6.9	263	21	1.7	0.1
6/10/2008	16:30:00	28.0	6.9	264	22	1.7	0.1
6/10/2008	16:45:00	27.9	6.9	264	17	1.4	0.1
6/10/2008	17:00:00	27.8	6.9	262	18	1.4	0.1
6/10/2008	17:15:00	27.7	6.9	264	19	1.5	0.1
6/10/2008	17:30:00	27.8	6.9	260	21	1.6	0.1
6/10/2008	17:45:00	27.9	6.9	263	17	1.4	0.1
6/10/2008	18:00:00	28.1	6.9	265	24	1.9	0.1
6/10/2008	18:15:00	28.0	6.9	264	19	1.5	0.1
6/10/2008	18:30:00	27.8	6.9	262	17	1.3	0.1
6/10/2008	18:45:00	27.9	6.9	263	20	1.5	0.1
6/10/2008	19:00:00	27.9	6.9	265	18	1.4	0.1
6/10/2008	19:15:00	28.2	6.9	268	25	2.0	0.1
6/10/2008	19:30:00	28.6	6.9	269	31	2.4	0.1
6/10/2008	19:45:00	28.6	6.9	267	31	2.4	0.1
6/10/2008	20:00:00	27.7	6.8	261	4	0.3	0.1
6/10/2008	20:15:00	27.5	6.8	259	7	0.5	0.1
6/10/2008	20:30:00	27.6	6.9	262	11	0.9	0.1
6/10/2008	20:45:00	27.8	6.9	262	13	1.0	0.1
6/10/2008	21:00:00	28.1	6.9	264	17	1.3	0.1
6/10/2008	21:15:00	28.4	6.9	267	23	1.8	0.1
6/10/2008	21:30:00	28.3	6.9	265	19	1.5	0.1
6/10/2008	21:45:00	28.9	6.9	272	32	2.5	0.1
6/10/2008	22:00:00	28.8	6.9	268	25	1.9	0.1
6/10/2008	22:15:00	27.7	6.8	262	5	0.4	0.1
6/10/2008	22:30:00	28.2	6.9	261	12	0.9	0.1
6/10/2008	22:45:00	28.3	6.9	267	15	1.2	0.1
6/10/2008	23:00:00	28.2	6.9	264	12	0.9	0.1
6/10/2008	23:15:00	28.7	6.9	271	28	2.2	0.1
6/10/2008	23:30:00	29.2	7.0	275	43	3.3	0.1
6/10/2008	23:45:00	29.1	7.0	274	41	3.1	0.1
6/11/2008	0:00:00	28.6	6.9	269	21	1.6	0.1
6/11/2008	0:15:00	28.7	6.9	272	19	1.4	0.1
6/11/2008	0:30:00	28.2	6.9	267	13	1.0	0.1
6/11/2008	0:45:00	28.4	6.9	270	27	2.1	0.1
6/11/2008	1:00:00	29.0	7.0	275	44	3.4	0.1
6/11/2008	1:15:00	28.8	7.0	273	39	3.0	0.1

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 04							
Originated: Jun		00.0	7.0	070	00	0.0	0.4
6/11/2008	1:30:00	28.8	7.0	273	36	2.8	0.1
6/11/2008	1:45:00	28.7	6.9	269	29	2.2	0.1
6/11/2008	2:00:00	28.7	6.9	272	26	2.0	0.1
6/11/2008	2:15:00	28.6	6.9	274	20	1.6	0.1
6/11/2008	2:30:00	28.7	7.0	273	37	2.9	0.1
6/11/2008	2:45:00	28.5	6.9	272	31	2.4	0.1
6/11/2008	3:00:00	28.7	7.0	275	42	3.3	0.1
6/11/2008	3:15:00	28.6	7.0	273	36	2.8	0.1
6/11/2008	3:30:00	28.6	7.0	274	35	2.7	0.1
6/11/2008	3:45:00	28.6	7.0	275	38	3.0	0.1
6/11/2008	4:00:00	28.4	7.0	275	37	2.9	0.1
6/11/2008	4:15:00	28.4	7.0	276	46	3.6	0.1
6/11/2008	4:30:00	28.3	7.0	276	45	3.5	0.1
6/11/2008	4:45:00	28.3	7.0	275	42	3.2	0.1
6/11/2008	5:00:00	28.3	7.0	274	40	3.1	0.1
6/11/2008	5:15:00	28.2	7.0	275	38	3.0	0.1
6/11/2008	5:30:00	28.2	7.0	275	43	3.3	0.1
6/11/2008	5:45:00	28.2	7.0	275	43	3.4	0.1
6/11/2008	6:00:00	28.1	7.0	275	45	3.5	0.1
6/11/2008	6:15:00	28.1	7.0	275	41	3.2	0.1
6/11/2008	6:30:00	28.1	7.0	275	42	3.3	0.1
6/11/2008	6:45:00	28.0	7.0	274	35	2.8	0.1
6/11/2008	7:00:00	28.0	6.9	272	28	2.2	0.1
6/11/2008	7:15:00	27.9	7.0	274	33	2.6	0.1
6/11/2008	7:30:00	27.9	7.0	275	46	3.6	0.1
6/11/2008	7:45:00	27.9	7.0	275	47	3.7	0.1
6/11/2008	8:00:00	27.8	7.0	275	47	3.7	0.1
6/11/2008	8:15:00	27.8	7.0	275	45	3.5	0.1
6/11/2008	8:30:00	27.7	7.0	275	40	3.1	0.1
6/11/2008	8:45:00	27.7	7.0	274	36	2.9	0.1
6/11/2008	9:00:00	27.8	7.0	275	42	3.3	0.1
6/11/2008	9:15:00	27.7	7.0	275	44	3.4	0.1
6/11/2008	9:30:00	27.7	7.0	275 275	44	3.4	0.1
6/11/2008	9:45:00	27.7	7.0	273 274	31	2.5	0.1
6/11/2008	10:00:00	27.7	6.9	273	31 25	2.5	0.1
6/11/2008	10:15:00	27.6	6.9	275	25	2.0	0.1
6/11/2008	10:30:00	27.7	7.0	274	36 30	2.9	0.1
6/11/2008	10:45:00	27.7	7.0	275	39	3.1	0.1
6/11/2008	11:00:00	27.7	7.0	274	36	2.8	0.1
6/11/2008	11:15:00	27.7	6.9	273	31	2.4	0.1
6/11/2008	11:30:00	27.7	6.9	271	27	2.1	0.1
6/11/2008	11:45:00	27.7	7.0	274	36	2.8	0.1
6/11/2008	12:00:00	27.8	7.0	275	40	3.1	0.1
6/11/2008	12:15:00	27.8	7.0	275	40	3.2	0.1
6/11/2008	12:30:00	27.8	7.0	275	41	3.2	0.1
6/11/2008	12:45:00	27.7	7.0	274	34	2.7	0.1
6/11/2008	13:00:00	27.7	6.9	272	32	2.5	0.1
6/11/2008	13:15:00	27.6	7.0	274	32	2.5	0.1
6/11/2008	13:30:00	27.8	7.0	274	36	2.8	0.1
6/11/2008	13:45:00	27.8	7.0	275	37	2.9	0.1
6/11/2008	14:00:00	27.9	7.0	275	36	2.8	0.1
6/11/2008	14:15:00	27.9	7.0	274	36	2.8	0.1
6/11/2008	14:30:00	27.7	7.0	275	34	2.7	0.1

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0							
Originated: Ju							
6/11/2008	14:45:00	27.7	6.9	272	32	2.5	0.1
6/11/2008	15:00:00	27.7	6.9	272	28	2.2	0.1
6/11/2008	15:15:00	27.7	6.9	273	29	2.3	0.1
6/11/2008	15:30:00	27.8	7.0	274	34	2.7	0.1
6/11/2008	15:45:00	28.0	7.0	274	37	2.9	0.1
6/11/2008	16:00:00	27.9	7.0	274	33	2.6	0.1
6/11/2008	16:15:00	27.8	6.9	274	30	2.3	0.1
6/11/2008	16:30:00	27.8	7.0	274	34	2.7	0.1
6/11/2008	16:45:00	27.8	6.9	273	30	2.3	0.1
6/11/2008	17:00:00	27.8	6.9	274	27	2.2	0.1
6/11/2008	17:15:00	27.8	6.9	274	27	2.1	0.1
6/11/2008	17:30:00	27.9	7.0	274	33	2.6	0.1
6/11/2008	17:45:00	27.9	6.9	274	31	2.4	0.1
6/11/2008	18:00:00	28.0	7.0	275	33	2.6	0.1
6/11/2008	18:15:00	28.1	7.0	275	35	2.7	0.1
6/11/2008	18:30:00	27.9	7.0	274	31	2.5	0.1
6/11/2008	18:45:00	27.6	6.9	271	16	1.3	0.1
6/11/2008	19:00:00	27.6	6.9	271	18	1.4	0.1
6/11/2008	19:15:00	28.2	7.0	275	33	2.6	0.1
6/11/2008	19:30:00	28.4	6.9	274	35	2.7	0.1
6/11/2008	19:45:00	28.7	7.0	275	39	3.0	0.1
6/11/2008	20:00:00	28.5	6.9	273	32	2.5	0.1
6/11/2008	20:00:00	27.9	6.9	274	26	2.0	0.1
6/11/2008	20:30:00	28.1	6.9	273	24	1.9	0.1
6/11/2008	20:45:00	28.0	6.9	273	26	2.1	0.1
6/11/2008	21:00:00	28.1	6.9	272	27	2.1	0.1
6/11/2008	21:15:00	28.4	6.9	274	34	2.6	0.1
6/11/2008	21:30:00	28.8	7.0	273	38	3.0	0.1
6/11/2008	21:45:00	28.9	7.0	274	37	2.8	0.1
6/11/2008	22:00:00	28.4	6.9	272	31	2.4	0.1
6/11/2008	22:15:00	28.1	6.9	272	22	1.8	0.1
6/11/2008	22:30:00	28.0	6.9	271	19	1.5	0.1
6/11/2008	22:45:00	28.5	6.9	274	33	2.5	0.1
6/11/2008	23:00:00	28.9	6.9	274	35	2.7	0.1
6/11/2008	23:15:00	29.0	7.0	274	36	2.7	0.1
6/11/2008	23:30:00	29.0	7.0	274	38	2.9	0.1
6/11/2008	23:45:00	28.4	6.9	273	28	2.2	0.1
6/12/2008	0:00:00	28.2	6.9	273	23	1.8	0.1
6/12/2008	0:15:00	28.2	6.9	272	23	1.8	0.1
6/12/2008	0:30:00	28.3	6.9	273	26	2.0	0.1
6/12/2008	0:45:00	28.7	6.9	274	31	2.4	0.1
6/12/2008	1:00:00	29.3	7.0	274	44	3.4	0.1
6/12/2008	1:15:00	29.2	7.0	273	47	3.6	0.1
6/12/2008	1:30:00	29.1	7.0	274	37	2.8	0.1
6/12/2008	1:45:00	28.4	6.9	272	23	1.8	0.1
6/12/2008	2:00:00	28.4	6.9	272	21	1.7	0.1
6/12/2008	2:15:00	28.3	6.9	272	22	1.7	0.1
6/12/2008	2:30:00	28.4	6.9	272	24	1.9	0.1
6/12/2008	2:45:00	28.6	6.9	273	27	2.1	0.1
6/12/2008	3:00:00	28.7	6.9	273	31	2.4	0.1
6/12/2008	3:15:00	28.8	6.9	273	31	2.4	0.1
6/12/2008	3:30:00	28.7	6.9	272	24	1.8	0.1
6/12/2008	3:45:00	28.3	6.9	272	18	1.4	0.1
0/12/2000	J. <del>4</del> J.00	20.3	0.5	411	10	1.4	0.1

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 6/12/2008 28.4 6.9 273 20 1.5 0.1 4:00:00 6/12/2008 4:15:00 28.4 6.9 272 27 2.1 0.1 6/12/2008 4:30:00 28.5 6.9 273 28 2.2 0.1 28.4 6.9 272 23 1.8 0.1 6/12/2008 4:45:00 6/12/2008 5:00:00 28.4 6.9 271 19 1.5 0.1 6/12/2008 5:15:00 28.3 6.9 272 21 1.6 0.1 6/12/2008 5:30:00 28.3 6.9 271 18 1.4 0.1 6/12/2008 28.3 6.9 270 17 1.3 5:45:00 0.1 6/12/2008 6:00:00 28.3 6.9 271 16 1.3 0.1 6/12/2008 6:15:00 28.2 6.9 270 31 2.4 0.1 6/12/2008 6:30:00 28.1 6.9 271 14 1.1 0.1 6.9 21 0.1 6/12/2008 6:45:00 28.2 270 1.6 28.2 7.0 271 41 3.2 6/12/2008 7:00:00 0.1 6/12/2008 28.1 7.0 269 38 3.0 7:15:00 0.1 40 3.1 6/12/2008 7:30:00 28.1 7.0 269 0.1 6/12/2008 7:45:00 28.1 7.0 269 45 3.5 0.1 6/12/2008 8:00:00 28.0 6.9 269 21 1.6 0.1 6/12/2008 8:15:00 28.0 6.9 268 32 2.5 0.1 28.0 7.0 268 43 3.4 0.1 6/12/2008 8:30:00 6/12/2008 8:45:00 28.0 7.0 268 48 3.7 0.1 6/12/2008 9:00:00 28.0 7.0 268 39 3.0 0.1 6/12/2008 9:15:00 28.0 7.0 267 44 3.4 0.1 6/12/2008 9:30:00 27.9 6.9 269 20 1.6 0.1

6/12/2008

6/12/2008

6/12/2008

6/12/2008

9:45:00

10:00:00

10:15:00

10:30:00

27.9

27.9

27.9

28.0

6.9

6.9

7.0

7.0

268

269

267

267

31

31

40

40

2.4

2.5

3.2

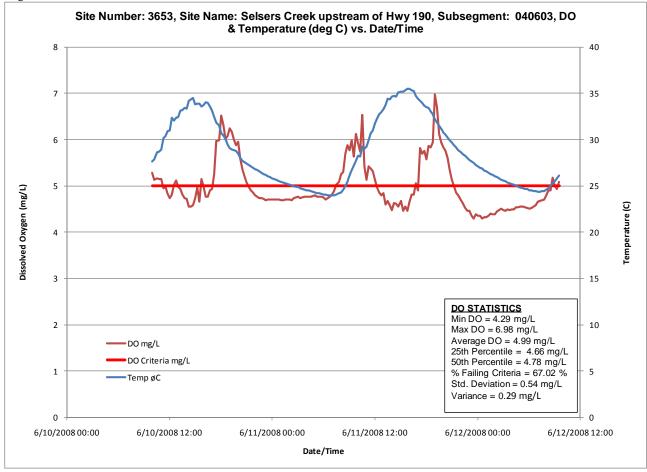
3.1

0.1

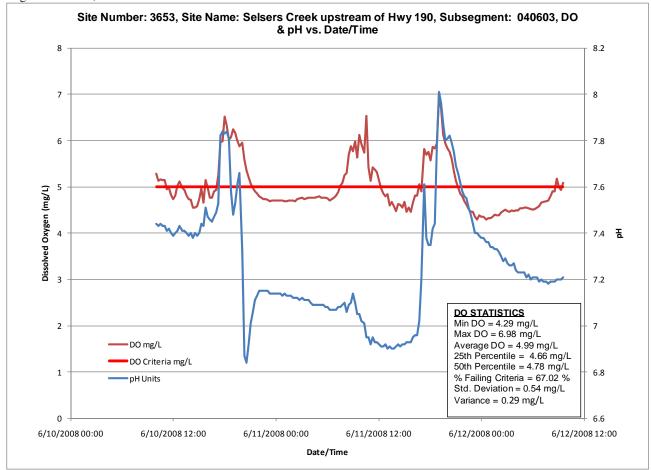
0.1

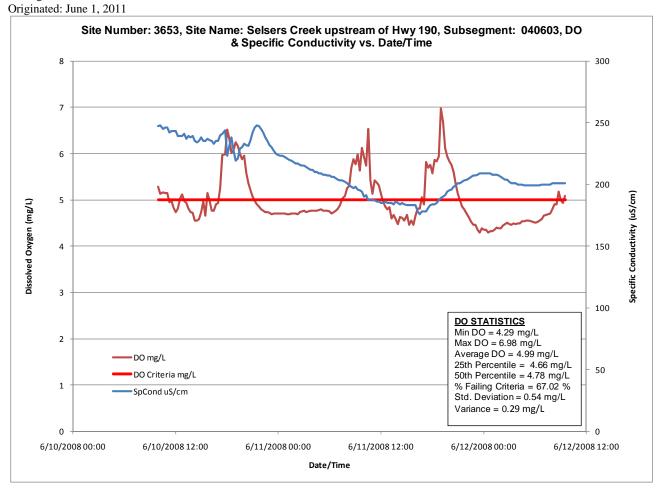
0.1











Site Number:	3653	Site Name:	Selsers Creek upstream of Hwy 190				
Subsegment #:	40603						
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L		
Minimum	23.96	6.84	176.00	53.80	4.29		
Maximum	35.49	8.01	248.00	96.00	6.98		
Average	28.60	7.26	210.35	64.60	4.99		
Geometric Mean	28.38	7.26	#NUM!	#NUM!	4.96		
25th Percentile	25.27	7.09	198.00	57.15	4.66		
30th Percentile	25.59	7.11	199.00	57.30	4.69		
40th Percentile	26.55	7.14	201.00	59.30	4.74		
50th Percentile	27.69	7.20	206.00	64.10	4.78		
Standard Deviation	3.66	0.25	19.99	8.98	0.54		
Variance	13.40	0.06	399.58	80.56	0.29		
		101					
Data Row Count		191					
Total Values							
Failing DO Criteria		128					
Percent failing DO							
Criteria		67.02	%				

## Selsers Creek, Site 3653, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	10:00	27.6	7.44	247	67.2	5.29	0.12
6/10/2008	10:15	27.88	7.43	248	65.5	5.13	0.12
6/10/2008	10:30	28.64	7.44	245	66.8	5.16	0.12
6/10/2008	10:45	28.7	7.43	246	66.7	5.15	0.12
6/10/2008	11:00	28.94	7.43	246	66.9	5.15	0.12
6/10/2008	11:15	30.17	7.41	242	65.7	4.95	0.12
6/10/2008	11:30	30.36	7.42	243	66.4	4.98	0.11
6/10/2008	11:45	30.93	7.4	243	64.9	4.82	0.12
6/10/2008	12:00	31	7.39	243	63.9	4.74	0.12
6/10/2008	12:15	32.33	7.33	239	66.2	4.81	0.11
6/10/2008	12:13	32.04	7. <del>4</del> 7.41	239	68.9	5.03	0.11
6/10/2008	12:30	32.38	7.41	239	70.4	5.03	0.11
6/10/2008	13:00	32.36	7.43 7.41	239 241	68.7	4.98	0.11
	13:15	33.1	7.41 7.41	237	68.8	4.93	
6/10/2008							0.11
6/10/2008	13:30	33.2	7.4	239	67.2	4.81	0.11
6/10/2008	13:45	33.45	7.39	238	66.5	4.74	0.11
6/10/2008	14:00	33.31	7.4	239	66.1	4.72	0.11
6/10/2008	14:15	34.19	7.38	235	64.6	4.55	0.11
6/10/2008	14:30	34.35	7.4	234	64.8	4.55	0.11
6/10/2008	14:45	34.48	7.39	235	65.6	4.59	0.11
6/10/2008	15:00	33.79	7.4	238	66.7	4.73	0.11
6/10/2008	15:15	33.86	7.44	235	70.1	4.96	0.11
6/10/2008	15:30	33.88	7.43	235	65.8	4.66	0.11
6/10/2008	15:45	33.56	7.51	237	72.2	5.14	0.11
6/10/2008	16:00	33.76	7.47	236	70.3	4.98	0.11
6/10/2008	16:15	34.04	7.46	235	67.7	4.77	0.11
6/10/2008	16:30	33.95	7.45	233	67.5	4.77	0.11
6/10/2008	16:45	33.55	7.47	235	69	4.91	0.11
6/10/2008	17:00	33.13	7.49	235	68.9	4.94	0.11
6/10/2008	17:15	32.44	7.53	240	72.4	5.25	0.11
6/10/2008	17:30	31.85	7.82	241	81.6	5.97	0.11
6/10/2008	17:45	31.49	7.84	244	81.3	5.98	0.12
6/10/2008	18:00	30.67	7.83	223	87.2	6.51	0.1
6/10/2008	18:15	30.42	7.84	231	84.3	6.32	0.11
6/10/2008	18:30	30.06	7.81	238	79.7	6.01	0.11
6/10/2008	18:45	29.49	7.58	227	79.7	6.07	0.11
6/10/2008	19:00	29.07	7.48	219	81.3	6.24	0.1
6/10/2008	19:15	28.92	7.53	221	80.2	6.17	0.1
6/10/2008	19:30	28.87	7.61	229	77.9	6	0.11
6/10/2008	19:45	28.75	7.66	230	76.1	5.87	0.11
6/10/2008	20:00	28.49	7.32	233	76.8	5.95	0.11
6/10/2008	20:15	27.98	6.87	232	71.4	5.59	0.11
6/10/2008	20:30	27.69	6.84	231	68.2	5.36	0.11
6/10/2008	20:45	27.56	6.92	236	66.1	5.21	0.11
6/10/2008	21:00	27.42	7.01	242	64.2	5.07	0.11
6/10/2008	21:15	27.27	7.06	246	62.8	4.98	0.12
6/10/2008	21:30	27.13	7.11	248	61.7	4.9	0.12
6/10/2008	21:45	26.98	7.13	247	60.9	4.85	0.12

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0400							
Originated: June				0.4=		4 = 0	0.40
6/10/2008	22:00	26.83	7.15	245	60	4.79	0.12
6/10/2008	22:15	26.69	7.15	242	59.5	4.76	0.11
6/10/2008	22:30	26.57	7.15	238	59.1	4.74	0.11
6/10/2008	22:45	26.41	7.15	235	58.8	4.73	0.11
6/10/2008	23:00	26.27	7.15	232	58.5	4.72	0.11
6/10/2008	23:15	26.15	7.14	230	58	4.69	0.11
6/10/2008	23:30	26.04	7.14	227	58	4.7	0.11
6/10/2008	23:45	25.94	7.14	225	57.9	4.7	0.11
6/11/2008	0:00	25.84	7.14	224	57.8	4.7	0.1
6/11/2008	0:15	25.7	7.14	223	57.8	4.71	0.1
6/11/2008	0:30	25.62	7.14	223	57.5	4.7	0.1
6/11/2008	0:45	25.54	7.13	222	57.5	4.7	0.1
6/11/2008	1:00	25.44	7.14	221	57.3	4.69	0.1
6/11/2008	1:15	25.36	7.13	220	57.1	4.69	0.1
6/11/2008	1:30	25.28	7.13	219	57.3	4.71	0.1
6/11/2008	1:45	25.21	7.13	218	57.3	4.71	0.1
6/11/2008	2:00	25.13	7.12	217	57.2	4.71	0.1
6/11/2008	2:15	25.07	7.12	217	56.9	4.69	0.1
6/11/2008	2:30	25.07	7.12	216	57.4	4.74	0.1
6/11/2008	2:45	24.93	7.12	215	57. <del>4</del> 57.5	4.75	0.1
6/11/2008	3:00	24.93	7.11	215	57.5 57.5	4.75	0.1
			7.12 7.11	213	57.5 57.1		0.1
6/11/2008	3:15	24.76				4.74	
6/11/2008	3:30	24.68	7.11	213	57.2	4.75	0.1
6/11/2008	3:45	24.61	7.11	212	57.2	4.76	0.1
6/11/2008	4:00	24.54	7.1	212	57.3	4.77	0.1
6/11/2008	4:15	24.49	7.09	210	57.1	4.76	0.1
6/11/2008	4:30	24.42	7.09	210	57.2	4.77	0.1
6/11/2008	4:45	24.36	7.09	209	57.3	4.78	0.1
6/11/2008	5:00	24.3	7.09	209	57.2	4.79	0.1
6/11/2008	5:15	24.23	7.09	208	57	4.77	0.1
6/11/2008	5:30	24.18	7.09	208	56.8	4.76	0.1
6/11/2008	5:45	24.14	7.08	207	56.8	4.77	0.1
6/11/2008	6:00	24.07	7.08	207	56.6	4.75	0.1
6/11/2008	6:15	24.02	7.07	206	56.1	4.71	0.1
6/11/2008	6:30	23.97	7.07	206	56.3	4.74	0.09
6/11/2008	6:45	23.96	7.07	205	56.5	4.76	0.09
6/11/2008	7:00	23.98	7.07	204	57.2	4.81	0.09
6/11/2008	7:15	24.01	7.08	203	58.1	4.89	0.09
6/11/2008	7:30	24.06	7.08	203	59.7	5.02	0.09
6/11/2008	7:45	24.17	7.09	202	60.6	5.08	0.09
6/11/2008	8:00	24.31	7.1	201	62.7	5.25	0.09
6/11/2008	8:15	24.58	7.06	199	63.6	5.3	0.09
6/11/2008	8:30	24.94	7.09	198	68.8	5.69	0.09
6/11/2008	8:45	25.46	7.1	197	71.7	5.87	0.09
6/11/2008	9:00	26.1	7.14	198	71.2	5.77	0.09
6/11/2008	9:15	26.72	7.1	196	74.8	5.99	0.09
6/11/2008	9:30	27.2	7.05	195	71.1	5.64	0.09
6/11/2008	9:45	27.72	7.05	194	77.9	6.12	0.09
6/11/2008	10:00	28.25	7.02	190	76	5.92	0.09
6/11/2008	10:15	28.15	7.01	191	73.6	5.74	0.09
6/11/2008	10:30	29.23	6.95	187	85.2	6.53	0.08
6/11/2008	10:45	29	6.95	188	70.5	5.42	0.09
6/11/2008	11:00	29.25	6.92	187	67	5.13	0.08
				-	-	-	

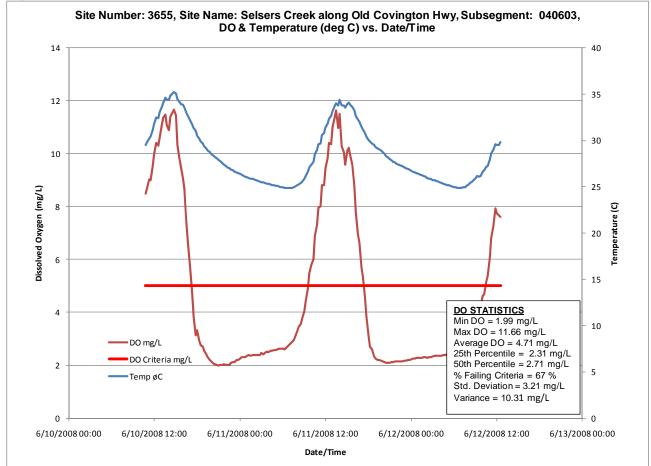
FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June		00.00	0.05	407	74.7	<b>5</b> 40	0.00
6/11/2008	11:15	29.93	6.95	187	71.7	5.42	0.08
6/11/2008	11:30	30.69	6.93	186	71.9	5.37	0.08
6/11/2008	11:45	30.99	6.93	186	71.6	5.32	0.08
6/11/2008	12:00	31.78	6.92	185	70.1	5.13	0.08
6/11/2008	12:15	32.29	6.91	185	68.3	4.96	0.08
6/11/2008	12:30	32.71	6.91	186	67.4	4.86	0.08
6/11/2008	12:45	33	6.92	185	66.9	4.8	0.08
6/11/2008	13:00	33.27	6.9	185	67.7	4.84	0.08
6/11/2008	13:15	33.72	6.91	185	64.9	4.6	0.08
6/11/2008	13:30	34.45	6.9	184	66.7	4.68	0.08
6/11/2008	13:45	34.32	6.9	186	65.3	4.59	0.08
6/11/2008	14:00	34.62	6.91	185	64.1	4.48	0.08
6/11/2008	14:15	34.7	6.92	184	66.4	4.63	0.08
6/11/2008	14:30	34.65	6.91	185	66.2	4.62	0.08
6/11/2008	14:45	35.1	6.92	184	65.6	4.55	0.08
6/11/2008	15:00	35.15	6.92	183	67.5	4.68	0.08
6/11/2008	15:15	35.19	6.93	183	64.5	4.46	0.08
6/11/2008	15:30	35.33	6.93	183	65.8	4.55	0.08
6/11/2008	15:45	35.49	6.93	183	64.7	4.46	0.08
6/11/2008	16:00	35.46	6.95	183	67.5	4.66	0.08
6/11/2008	16:15	35.35	6.96	178	69.6	4.81	0.08
6/11/2008	16:30	35.26	6.96	176	69.6	4.81	0.08
6/11/2008	16:45	34.74	7.02	178	72.4	5.05	0.08
6/11/2008	17:00	34.41	7.2	178	69.9	4.9	0.08
6/11/2008	17:15	34.19	7.61	178	82.5	5.81	0.08
6/11/2008	17:30	33.93	7.38	181	80.6	5.7	0.08
6/11/2008	17:45	33.68	7.35	183	81.1	5.76	0.08
6/11/2008	18:00	33.51	7.35	184	78.2	5.57	0.08
6/11/2008	18:15	33.39	7.42	184	82.1	5.86	0.08
6/11/2008	18:30	33.07	7.44	185	81.3	5.83	0.08
6/11/2008	18:45	32.73	7.78	187	82.3	5.94	0.08
6/11/2008	19:00	32.73	8.01	189	96	6.98	0.00
6/11/2008	19:00	31.84	7.96	190	91.3	6.68	0.09
6/11/2008	19:13	31.54	7.87	190	83.1	6.12	
							0.09
6/11/2008	19:45	31.16	7.8	194	80.2	5.94	0.09
6/11/2008	20:00	30.74	7.81	195	78.1	5.83	0.09
6/11/2008	20:15	30.5	7.82	196	77	5.76	0.09
6/11/2008	20:30	30.19	7.79	198	74.3	5.6	0.09
6/11/2008	20:45	29.92	7.75	199	70.7	5.35	0.09
6/11/2008	21:00	29.68	7.69	201	67.5	5.13	0.09
6/11/2008	21:15	29.38	7.66	201	65.5	5	0.09
6/11/2008	21:30	29.12	7.62	202	63.4	4.86	0.09
6/11/2008	21:45	28.89	7.58	203	62.2	4.79	0.09
6/11/2008	22:00	28.64	7.56	204	60.7	4.69	0.09
6/11/2008	22:15	28.41	7.55	205	59.4	4.62	0.09
6/11/2008	22:30	28.21	7.51	206	58	4.52	0.09
6/11/2008	22:45	27.99	7.48	207	57	4.46	0.1
6/11/2008	23:00	27.81	7.44	207	56.8	4.46	0.1
6/11/2008	23:15	27.67	7.4	208	55.3	4.35	0.1
6/11/2008	23:30	27.51	7.4	209	54.4	4.29	0.1
6/11/2008	23:45	27.29	7.39	209	55.3	4.38	0.1
6/12/2008	0:00	27.13	7.38	209	54.7	4.35	0.1
6/12/2008	0:15	26.97	7.38	209	54.5	4.35	0.1

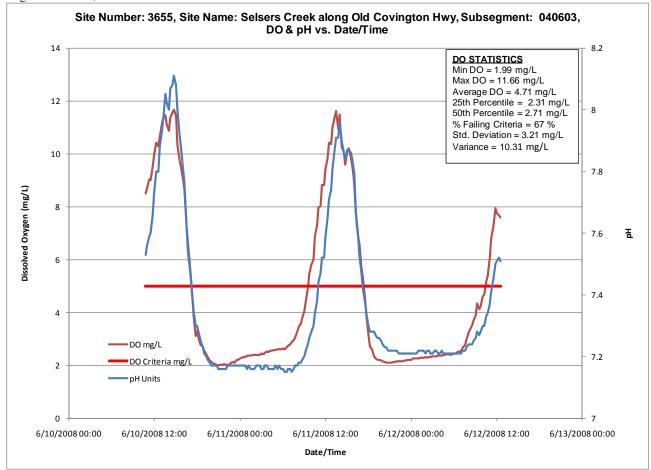
FINAL Selsers Creek Watershed TMDL Subsegment 040603

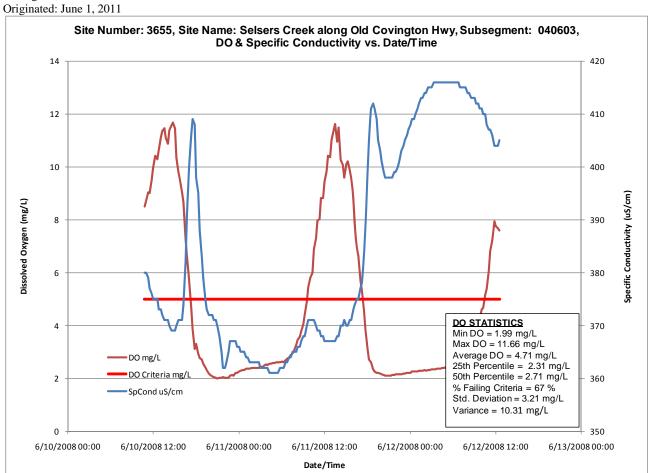
Subsegment 0400							
Originated: June							
6/12/2008	0:30	26.86	7.36	209	53.8	4.3	0.1
6/12/2008	0:45	26.68	7.36	209	54.1	4.33	0.1
6/12/2008	1:00	26.55	7.34	208	53.8	4.32	0.1
6/12/2008	1:15	26.42	7.34	208	54.1	4.35	0.1
6/12/2008	1:30	26.3	7.33	208	54.5	4.4	0.1
6/12/2008	1:45	26.19	7.33	207	54.4	4.39	0.1
6/12/2008	2:00	26.07	7.32	206	54.2	4.39	0.1
6/12/2008	2:15	25.93	7.3	205	54.7	4.44	0.09
6/12/2008	2:30	25.82	7.28	204	55	4.48	0.09
6/12/2008	2:45	25.69	7.29	204	55.2	4.5	0.09
6/12/2008	3:00	25.59	7.27	202	54.8	4.48	0.09
6/12/2008	3:15	25.49	7.26	201	54.5	4.46	0.09
6/12/2008	3:30	25.38	7.26	201	54.8	4.49	0.09
6/12/2008	3:45	25.27	7.27	201	54.5	4.47	0.09
6/12/2008	4:00	25.19	7.24	200	54.5	4.49	0.09
6/12/2008	4:15	25.1	7.23	200	54.5	4.49	0.09
6/12/2008	4:30	25.03	7.23	200	55	4.54	0.09
6/12/2008	4:45	24.93	7.23	199	54.8	4.53	0.09
6/12/2008	5:00	24.84	7.23	199	55	4.55	0.09
6/12/2008	5:15	24.77	7.21	199	54.8	4.55	0.09
6/12/2008	5:30	24.69	7.22	199	54.5	4.53	0.09
6/12/2008	5:45	24.63	7.2	199	54.4	4.52	0.09
6/12/2008	6:00	24.54	7.21	199	54.1	4.51	0.09
6/12/2008	6:15	24.49	7.21	199	54.2	4.52	0.09
6/12/2008	6:30	24.44	7.21	199	54.5	4.55	0.09
6/12/2008	6:45	24.41	7.19	200	54.9	4.59	0.09
6/12/2008	7:00	24.39	7.2	200	55.8	4.66	0.09
6/12/2008	7:15	24.39	7.19	200	55.9	4.67	0.09
6/12/2008	7:30	24.41	7.19	200	56.2	4.69	0.09
6/12/2008	7:45	24.47	7.18	200	56.4	4.71	0.09
6/12/2008	8:00	24.59	7.19	201	57.6	4.79	0.09
6/12/2008	8:15	24.77	7.19	201	59.1	4.9	0.09
6/12/2008	8:30	24.98	7.19	201	59.3	4.9	0.09
6/12/2008	8:45	25.26	7.2	201	62.9	5.17	0.09
6/12/2008	9:00	25.53	7.2	201	61.1	4.99	0.09
6/12/2008	9:15	25.82	7.2	201	60.6	4.93	0.09
6/12/2008	9:30	26.13	7.21	201	62.9	5.09	0.09











Site Number:	3655	Site Name:	Selsers Creek alon	g Old Covi	ngton Hwy
Subsegment #:	40603				
	Temp deg C	pН	SpCond uS/cm	DO %	DO mg/L
Minimum	24.85	7.15	361.00	25.30	1.99
Maximum	35.26	8.11	416.00	168.70	11.66
Average	28.42	7.37	385.27	62.66	4.71
Geometric Mean	28.26	7.36	#NUM!	#NUM!	3.84
25th Percentile	25.73	7.18	367.00	28.78	2.31
30th Percentile	26.01	7.21	368.70	29.10	2.37
40th Percentile	26.63	7.21	371.00	30.32	2.47
50th Percentile	27.38	7.22	375.00	33.75	2.71
Standard Deviation	3.11	0.27	20.49	46.32	3.21
Variance	9.68	0.07	419.92	2145.24	10.31
Data Row Count		200			
Total Values					
Failing DO Criteria		134			
Percent failing DO Criteria		67.00	%		

## Selsers Creek, Site 3655, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	ННММ	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	10:45	29.51	7.53	380	111.7	8.5	0.19
6/10/2008	11:00	29.84	7.56	380	115.1	8.71	0.19
6/10/2008	11:15	30.18	7.59	379	119.8	9.02	0.19
6/10/2008	11:30	30.45	7.6	377	120.3	9.01	0.19
6/10/2008	11:45	31.15	7.66	376	128.7	9.52	0.19
6/10/2008	12:00	31.76	7.73	375	136.1	9.97	0.19
6/10/2008	12:15	32.48	7.73	375	143.9	10.42	0.19
6/10/2008	12:30	32.37	7.8	375	141.9	10.42	0.19
6/10/2008	12:45	33.12	7.88	373	148.3	10.62	0.18
6/10/2008	13:00	33.6	7.93	373	156.2	11.1	0.18
6/10/2008	13:15	34.11	7.97	373	161.2	11.36	0.18
6/10/2008	13:13	34.65	8.05	371	164.3	11.47	0.18
6/10/2008	13:45	34.4	8.02	371	158	11.08	0.18
6/10/2008	14:00	34.41	8	371	155.2	10.88	0.18
6/10/2008	14:00	34.82	8.07	370	163.5	11.39	0.18
6/10/2008	14:13	35.07	8.08	369	166.7	11.56	0.18
6/10/2008	14:45	35.26	8.11	369	168.7	11.66	0.18
6/10/2008	15:00	35.26	8.08	369	165.1	11.45	0.18
6/10/2008	15:00	34.44	8	370	147.4	10.33	0.18
6/10/2008	15:30	34.14	7.92	371	139.1	9.79	0.18
6/10/2008	15:45	33.96	7.88	371	134.4	9.79	0.18
6/10/2008	16:00	33.82	7.81	371	127.8	9.04	0.18
6/10/2008	16:00	33.55	7.01 7.76	371 374	127.6	9.0 <del>4</del> 8.66	0.18
6/10/2008	16:30	32.96	7.76 7.62	382	121.7	7.28	0.19
6/10/2008	16:45	32.96 32.64	7.62 7.54	302 391	91.7	6.62	0.19
6/10/2008	17:00	32.17	7.34 7.48	400	78.6	5.72	0.19
	17:00	31.7	7.40 7.4	406	64.1	3.72 4.7	0.2
6/10/2008		31.7	7.4 7.35	409			0.2
6/10/2008	17:30 17:45	31.37	7.35 7.3		52.2 42	3.85 3.12	
6/10/2008	17.45			408			0.2
6/10/2008 6/10/2008	18:15	30.48 30.2	7.3 7.27	398 395	44.2 38.9	3.31 2.92	0.2 0.2
6/10/2008	18:30	30.2 29.87	7.27 7.25	388	36.6	2.92	0.2
6/10/2008	18:45	29.63	7.23		35.7	2.71	0.19
6/10/2008	19:00	29.03	7.23 7.21	383			0.19
6/10/2008	19:00	29.39 29.17	7.21	379 375	33.6 31.5	2.56 2.41	0.19
6/10/2008	19:13	28.17	7.∠ 7.19		31.5	2.41	0.19
6/10/2008	19:30	28.74	7.19	373	28.4	2.31	0.18
6/10/2008	20:00	28.54	7.10	372 372	27.6	2.19	0.18
6/10/2008	20:00	28.36	7.17 7.17	372 372	26.7	2.14	
			7.17 7.17	372 371	26.7		0.18
6/10/2008	20:30 20:45	28.2	7.17 7.17	371 371	26.3 25.9	2.05	0.18
6/10/2008		28.04				2.02	0.18
6/10/2008	21:00 21:15	27.88	7.16 7.16	370 368	25.4 25.7	1.99	0.18
6/10/2008		27.73 27.55		368 365		2.02	0.18
6/10/2008	21:30	27.55	7.16	365	25.6	2.02	0.18
6/10/2008	21:45	27.38	7.16	362	25.8	2.04	0.18
6/10/2008	22:00	27.23	7.16	362	25.4	2.02	0.18
6/10/2008	22:15	27.1 26.07	7.17 7.17	363 365	25.3	2.01	0.18
6/10/2008	22:30	26.97	7.17	365	25.3	2.01	0.18

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June		00.05	- 4-	007	00.0	0.00	0.40
6/10/2008	22:45	26.85	7.17	367	26.2	2.09	0.18
6/10/2008	23:00	26.74	7.17	367	26.6	2.13	0.18
6/10/2008	23:15	26.65	7.17	367	26.4	2.11	0.18
6/10/2008	23:30	26.55	7.17	367	27.5	2.21	0.18
6/10/2008	23:45	26.46	7.17	366	27.5	2.21	0.18
6/11/2008	0:00	26.36	7.17	366	27.9	2.25	0.18
6/11/2008	0:15	26.28	7.17	365	28.5	2.3	0.18
6/11/2008	0:30	26.2	7.17	365	28.5	2.31	0.18
6/11/2008	0:45	26.11	7.17	365	28.7	2.32	0.18
6/11/2008	1:00	26.03	7.16	364	29.1	2.36	0.18
6/11/2008	1:15	25.96	7.17	364	29.3	2.38	0.18
6/11/2008	1:30	25.89	7.16	363	29.2	2.37	0.18
6/11/2008	1:45	25.82	7.16	363	29.5	2.4	0.18
6/11/2008	2:00	25.75	7.16	363	29.5	2.4	0.18
6/11/2008	2:15	25.69	7.17	363	29.3	2.39	0.18
6/11/2008	2:30	25.63	7.17	363	29.3	2.39	0.18
6/11/2008	2:45	25.57	7.17	363	29.4	2.4	0.18
6/11/2008	3:00	25.5	7.17 7.16	362	30	2.46	0.18
6/11/2008	3:15	25.45	7.16 7.16	362	29.6	2.42	0.18
6/11/2008	3:30	25.45	7.10 7.17	362	30.2	2.42	0.18
6/11/2008		25.39 25.34	7.17 7.17	362 362	30.8	2.47	0.18
	3:45						
6/11/2008	4:00	25.29	7.16	362	30.5	2.5	0.18
6/11/2008	4:15	25.25	7.16	361	31.1	2.55	0.18
6/11/2008	4:30	25.2	7.16	361	31.2	2.56	0.18
6/11/2008	4:45	25.15	7.16	361	31.3	2.58	0.18
6/11/2008	5:00	25.11	7.17	361	31.3	2.58	0.18
6/11/2008	5:15	25.06	7.16	361	31.5	2.6	0.18
6/11/2008	5:30	25.02	7.17	361	31.8	2.62	0.18
6/11/2008	5:45	24.98	7.16	362	31.8	2.62	0.18
6/11/2008	6:00	24.94	7.16	362	31.8	2.63	0.18
6/11/2008	6:15	24.89	7.15	362	31.6	2.61	0.18
6/11/2008	6:30	24.86	7.15	363	32.3	2.68	0.18
6/11/2008	6:45	24.86	7.16	363	33.2	2.74	0.18
6/11/2008	7:00	24.85	7.16	364	33.8	2.8	0.18
6/11/2008	7:15	24.86	7.15	364	34.7	2.87	0.18
6/11/2008	7:30	24.91	7.16	365	35.6	2.95	0.18
6/11/2008	7:45	25	7.17	365	37.2	3.07	0.18
6/11/2008	8:00	25.15	7.17	365	39.8	3.28	0.18
6/11/2008	8:15	25.28	7.18	366	42.2	3.46	0.18
6/11/2008	8:30	25.4	7.18	366	43.5	3.56	0.18
6/11/2008	8:45	25.58	7.19	367	46.2	3.77	0.18
6/11/2008	9:00	25.82	7.2	368	49.8	4.05	0.18
6/11/2008	9:15	26.16	7.22	368	54.8	4.43	0.18
6/11/2008	9:30	26.62	7.24	370	61.2	4.9	0.18
6/11/2008	9:45	27.07	7.26	371	68.8	5.47	0.18
6/11/2008	10:00	27.36	7.28	371	73.4	5.81	0.18
6/11/2008	10:15	27.7	7.3	371	76.3	6	0.18
6/11/2008	10:30	28.49	7.34	371	88.7	6.88	0.18
6/11/2008	10:45	28.96	7.38	370	95.1	7.31	0.18
6/11/2008	11:00	29.61	7.44	369	104.9	7.97	0.18
6/11/2008	11:15	29.69	7.47	369	105.5	8.01	0.18
6/11/2008	11:30	30.57	7.52	368	117.8	8.81	0.18
6/11/2008	11:45	30.78	7.52	368	118.2	8.81	0.18
0/11/2000	11.70	00.70	1.02	000	110.2	0.01	0.10

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June 1		04.4	7.50	007	400.4	0.44	0.40
6/11/2008	12:00	31.4	7.59	367	128.1	9.44	0.18
6/11/2008	12:15	31.83	7.65	367	134.2	9.82	0.18
6/11/2008	12:30	32.36	7.71	367	143.5	10.41	0.18
6/11/2008	12:45	32.66	7.74	367	143.5	10.36	0.18
6/11/2008	13:00	33.2	7.81	367	153.8	11	0.18
6/11/2008	13:15	33.73	7.87	367	160.3	11.37	0.18
6/11/2008	13:30	33.98	7.91	367	164.8	11.63	0.18
6/11/2008	13:45	33.75	7.91	368	154.7	10.96	0.18
6/11/2008	14:00	34.38	7.96	368	163.8	11.49	0.18
6/11/2008	14:15	33.8	7.9	370	145	10.27	0.18
6/11/2008	14:30	33.76	7.86	370	142.1	10.06	0.18
6/11/2008	14:45	33.57	7.84	371	134.7	9.58	0.18
6/11/2008	15:00	33.96	7.87	370	143.2	10.11	0.18
6/11/2008	15:15	34.06	7.87	370	144.8	10.21	0.18
6/11/2008	15:30	33.81	7.86	371	138.8	9.82	0.18
6/11/2008	15:45	33.66	7.84	371	134.9	9.57	0.18
6/11/2008	16:00	33.22	7.79	373	122.4	8.75	0.18
6/11/2008	16:15	32.65	7.67	374	108.1	7.8	0.19
6/11/2008	16:30	32.26	7.6	375	95.5	6.94	0.19
6/11/2008	16:45	32.06	7.53	375	91.1	6.64	0.19
6/11/2008	17:00	31.48	7.47	377	77.6	5.71	0.19
6/11/2008	17:15	31.18	7.42	378	72.2	5.34	0.19
6/11/2008	17:30	30.8	7.38	383	61.5	4.58	0.19
6/11/2008	17:45	30.46	7.34	389	51.5	3.86	0.19
6/11/2008	18:00	30.08	7.3	398	41.6	3.14	0.2
6/11/2008	18:15	29.86	7.28	405	35.8	2.71	0.2
6/11/2008	18:30	29.7	7.28	411	34.4	2.61	0.2
6/11/2008	18:45	29.48	7.28	412	30.7	2.34	0.21
6/11/2008	19:00	29.40	7.20 7.27	411	29.6	2.26	0.21
	19:00	29.32 29.17	7.27 7.26			2.20	0.21
6/11/2008				409 405	28.9		
6/11/2008	19:30	29.04	7.26	405	28.8	2.21	0.2
6/11/2008	19:45	28.9	7.25	403	28.4	2.18	0.2
6/11/2008	20:00	28.72	7.24	401	27.9	2.15	0.2
6/11/2008	20:15	28.52	7.23	399	27.4	2.12	0.2
6/11/2008	20:30	28.33	7.23	398	26.9	2.09	0.2
6/11/2008	20:45	28.14	7.22	398	26.7	2.09	0.2
6/11/2008	21:00	27.97	7.22	398	26.7	2.09	0.2
6/11/2008	21:15	27.83	7.22	398	27	2.11	0.2
6/11/2008	21:30	27.7	7.22	398	27	2.13	0.2
6/11/2008	21:45	27.58	7.22	399	27.2	2.14	0.2
6/11/2008	22:00	27.48	7.22	399	27.2	2.15	0.2
6/11/2008	22:15	27.38	7.21	400	27.3	2.16	0.2
6/11/2008	22:30	27.28	7.21	401	27.3	2.16	0.2
6/11/2008	22:45	27.2	7.21	403	27.2	2.16	0.2
6/11/2008	23:00	27.1	7.21	404	27.3	2.17	0.2
6/11/2008	23:15	27	7.21	405	27.4	2.18	0.2
	23:30	26.92	7.21	406	27.6	2.10	0.2
6/11/2008							
6/11/2008	23:45	26.82	7.21	407	27.7	2.21	0.2
6/12/2008	0:00	26.73	7.21	408	27.7	2.22	0.2
6/12/2008	0:15	26.64	7.21	409	28.1	2.25	0.2
6/12/2008	0:30	26.56	7.21	409	28	2.25	0.2
6/12/2008	0:45	26.47	7.21	410	28.2	2.27	0.2
6/12/2008	1:00	26.38	7.22	411	28.2	2.27	0.21

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 7.22 28.4 2.29 0.21 6/12/2008 26.3 412 1:15 413 28.4 2.29 6/12/2008 1:30 26.21 7.22 0.21 6/12/2008 1:45 26.14 7.22 413 28.4 2.3 0.21 2:00 26.05 7.21 414 28.5 2.31 0.21 6/12/2008 414 6/12/2008 2:15 25.97 7.22 28.3 2.29 0.21 6/12/2008 2:30 25.89 7.22 415 28.5 2.32 0.21 6/12/2008 2:45 25.82 7.21 415 28.6 2.32 0.21 3:00 25.74 7.21 415 28.8 2.34 0.21 6/12/2008 6/12/2008 3:15 25.67 7.22 416 28.8 2.35 0.21 3:30 25.6 7.22 416 28.8 2.35 0.21 6/12/2008 6/12/2008 3:45 25.52 7.21 416 28.9 2.36 0.21 6/12/2008 4:00 25.46 7.21 416 29 2.37 0.21 4:15 25.39 7.22 416 29 2.37 0.21 6/12/2008 4:30 29.1 0.21 6/12/2008 25.33 7.21 416 2.39 6/12/2008 4:45 25.26 7.21 416 29.1 2.39 0.21 7.21 6/12/2008 5:00 25.2 416 29.3 2.41 0.21 416 29.4 2.42 0.21 6/12/2008 5:15 25.15 7.21 6/12/2008 5:30 25.09 7.21 416 29.1 2.4 0.21 7.21 6/12/2008 5:45 25.03 416 29.3 2.42 0.21 6/12/2008 6:00 24.97 7.21 416 29.5 2.44 0.21 24.93 7.21 29.6 2.45 0.21 6/12/2008 6:15 416 6:30 7.21 2.5 0.21 6/12/2008 24.9 416 30.2 6/12/2008 6:45 24.88 7.21 416 30.6 2.53 0.21 7:00 2.52 0.21 6/12/2008 24.89 7.21 415 30.4 7.22 0.21 6/12/2008 7:15 24.91 415 32.5 2.68 6/12/2008 7:30 24.97 7.22 415 33.7 2.78 0.21 6/12/2008 7:45 25.09 7.23 415 36.2 2.99 0.21 6/12/2008 8:00 25.26 7.24 414 39.5 3.24 0.21 414 0.21 6/12/2008 8:15 25.39 7.24 41.1 3.36 6/12/2008 8:30 25.53 7.24 413 42.9 3.51 0.21 7.25 6/12/2008 8:45 25.69 413 45.2 3.69 0.21 9:00 25.91 7.26 413 48.1 3.9 0.21 6/12/2008 6/12/2008 9:15 26.2 7.28 412 53.8 4.35 0.21 6/12/2008 9:30 26.08 7.27 412 50.9 4.12 0.21 4.23 0.21 6/12/2008 9:45 26.19 7.28 411 52.3 6/12/2008 10:00 26.6 7.3 411 57.7 4.62 0.2 6/12/2008 10:15 26.75 7.3 410 58.4 4.67 0.2 10:30 27.18 7.33 410 65.2 5.17 0.2 6/12/2008 27.26 7.34 408 67.8 5.37 0.2 6/12/2008 10:45 6/12/2008 11:00 27.91 7.37 407 77.2 6.05 0.2

7.41

7.45

7.5

7.51

7.52

7.51

28.62 28.98

29.58

29.51

29.55

29.81

6/12/2008

6/12/2008

6/12/2008

6/12/2008 6/12/2008

6/12/2008

11:15

11:30

11:45

12:00

12:15

12:30

407

406

404

404

404

405

88.1

94.1

104.2

101.8

100.7

100.3

6.82

7.23

7.93

7.75

7.66

7.6

0.2

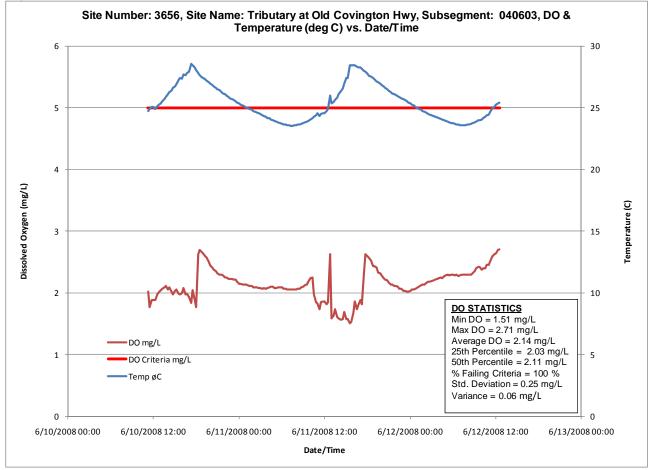
0.2

0.2

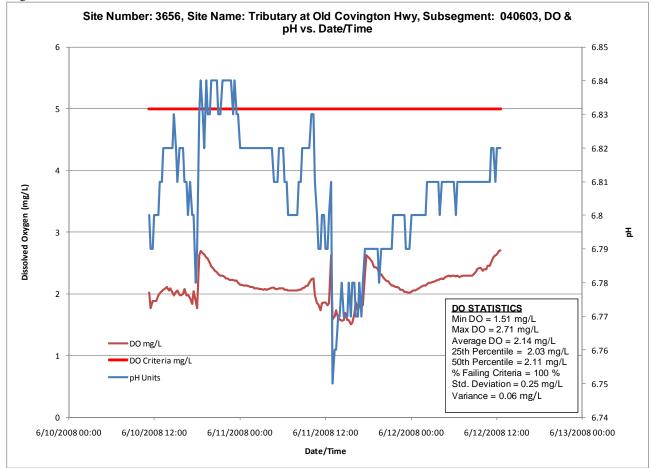
0.2

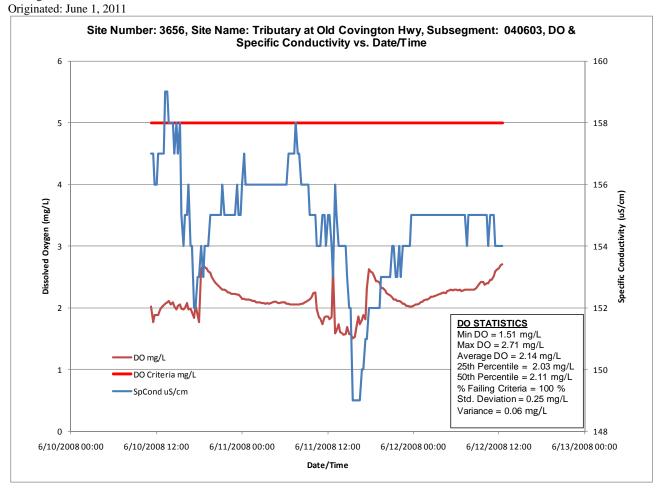
0.2











Site Number: 3656		Site Name:	Tributary at Old Covington Hwy			
Subsegment #:	40603					
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L	
Minimum	23.55	6.75	149.00	19.30	1.51	
Maximum	28.53	6.84	159.00	34.20	2.71	
Average	25.43	6.81	154.75	26.09	2.14	
Geometric Mean	25.39	6.81	#NUM!	25.91	2.12	
25th Percentile	24.15	6.80	154.00	24.70	2.03	
30th Percentile	24.32	6.80	154.00	24.80	2.06	
40th Percentile	24.74	6.80	155.00	25.18	2.08	
50th Percentile	25.13	6.81	155.00	25.75	2.11	
Standard Deviation	1.46	0.02	1.77	3.10	0.25	
Variance	2.12	0.00	3.14	9.62	0.06	
Data Row Count		198				
Total Values						
Failing DO Criteria		198				
Percent failing DO Criteria		100.00	%			

## Selsers Creek, Site 3656, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	ННММ	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	11:15	24.74	6.8	157	24.3	2.02	0.07
6/10/2008	11:30	24.91	6.79	157	21.3	1.77	0.07
6/10/2008	11:45	25.07	6.79	156	22.8	1.88	0.07
6/10/2008	12:00	25.05	6.8	156	22.8	1.88	0.07
6/10/2008	12:15	24.88	6.8	157	22.7	1.88	0.07
6/10/2008	12:30	25.1	6.8	157	24	1.98	0.07
6/10/2008	12:45	25.26	6.81	157	24.5	2.01	0.07
6/10/2008	13:00	25.38	6.81	157	24.9	2.04	0.07
6/10/2008	13:15	25.54	6.82	159	25.3	2.07	0.07
6/10/2008	13:13	25.72	6.82	159	25.6	2.09	0.07
6/10/2008	13:45	25.88	6.82	158	25.9	2.11	0.07
6/10/2008	14:00	26.08	6.82	158	25.5	2.06	0.07
6/10/2008	14:00	26.29	6.82	158	26	2.00	0.07
6/10/2008	14:13	26.29	6.82	157	25.1	2.09	0.07
6/10/2008	14:45	26.6	6.83	158	24.7	1.98	0.07
6/10/2008	15:00	26.74	6.82	157	25.3	2.03	0.07
6/10/2008	15:00	26.74 26.9	6.81	157	25.3 25.7	2.05	0.07
6/10/2008	15:13	27.22	6.82	155	25.7 25.1	1.99	0.07
6/10/2008	15:45	27.42	6.82	153	25.1	1.98	0.07
6/10/2008	16:00	27.42	6.82	155	25.3	2	0.07
6/10/2008	16:00	27.33 27.67	6.81	155	25.3 26.4	2.08	0.07
6/10/2008		27.61	6.81	156	25.2	2.08 1.98	0.07
	16:30		6.8				
6/10/2008	16:45	27.83		154 154	25.4	1.99	0.07
6/10/2008	17:00 17:15	27.91 28.53	6.81 6.8	154 152	24.6 23.7	1.93 1.84	0.07 0.07
6/10/2008					23.7 26.2		
6/10/2008	17:30	28.43	6.8	152		2.04	0.07 0.07
6/10/2008	17:45	28.25	6.78	153	24.1 22.7	1.88 1.77	0.07
6/10/2008	18:00 18:15	28.02	6.79	153 154			
6/10/2008		27.81	6.83		33.5	2.63	0.07
6/10/2008	18:30	27.64 27.46	6.84	153	34.2	2.69	0.07
6/10/2008	18:45 19:00		6.83 6.82	154 154	33.6 33.3	2.66	0.07
6/10/2008 6/10/2008		27.39 27.29		154	33.3 32.7	2.64 2.59	0.07
6/10/2008	19:15 19:30	27.29 27.17	6.84 6.83				0.07
	19:30		6.83	155 155	32.4 31.4	2.57 2.5	0.07 0.07
6/10/2008 6/10/2008		27.06 26.94	6.84	155	30.6	2.5 2.44	0.07
6/10/2008	20:00 20:15		6.84	155	30.0		
6/10/2008	20:13	26.84 26.72	6.84	155	29.7	2.41 2.38	0.07 0.07
					29.7		0.07
6/10/2008	20:45	26.62	6.84	155 155		2.35	
6/10/2008	21:00	26.51	6.83	155 156	28.9	2.32	0.07
6/10/2008	21:15	26.41	6.83	156	28.5	2.29	0.07
6/10/2008	21:30	26.29	6.84	155 155	28.4	2.29	0.07
6/10/2008	21:45	26.18	6.84	155 155	28.2	2.28	0.07
6/10/2008	22:00	26.08	6.84	155	27.8	2.25	0.07
6/10/2008	22:15	25.98	6.84	155	27.7	2.25	0.07
6/10/2008	22:30	25.88	6.84	155	27.5	2.23	0.07
6/10/2008	22:45	25.78	6.84	155	27.4	2.23	0.07
6/10/2008	23:00	25.69	6.83	155	27.3	2.23	0.07

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June 1		05.04	0.04	450	07	0.04	0.07
6/10/2008	23:15	25.61	6.84	156	27	2.21	0.07
6/10/2008	23:30	25.51	6.83	155	27	2.21	0.07
6/10/2008	23:45	25.43	6.83	155	26.6	2.18	0.07
6/11/2008	0:00	25.35	6.82	156	26.2	2.15	0.07
6/11/2008	0:15	25.26	6.82	157	26.2	2.15	0.07
6/11/2008	0:30	25.18	6.82	156	25.9	2.13	0.07
6/11/2008	0:45	25.1	6.82	156	26	2.14	0.07
6/11/2008	1:00	25.03	6.82	156	25.9	2.14	0.07
6/11/2008	1:15	24.94	6.82	156	25.6	2.12	0.07
6/11/2008	1:30	24.88	6.82	156	25.5	2.11	0.07
6/11/2008	1:45	24.82	6.82	156	25.4	2.11	0.07
6/11/2008	2:00	24.74	6.82	156	25.2	2.09	0.07
6/11/2008	2:15	24.67	6.82	156	25.2	2.09	0.07
6/11/2008	2:30	24.6	6.82	156	25.1	2.09	0.07
6/11/2008	2:45	24.53	6.82	156	25	2.08	0.07
6/11/2008	3:00	24.47	6.82	156	24.9	2.08	0.07
6/11/2008	3:15	24.4	6.82	156	24.8	2.07	0.07
6/11/2008	3:30	24.32	6.82	156	24.9	2.08	0.07
6/11/2008	3:45	24.26	6.82	156	24.8	2.07	0.07
6/11/2008	4:00	24.18	6.82	156	24.8	2.08	0.07
6/11/2008	4:15	24.13	6.82	156	24.9	2.09	0.07
6/11/2008	4:30	24.06	6.82	156	25	2.1	0.07
6/11/2008	4:45	24	6.81	156	24.9	2.1	0.07
6/11/2008	5:00	23.95	6.81	156	24.8	2.08	0.07
6/11/2008	5:15	23.88	6.81	156	24.7	2.08	0.07
6/11/2008	5:30	23.82	6.82	156	24.7	2.09	0.07
6/11/2008	5:45	23.77	6.82	156	24.8	2.09	0.07
6/11/2008	6:00	23.77	6.82	156	24.7	2.09	0.07
6/11/2008	6:15	23.66	6.81	156	24.7	2.09	0.07
6/11/2008	6:30	23.62	6.81	157	24.4	2.07	0.07
6/11/2008	6:45	23.58	6.8	157	24.3	2.06	0.07
6/11/2008	7:00	23.56	6.8	157	24.3	2.06	0.07
6/11/2008	7:00 7:15	23.55	6.8	157	24.3	2.06	0.07
6/11/2008	7:30	23.55	6.8	158	24.1	2.05	0.07
6/11/2008	7:30 7:45	23.57	6.8	157	24.1	2.05	0.07
6/11/2008	8:00 8:15	23.59 23.62	6.8 6.81	157 156	24.2 24.4	2.05 2.07	0.07
6/11/2008 6/11/2008	8:30		6.81	156	24.4 24.5		0.07
		23.65				2.07	0.07
6/11/2008	8:45	23.7	6.82	156 450	24.7	2.09	0.07
6/11/2008	9:00	23.76	6.82	156	24.8	2.1	0.07
6/11/2008	9:15	23.8	6.82	156	25.1	2.12	0.07
6/11/2008	9:30	23.84	6.82	155	25.4	2.14	0.07
6/11/2008	9:45	23.94	6.82	155	25.9	2.18	0.07
6/11/2008	10:00	24.05	6.83	155	26.6	2.24	0.07
6/11/2008	10:15	24.18	6.83	155	26.8	2.25	0.07
6/11/2008	10:30	24.27	6.81	154	23.6	1.97	0.07
6/11/2008	10:45	24.4	6.8	154	22.2	1.85	0.07
6/11/2008	11:00	24.55	6.79	154	22	1.83	0.07
6/11/2008	11:15	24.32	6.79	155	20.7	1.73	0.07
6/11/2008	11:30	24.47	6.8	155	22.2	1.85	0.07
6/11/2008	11:45	24.57	6.8	154	22.3	1.86	0.07
6/11/2008	12:00	24.55	6.79	155	22.4	1.86	0.07
6/11/2008	12:15	24.73	6.79	155	21.8	1.81	0.07

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June 1		0.4.0	0.0	454	00.0	4.05	0.07
6/11/2008	12:30	24.9	6.8	154	22.3	1.85	0.07
6/11/2008	12:45	25.98	6.81	153	32.4	2.63	0.07
6/11/2008	13:00	25.37	6.75	156	19.4	1.59	0.07
6/11/2008	13:15	25.47	6.76	155	19.9	1.63	0.07
6/11/2008	13:30	25.64	6.76	154	21.1	1.73	0.07
6/11/2008	13:45	25.82	6.77	154	19.8	1.61	0.07
6/11/2008	14:00	26.11	6.77	154	19.7	1.59	0.07
6/11/2008	14:15	26.32	6.78	154	19.3	1.56	0.07
6/11/2008	14:30	26.53	6.77	154	19.7	1.58	0.07
6/11/2008	14:45	26.95	6.77	153	21.2	1.69	0.07
6/11/2008	15:00	27.39	6.77	152	20	1.58	0.07
6/11/2008	15:15	27.4	6.78	152	19.9	1.58	0.07
6/11/2008	15:30	28.46	6.77	149	19.4	1.51	0.07
6/11/2008	15:45	28.45	6.78	149	19.7	1.53	0.06
6/11/2008	16:00	28.46	6.78	149	21.6	1.68	0.06
6/11/2008	16:15	28.43	6.77	149	23.9	1.86	0.06
6/11/2008	16:30	28.34	6.77	149	22.3	1.74	0.06
6/11/2008	16:45	28.28	6.78	150	23.1	1.8	0.06
6/11/2008	17:00	28.26	6.77	150	24.1	1.88	0.06
6/11/2008	17:15	28.15	6.78	151	23.2	1.81	0.07
6/11/2008	17:30	27.99	6.79	151	29.7	2.32	0.07
6/11/2008	17:45	27.9	6.79	152	33.6	2.63	0.07
6/11/2008	18:00	27.75	6.79	152	33	2.59	0.07
6/11/2008	18:15	27.59	6.79	152	32.6	2.57	0.07
6/11/2008	18:30	27.52	6.79	152	31.9	2.52	0.07
6/11/2008	18:45	27.4	6.79	152	30.8	2.43	0.07
6/11/2008	19:00	27.27	6.79	152	30.6	2.43	0.07
6/11/2008	19:15	27.15	6.79	152	30.3	2.41	0.07
6/11/2008	19:30	27.15	6.78	153	29.3	2.33	0.07
6/11/2008	19:45	26.95	6.79	153	29.5	2.32	0.07
			6.79	153		2.32	
6/11/2008	20:00	26.84			28.6		0.07
6/11/2008	20:15	26.73	6.79	153	27.9	2.24	0.07
6/11/2008	20:30	26.61	6.79	153	27.6	2.22	0.07
6/11/2008	20:45	26.5	6.79	153	27.4	2.2	0.07
6/11/2008	21:00	26.38	6.79	154	27	2.17	0.07
6/11/2008	21:15	26.28	6.79	154	26.4	2.13	0.07
6/11/2008	21:30	26.18	6.8	153	26.4	2.13	0.07
6/11/2008	21:45	26.09	6.8	153	26.1	2.11	0.07
6/11/2008	22:00	26.01	6.8	154	26.1	2.11	0.07
6/11/2008	22:15	25.93	6.8	153	25.8	2.1	0.07
6/11/2008	22:30	25.85	6.8	154	25.5	2.07	0.07
6/11/2008	22:45	25.77	6.8	154	25.4	2.07	0.07
6/11/2008	23:00	25.68	6.8	154	24.9	2.03	0.07
6/11/2008	23:15	25.61	6.79	154	24.9	2.03	0.07
6/11/2008	23:30	25.52	6.79	154	24.7	2.02	0.07
6/11/2008	23:45	25.43	6.79	155	24.6	2.02	0.07
6/12/2008	0:00	25.33	6.8	155	24.8	2.03	0.07
6/12/2008	0:05	25.25	6.8	155	24.9	2.05	0.07
6/12/2008	0:30	25.25	6.8	155	24.9	2.05	0.07
6/12/2008	0:30	25.10	6.8	155	24.9 25.1	2.03	0.07
6/12/2008	1:00	24.98	6.8	155 155	25.2	2.09	0.07
6/12/2008	1:15	24.9	6.8	155	25.4	2.1	0.07
6/12/2008	1:30	24.82	6.8	155	25.5	2.12	0.07

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 6.8 25.6 0.07 6/12/2008 1:45 24.74 155 2.13 2:00 25.8 6/12/2008 24.66 6.8 155 2.14 0.07 6/12/2008 2:15 24.59 6.81 155 26 2.16 0.07 2:30 24.52 6.81 26.1 2.18 0.07 6/12/2008 155 6/12/2008 2:45 24.45 6.81 155 26.1 2.18 0.07 6/12/2008 3:00 24.38 6.81 155 26.3 2.19 0.07 6/12/2008 3:15 24.32 6.81 155 26.2 2.2 0.07 3:30 24.26 6.81 155 26.5 2.22 0.07 6/12/2008 6/12/2008 3:45 24.19 6.81 155 26.6 2.23 0.07 2.24 6/12/2008 4:00 24.14 6.8 155 26.7 0.07 6/12/2008 4:15 24.08 6.81 155 26.8 2.25 0.07 6/12/2008 4:30 24.02 6.81 26.7 2.24 0.07 155 4:45 23.96 6.81 155 26.9 2.27 0.07 6/12/2008 5:00 2.28 6/12/2008 23.92 6.81 155 27.1 0.07 6/12/2008 5:15 23.87 6.81 155 27.1 2.29 0.07 2.28 6/12/2008 5:30 23.82 6.81 155 27 0.07 5:45 6.81 155 27.1 2.29 0.07 6/12/2008 23.77 6/12/2008 6:00 23.73 6.81 27.1 2.29 0.07 155 27 2.28 6/12/2008 6:15 23.69 6.8 155 0.07 6/12/2008 6:30 23.64 6.81 155 27 2.29 0.07 6:45 23.62 26.8 2.27 6/12/2008 6.81 155 0.07 2.28 6/12/2008 7:00 23.6 6.81 155 26.9 0.07 6/12/2008 7:15 23.6 6.81 155 27.1 2.29 0.07 7:30 2.29 6/12/2008 23.6 6.81 154 27 0.07 27.1 2.29 6/12/2008 7:45 23.61 6.81 155 0.07 6/12/2008 8:00 23.63 6.81 155 27 2.29 0.07 27.1 6/12/2008 8:15 23.66 6.81 155 2.29 0.07 6/12/2008 8:30 23.69 6.81 155 27.2 2.3 0.07 2.32 6/12/2008 8:45 23.74 6.81 155 27.5 0.07 6/12/2008 9:00 23.81 6.81 155 27.8 2.35 0.07 2.4 6/12/2008 9:15 23.89 6.81 155 28.5 0.07 9:30 23.96 28.7 2.42 6/12/2008 6.81 155 0.07 6/12/2008 9:45 23.99 6.81 155 28.8 2.42 0.07 6/12/2008 10:00 24.03 6.81 155 28.2 2.37 0.07 2.4 6/12/2008 10:15 24.13 6.81 155 28.6 0.07 6/12/2008 10:30 24.26 6.81 154 28.7 2.4 0.07 6/12/2008 10:45 24.36 6.81 155 29.3 2.45 0.07 29.3 6/12/2008 11:00 24.44 6.81 2.45 0.07 155 24.65 6.82 30.2 2.51 0.07 6/12/2008 11:15 155 6/12/2008 11:30 24.97 6.82 154 31.3 2.59 0.07

25.04

25.26

25.34

25.42

11:45

12:00

12:15

12:30

6/12/2008

6/12/2008

6/12/2008

6/12/2008

6.81

6.82

6.82

6.82

154

154

154

154

2.63

2.64

2.7

2.71

31.8

32.1

32.9

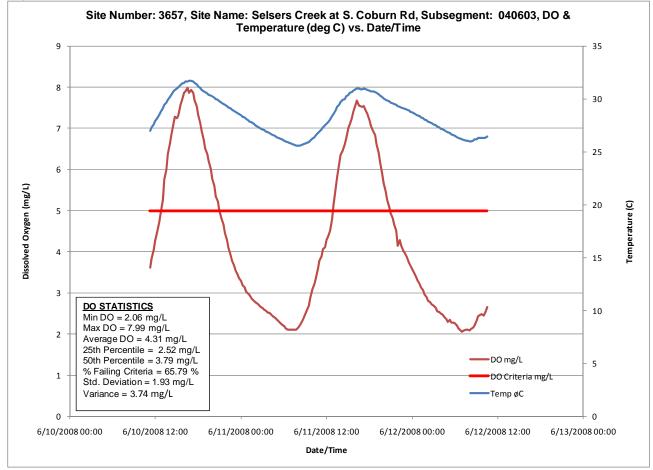
33.1

0.07

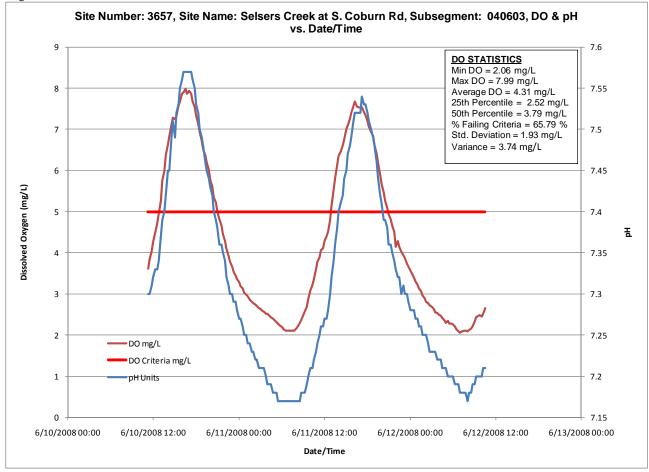
0.07

0.07









DO mg/L
DO Criteria mg/L

SpCond uS/cm

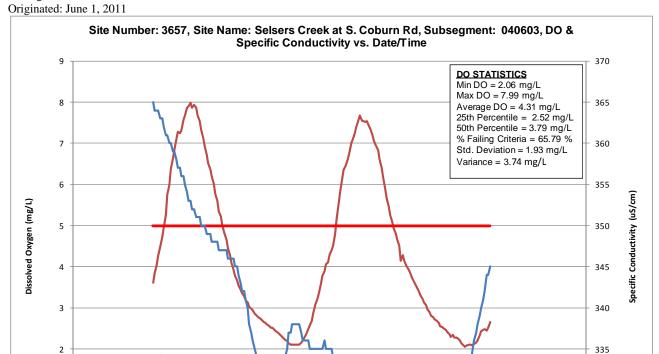
6/10/2008 12:00

6/11/2008 00:00

1

0

6/10/2008 00:00



330

325

6/13/2008 00:00

Site Number:	3657	Site Name:	Selsers Creek at	S Cobi	ırn Rd
Subsegment #:	40603	Ono mamor	Colocio Ciccia di	0. 000	ann rea
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L
NA::	05.50	7.47	202.02	05.40	0.00
Minimum	25.58		328.00		
Maximum	31.71	7.57	365.00	108.90	7.99
Average	28.44	7.32	337.54	56.26	4.31
Geometric Mean	28.38	7.32	#NUM!	#NUM!	3.90
25th Percentile	26.75	7.21	329.00	31.53	2.52
30th Percentile	27.03	7.22	329.00	33.50	2.67
40th Percentile	27.66	7.25	331.00	40.06	3.13
50th Percentile	28.40	7.29	334.50	48.45	3.79
Standard Deviation	1.83	0.12	10.48	26.93	1.93
Variance	3.34	0.02	109.83	725.04	3.74
Data Row Count		190			
Total Values					
Failing DO Criteria		125			
Percent failing DO					
Criteria		65.79	%		

6/11/2008 12:00

Date/Time

6/12/2008 00:00

6/12/2008 12:00

# Selsers Creek, Site 3657, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	11:15	26.98	7.3	365	45.3	3.61	0.18
6/10/2008	11:30	27.3	7.3	364	48.3	3.83	0.18
6/10/2008	11:45	27.58	7.31	364	51.3	4.04	0.18
6/10/2008	12:00	27.89	7.32	364	54.5	4.27	0.18
6/10/2008	12:15	28.2	7.33	363	57.6	4.49	0.18
6/10/2008	12:30	28.49	7.33	363	60.9	4.72	0.18
6/10/2008	12:45	28.76	7.34	362	64.1	4.95	0.18
6/10/2008	13:00	29.13	7.37	361	68.6	5.26	0.18
6/10/2008	13:15	29.44	7.39	361	75.4	5.75	0.18
6/10/2008	13:30	29.64	7.4	360	78.8	5.99	0.18
6/10/2008	13:45	29.9	7.42	360	84.2	6.37	0.18
6/10/2008	14:00	30.21	7.45	359	88.1	6.63	0.18
6/10/2008	14:00	30.21	7.45 7.45	359	91.1	6.84	0.18
6/10/2008	14:13	30.37	7.43 7.49	358	95.3	7.11	0.18
6/10/2008	14:45	30.83	7.49 7.51	357	95.3 97.8	7.11	0.18
	15:00	30.98	7.31	35 <i>7</i> 357	97.6 97.5	7.26 7.24	0.18
6/10/2008 6/10/2008		31.11	7.49 7.52		97.5 98.7	7.24	0.18
6/10/2008	15:15 15:30	31.11	7.52 7.53	356 356	96.7 102.5	7.51 7.57	0.18
	15:45	31.32	7.55 7.55	355	102.5	7.57 7.68	0.18
6/10/2008 6/10/2008						7.86	
	16:00	31.54	7.56	354	106.9		0.17
6/10/2008	16:15	31.61	7.57	353	107.5	7.9	0.17
6/10/2008	16:30	31.67	7.57	353	108.9	7.99	0.17
6/10/2008	16:45	31.69	7.57	352	107.2	7.87	0.17
6/10/2008	17:00	31.71	7.57	352	108.1	7.93	0.17
6/10/2008	17:15	31.62	7.57	351	107.1	7.86	0.17
6/10/2008	17:30	31.5	7.56	351	104.2	7.67	0.17
6/10/2008	17:45	31.36	7.55	351	102.2	7.54	0.17
6/10/2008	18:00	31.2	7.53	350	99.3	7.34	0.17
6/10/2008	18:15	31.04	7.52	350	96.2	7.13	0.17
6/10/2008	18:30	30.87	7.5	350	93.1	6.93	0.17
6/10/2008	18:45	30.73	7.49	349	90.1	6.72	0.17
6/10/2008	19:00	30.62	7.48	349	87.1	6.51	0.17
6/10/2008	19:15	30.5	7.46	349	85.1	6.37	0.17
6/10/2008	19:30	30.4	7.45	348	82.6	6.2	0.17
6/10/2008	19:45	30.31	7.44	348	80	6.01	0.17
6/10/2008	20:00	30.22	7.43	348	76.9	5.78	0.17
6/10/2008	20:15	30.11	7.42	348	74.3	5.6	0.17
6/10/2008	20:30	30	7.4	347	70.9	5.35	0.17
6/10/2008	20:45	29.88	7.39	347	69.1	5.23	0.17
6/10/2008	21:00	29.77	7.38	347	66	5	0.17
6/10/2008	21:15	29.66	7.36	347	63.5	4.82	0.17
6/10/2008	21:30	29.53	7.36	347	61	4.65	0.17
6/10/2008	21:45	29.42	7.35	346	58.3	4.45	0.17
6/10/2008	22:00	29.3	7.34	346	56	4.28	0.17
6/10/2008	22:15	29.19	7.32	346	53.4	4.09	0.17
6/10/2008	22:30	29.08	7.31	346	51.2	3.93	0.17
6/10/2008	22:45	28.96	7.3	345	49.3	3.79	0.17
6/10/2008	23:00	28.85	7.3	345	47.5	3.66	0.17

Subsegment 0406							
Originated: June					4.0		o
6/10/2008	23:15	28.75	7.29	344	46	3.55	0.17
6/10/2008	23:30	28.66	7.29	343	44.5	3.44	0.17
6/10/2008	23:45	28.56	7.28	342	43.4	3.36	0.17
6/11/2008	0:00	28.46	7.27	342	42.4	3.29	0.17
6/11/2008	0:15	28.34	7.27	341	41.1	3.19	0.17
6/11/2008	0:30	28.23	7.26	340	40.2	3.13	0.17
6/11/2008	0:45	28.1	7.25	338	38.9	3.03	0.17
6/11/2008	1:00	27.98	7.25	337	38.1	2.98	0.17
6/11/2008	1:15	27.86	7.24	336	37.5	2.94	0.16
6/11/2008	1:30	27.76	7.24	335	36.4	2.86	0.16
6/11/2008	1:45	27.64	7.23	334	35.8	2.81	0.16
6/11/2008	2:00	27.52	7.23	333	35.1	2.77	0.16
6/11/2008	2:15	27.41	7.22	332	34.7	2.74	0.16
6/11/2008	2:30	27.32	7.22	331	34	2.7	0.16
6/11/2008	2:45	27.32	7.22	331	33.5	2.66	0.16
6/11/2008	3:00	27.21	7.21	330	33.2	2.64	0.16
	3:15						
6/11/2008		27.03	7.21	330	32.5	2.59	0.16
6/11/2008	3:30	26.94	7.21	329	32.1	2.56	0.16
6/11/2008	3:45	26.84	7.2	329	31.6	2.52	0.16
6/11/2008	4:00	26.75	7.19	329	31.3	2.51	0.16
6/11/2008	4:15	26.67	7.19	329	30.7	2.46	0.16
6/11/2008	4:30	26.58	7.19	330	30.3	2.43	0.16
6/11/2008	4:45	26.5	7.18	330	29.7	2.39	0.16
6/11/2008	5:00	26.4	7.18	331	29.3	2.36	0.16
6/11/2008	5:15	26.32	7.18	332	28.6	2.31	0.16
6/11/2008	5:30	26.23	7.17	333	28.1	2.27	0.16
6/11/2008	5:45	26.15	7.17	334	27.5	2.22	0.16
6/11/2008	6:00	26.07	7.17	335	27	2.19	0.16
6/11/2008	6:15	25.97	7.17	337	26.4	2.14	0.17
6/11/2008	6:30	25.91	7.17	337	26	2.11	0.17
6/11/2008	6:45	25.83	7.17	338	25.9	2.11	0.17
6/11/2008	7:00	25.76	7.17	338	25.8	2.1	0.17
6/11/2008	7:15	25.7	7.17	338	25.8	2.11	0.17
6/11/2008	7:30	25.64	7.17	338	25.9	2.11	0.17
6/11/2008	7:45	25.6	7.17	338	25.9	2.11	0.17
6/11/2008	8:00	25.58	7.17	337	26.4	2.16	0.17
6/11/2008	8:15	25.61	7.17	336	27.1	2.21	0.16
6/11/2008	8:30	25.63	7.17	336	28	2.29	0.16
6/11/2008	8:45	25.03	7.17 7.18	336	29	2.29	0.16
6/11/2008	9:00		7.18 7.18				0.16
		25.77		336	30.5	2.48	
6/11/2008	9:15	25.85	7.18	335	31.5	2.56	0.16
6/11/2008	9:30	25.94	7.19	335	33.1	2.68	0.16
6/11/2008	9:45	26.07	7.2	335	35.5	2.87	0.16
6/11/2008	10:00	26.24	7.21	335	38.2	3.09	0.16
6/11/2008	10:15	26.38	7.21	335	40	3.22	0.16
6/11/2008	10:30	26.55	7.22	335	41.9	3.36	0.16
6/11/2008	10:45	26.78	7.23	335	44.9	3.59	0.16
6/11/2008	11:00	26.93	7.24	335	47.6	3.79	0.16
6/11/2008	11:15	27.13	7.25	336	48.9	3.89	0.16
6/11/2008	11:30	27.33	7.26	335	51.2	4.06	0.16
6/11/2008	11:45	27.51	7.26	335	52.1	4.11	0.16
6/11/2008	12:00	27.64	7.27	335	54.6	4.29	0.16
6/11/2008	12:15	27.83	7.27	335	56.3	4.41	0.16

503						
	00.04	7.00	004	57.0	4.54	0.40
						0.16
						0.16
						0.16
						0.16
13:30	29.23					0.16
13:45	29.46	7.38	333	80.5	6.13	0.16
14:00	29.68	7.4	332	83.6	6.35	0.16
14:15	29.88	7.41	331	85.2	6.45	0.16
14:30	29.99	7.42	332	87.5	6.61	0.16
14:45	30.23	7.44	331	89.8	6.75	0.16
15:00	30.35	7.45	331	93.3	7	0.16
15:15	30.55	7.47	330	94.9	7.1	0.16
15:30	30.63	7.48	330	97	7.25	0.16
		7.49		99.3	7.4	0.16
					7.56	0.16
					7.68	0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16
						0.16 0.16
1.30	20.10	1.20	320	33.4	3.07	0.10
	1, 2011 12:30 12:45 13:00 13:15 13:30 13:45 14:00 14:15 14:30 14:45 15:00	1, 2011         12:30       28.04         12:45       28.35         13:00       28.6         13:15       28.91         13:30       29.23         13:45       29.46         14:00       29.68         14:15       29.88         14:30       29.99         14:45       30.23         15:00       30.35         15:15       30.55         15:30       30.63         15:45       30.75         16:00       30.88         16:15       30.96         16:30       30.95         16:45       30.91         17:00       30.93         17:15       30.97         17:30       30.92         17:45       30.85         18:00       30.76         18:15       30.74         18:30       30.7         18:45       30.65         19:00       30.58         19:15       30.46         19:30       30.33         19:45       30.19         20:00       29.67         21:15       29.57         21:30       29	1, 2011         12:30       28.04       7.28         12:45       28.35       7.3         13:00       28.6       7.32         13:15       28.91       7.34         13:30       29.23       7.36         13:45       29.46       7.38         14:00       29.68       7.4         14:15       29.88       7.41         14:30       29.99       7.42         14:45       30.23       7.44         15:00       30.35       7.45         15:15       30.55       7.47         15:30       30.63       7.48         15:45       30.75       7.49         16:00       30.88       7.51         16:15       30.96       7.52         16:30       30.95       7.52         16:45       30.91       7.52         17:00       30.93       7.52         17:15       30.97       7.54         17:30       30.92       7.53         17:45       30.85       7.53         18:45       30.65       7.49         19:00       30.58       7.48         19:15       30.46	1,2011       12:30       28.04       7.28       334         12:45       28.35       7.3       334         13:00       28.6       7.32       334         13:15       28.91       7.34       333         13:30       29.23       7.36       333         13:45       29.46       7.38       333         14:00       29.68       7.4       332         14:15       29.88       7.41       331         14:30       29.99       7.42       332         14:45       30.23       7.44       331         15:00       30.35       7.45       331         15:15       30.55       7.47       330         15:30       30.63       7.48       330         15:45       30.75       7.49       330         16:00       30.88       7.51       329         16:15       30.96       7.52       329         16:45       30.91       7.52       328         17:00       30.93       7.52       328         17:15       30.97       7.54       328         17:30       30.92       7.53       328	1, 2011 12:30	1, 2011 12:30

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 28.06 328 37.8 2.96 0.16 6/12/2008 1:45 7.25 2:00 27.97 328 37 2.89 6/12/2008 7.25 0.16 6/12/2008 2:15 27.87 7.25 328 35.9 2.81 0.16 2:30 27.78 7.24 328 35.2 2.77 0.16 6/12/2008 6/12/2008 2:45 27.68 7.23 328 34.5 2.72 0.16 6/12/2008 3:00 27.57 7.23 328 34.1 2.68 0.16 6/12/2008 3:15 27.48 7.23 328 33.5 2.64 0.16 6/12/2008 3:30 27.39 7.23 328 32.3 2.55 0.16 6/12/2008 3:45 27.3 7.22 328 31.9 2.53 0.16 7.22 6/12/2008 4:00 27.2 328 31.5 2.5 0.16 6/12/2008 4:15 27.11 7.22 328 31 2.46 0.16 6/12/2008 4:30 27.02 7.21 329 30.4 2.42 0.16 4:45 26.94 7.21 329 29.7 2.37 0.16 6/12/2008 5:00 329 28.7 2.29 6/12/2008 26.85 7.21 0.16 6/12/2008 5:15 26.75 7.2 329 29.2 2.34 0.16 6/12/2008 5:30 26.66 7.2 329 28.5 2.28 0.16 5:45 26.58 7.2 329 28.5 2.28 6/12/2008 0.16 6/12/2008 6:00 26.49 7.2 329 28.1 2.26 0.16 7.19 6/12/2008 6:15 26.41 330 27.4 2.21 0.16 6/12/2008 6:30 26.33 7.19 330 26.6 2.14 0.16 2.09 6:45 26.25 25.9 6/12/2008 7.19 330 0.16 7:00 7.18 25.4 6/12/2008 26.19 331 2.06 0.16 6/12/2008 7:15 26.12 7.18 332 25.7 2.08 0.16 7:30 25.9 6/12/2008 26.07 7.18 332 2.1 0.16 26 2.11 6/12/2008 7:45 26.03 7.18 333 0.16 6/12/2008 8:00 26 7.17 335 25.8 2.09 0.16 6/12/2008 8:15 26.01 7.18 336 26.2 2.12 0.16 6/12/2008 8:30 26.07 7.18 337 26.6 2.16 0.17 6/12/2008 8:45 26.15 7.19 338 27.4 2.21 0.17 6/12/2008 9:00 26.2 7.19 339 28.9 2.33 0.17 6/12/2008 9:15 26.3 7.2 340 30.2 2.43 0.17

341

342

344

344

345

30.5

30.8

30.2

31.3

33

2.46

2.49

2.44

2.52

2.65

0.17

0.17

0.17

0.17

0.17

9:30

9:45

10:00

10:15

10:30

6/12/2008

6/12/2008

6/12/2008

6/12/2008

6/12/2008

26.28

26.3

26.29

26.33

26.46

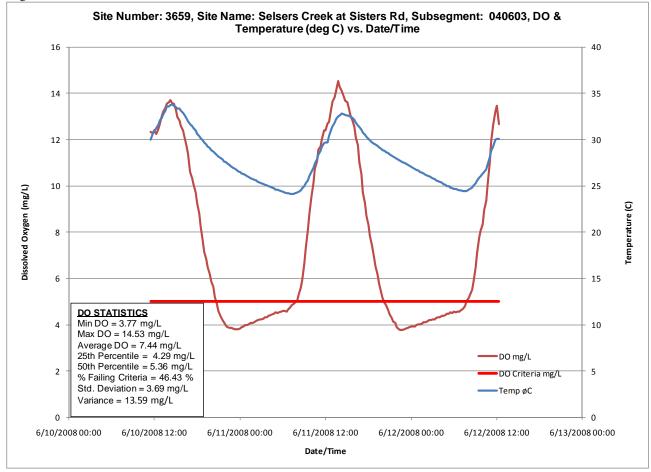
7.2

7.2

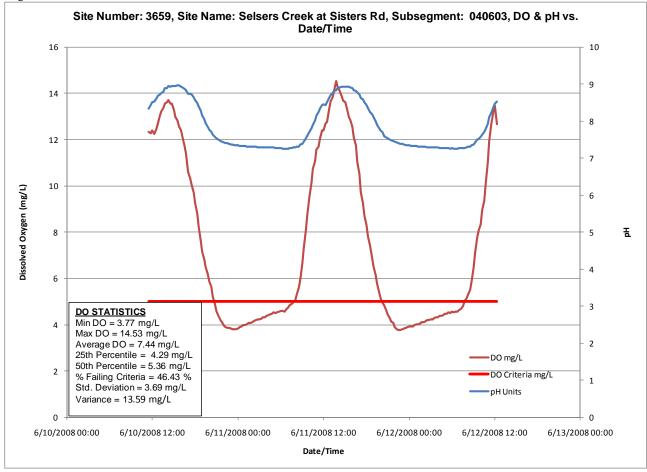
7.2

7.21

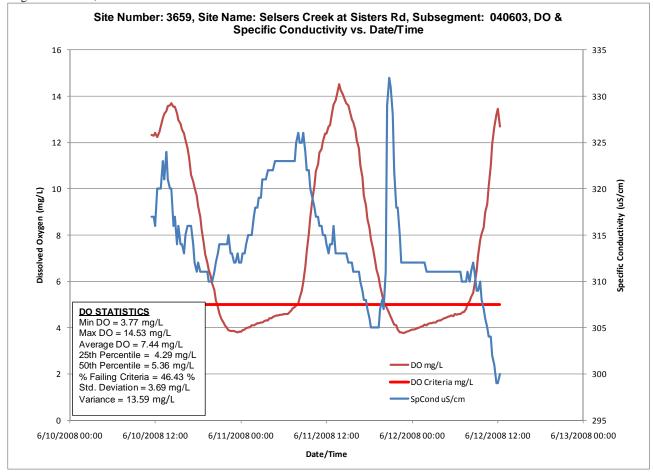
Originated: June 1, 2011











Site Number:	3659	Site Name:	Selsers Creek at	Sisters I	Rd
Subsegment #:	40603				
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L
Minimum	24.14	7.26	299.00	47.50	3.77
Maximum	33.79	8.97	332.00	200.80	14.53
Average	28.04	7.85	314.16	97.17	7.44
Geometric Mean	27.89	7.82	#NUM!	#NUM!	6.61
25th Percentile	25.49	7.30	311.00	52.58	4.29
30th Percentile	25.85	7.31	311.00	53.85	4.41
40th Percentile	26.60	7.37	312.00	55.90	4.61
50th Percentile	27.52	7.50	313.00	66.95	5.36
Standard Deviation	2.87	0.63	5.93	52.64	3.69
Variance	8.21	0.39	35.16	2770.68	13.59
Data Row Count		196			
Total Values					
Failing DO Criteria		91			
Percent failing DO					
Criteria		46.43	%		

# Selsers Creek, Site 3659, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	ННММ	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	11:30	29.96	8.34	317	163	12.32	0.15
6/10/2008	11:45	30.57	8.43	317	164.2	12.28	0.15
6/10/2008	12:00	30.91	8.51	316	166.8	12.20	0.15
6/10/2008	12:00	31.25	8.52	320	165.6	12.4	0.15
		31.56		320			
6/10/2008 6/10/2008	12:30		8.61		169.2	12.44	0.16
	12:45	32.06	8.68	320	173.9	12.68	0.16
6/10/2008	13:00	32.37	8.72	323	179.8	13.04	0.16
6/10/2008	13:15	32.73	8.75	321	183.5	13.23	0.16
6/10/2008	13:30	33.15	8.8	324	186.8	13.37	0.16
6/10/2008	13:45	33.57	8.88	321	190.8	13.56	0.16
6/10/2008	14:00	33.59	8.88	320	191.5	13.61	0.16
6/10/2008	14:15	33.73	8.95	320	193.1	13.69	0.16
6/10/2008	14:30	33.79	8.92	316	191.1	13.54	0.15
6/10/2008	14:45	33.65	8.94	317	190.7	13.54	0.15
6/10/2008	15:00	33.53	8.95	314	186.5	13.27	0.15
6/10/2008	15:15	33.33	8.95	316	181.7	12.97	0.15
6/10/2008	15:30	33.31	8.97	314	179.5	12.82	0.15
6/10/2008	15:45	33.13	8.96	314	175.7	12.58	0.15
6/10/2008	16:00	32.88	8.92	313	172.1	12.38	0.15
6/10/2008	16:15	32.67	8.91	315	167.9	12.12	0.15
6/10/2008	16:30	32.31	8.87	316	161.5	11.73	0.15
6/10/2008	16:45	31.97	8.83	316	155.8	11.38	0.15
6/10/2008	17:00	31.69	8.74	316	144.5	10.6	0.15
6/10/2008	17:15	31.42	8.73	314	140	10.32	0.15
6/10/2008	17:30	31.21	8.71	312	135.9	10.05	0.15
6/10/2008	17:45	30.95	8.65	311	130.7	9.71	0.15
6/10/2008	18:00	30.64	8.57	312	124	9.26	0.15
6/10/2008	18:15	30.41	8.49	311	117.4	8.8	0.15
6/10/2008	18:30	30.13	8.4	311	109.5	8.25	0.15
6/10/2008	18:45	29.92	8.28	311	100.8	7.62	0.15
6/10/2008	19:00	29.66	8.15	311	94.4	7.17	0.15
6/10/2008	19:15	29.45	8.05	311	89.4	6.82	0.15
6/10/2008	19:30	29.27	7.94	310	84.9	6.49	0.15
6/10/2008	19:45	29.1	7.85	310	80.7	6.19	0.15
6/10/2008	20:00	28.89	7.77	310	76.5	5.89	0.15
6/10/2008	20:15	28.7	7.7	311	72.8	5.62	0.15
6/10/2008	20:30	28.53	7.64	312	67.2	5.21	0.15
6/10/2008	20:45	28.33	7.58	313	62.9	4.89	0.15
6/10/2008	21:00	28.16	7.53	314	59.2	4.61	0.15
6/10/2008	21:15	28.02	7.49	314	55.9	4.37	0.15
6/10/2008	21:30	27.83	7.47	314	53.7	4.21	0.15
6/10/2008	21:45	27.66	7.44	314	52.1	4.1	0.15
6/10/2008	22:00	27.53	7.43	314	50.3	3.97	0.15
6/10/2008	22:15	27.39	7.43 7.41	315	49.3	3.9	0.15
6/10/2008	22:30	27.25	7.4	313	48.7	3.86	0.15
6/10/2008	22:45	27.23	7.4 7.38	313	48.6	3.86	0.15
6/10/2008	23:00	26.94	7.36 7.37	313	48.2	3.84	0.15
6/10/2008	23:15	26.84	7.37 7.36	312	47.8	3.81	0.15
0/10/2000	23.13	20.04	1.30	312	41.0	3.01	0.15

Subsegment 0406							
Originated: June 1				0.4.0			o =
6/10/2008	23:30	26.73	7.35	313	47.5	3.8	0.15
6/10/2008	23:45	26.6	7.35	312	47.5	3.81	0.15
6/11/2008	0:00	26.48	7.34	312	47.7	3.83	0.15
6/11/2008	0:15	26.37	7.33	313	48.3	3.89	0.15
6/11/2008	0:30	26.27	7.33	313	48.6	3.92	0.15
6/11/2008	0:45	26.17	7.32	314	49.3	3.98	0.15
6/11/2008	1:00	26.07	7.32	315	49.4	4	0.15
6/11/2008	1:15	25.98	7.31	315	49.5	4.01	0.15
6/11/2008	1:30	25.84	7.31	315	50.3	4.09	0.15
6/11/2008	1:45	25.74	7.31	317	50.2	4.09	0.15
6/11/2008	2:00	25.64	7.31	318	50.5	4.12	0.15
6/11/2008	2:15	25.55	7.3	318	51.2	4.18	0.15
6/11/2008	2:30	25.44	7.3	319	51.2	4.19	0.16
6/11/2008	2:45	25.36	7.29	319	51.5	4.23	0.16
6/11/2008	3:00	25.29	7.29	321	51.4	4.22	0.16
6/11/2008	3:15	25.21	7.29	321	51.9	4.27	0.16
6/11/2008	3:30	25.11	7.29	321	52.3	4.31	0.16
6/11/2008	3:45	25.03	7.29	322	52.3	4.32	0.16
6/11/2008	4:00	24.94	7.28	322	53.1	4.39	0.16
6/11/2008	4:15	24.86	7.28	322	53.2	4.4	0.16
6/11/2008	4:30	24.78	7.28	322	53.7	4.45	0.16
6/11/2008	4:45	24.71	7.28	323	54	4.48	0.16
6/11/2008	5:00	24.62	7.28	323	54.5	4.53	0.16
6/11/2008	5:15	24.58	7.27	323	54.3	4.51	0.16
6/11/2008	5:30	24.5	7.27	323	54.6	4.55	0.16
6/11/2008	5:45	24.42	7.27	323	54.8	4.57	0.16
6/11/2008	6:00	24.34	7.27	323	54.9	4.59	0.16
6/11/2008	6:15	24.34	7.26	323	54.8	4.59	0.16
6/11/2008	6:30	24.23	7.26	323	54.7	4.58	0.16
6/11/2008	6:45	24.23	7.26	323	55.6	4.66	0.16
6/11/2008	7:00	24.17	7.26	323	56.6	4.74	0.16
6/11/2008	7:00 7:15	24.10	7.27	323	57.5	4.83	0.16
6/11/2008	7:13 7:30	24.14	7.27	323	58.4	4.03	0.16
6/11/2008	7:30 7:45	24.13	7.27 7.28	325 325	59.2	4.96	0.16
6/11/2008	8:00	24.28	7.29	326	60.3	5.05	0.16
6/11/2008	8:15	24.38	7.31	325	63.3	5.29	0.16
6/11/2008	8:30	24.52	7.31	325	67.1 74.7	5.59	0.16
6/11/2008	8:45	24.71	7.36	326	71.7	5.95	0.16
6/11/2008	9:00	24.96	7.39	324	80.3	6.63	0.16
6/11/2008	9:15	25.29	7.45	322	88.9	7.3	0.16
6/11/2008	9:30	25.59	7.54	322	98.8	8.07	0.16
6/11/2008	9:45	26.01	7.59	320	107.9	8.75	0.16
6/11/2008	10:00	26.48	7.7	319	118.3	9.51	0.16
6/11/2008	10:15	26.96	7.8	318	127.4	10.15	0.16
6/11/2008	10:30	27.41	7.9	317	136.1	10.76	0.15
6/11/2008	10:45	27.88	8.02	317	140.9	11.04	0.15
6/11/2008	11:00	28.41	8.15	316	148.8	11.56	0.15
6/11/2008	11:15	28.75	8.25	316	151.5	11.7	0.15
6/11/2008	11:30	29.26	8.33	315	157.3	12.04	0.15
6/11/2008	11:45	29.6	8.43	315	162.9	12.39	0.15
6/11/2008	12:00	29.66	8.46	314	163.1	12.39	0.15
6/11/2008	12:15	29.69	8.43	313	167.2	12.7	0.15
6/11/2008	12:30	30.39	8.51	314	170.1	12.76	0.15

Subsegment 0406							
Originated: June		24.07	0.00	24.4	470.0	40.0	0.45
6/11/2008	12:45	31.07	8.62	314	179.3	13.3	0.15
6/11/2008	13:00	31.43	8.7	316	185	13.64	0.15
6/11/2008	13:15	31.8	8.75	313	188.8	13.82	0.15
6/11/2008	13:30	32.18	8.82	313	193.7	14.09	0.15
6/11/2008	13:45	32.51	8.84	313	200.8	14.53	0.15
6/11/2008	14:00	32.62	8.88	313	197.5	14.27	0.15
6/11/2008	14:15	32.79	8.91	313	195.6	14.09	0.15
6/11/2008	14:30	32.73	8.92	313	192.1	13.85	0.15
6/11/2008	14:45	32.68	8.93	313	189.6	13.68	0.15
6/11/2008	15:00	32.61	8.93	312	188.4	13.61	0.15
6/11/2008	15:15	32.55	8.93	312	184.9	13.37	0.15
6/11/2008	15:30	32.45	8.92	312	179.2	12.98	0.15
6/11/2008	15:45	32.36	8.9	311	177.3	12.86	0.15
6/11/2008	16:00	32.12	8.88	311	172.3	12.55	0.15
6/11/2008	16:15	31.83	8.84	311	165.2	12.09	0.15
6/11/2008	16:30	31.54	8.81	311	159.7	11.74	0.15
6/11/2008	16:45	31.34	8.77	310	149.2	11.01	0.15
6/11/2008	17:00	31.09	8.72	309	141.8	10.51	0.15
6/11/2008		30.77			130.3	9.71	0.15
	17:15		8.62	308			
6/11/2008	17:30	30.5	8.59	308	123.8	9.27	0.15
6/11/2008	17:45	30.3	8.51	307	115.8	8.7	0.15
6/11/2008	18:00	30.1	8.43	306	110	8.3	0.15
6/11/2008	18:15	29.9	8.35	305	103.4	7.82	0.15
6/11/2008	18:30	29.69	8.25	305	97.8	7.43	0.15
6/11/2008	18:45	29.57	8.19	305	90.3	6.87	0.15
6/11/2008	19:00	29.43	8.11	305	85.2	6.5	0.15
6/11/2008	19:15	29.28	8	305	80.6	6.16	0.15
6/11/2008	19:30	29.12	7.89	307	75.5	5.79	0.15
6/11/2008	19:45	29.01	7.81	308	70.2	5.4	0.15
6/11/2008	20:00	28.89	7.75	307	66.8	5.14	0.15
6/11/2008	20:15	28.78	7.69	311	64	4.94	0.15
6/11/2008	20:30	28.66	7.6	329	62.6	4.84	0.16
6/11/2008	20:45	28.54	7.56	332	59.7	4.63	0.16
6/11/2008	21:00	28.42	7.53	331	57.3	4.45	0.16
6/11/2008	21:15	28.28	7.5	328	55	4.28	0.16
6/11/2008	21:30	28.16	7.48	322	53.1	4.14	0.16
6/11/2008	21:45	28.04	7.46	318	52.3	4.09	0.16
6/11/2008	22:00	27.94	7.45	318	50	3.91	0.16
6/11/2008	22:15	27.82	7.42	315	48.3	3.79	0.15
6/11/2008	22:30	27.68	7.4	312	48.1	3.78	0.15
6/11/2008	22:45	27.59	7.39	312	47.8	3.77	0.15
6/11/2008					48.2		
	23:00	27.51	7.38	312		3.8	0.15
6/11/2008	23:15	27.39	7.36	312	48.4	3.83	0.15
6/11/2008	23:30	27.28	7.35	312	48.7	3.86	0.15
6/11/2008	23:45	27.16	7.34	312	49	3.89	0.15
6/12/2008	0:00	27.04	7.34	312	49.3	3.92	0.15
6/12/2008	0:15	26.96	7.33	312	49.3	3.93	0.15
6/12/2008	0:30	26.82	7.32	312	49.3	3.94	0.15
6/12/2008	0:45	26.71	7.32	312	49.7	3.98	0.15
6/12/2008	1:00	26.61	7.32	312	50.1	4.01	0.15
6/12/2008	1:15	26.5	7.31	312	50.2	4.03	0.15
6/12/2008	1:30	26.42	7.3	312	50.5	4.06	0.15
6/12/2008	1:45	26.31	7.31	312	51.1	4.12	0.15

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 7.3 6/12/2008 2:00 26.21 311 50.9 4.11 0.15 311 4.15 6/12/2008 2:15 26.14 7.3 51.3 0.15 6/12/2008 2:30 26.03 7.29 311 51.7 4.19 0.15 2:45 25.93 7.29 311 51.6 4.19 0.15 6/12/2008 6/12/2008 3:00 25.8 7.28 311 52 4.23 0.15 6/12/2008 3:15 25.73 7.28 311 51.9 4.23 0.15 6/12/2008 3:30 25.59 7.28 311 52.5 4.29 0.15 3:45 25.51 7.28 311 52.6 4.31 0.15 6/12/2008 6/12/2008 4:00 25.43 7.28 311 52.8 4.32 0.15 4.38 6/12/2008 4:15 25.32 7.27 311 53.4 0.15 6/12/2008 4:30 25.2 7.27 311 53.4 4.39 0.15 6/12/2008 4:45 25.12 7.27 311 4.42 0.15 53.7 5:00 25 7.27 311 54.1 4.47 0.15 6/12/2008 24.94 54.2 4.48 6/12/2008 5:15 7.27 311 0.15 6/12/2008 5:30 24.84 7.27 311 54.6 4.52 0.15 4.5 6/12/2008 5:45 24.77 7.26 311 54.3 0.15 6:00 24.69 311 4.58 0.15 6/12/2008 7.27 55.2 6/12/2008 6:15 24.64 7.26 311 4.55 0.15 54.8 6/12/2008 6:30 24.56 7.26 311 55.1 4.58 0.15 6/12/2008 6:45 24.52 7.26 311 55 4.58 0.15 7:00 24.48 310 55.7 4.64 6/12/2008 7.27 0.15 7:15 24.45 310 4.69 6/12/2008 7.27 56.2 0.15 6/12/2008 7:30 24.45 7.27 310 57.5 4.8 0.15 24.47 6/12/2008 7:45 7.27 311 60 5.01 0.15 8:00 5.13 6/12/2008 24.56 7.28 310 61.7 0.15 6/12/2008 8:15 24.69 7.3 311 63.9 5.31 0.15 6/12/2008 8:30 24.84 7.31 312 66.5 5.5 0.15 6/12/2008 8:45 25.03 7.34 311 71.1 5.87 0.15 9:00 309 6/12/2008 25.3 7.37 79 6.48 0.15 6/12/2008 9:15 25.57 7.43 309 86.9 7.1 0.15 310 6/12/2008 9:30 25.85 7.5 95.6 7.77 0.15 26.01 7.52 308 8.06 6/12/2008 9:45 99.5 0.15 6/12/2008 10:00 26.31 7.58 307 103.3 8.33 0.15 6/12/2008 10:15 26.53 7.64 306 111.6 8.96 0.15 305 6/12/2008 10:30 26.82 7.7 117 9.35 0.15 6/12/2008 10:45 27.31 7.79 304 127.4 10.09 0.15 6/12/2008 11:00 28.12 7.92 304 140.7 10.98 0.15

6/12/2008

6/12/2008 6/12/2008

6/12/2008

6/12/2008

11:15

11:30

11:45

12:00

12:15

28.76

29.3

29.99

30.06

30.06

8.1

8.23

8.37

8.47

8.52

302

301

299

299

300

154.8

165.6

174.8

178.5

168.1

11.94

12.66

13.21

13.46

12.68

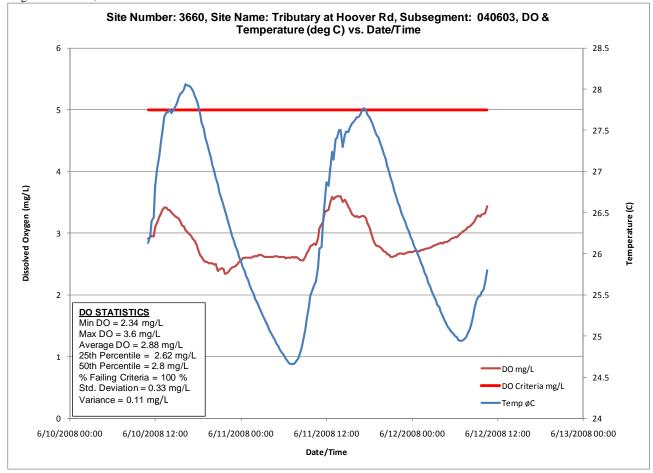
0.15

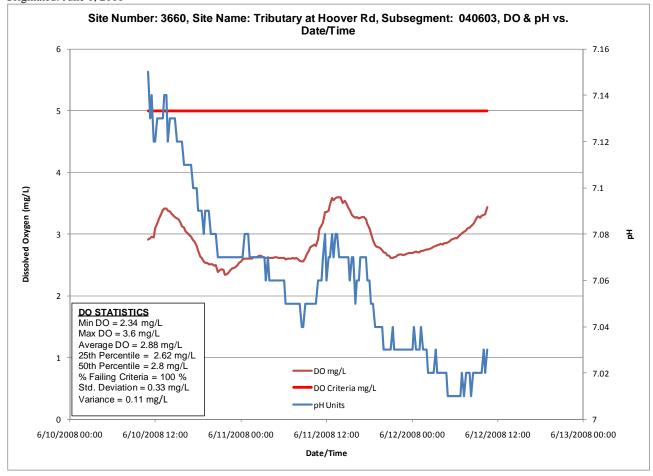
0.15

0.15

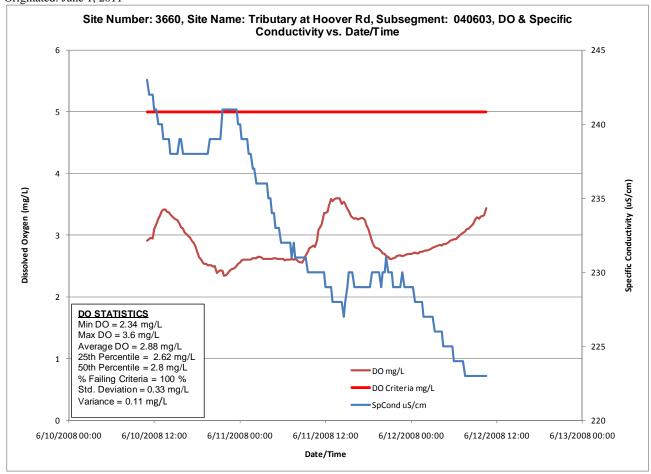
0.14











Site Number:	3660	Site Name:	Tributary at Hoo	ver Rd	
Subsegment #:	40603				
	Temp deg C	pН	SpCond uS/cm	DO %	DO mg/L
Minimum	24.66	7.01	223.00	29.20	2.34
Maximum	28.06	7.15	243.00	45.70	3.60
Average	26.31	7.06	232.13	35.78	2.88
Geometric Mean	26.29	7.06	#NUM!	35.53	2.86
25th Percentile	25.35	7.03	228.00	31.95	2.62
30th Percentile	25.49	7.04	229.00	32.40	2.63
40th Percentile	25.80	7.05	230.00	33.40	2.70
50th Percentile	26.21	7.06	230.00	34.40	2.80
Standard Deviation	1.07	0.03	5.65	4.39	0.33
Variance	1.14	0.00	31.95	19.27	0.11
Data Row Count		191			
Total Values					
Failing DO Criteria		191			
Percent failing DO					
Criteria		100.00	%		

# Selsers Creek, Site 3660, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	11:00	26.13	7.15	243	36	2.91	0.11
6/10/2008	11:15	26.21	7.13	242	36.4	2.94	0.11
6/10/2008	11:30	26.4	7.14	242	36.8	2.96	0.11
6/10/2008	11:45	26.44	7.12	242	36.6	2.95	0.11
6/10/2008	12:00	26.82	7.12	241	38.7	3.09	0.11
6/10/2008	12:15	27.04	7.13	241	39.8	3.17	0.11
6/10/2008	12:30	27.19	7.13	240	41	3.26	0.11
6/10/2008	12:45	27.34	7.13	240	41.9	3.31	0.11
6/10/2008	13:00	27.53	7.13	240	43	3.39	0.11
6/10/2008	13:15	27.67	7.14	239	43.3	3.41	0.11
6/10/2008	13:30	27.72	7.14	239	43.4	3.41	0.11
6/10/2008	13:45	27.72	7.12	239	43	3.38	0.11
6/10/2008	14:00	27.75	7.13	239	42.9	3.37	0.11
6/10/2008	14:15	27.71	7.13	238	42.3	3.33	0.11
6/10/2008	14:30	27.74	7.13	238	42	3.3	0.11
6/10/2008	14:45	27.78	7.13	238	41.8	3.28	0.11
6/10/2008	15:00	27.83	7.12	238	41.4	3.25	0.11
6/10/2008	15:15	27.89	7.12	238	41.3	3.24	0.11
6/10/2008	15:30	27.95	7.12	239	40.7	3.19	0.11
6/10/2008	15:45	27.96	7.12	239	39.9	3.13	0.11
6/10/2008	16:00	28	7.11	238	39.6	3.1	0.11
6/10/2008	16:15	28.06	7.11	238	39.1	3.05	0.11
6/10/2008	16:30	28.04	7.11	238	38.5	3.01	0.11
6/10/2008	16:45	28.04	7.11	238	38.2	2.99	0.11
6/10/2008	17:00	28.02	7.11	238	37.8	2.96	0.11
6/10/2008	17:15	27.97	7.1	238	37.1	2.9	0.11
6/10/2008	17:30	27.92	7.1	238	36.7	2.88	0.11
6/10/2008	17:45	27.86	7.1	238	35.8	2.81	0.11
6/10/2008	18:00	27.8	7.09	238	34.8	2.73	0.11
6/10/2008	18:15	27.69	7.09	238	33.6	2.64	0.11
6/10/2008	18:30	27.59	7.09	238	33.1	2.61	0.11
6/10/2008	18:45	27.52	7.08	238	32.5	2.56	0.11
6/10/2008	19:00	27.42	7.09	238	32.1	2.53	0.11
6/10/2008	19:15	27.33	7.09	238	32	2.53	0.11
6/10/2008	19:30	27.26	7.09	238	31.7	2.51	0.11
6/10/2008	19:45	27.17	7.08	239	31.6	2.51	0.11
6/10/2008	20:00	27.08	7.08	239	31.5	2.51	0.11
6/10/2008	20:15	27	7.08	239	31.3	2.49	0.11
6/10/2008	20:30	26.92	7.08	239	31.3	2.5	0.11
6/10/2008	20:45	26.84	7.07	239	30	2.39	0.11
6/10/2008	21:00	26.75	7.07	239	30.1	2.41	0.11
6/10/2008	21:15	26.67	7.07	239	30.4	2.43	0.11
6/10/2008	21:30	26.59	7.07	241	30.2	2.42	0.11
6/10/2008	21:45	26.53	7.07	241	29.2	2.34	0.11
6/10/2008	22:00	26.44	7.07	241	29.3	2.35	0.11
6/10/2008	22:15	26.37	7.07	241	29.6	2.38	0.11
6/10/2008	22:30	26.29	7.07	241	29.9	2.42	0.11
6/10/2008	22:45	26.22	7.07	241	30.2	2.44	0.11

Subsegment 0406							
Originated: June 1		00.45	7.07	0.44	00.0	0.45	0.44
6/10/2008	23:00	26.15	7.07	241	30.3	2.45	0.11
6/10/2008	23:15	26.09	7.07	241	30.5	2.47	0.11
6/10/2008	23:30	26.03	7.07	241	30.8	2.5	0.11
6/10/2008	23:45	25.96	7.07	240	31.2	2.53	0.11
6/11/2008	0:00	25.9	7.07	240	31.5	2.56	0.11
6/11/2008	0:15	25.84	7.07	239	31.9	2.59	0.11
6/11/2008	0:30	25.79	7.08	239	31.9	2.6	0.11
6/11/2008	0:45	25.73	7.08	239	32	2.6	0.11
6/11/2008	1:00	25.68	7.08	239	31.9	2.6	0.11
6/11/2008	1:15	25.62	7.07	238	31.8	2.6	0.11
6/11/2008	1:30	25.56	7.07	238	31.8	2.6	0.11
6/11/2008	1:45	25.51	7.07	237	32.1	2.63	0.11
6/11/2008	2:00	25.45	7.07	237	32.1	2.63	0.11
6/11/2008	2:15	25.4	7.07	236	32.1	2.63	0.11
6/11/2008	2:30	25.36	7.07	236	32.3	2.65	0.11
6/11/2008	2:45	25.3	7.07	236	32.3	2.65	0.11
6/11/2008	3:00	25.26	7.07	236	32.1	2.64	0.11
6/11/2008	3:15	25.21	7.07	236	31.9	2.62	0.11
6/11/2008	3:30	25.17	7.06	236	31.8	2.62	0.11
6/11/2008	3:45	25.12	7.07	236	31.8	2.62	0.11
6/11/2008	4:00	25.07	7.06	235	31.8	2.62	0.11
6/11/2008	4:15	25.03	7.06	235	31.7	2.62	0.11
6/11/2008	4:30	24.99	7.06	234	31.7	2.62	0.11
6/11/2008	4:45	24.95	7.06	234	31.8	2.63	0.11
6/11/2008	5:00	24.91	7.06	233	31.8	2.63	0.11
6/11/2008	5:15	24.87	7.06	233	31.7	2.62	0.11
6/11/2008	5:30	24.83	7.06	233	31.6	2.62	0.11
6/11/2008	5:45	24.8	7.06	232	31.6	2.62	0.11
6/11/2008	6:00	24.76	7.06	232	31.5	2.61	0.11
6/11/2008	6:15	24.73	7.05	232	31.3	2.59	0.11
6/11/2008	6:30	24.73	7.05	232	31.3	2.59	0.11
6/11/2008	6:45	24.67	7.05	232	31.3	2.6	0.11
6/11/2008	7:00	24.66	7.05	232	31.3	2.6	0.11
6/11/2008	7:00 7:15	24.66	7.05	231	31.5	2.62	0.11
6/11/2008	7:13	24.67	7.05	232	31.3	2.62	0.11
6/11/2008							
	7:45 8:00	24.69	7.05 7.05	231 231	31.5	2.61 2.59	0.11 0.11
6/11/2008	8:15	24.73		231	31.2	2.59	
6/11/2008		24.78	7.05		31		0.11
6/11/2008	8:30	24.86	7.04	231	31	2.56	0.11
6/11/2008	8:45	24.95	7.04	231	31	2.56	0.11
6/11/2008	9:00	25.08	7.05	231	31.6	2.61	0.11
6/11/2008	9:15	25.21	7.05	231	32.4	2.67	0.11
6/11/2008	9:30	25.35	7.05	230	33.2	2.73	0.11
6/11/2008	9:45	25.49	7.05	230	34.1	2.79	0.11
6/11/2008	10:00	25.56	7.05	230	34.4	2.81	0.11
6/11/2008	10:15	25.63	7.05	230	34.7	2.83	0.11
6/11/2008	10:30	25.66	7.05	230	34.5	2.81	0.11
6/11/2008	10:45	25.83	7.06	230	35.8	2.91	0.11
6/11/2008	11:00	26.06	7.06	230	38	3.08	0.11
6/11/2008	11:15	26.08	7.06	230	38.8	3.14	0.11
6/11/2008	11:30	26.37	7.07	230	39.4	3.18	0.11
6/11/2008	11:45	26.68	7.08	230	41.9	3.36	0.11
6/11/2008	12:00	26.87	7.06	229	42.1	3.36	0.11

FINAL Selsers Creek Watershed TMDL Subsegment 040603

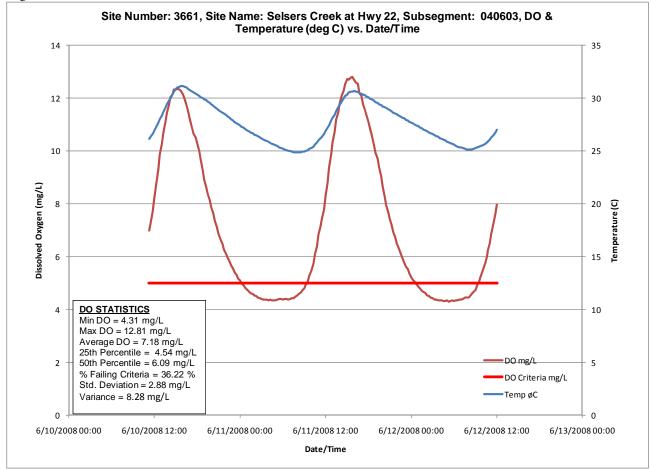
Subsegment 0406							
Originated: June 1 6/11/2008	1, 2011 <b>12:15</b>	26.83	7.07	229	42.3	3.38	0.11
6/11/2008	12.13	20.63 27.01	7.07 7.07	229	42.3 43.8	3.48	0.11
6/11/2008	12:45	27.24	7.08	229	45.2	3.59	0.11
6/11/2008	13:00	27.14	7.07	228	44.7	3.55	0.11
6/11/2008	13:15	27.39	7.08	228	45.4	3.59	0.11
6/11/2008	13:30	27.41	7.08	228	45.5	3.6	0.11
6/11/2008	13:45	27.5	7.07	228	45.7	3.6	0.11
6/11/2008	14:00	27.5	7.07	228	45.6	3.6	0.11
6/11/2008	14:15	27.3	7.07	228	44.2	3.5	0.11
6/11/2008	14:30	27.44	7.07	227	44.8	3.54	0.11
6/11/2008	14:45	27.49	7.07	228	44.3	3.5	0.11
6/11/2008	15:00	27.48	7.07	229	43.4	3.43	0.11
6/11/2008	15:15	27.53	7.06	230	43	3.39	0.11
6/11/2008	15:30	27.58	7.07	230	42.1	3.31	0.11
6/11/2008	15:45	27.6	7.07	230	41.8	3.29	0.11
6/11/2008	16:00	27.63	7.05	229	41.6	3.27	0.11
6/11/2008	16:15	27.66	7.06	229	41.7	3.28	0.11
6/11/2008	16:30	27.67	7.06	229	41.3	3.25	0.11
6/11/2008	16:45	27.69	7.07	229	41.5	3.26	0.11
6/11/2008	17:00	27.75	7.07	229	41.7	3.28	0.11
6/11/2008	17:15	27.77	7.07	229	41.8	3.28	0.11
6/11/2008	17:30	27.74	7.07	229	41.2	3.24	0.11
6/11/2008	17:45	27.69	7.06	229	40.2	3.16	0.11
6/11/2008	18:00	27.66	7.06	229	39.2	3.09	0.11
6/11/2008	18:15	27.62	7.05	229	38.2	3.01	0.11
6/11/2008	18:30	27.56	7.05	230	36.8	2.9	0.11
6/11/2008	18:45	27.49	7.04	230	35.8	2.82	0.11
6/11/2008	19:00	27.44	7.04	230	35.5	2.8	0.11
6/11/2008	19:15	27.41	7.04	230	35.2	2.79	0.11
6/11/2008	19:30	27.35	7.04	230	35	2.77	0.11
6/11/2008	19:45	27.28	7.04	229	34.6	2.74	0.11
6/11/2008	20:00	27.22	7.03	230	34.2	2.71	0.11
6/11/2008	20:15	27.15	7.03	230	33.8	2.69	0.11
6/11/2008	20:30	27.07	7.03	231	33.4	2.66	0.11
6/11/2008	20:45	26.99	7.03	230	33.2	2.65	0.11
6/11/2008	21:00	26.92	7.03	230	32.8	2.62	0.11
6/11/2008	21:15	26.84	7.04	230	32.8	2.62	0.11
6/11/2008	21:30	26.77	7.03	229	32.9	2.63	0.11
6/11/2008	21:45	26.69	7.03	229	33	2.64	0.11
6/11/2008	22:00	26.63	7.03	229	33.1	2.66	0.11
6/11/2008	22:15	26.57	7.03	229	33.2	2.67	0.11
6/11/2008	22:30	26.5	7.03	229	33.2	2.67	0.11
6/11/2008	22:45	26.44	7.03	230	33.1	2.66	0.11
6/11/2008	23:00	26.44	7.03 7.03	230	33.2	2.67	0.11
6/11/2008	23:15	26.32	7.03	229	33.2	2.68	0.11
		26.32 26.27	7.03 7.03	229		2.69	
6/11/2008	23:30				33.3		0.11
6/11/2008	23:45	26.21	7.03	229	33.4	2.7	0.11
6/12/2008	0:00	26.16	7.03	229	33.4	2.7	0.11
6/12/2008	0:15	26.1	7.04	229	33.5	2.71	0.11
6/12/2008	0:30	26.05	7.03	228	33.5	2.72	0.11
6/12/2008	0:45	26	7.03	228	33.5	2.71	0.11
6/12/2008	1:00	25.94	7.03	228	33.4	2.71	0.11
6/12/2008	1:15	25.89	7.04	228	33.6	2.73	0.11

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 6/12/2008 1:30 25.83 25.83 7.03 228 33.5

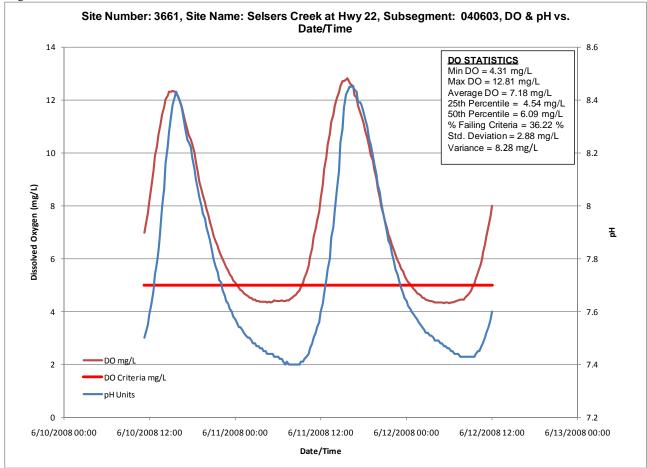
6/12/2008	1:45	25.77	7.03	227	33.7	2.74	0.11
6/12/2008	2:00	25.72	7.03	227	33.8	2.75	0.11
6/12/2008	2:15	25.65	7.02	227	33.7	2.75	0.11
6/12/2008	2:30	25.6	7.02	227	33.8	2.76	0.11
6/12/2008	2:45	25.55	7.02	227	33.9	2.77	0.11
6/12/2008	3:00	25.49	7.02	227	34.2	2.8	0.11
6/12/2008	3:15	25.44	7.03	226	34.3	2.81	0.11
6/12/2008	3:30	25.38	7.02	226	34.4	2.82	0.11
6/12/2008	3:45	25.35	7.02	226	34.5	2.83	0.11
6/12/2008	4:00	25.29	7.02	226	34.5	2.84	0.11
6/12/2008	4:15	25.24	7.02	226	34.4	2.83	0.11
6/12/2008	4:30	25.2	7.02	225	34.6	2.85	0.11
6/12/2008	4:45	25.15	7.02	225	34.6	2.85	0.11
6/12/2008	5:00	25.11	7.01	225	34.8	2.87	0.11
6/12/2008	5:15	25.08	7.01	225	35.1	2.89	0.11
6/12/2008	5:30	25.05	7.01	225	35.2	2.91	0.1
6/12/2008	5:45	25.03	7.01	225	35.4	2.92	0.1
6/12/2008	6:00	25	7.01	224	35.5	2.93	0.1
6/12/2008	6:15	24.98	7.01	224	35.6	2.94	0.1
6/12/2008	6:30	24.95	7.01	224	35.8	2.96	0.1
6/12/2008	6:45	24.94	7.01	224	36.1	2.99	0.1
6/12/2008	7:00	24.94	7.02	224	36.5	3.02	0.1
6/12/2008	7:15	24.96	7.01	224	36.7	3.04	0.1
6/12/2008	7:30	24.98	7.02	223	37	3.06	0.1
6/12/2008	7:45	25.03	7.02	223	37.4	3.09	0.1
6/12/2008	8:00	25.08	7.02	223	37.7	3.11	0.1
6/12/2008	8:15	25.13	7.01	223	37.9	3.13	0.1
6/12/2008	8:30	25.24	7.02	223	38.5	3.16	0.1
6/12/2008	8:45	25.34	7.02	223	39	3.2	0.1
6/12/2008	9:00	25.44	7.02	223	39.8	3.26	0.1
6/12/2008	9:15	25.47	7.02	223	40.1	3.29	0.1
6/12/2008	9:30	25.49	7.02	223	40	3.27	0.1
6/12/2008	9:45	25.53	7.02	223	40.3	3.3	0.1
6/12/2008	10:00	25.57	7.03	223	40.5	3.31	0.1
6/12/2008	10:15	25.65	7.02	223	40.7	3.32	0.1
6/12/2008	10:30	25.8	7.03	223	42.2	3.44	0.1

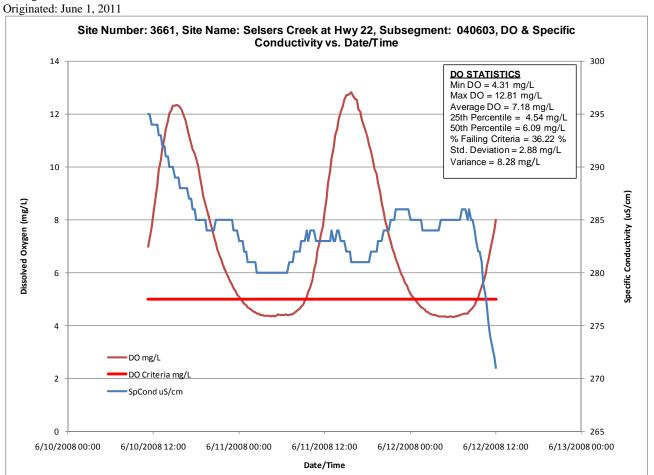
2.73











Site Number:	3661	Site Name:	Selsers Creek at	Hwy 22	
Subsegment #:	40603				
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L
Minimum	24.85	7.40	271.00	52.90	4.31
Maximum	31.11	8.45	295.00	171.40	12.81
Average	27.60	7.74	283.89	92.24	7.18
Geometric Mean	27.53	7.74	#NUM!	#NUM!	6.66
25th Percentile	25.84	7.47	282.00	56.08	4.54
30th Percentile	26.12	7.49	282.00	58.00	4.70
40th Percentile	26.64	7.53	283.00	64.80	5.20
50th Percentile	27.30	7.60	284.00	76.50	6.09
Standard Deviation	1.93	0.34	3.71	39.96	2.88
Variance	3.71	0.11	13.76	1596.41	8.28
Data Row Count		196			
Total Values					
Failing DO Criteria		71			
Percent failing DO					
Criteria		36.22	%		

# Selsers Creek, Site 3661, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	11:15	26.14	7.5	295	86.4	6.99	0.14
6/10/2008	11:30	26.34	7.52	295	90.1	7.26	0.14
6/10/2008	11:45	26.6	7.55	294	96.3	7.72	0.14
6/10/2008	12:00	26.87	7.59	294	102.2	8.16	0.14
6/10/2008	12:15	27.27	7.63	294	110.5	8.75	0.14
6/10/2008	12:30	27.66	7.68	294	118.4	9.32	0.14
6/10/2008	12:45	28.03	7.74	293	126.4	9.88	0.14
6/10/2008	13:00	28.36	7.79	293	132.2	10.27	0.14
6/10/2008	13:15	28.66	7.83	292	138.1	10.68	0.14
6/10/2008	13:30	29.07	7.92	292	144.5	11.09	0.14
6/10/2008	13:45	29.4	7.99	291	149.6	11.42	0.14
6/10/2008	14:00	29.7	8.06	291	154.5	11.73	0.14
6/10/2008	14:15	29.95	8.16	290	159.2	12.03	0.14
6/10/2008	14:30	30.3	8.22	290	161.5	12.14	0.14
6/10/2008	14:45	30.58	8.28	290	164.8	12.32	0.14
6/10/2008	15:00	30.85	8.34	289	165.6	12.32	0.14
6/10/2008	15:15	30.98	8.38	289	166.1	12.34	0.14
6/10/2008	15:30	31.05	8.41	289	166	12.31	0.14
6/10/2008	15:45	31.11	8.43	288	165.4	12.26	0.14
6/10/2008	16:00	31.11	8.41	288	163.7	12.13	0.14
6/10/2008	16:15	31.08	8.4	288	161.3	11.96	0.14
6/10/2008	16:30	30.98	8.37	288	158	11.74	0.14
6/10/2008	16:45	30.85	8.34	288	154.7	11.51	0.14
6/10/2008	17:00	30.7	8.29	287	149.5	11.16	0.14
6/10/2008	17:15	30.62	8.25	287	145.3	10.86	0.14
6/10/2008	17:30	30.54	8.24	286	142.4	10.65	0.14
6/10/2008	17:45	30.42	8.22	286	140	10.5	0.14
6/10/2008	18:00	30.33	8.18	285	137.2	10.3	0.14
6/10/2008	18:15	30.21	8.14	285	133	10.01	0.14
6/10/2008	18:30	30.09	8.1	285	128.3	9.68	0.14
6/10/2008	18:45	29.99	8.06	285	122.4	9.25	0.14
6/10/2008	19:00	29.88	8.03	285	117.6	8.9	0.14
6/10/2008	19:15	29.77	8	285	113.6	8.61	0.14
6/10/2008	19:30	29.65	7.97	284	110.2	8.38	0.14
6/10/2008	19:45	29.51	7.95	284	106.8	8.13	0.14
6/10/2008	20:00	29.38	7.92	284	103.3	7.88	0.14
6/10/2008	20:15	29.25	7.89	284	99.6	7.62	0.14
6/10/2008	20:30	29.13	7.87	284	96.1	7.37	0.14
6/10/2008	20:45	29	7.83	285	92.5	7.11	0.14
6/10/2008	21:00	28.87	7.8	285	89.3	6.88	0.14
6/10/2008	21:15	28.75	7.77	285	86.4	6.67	0.14
6/10/2008	21:30	28.63	7.75	285	83.6	6.47	0.14
6/10/2008	21:45	28.51	7.72	285	81	6.28	0.14
6/10/2008	22:00	28.39	7.71	285	78.7	6.11	0.14
6/10/2008	22:15	28.25	7.68	285	76.6	5.97	0.14
6/10/2008	22:30	28.13	7.66	285	74.4	5.81	0.14
6/10/2008	22:45	28	7.64	285	72.6	5.68	0.14
6/10/2008	23:00	27.88	7.63	285	70.7	5.54	0.14
				202			

FINAL Selsers Cr	ools Wataraha	4 TMDI					
Subsegment 04060		d IMDL					
Originated: June 1							
6/10/2008	23:15	27.75	7.61	284	68.9	5.41	0.14
6/10/2008	23:30	27.63	7.6	284	67.4	5.31	0.14
6/10/2008	23:45	27.51	7.58	284	65.7	5.18	0.14
6/11/2008	0:00	27.4	7.57	283	64.5	5.1	0.14
6/11/2008	0:00	27.29	7.56	283	63.2	5	0.14
6/11/2008	0:30	27.18	7.54	283	61.7	4.9	0.14
6/11/2008	0:45	27.06	7.54	282	60.6	4.82	0.14
6/11/2008	1:00	26.96	7.53	282	59.8	4.76	0.14
6/11/2008	1:15	26.84	7.52	281	58.9	4.7	0.14
6/11/2008	1:30	26.74	7.51	281	57.9	4.63	0.14
6/11/2008	1:45	26.64	7.5	281	57.1	4.58	0.14
6/11/2008	2:00	26.56	7.5	281	56.5	4.54	0.14
6/11/2008	2:15	26.45	7.49	281	56	4.5	0.14
6/11/2008	2:30	26.37	7.48	280	55.4	4.46	0.13
6/11/2008	2:45	26.27	7.48	280	55	4.44	0.13
6/11/2008	3:00	26.18	7.47	280	54.5	4.4	0.13
6/11/2008	3:15	26.1	7.47	280	54.3	4.39	0.13
6/11/2008	3:30	26.01	7.46	280	53.9	4.37	0.13
6/11/2008	3:45	25.92	7.46	280	53.8	4.37	0.13
6/11/2008	4:00	25.84	7.45	280	53.6	4.36	0.13
	4:00 4:15	25.75	7.45 7.45	280	53.7	4.37	0.13
6/11/2008							
6/11/2008	4:30	25.67	7.44	280	53.4	4.35	0.13
6/11/2008	4:45	25.6	7.44	280	53.4	4.36	0.13
6/11/2008	5:00	25.52	7.44	280	53.2	4.35	0.13
6/11/2008	5:15	25.44	7.44	280	53.4	4.38	0.13
6/11/2008	5:30	25.36	7.43	280	53.7	4.41	0.13
6/11/2008	5:45	25.3	7.43	280	53.6	4.4	0.13
6/11/2008	6:00	25.23	7.43	280	53.4	4.39	0.13
6/11/2008	6:15	25.16	7.42	280	53.4	4.4	0.13
6/11/2008	6:30	25.1	7.42	280	53.4	4.41	0.13
6/11/2008	6:45	25.03	7.41	280	53.2	4.39	0.13
6/11/2008	7:00	24.99	7.4	281	53.3	4.4	0.14
6/11/2008	7:15	24.94	7.41	281	53.4	4.42	0.14
6/11/2008	7:30	24.9	7.4	281	53.5	4.43	0.14
6/11/2008	7:45	24.87	7.4	282	54.1	4.48	0.14
6/11/2008	8:00	24.85	7. <del>4</del> 7.4	282	54.7	4.53	0.14
6/11/2008	8:15	24.86	7.4	282	55.4	4.59	0.14
6/11/2008	8:30	24.88	7.4	282	56.1	4.64	0.14
6/11/2008	8:45	24.91	7.4	283	57	4.72	0.14
6/11/2008	9:00	24.95	7.4	283	58.1	4.8	0.14
6/11/2008	9:15	25.02	7.41	283	59.8	4.94	0.14
6/11/2008	9:30	25.09	7.41	284	61.6	5.08	0.14
6/11/2008	9:45	25.19	7.42	283	64.2	5.28	0.14
6/11/2008	10:00	25.29	7.43	284	66.6	5.47	0.14
6/11/2008	10:15	25.41	7.44	284	69.9	5.73	0.14
6/11/2008	10:30	25.61	7.46	284	74.3	6.07	0.14
6/11/2008	10:45	25.82	7.48	283	78.7	6.4	0.14
6/11/2008	11:00	26	7.5	283	84.2	6.83	0.14
6/11/2008	11:15	26.23	7.52	283	88.4	7.14	0.14
6/11/2008	11:30	26.36	7.54	283	92.3	7.44	0.14
6/11/2008	11:45	26.59	7.56	283	97	7.78	0.14
6/11/2008	12:00	26.59	7.50 7.6	283	103.7	8.27	0.14
6/11/2006	12.00	20.9 27.21	7.0 7.62	203 202	103.7	0.2 <i>1</i> 9.70	0.14

283

110.8

8.79

0.14

6/11/2008

12:15

27.21

FINAL Selsers Cro	eek Watershe	d TMDI					
Subsegment 04060		u IMDL					
Originated: June 1							
6/11/2008	12:30	27.43	7.67	283	118.6	9.37	0.14
6/11/2008	12:45	27.86	7.72	283	125.4	9.83	0.14
6/11/2008	13:00	28.15	7.76	284	132.3	10.32	0.14
6/11/2008	13:15	28.37	7.8	283	138	10.72	0.14
6/11/2008	13:30	28.72	7.88	283	144.7	11.17	0.14
6/11/2008	13:45	29.13	7.92	284	149.1	11.43	0.14
6/11/2008	14:00	29.33	7.98	284	154.2	11.79	0.14
6/11/2008	14:15	29.65	8.06	283	159	12.08	0.14
6/11/2008	14:30	29.97	8.13	283	162.5	12.28	0.14
6/11/2008	14:45	30.2	8.24	283	166.4	12.52	0.14
6/11/2008	15:00	30.35	8.29	282	169.2	12.71	0.14
6/11/2008	15:15	30.52	8.37	282	169.7	12.7	0.14
6/11/2008	15:30	30.62	8.42	282	170.7	12.76	0.14
6/11/2008	15:45	30.63	8.43	281	171.4	12.81	0.14
6/11/2008	16:00	30.67	8.45	281	169.6	12.66	0.14
6/11/2008	16:15	30.62	8.45	281	168.4	12.59	0.14
6/11/2008	16:30	30.6	8.45	281	167.5	12.52	0.14
6/11/2008	16:45	30.46	8.44	281	162.6	12.18	0.14
6/11/2008	17:00	30.38	8.43	281	161	12.08	0.14
6/11/2008	17:15	30.32	8.39	281	156.8	11.78	0.14
6/11/2008	17:30	30.24	8.39	281	153.5	11.55	0.14
6/11/2008	17:45	30.16	8.38	281	151	11.37	0.14
6/11/2008	18:00	30.04	8.35	281	147	11.1	0.14
6/11/2008	18:15	29.94	8.33	281	143.5	10.85	0.14
6/11/2008	18:30	29.84	8.3	282	139.5	10.57	0.14
6/11/2008	18:45	29.7	8.25	282	134.4	10.2	0.14
6/11/2008	19:00	29.62	8.23	282	130.5	9.92	0.14
6/11/2008	19:15	29.53	8.19	282	127.7	9.72	0.14
6/11/2008	19:30	29.43	8.16	283	123	9.38	0.14
6/11/2008	19:45	29.34	8.12	283	118.2	9.03	0.14
6/11/2008	20:00	29.23	8.08	283	113.1	8.66	0.14
6/11/2008	20:15	29.15	8.05	284	108	8.28	0.14
6/11/2008	20:30	29.05	8.01	284	103.7	7.96	0.14
6/11/2008	20:45	28.95	7.97	284	99.7	7.67	0.14
6/11/2008	21:00	28.85	7.94	284	96.4	7.43	0.14
6/11/2008	21:15	28.74	7.9	285	92.9	7.17	0.14
6/11/2008	21:30	28.63	7.87	285	89.6	6.93	0.14
6/11/2008	21:45	28.53	7.85	285	86.6	6.71	0.14
6/11/2008	22:00	28.44	7.82	286	84	6.52	0.14
6/11/2008	22:15	28.35	7.79	286	81.3	6.32	0.14
6/11/2008	22:30	28.25	7.76	286	79	6.15	0.14
6/11/2008	22:45	28.15	7.74	286	76.3	5.95	0.14
6/11/2008	23:00	28.06	7.71	286	73.8	5.77	0.14
6/11/2008	23:15	27.96	7.69	286	71.8	5.62	0.14
6/11/2008	23:30	27.86	7.67	286	70.2	5.51	0.14
6/11/2008	23:45	27.76	7.65	286	68.1	5.35	0.14
6/12/2008	0:00	27.68	7.64	285	66.2	5.2	0.14
6/12/2008	0:15	27.57	7.62	285	64.8	5.11	0.14
6/12/2008	0:30	27.48	7.61	285	63.7	5.03	0.14
6/12/2008	0:45	27.4	7.6 7.50	285	62.6	4.95	0.14
6/12/2008 6/12/2008	1:00 1:15	27.31	7.59 7.58	285 285	61.4 60.5	4.86	0.14 0.14
6/12/2006	1.15	27.21 27.11	7.50 7.57	200 285	50.5 59.1	4.8 4.7	0.14

59.1

0.14

4.7

27.21 27.11

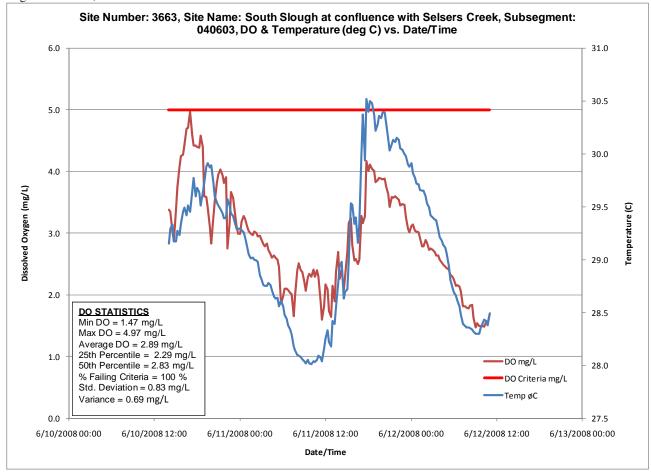
1:30

7.57

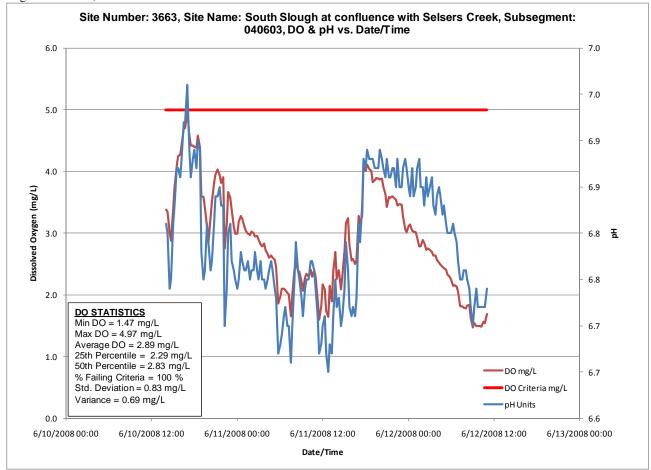
6/12/2008

FINAL Selsers Creek Watershed TMDL Subsegment 040603

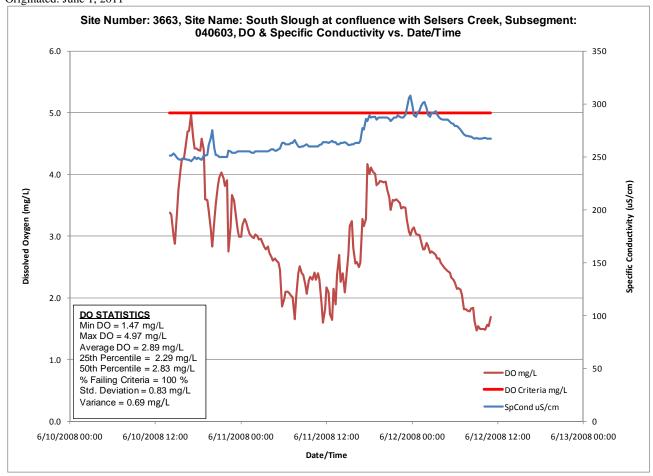
Subsegment 04060							
Originated: June 1, 6/12/2008		27.02	7.56	284	E0 E	4.66	0.14
	1:45 2:00		7.55 7.55	284	58.5	4.66 4.61	0.14 0.14
6/12/2008	2:00	26.92	7.55 7.54	284	57.8 56.9	4.51	0.14
6/12/2008		26.85				4.54 4.51	
6/12/2008	2:30	26.76	7.53	284	56.4		0.14
6/12/2008	2:45	26.67	7.52	284	55.7	4.46	0.14
6/12/2008	3:00	26.58	7.52	284	55.2	4.43	0.14
6/12/2008	3:15	26.5	7.51	284	54.7	4.39	0.14
6/12/2008	3:30	26.39	7.51	284	54.5	4.39	0.14
6/12/2008	3:45	26.31	7.5	284	54.1	4.36	0.14
6/12/2008	4:00	26.22	7.49	284	53.9	4.35	0.14
6/12/2008	4:15	26.14	7.49	285	53.8	4.35	0.14
6/12/2008	4:30	26.06	7.49	285	53.5	4.33	0.14
6/12/2008	4:45	25.98	7.48	285	53.4	4.33	0.14
6/12/2008	5:00	25.9	7.48	285	53.4	4.34	0.14
6/12/2008	5:15	25.82	7.47	285	53	4.31	0.14
6/12/2008	5:30	25.74	7.47	285	53.1	4.33	0.14
6/12/2008	5:45	25.64	7.46	285	53.2	4.34	0.14
6/12/2008	6:00	25.57	7.46	285	52.9	4.32	0.14
6/12/2008	6:15	25.49	7.45	285	53.2	4.35	0.14
6/12/2008	6:30	25.42	7.45	285	53	4.34	0.14
6/12/2008	6:45	25.36	7.44	285	53.4	4.38	0.14
6/12/2008	7:00	25.31	7.44	285	53.5	4.39	0.14
6/12/2008	7:15	25.25	7.44	286	53.7	4.41	0.14
6/12/2008	7:30	25.2	7.43	286	54.1	4.45	0.14
6/12/2008	7:45	25.16	7.43	286	54.2	4.46	0.14
6/12/2008	8:00	25.16	7.43	285	54.2	4.46	0.14
6/12/2008	8:15	25.16	7.43	286	54.9	4.52	0.14
6/12/2008	8:30	25.16	7.43	285	56	4.61	0.14
6/12/2008	8:45	25.2	7.43	285	56.8	4.67	0.14
6/12/2008	9:00	25.24	7.43	284	57.9	4.76	0.14
6/12/2008	9:15	25.31	7.43	283	59.9	4.91	0.14
6/12/2008	9:30	25.37	7.43	282	61.8	5.06	0.14
6/12/2008	9:45	25.45	7.44	282	64.1	5.25	0.14
6/12/2008	10:00	25.54	7.45	281	66.9	5.47	0.13
6/12/2008	10:15	25.62	7.45	279	68.8	5.62	0.13
6/12/2008	10:30	25.76	7.47	278	72.4	5.9	0.13
6/12/2008	10:45	25.9	7.48	277	76.4	6.21	0.13
6/12/2008	11:00	26.09	7.5	275	80.5	6.52	0.13
6/12/2008	11:15	26.28	7.52	274	85	6.86	0.13
6/12/2008	11:30	26.49	7.54	273	89.9	7.22	0.13
6/12/2008	11:45	26.74	7.57	272	95.3	7.62	0.13
6/12/2008	12:00	27.03	7.6	271	100.2	7.98	0.13











Site Number:	er: 3663 Site Name: South Slough at confluence with Selsers C					
Subsegment #:	40603	03				
	Temp deg C	рН	SpCond uS/cm	DO %	DO mg/L	
Minimum	28.01	6.65	246.00	18.90	1.47	
Maximum	30.52	6.96	308.00	65.20	4.97	
Average	29.13	6.79	267.70	37.81	2.89	
Geometric Mean	29.13	6.79	#NUM!	36.19	2.77	
25th Percentile	28.49	6.74	255.00	29.40	2.29	
30th Percentile	28.64	6.75	256.00	30.70	2.40	
40th Percentile	28.94	6.76	261.00	33.80	2.61	
50th Percentile	29.21	6.77	263.00	36.80	2.83	
Standard Deviation	0.69	0.07	15.29	11.00	0.83	
Variance	0.48	0.00	233.81	121.06	0.69	
Data Row Count		181				
Total Values		101				
Failing DO Criteria		181				
Percent failing DO						
Criteria		100.00	%			

# Selsers Creek, Site 3663, Continuous Monitoring Data

Date_	Time	Temp	рН	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øС	Units	uS/cm	Sat	mg/L	ppt
6/10/2008	14:00:00	29.2	6.8	251	44	3.4	0.1
6/10/2008	14:15:00	29.3	6.8	251	44	3.3	0.1
6/10/2008	14:30:00	29.3	6.7	253	39	3.0	0.1
6/10/2008	14:45:00	29.2	6.8	252	38	2.9	0.1
6/10/2008	15:00:00	29.2	6.8	249	44	3.4	0.1
6/10/2008	15:15:00	29.3	6.8	248	49	3.8	0.1
6/10/2008	15:30:00	29.2	6.9	247	53	4.1	0.1
6/10/2008	15:45:00	29.3	6.9	248	56	4.3	0.1
6/10/2008	16:00:00	29.5	6.9	248	56	4.3	0.1
6/10/2008	16:15:00	29.5	6.9	248	58	4.4	0.1
6/10/2008	16:30:00	29.4	6.9	247	61	4.7	0.1
6/10/2008	16:45:00	29.5	6.9	247	62	4.7	0.1
6/10/2008	17:00:00	29.5	7.0	246	65	5.0	0.1
6/10/2008	17:15:00	29.6	6.9	248	60	4.6	0.1
6/10/2008	17:30:00	29.8	6.9	250	58	4.4	0.1
6/10/2008	17:45:00	29.6	6.9	248	58	4.4	0.1
6/10/2008	18:00:00	29.7	6.9	249	58	4.4	0.1
6/10/2008	18:15:00	29.6	6.9	248	58	4.4	0.1
6/10/2008	18:30:00	29.5	6.9	247	60	4.6	0.1
6/10/2008	18:45:00	29.6	6.9	251	58	4.4	0.1
6/10/2008	19:00:00	29.7	6.8	251	48	3.6	0.1
6/10/2008	19:15:00	29.9	6.8	252	48	3.6	0.1
6/10/2008	19:30:00	29.9	6.8	261	45	3.4	0.1
6/10/2008	19:45:00	29.9	6.8	268	41	3.4	0.1
6/10/2008	20:00:00	29.9	6.8	275	37	2.8	0.1
6/10/2008	20:05:00	29.7	6.8	258	43	3.3	0.1
6/10/2008	20:13:00	29.6	6.8	252	46	3.5	0.1
6/10/2008	20:30:00	29.6 29.5	6.8	252	50	3.8	0.1
6/10/2008	21:00:00	29.5 29.5	6.8	250	52	4.0	0.1
6/10/2008	21:15:00	29.5 29.5	6.8	250	53	4.0	0.1
6/10/2008	21:30:00	29.3 29.4	6.9	250	52	3.9	0.1
6/10/2008	21:45:00	29.4	6.8	250	50	3.8	0.1
6/10/2008	22:00:00	29.4	6.8	250	51	3.9	0.1
6/10/2008	22:15:00	29.4	6.7	256	36	2.8	0.1
6/10/2008	22:30:00	29.6 29.5	6.7	255	41	3.2	0.1
6/10/2008	22:45:00	29.3 29.4	6.8	253 254	48	3.7	0.1
6/10/2008	23:00:00	29.4 29.4	6.8	254	46 47	3.6	0.1
6/10/2008	23:15:00	29.4 29.4	6.8	254	44	3.4	0.1
6/10/2008	23:30:00	29.4	6.8	255	41	3.4	0.1
6/10/2008	23:45:00	29.3	6.8	255 255	39	3.0	0.1
6/11/2008	0:00:00		6.7	255 255	39	3.0	0.1
		29.3			42		
6/11/2008	0:15:00	29.3	6.8 6.8	255 255	42 43	3.2	0.1
6/11/2008	0:30:00	29.3		255 255		3.3	0.1
6/11/2008	0:45:00	29.2	6.8	255 255	42	3.2	0.1
6/11/2008	1:00:00	29.1	6.8	255 255	41	3.1	0.1
6/11/2008	1:15:00	29.1	6.8	255	40	3.0	0.1
6/11/2008 6/11/2008	1:30:00 1:45:00	29.0 29.0	6.8	254 254	39 39	3.0 3.0	0.1 0.1
0/11/2000	1.45.00	29.0	6.8	200	38	3.0	U. I

Subsegment 0406							
Originated: June							
6/11/2008	2:00:00	29.0	6.8	255	39	3.0	0.1
6/11/2008	2:15:00	29.0	6.8	255	39	3.0	0.1
6/11/2008	2:30:00	29.0	6.8	255	38	3.0	0.1
6/11/2008	2:45:00	28.9	6.8	255	39	3.0	0.1
6/11/2008	3:00:00	28.8	6.8	255	38	2.9	0.1
6/11/2008	3:15:00	28.8	6.8	255	37	2.8	0.1
6/11/2008	3:30:00	28.8	6.8	255	36	2.8	0.1
6/11/2008	3:45:00	28.8	6.8	255	37	2.8	0.1
6/11/2008	4:00:00	28.8	6.7	256	35	2.7	0.1
6/11/2008	4:15:00	28.8	6.8	257	34	2.7	0.1
6/11/2008	4:30:00	28.7	6.8	257	34	2.6	0.1
6/11/2008	4:45:00	28.7	6.8	256	34	2.6	0.1
6/11/2008	5:00:00	28.6	6.8	256	34	2.6	0.1
6/11/2008	5:15:00	28.6	6.7	257	33	2.6	0.1
6/11/2008	5:30:00		6.7	257 258	33 32	2.5	0.1
		28.6					
6/11/2008	5:45:00	28.6	6.7	263	24	1.9	0.1
6/11/2008	6:00:00	28.6	6.7	263	26	2.0	0.1
6/11/2008	6:15:00	28.5	6.7	262	27	2.1	0.1
6/11/2008	6:30:00	28.4	6.7	262	27	2.1	0.1
6/11/2008	6:45:00	28.4	6.7	262	27	2.1	0.1
6/11/2008	7:00:00	28.3	6.7	263	26	2.0	0.1
6/11/2008	7:15:00	28.3	6.7	263	26	2.0	0.1
6/11/2008	7:30:00	28.2	6.7	266	21	1.7	0.1
6/11/2008	7:45:00	28.1	6.7	263	26	2.0	0.1
6/11/2008	8:00:00	28.1	6.8	260	31	2.4	0.1
6/11/2008	8:15:00	28.1	6.8	259	32	2.5	0.1
6/11/2008	8:30:00	28.1	6.8	260	31	2.4	0.1
6/11/2008	8:45:00	28.1	6.8	260	30	2.4	0.1
6/11/2008	9:00:00	28.0	6.7	261	28	2.2	0.1
6/11/2008	9:15:00	28.0	6.7	262	26	2.1	0.1
6/11/2008	9:30:00	28.1	6.7	260	29	2.3	0.1
6/11/2008	9:45:00	28.0	6.8	260	30	2.3	0.1
6/11/2008	10:00:00	28.0	6.8	260	29	2.3	0.1
6/11/2008	10:00:00	28.0	6.8	260	31	2.4	0.1
6/11/2008	10:13:00	28.0	6.8	260	30	2.3	0.1
6/11/2008	10:45:00	28.1	6.8	260	31	2.4	0.1
6/11/2008	11:00:00	28.1	6.7	261	29	2.3	0.1
6/11/2008	11:15:00	28.1	6.7	262	24	1.9	0.1
6/11/2008	11:30:00	28.0	6.7	264	21	1.6	0.1
6/11/2008	11:45:00	28.2	6.7	264	23	1.8	0.1
6/11/2008	12:00:00	28.3	6.7	264	28	2.2	0.1
6/11/2008	12:15:00	28.3	6.7	263	27	2.1	0.1
6/11/2008	12:30:00	28.2	6.7	264	22	1.7	0.1
6/11/2008	12:45:00	28.2	6.7	265	21	1.6	0.1
6/11/2008	13:00:00	28.4	6.7	264	28	2.2	0.1
6/11/2008	13:15:00	28.4	6.7	264	25	1.9	0.1
6/11/2008	13:30:00	28.6	6.7	262	31	2.4	0.1
6/11/2008	13:45:00	28.8	6.8	262	35	2.7	0.1
6/11/2008	14:00:00	28.9	6.7	263	29	2.3	0.1
6/11/2008	14:15:00	29.0	6.7	263	31	2.4	0.1
6/11/2008	14:30:00	28.6	6.7	264	27	2.1	0.1
6/11/2008	14:45:00	28.7	6.7	263	30	2.3	0.1
6/11/2008	15:00:00	28.7	6.7	261	35	2.7	0.1
c,, <b>2</b> 000		_5	J.,		30		J

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Subsegment 0406							
Originated: June							
6/11/2008	15:15:00	29.0	6.8	261	41	3.2	0.1
6/11/2008	15:30:00	29.5	6.8	262	43	3.2	0.1
6/11/2008	15:45:00	29.5	6.7	262	37	2.8	0.1
6/11/2008	16:00:00	29.3	6.7	263	34	2.6	0.1
6/11/2008	16:15:00	29.4	6.7	263	34	2.6	0.1
6/11/2008	16:30:00	29.2	6.7	263	33	2.5	0.1
6/11/2008	16:45:00	29.3	6.7	265	34	2.6	0.1
6/11/2008	17:00:00	30.0	6.8	277	43	3.3	0.1
6/11/2008	17:15:00	30.4	6.8	276	42	3.2	0.1
6/11/2008	17:30:00	29.9	6.8	286	43	3.3	0.1
6/11/2008	17:45:00	30.5	6.9	284	56	4.2	0.1
6/11/2008	18:00:00	30.4	6.9	289	54	4.0	0.1
6/11/2008	18:15:00	30.5	6.9	287	55	4.1	0.1
6/11/2008	18:30:00	30.5	6.9	288	54	4.1	0.1
6/11/2008			6.9	288	54 53		0.1
	18:45:00	30.4				4.0	
6/11/2008	19:00:00	30.2	6.9	285	51	3.8	0.1
6/11/2008	19:15:00	30.3	6.9	287	51	3.9	0.1
6/11/2008	19:30:00	30.4	6.9	287	52	3.9	0.1
6/11/2008	19:45:00	30.3	6.9	287	52	3.9	0.1
6/11/2008	20:00:00	30.4	6.9	287	52	3.9	0.1
6/11/2008	20:15:00	30.4	6.9	287	52	3.9	0.1
6/11/2008	20:30:00	30.3	6.9	287	50	3.8	0.1
6/11/2008	20:45:00	30.1	6.9	286	48	3.6	0.1
6/11/2008	21:00:00	30.0	6.9	284	46	3.4	0.1
6/11/2008	21:15:00	30.1	6.9	286	48	3.6	0.1
6/11/2008	21:30:00	30.1	6.9	287	47	3.6	0.1
6/11/2008	21:45:00	30.1	6.9	287	48	3.6	0.1
6/11/2008	22:00:00	30.2	6.9	289	47	3.6	0.1
6/11/2008	22:15:00	30.1	6.9	288	47	3.5	0.1
6/11/2008	22:30:00	30.1	6.9	287	46	3.5	0.1
6/11/2008	22:45:00	30.0	6.9	287	46	3.5	0.1
6/11/2008	23:00:00	30.0	6.9	290	46	3.5	0.1
6/11/2008	23:15:00	30.0	6.9	296	43	3.3	0.1
6/11/2008	23:30:00	29.9	6.9	306	41	3.1	0.1
6/11/2008	23:45:00	29.9	6.9	308	40	3.0	0.2
6/12/2008							
	0:00:00	29.9	6.9	298	41	3.1	0.1
6/12/2008	0:15:00	29.8	6.8	289	41	3.1	0.1
6/12/2008	0:30:00	29.8	6.9	288	40	3.0	0.1
6/12/2008	0:45:00	29.7	6.8	292	40	3.0	0.1
6/12/2008	1:00:00	29.7	6.9	294	40	3.0	0.1
6/12/2008	1:15:00	29.7	6.9	298	39	2.9	0.1
6/12/2008	1:30:00	29.7	6.9	301	37	2.8	0.2
6/12/2008	1:45:00	29.7	6.9	302	37	2.8	0.2
6/12/2008	2:00:00	29.6	6.9	296	38	2.9	0.1
6/12/2008	2:15:00	29.5	6.8	290	37	2.8	0.1
6/12/2008	2:30:00	29.5	6.9	288	36	2.7	0.1
6/12/2008	2:45:00	29.4	6.8	292	36	2.8	0.1
6/12/2008	3:00:00	29.4	6.9	292	36	2.7	0.1
6/12/2008	3:15:00	29.4	6.9	293	35	2.7	0.1
6/12/2008	3:30:00	29.4	6.8	290	35	2.6	0.1
6/12/2008	3:45:00	29.3	6.8	287	35	2.6	0.1
6/12/2008	4:00:00	29.2	6.8	286	34	2.6	0.1
6/12/2008	4:15:00	29.2	6.9	285	33	2.5	0.1
5, 12,2000	5.55		0.0	_55	30	0	J

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 4:30:00 29.1 285 33 2.5 0.1 6/12/2008 6.8 6/12/2008 4:45:00 29.1 6.8 285 32 2.5 0.1 6/12/2008 5:00:00 29.1 6.8 285 32 2.4 0.1 31 2.4 0.1 6/12/2008 5:15:00 28.9 6.8 283 30 2.3 6/12/2008 5:30:00 28.8 6.8 282 0.1 6/12/2008 5:45:00 28.7 6.8 281 30 2.3 0.1 29 6/12/2008 6:00:00 28.7 6.8 279 2.3 0.1 28 6/12/2008 6:15:00 28.7 6.8 279 2.2 0.1 6/12/2008 6:30:00 28.6 6.8 278 28 2.2 0.1 27 2.1 0.1 6/12/2008 6:45:00 28.6 6.8 276 6/12/2008 7:00:00 28.5 6.8 274 27 2.1 0.1 6/12/2008 7:15:00 28.4 6.8 271 23 1.8 0.1 6/12/2008 7:30:00 28.4 6.8 270 23 1.8 0.1 7:45:00 28.4 6.8 23 1.8 0.1 6/12/2008 270 6/12/2008 8:00:00 28.4 6.8 269 23 1.8 0.1 28.4 24 0.1 6/12/2008 8:15:00 6.8 269 1.8 8:30:00 28.3 6.7 24 1.8 0.1 6/12/2008 268 6/12/2008 8:45:00 28.3 6.7 267 21 1.6 0.1 19 1.5 6/12/2008 9:00:00 28.3 6.7 268 0.1 6/12/2008 9:15:00 28.3 6.7 267 20 1.5 0.1

6/12/2008

6/12/2008

6/12/2008

6/12/2008

6/12/2008

6/12/2008

6/12/2008

9:30:00

9:45:00

10:00:00

10:15:00

10:30:00

10:45:00

11:00:00

28.3

28.4

28.4

28.4

28.4

28.4

28.5

6.7

6.7

6.7

6.7

6.7

6.7

6.7

267

267

268

268

267

267

267

19

19

19

19

20

20

22

1.5

1.5

1.5

1.5

1.6

1.5

1.7

0.1

0.1

0.1

0.1

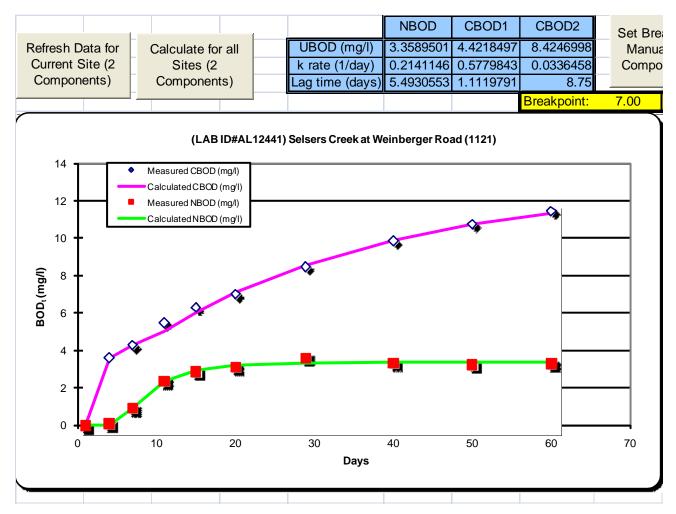
0.1

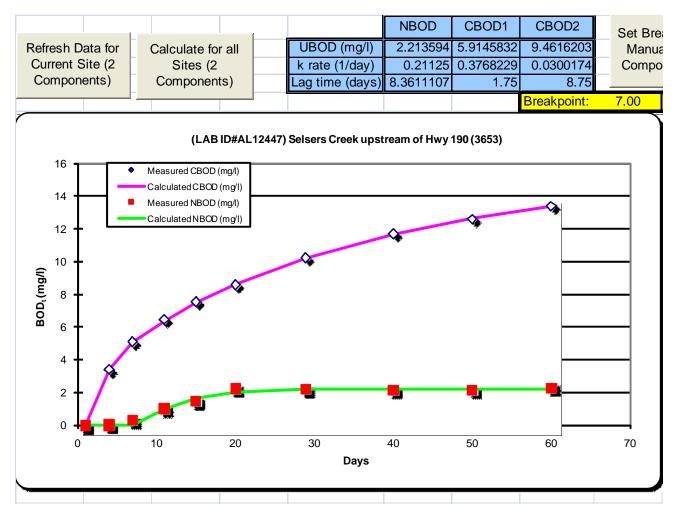
0.1

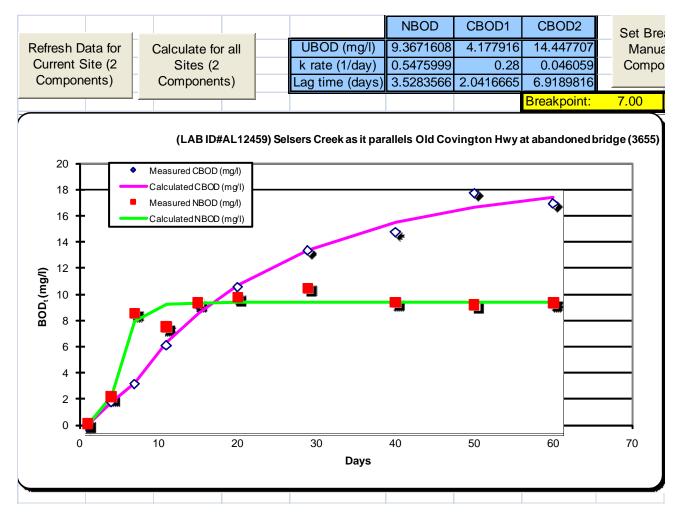
FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

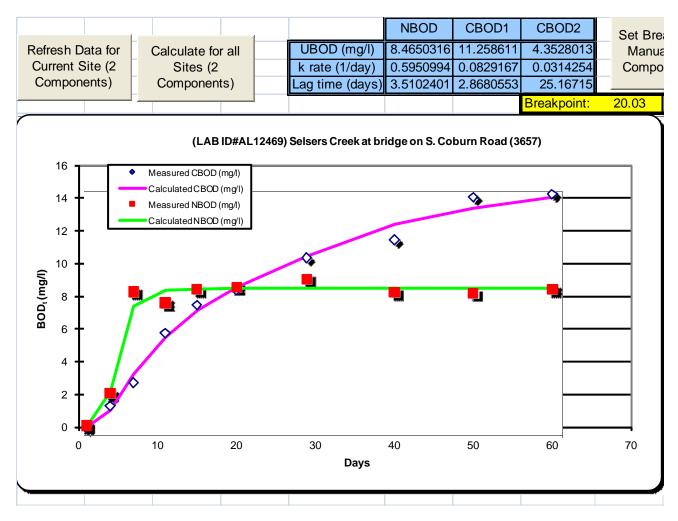
**Appendix F5 – BOD Calculations** 

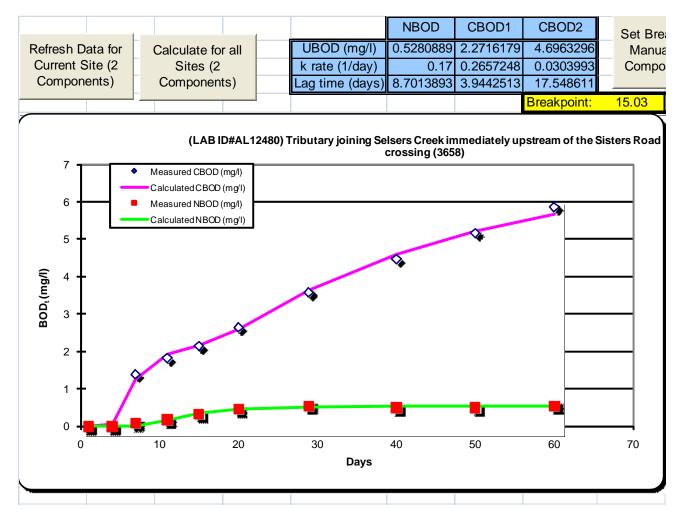
2 Component		NBOD	uix F3 – bO.		CBOD1			CBOD2	
Site ID	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)
(LAB ID#AL12441) Selsers Creek at Weinberger									
Road (1121)	3.359	0.214	5.493	4.422	0.578	1.112	8.425	0.034	8.750
(LAB ID#AL12447) Selsers Creek upstream of									
Hwy 190 (3653)	2.214	0.211	8.361	5.915	0.377	1.750	9.462	0.030	8.750
(LAB ID#AL12459) Selsers Creek as it parallels									
Old Covington Hwy at abandoned bridge (3655)	9.367	0.548	3.528	4.178	0.280	2.042	14.448	0.046	6.919
(LAB ID#AL12469) Selsers Creek at bridge on S.									
Coburn Road (3657)	8.465	0.595	3.510	11.259	0.083	2.868	4.353	0.031	25.167
(LAB ID#AL12480) Tributary joining Selsers Creek									
immediately upstream of the Sisters Road									
crossing (3658)	0.528	0.170	8.701	2.272	0.266	3.944	4.696	0.030	17.549
(LAB ID#AL12485) Selsers Creek at bridge on	4 040	0.447	0.774	0.040	0.440	4.505	44.400	0.004	0.750
Sisters Road (3659)	1.912	0.147	2.771	2.646	0.443	1.507	11.428	0.031	8.750
(LAB ID#AL12510) Tributary at Hoover Road north	4 700	0.444	0.000	0.000	0.440	0.004	0.044	0.000	40.074
of Hwy 22 (3660)	1.768	0.144	2.236	6.283	0.148	0.924	6.244	0.029	18.671
(LAB ID#AL12516) Selsers Creek at Hwy 22	0.070	0.040	0.440	4.040	0.000	4.000	0.044	0.000	40.540
(3661)	2.672	0.216	8.410	4.912	0.280	1.069	8.211	0.030	12.546
(LAB ID#AL12527) Tributary crossing Ridgell Road behind Ponchatoula High School (3662)	7.185	0.307	5.428	6.599	0.513	1.264	12.841	0.087	7.024
(LAB ID#AL12538) South Slough at confluence	7.100	0.307	5.426	0.599	0.515	1.204	12.041	0.067	7.024
with Selsers Creek (3663)	2.189	0.252	8.701	6.858	0.211	1.167	6.331	0.036	18.987
(LAB ID#AL12544) Selsers Canal at Industrial	2.100	0.202	0.701	0.000	0.211	1.101	0.001	0.000	10.007
Access Road (3664)	5.011	0.595	6.662	7.346	0.211	1.021	10.143	0.065	9.383
(LAB ID#AL12549) Creekside Subdivision									
(AI#121582) (AI121582)	132.888	0.124	23.423	175.359	0.131	6.020	94.773	0.041	25.181
(LAB ID#AL12453) SE Hammond Regional STP									
(AI#40040) (AI40040)	0.000	0.005	0.000	5.656	0.206	8.750	3.925	0.030	16.042

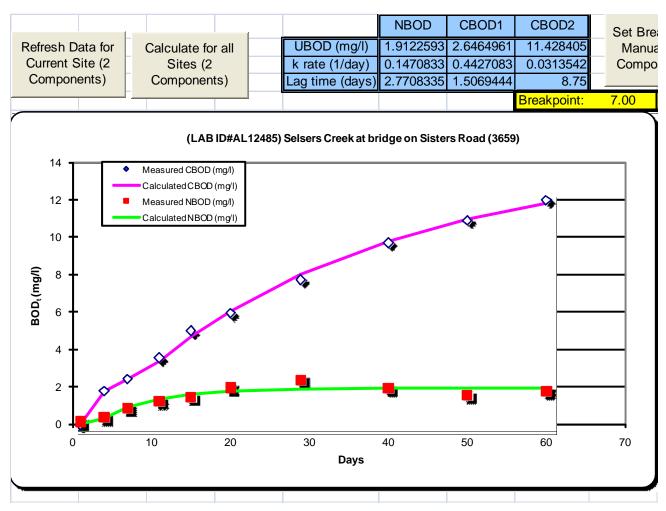


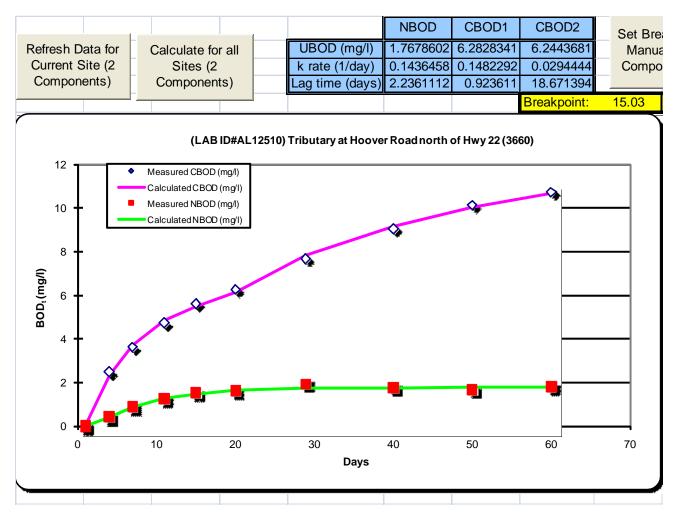


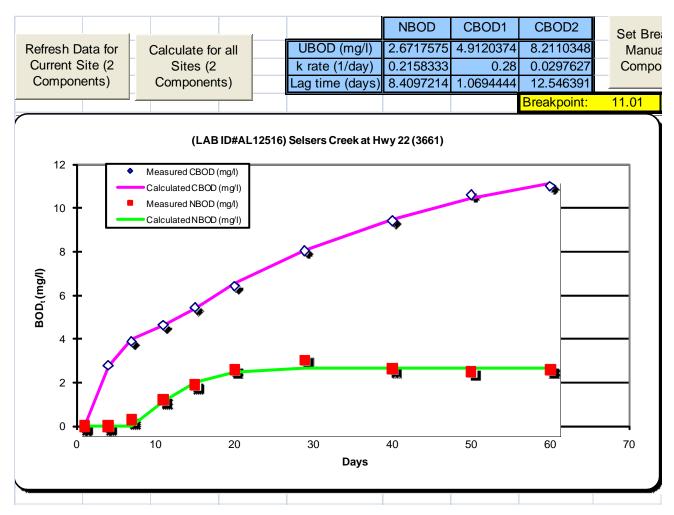


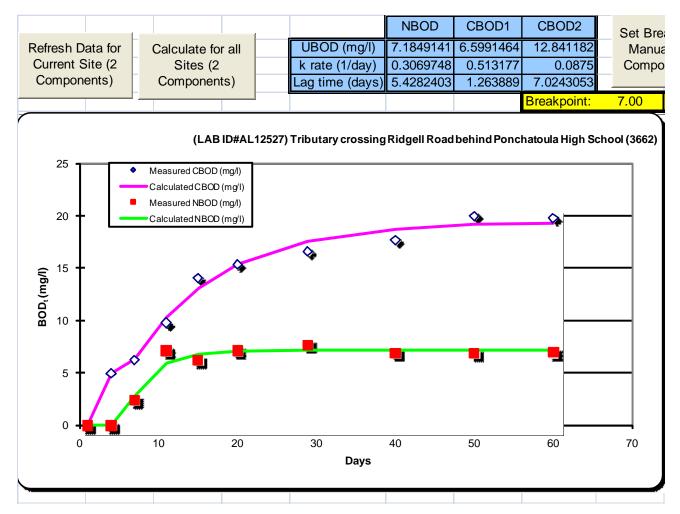


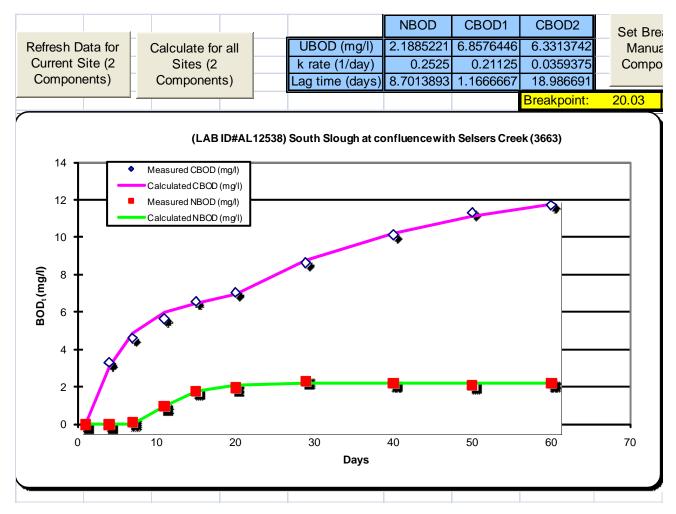


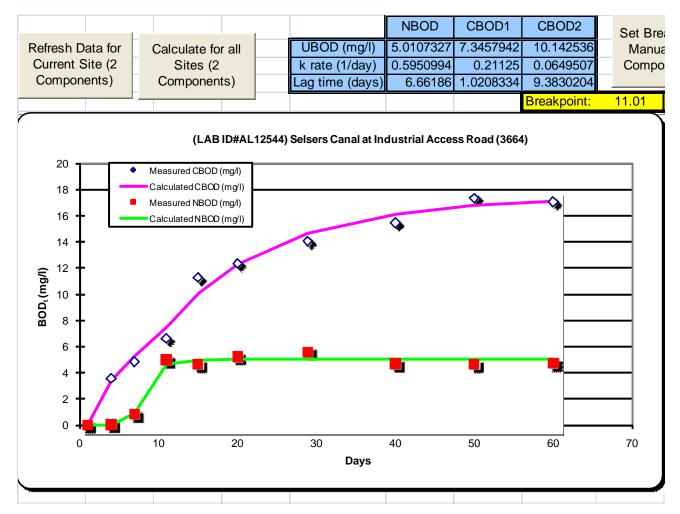


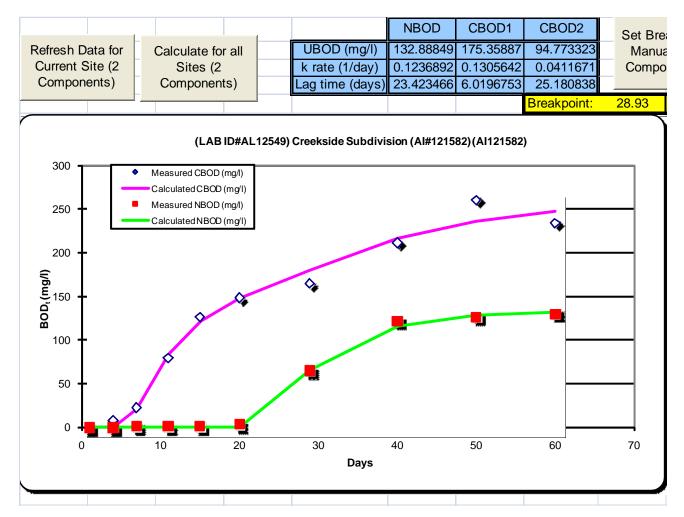


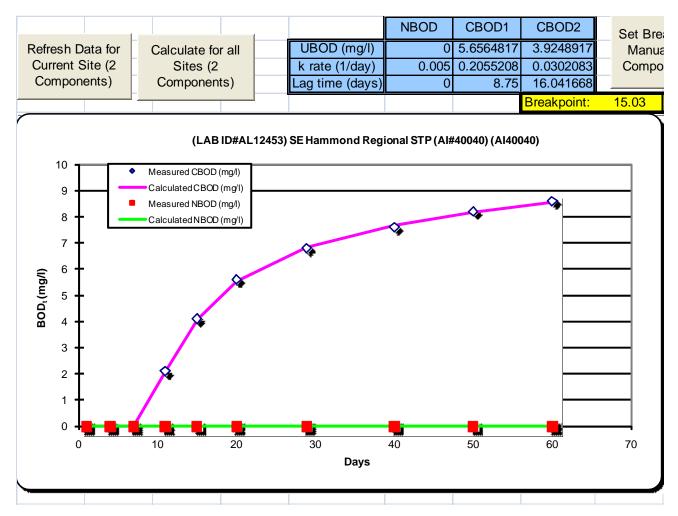










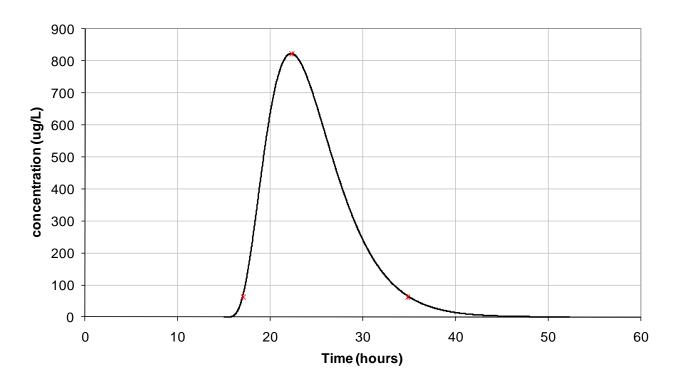


# **Appendix F6- Dispersion Calculations**

Waterbody Name /	Site Name	<b>e</b> :	Selsers Cr	eek, Site 01	
Enter times in hours	from the tir	ne of spill	for:		
Leading edge	17.067	hours			
Peak	22.317	hours			
Trailing edge	34.817	hours			
Peak concentration	822.76	ug/L			
Rivermiles					
Spill location	12.12				
Observed location	9.95				
Reach Width (ft)	13.25				
Reach Depth (ft)	0.532				
Dye dumped (ml)	3785.41				
Measured flow (cfs)	0.625				

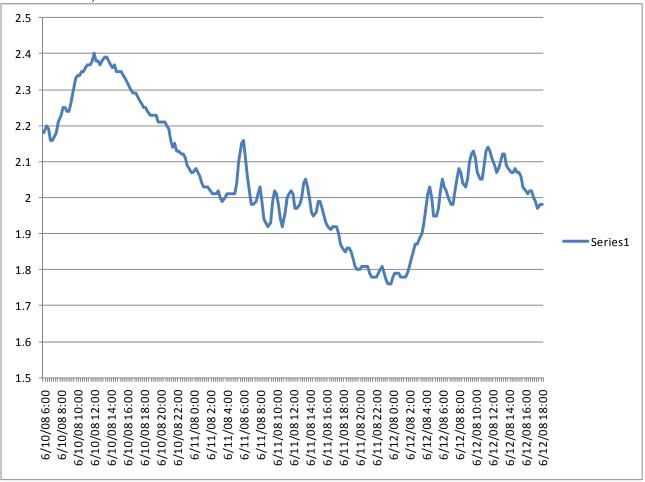
	Selsers Creek, Site 01										
			Edge pct=	7.50%							
			Start t=	14.96552	hr						
			End t=	52.2255	hr						
			n=	2000		D <sub>L</sub> =	0.0709	mi²/d			
			dt=	0.01863	hr		22.9	ft <sup>2</sup> /s			
Change lese cells	3. Shifts the curve and a	djusts the bre	alpha=	2.7			2.13	m²/s	Calculated Disperion	2.124809	m²/s
Char	<ol> <li>Adjust the breadth of the strength of the strengt</li></ol>	the curve	beta=	0.11	mi						
‡	<ol><li>Adjusts the time</li></ol>		VMax=	0.145	mi/hr						

## **Concentration vs Time**



#### **Appendix F7 – Water Level Monitor Data**

#### Selsers Creek, Site 1121



6/10/08 1:00	2.21
6/10/08 1:15	2.2
6/10/08 1:30	2.19
6/10/08 1:45	2.22
6/10/08 2:00	2.24
6/10/08 2:15	2.24
6/10/08 2:30	2.24
6/10/08 2:45	2.25
6/10/08 3:00	2.22
6/10/08 3:15	2.22
6/10/08 3:30	2.22
6/10/08 3:45	2.22
6/10/08 4:00	2.22
6/10/08 4:15	2.21
6/10/08 4:30	2.21
6/10/08 4:45	2.22
6/10/08 5:00	2.2
6/10/08 5:15	2.18
6/10/08 5:30	2.15
6/10/08 5:45	2.15

Julie 1, 2011	
6/10/08 6:00	2.18
6/10/08 6:15	2.2
6/10/08 6:30	2.19
6/10/08 6:45	2.16
6/10/08 7:00	2.16
6/10/08 7:15	2.17
6/10/08 7:30	2.18
6/10/08 7:45	2.21
6/10/08 8:00	2.23
6/10/08 8:15	2.25
6/10/08 8:30	2.25
6/10/08 8:45	2.24
6/10/08 9:00	2.24
6/10/08 9:15	2.26
6/10/08 9:30	2.29
6/10/08 9:45	2.33
6/10/08 10:00	2.34
6/10/08 10:15	2.34
6/10/08 10:30	2.35
6/10/08 10:45	2.35
6/10/08 11:00	2.36
6/10/08 11:15	2.37
6/10/08 11:30	2.37
6/10/08 11:45	2.38
6/10/08 12:00	2.4
6/10/08 12:15	2.38
6/10/08 12:30	2.38
6/10/08 12:45	
	2.37
6/10/08 13:00	2.38
6/10/08 13:15	2.39
6/10/08 13:30	2.39
6/10/08 13:45	2.38
6/10/08 14:00	2.37
6/10/08 14:15	2.36
6/10/08 14:30	2.37
6/10/08 14:45	2.35
6/10/08 15:00	2.35
6/10/08 15:15	2.35
6/10/08 15:30	2.34
6/10/08 15:45	2.33
6/10/08 16:00	2.32
6/10/08 16:15	2.31
6/10/08 16:30	2.3
6/10/08 16:45	2.29
6/10/08 17:00	2.29
6/10/08 17:15	2.28
6/10/08 17:30	2.27
6/10/08 17:45	2.26
6/10/08 18:00	2.25
6/10/08 18:15	2.25
6/10/08 18:30	2.24
6/10/08 18:45	2.23
6/10/08 19:00	2.23

Julic 1, 2011	
0/40/00 40 45	0.00
6/10/08 19:15	2.23
6/10/08 19:30	2.23
6/10/08 19:45	2.21
6/10/08 20:00	2.21
6/10/08 20:15	2.21
6/10/08 20:30	2.21
6/10/08 20:45	2.2
6/10/08 21:00	2.19
6/10/08 21:15	2.16
6/10/08 21:30	2.14
6/10/08 21:45	2.15
6/10/08 22:00	2.13
6/10/08 22:15	2.13
6/10/08 22:30	2.12
6/10/08 22:45	2.12
6/10/08 23:00	2.11
6/10/08 23:15	2.09
6/10/08 23:30	2.08
6/10/08 23:45	2.07
6/11/08 0:00	2.07
6/11/08 0:15	2.08
6/11/08 0:30	2.07
6/11/08 0:45	2.06
6/11/08 1:00	2.04
6/11/08 1:15	2.03
6/11/08 1:30	2.03
6/11/08 1:45	2.03
6/11/08 2:00	2.02
6/11/08 2:15	
	2.01
6/11/08 2:30	2.01
6/11/08 2:45	2.01
6/11/08 3:00	2.02
6/11/08 3:15	2
6/11/08 3:30	1.99
6/11/08 3:45	2
6/11/08 4:00	2.01
6/11/08 4:15	2.01
6/11/08 4:30	2.01
6/11/08 4:45	2.01
6/11/08 5:00	2.01
6/11/08 5:15	2.04
	2.1
6/11/08 5:30	
6/11/08 5:45	2.15
6/11/08 6:00	2.16
6/11/08 6:15	2.11
6/11/08 6:30	2.06
6/11/08 6:45	2.02
6/11/08 7:00	1.98
6/11/08 7:15	1.98
6/11/08 7:30	1.99
6/11/08 7:45	2.01
6/11/08 8:00	2.03
6/11/08 8:15	1.99
0/11/00 0.15	1.99

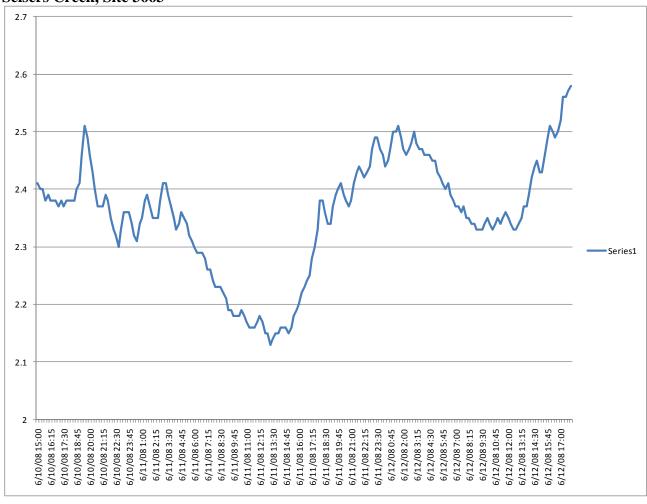
: June 1, 2011	
6/11/08 8:30	1.94
6/11/08 8:45	1.93
6/11/08 9:00	1.92
6/11/08 9:15	1.93
6/11/08 9:30	1.99
6/11/08 9:45	2.02
6/11/08 10:00	2.02
6/11/08 10:00	1.98
6/11/08 10:30	1.94
6/11/08 10:45	1.92
6/11/08 11:00	1.96
6/11/08 11:15	2
6/11/08 11:30	2.01
6/11/08 11:45	2.02
6/11/08 12:00	2.01
6/11/08 12:15	1.97
6/11/08 12:30	1.97
6/11/08 12:45	1.98
6/11/08 13:00	2
6/11/08 13:15	2.04
6/11/08 13:30	2.05
6/11/08 13:45	2.03
6/11/08 14:00	2
6/11/08 14:15	1.96
6/11/08 14:30	1.95
6/11/08 14:45	1.96
6/11/08 15:00	1.99
6/11/08 15:15	1.99
6/11/08 15:30	1.97
6/11/08 15:45	1.95
6/11/08 16:00	1.93
6/11/08 16:15	1.92
6/11/08 16:30	1.91
6/11/08 16:45	1.92
6/11/08 17:00	1.92
6/11/08 17:15	1.92
6/11/08 17:13	1.92
6/11/08 17:45	1.87
6/11/08 18:00	1.86
6/11/08 18:15	1.85
6/11/08 18:30	1.86
6/11/08 18:45	1.86
6/11/08 19:00	1.85
6/11/08 19:15	1.83
6/11/08 19:30	1.81
6/11/08 19:45	1.8
6/11/08 20:00	1.8
6/11/08 20:15	1.81
6/11/08 20:30	1.81
6/11/08 20:45	1.81
6/11/08 21:00	1.81
6/11/08 21:15	1.79
6/11/08 21:30	1.78

Julie 1, 2011	
6/11/08 21:45	1.78
6/11/08 22:00	1.78
6/11/08 22:15	1.79
6/11/08 22:30	1.8
6/11/08 22:45	1.81
6/11/08 23:00	1.79
	1.77
6/11/08 23:15	
6/11/08 23:30	1.76
6/11/08 23:45	1.76
6/12/08 0:00	1.78
6/12/08 0:15	1.79
6/12/08 0:30	1.79
6/12/08 0:45	1.79
6/12/08 1:00	1.78
6/12/08 1:15	1.78
6/12/08 1:30	1.78
6/12/08 1:45	1.79
6/12/08 2:00	1.81
6/12/08 2:15	1.83
6/12/08 2:30	1.85
6/12/08 2:45	1.87
6/12/08 3:00	1.87
6/12/08 3:15	1.89
6/12/08 3:30	1.9
6/12/08 3:45	1.93
6/12/08 4:00	1.97
6/12/08 4:15	2.01
6/12/08 4:30	2.03
6/12/08 4:45	2
6/12/08 5:00	1.95
6/12/08 5:15	1.95
6/12/08 5:30	1.97
	_
6/12/08 5:45	2.02
6/12/08 6:00	2.05
6/12/08 6:15	2.03
6/12/08 6:30	2.02
6/12/08 6:45	2
6/12/08 7:00	1.98
6/12/08 7:15	1.98
6/12/08 7:30	2.02
6/12/08 7:45	2.05
6/12/08 8:00	2.08
6/12/08 8:15	2.07
6/12/08 8:30	2.04
6/12/08 8:45	2.03
6/12/08 9:00	2.05
6/12/08 9:15	2.1
6/12/08 9:30	2.12
6/12/08 9:45	
	2.13
6/12/08 10:00	2.11
6/12/08 10:15	2.07
6/12/08 10:30	2.05
6/12/08 10:45	2.05
5, 12,00 10.10	2.00

. Julic 1, 2011	
6/12/08 11:00	2.00
	2.09
6/12/08 11:15	2.13
6/12/08 11:30	2.14
6/12/08 11:45	2.13
6/12/08 12:00	2.11
6/12/08 12:15	2.09
6/12/08 12:30	2.07
6/12/08 12:45	2.08
6/12/08 13:00	2.1
6/12/08 13:15	2.12
6/12/08 13:30	2.12
6/12/08 13:45	2.09
6/12/08 14:00	
	2.08
6/12/08 14:15	2.07
6/12/08 14:30	2.07
6/12/08 14:45	2.08
6/12/08 15:00	2.07
6/12/08 15:15	2.07
6/12/08 15:30	2.06
6/12/08 15:45	2.03
6/12/08 16:00	2.02
6/12/08 16:15	2.01
6/12/08 16:30	2.02
6/12/08 16:45	2.02
6/12/08 17:00	2
6/12/08 17:15	1.99
6/12/08 17:30	1.97
6/12/08 17:45	1.98
6/12/08 18:00	1.98
6/12/08 18:15	1.98
6/12/08 18:30	1.97
6/12/08 18:45	1.97
6/12/08 19:00	1.95
6/12/08 19:15	1.95
6/12/08 19:30	1.94
6/12/08 19:45	1.95
6/12/08 20:00	1.95
6/12/08 20:15	1.97
6/12/08 20:30	1.97
6/12/08 20:45	1.96
6/12/08 21:00	1.95
6/12/08 21:15	1.95
6/12/08 21:30	1.97
6/12/08 21:45	1.97
6/12/08 22:00	1.97
6/12/08 22:15	1.97
6/12/08 22:30	1.96
6/12/08 22:45	1.94
6/12/08 23:00	1.94
6/12/08 23:15	1.95
6/12/08 23:30	1.97
6/12/08 23:45	1.99
0/12/00 23.43	1.99

Originated: June 1, 2011

#### Selsers Creek, Site 3663



6/10/08 15:00	2.41
6/10/08 15:15	2.4
6/10/08 15:30	2.4
6/10/08 15:45	2.38
6/10/08 16:00	2.39
6/10/08 16:15	2.38
6/10/08 16:30	2.38
6/10/08 16:45	2.38
6/10/08 17:00	2.37
6/10/08 17:15	2.38
6/10/08 17:30	2.37
6/10/08 17:45	2.38
6/10/08 18:00	2.38
6/10/08 18:15	2.38
6/10/08 18:30	2.38
6/10/08 18:45	2.4
6/10/08 19:00	2.41
6/10/08 19:15	2.46
6/10/08 19:30	2.51
6/10/08 19:45	2.49
6/10/08 20:00	2.46

ginated: June 1, 2011	
6/10/08 20:15	2.43
6/10/08 20:30	2.4
6/10/08 20:45	2.37
6/10/08 21:00	2.37
6/10/08 21:15	2.37
6/10/08 21:30	2.39
6/10/08 21:45	2.38
6/10/08 22:00	2.35
6/10/08 22:15	2.33
6/10/08 22:30	2.32
6/10/08 22:45	2.32
6/10/08 23:00	2.33
6/10/08 23:15	2.36
6/10/08 23:30	2.36
6/10/08 23:45	2.36
	2.36
6/11/08 0:00	
6/11/08 0:15	2.32
6/11/08 0:30	2.31
6/11/08 0:45	2.34
6/11/08 1:00	2.35
6/11/08 1:15	2.38
6/11/08 1:30	2.39
6/11/08 1:45	2.37
6/11/08 2:00	2.35
6/11/08 2:15	2.35
6/11/08 2:30	2.35
6/11/08 2:45	2.38
6/11/08 3:00	2.41
6/11/08 3:15	2.41
6/11/08 3:30	2.39
6/11/08 3:45	2.37
6/11/08 4:00	2.35
6/11/08 4:15	2.33
6/11/08 4:30	2.34
6/11/08 4:45	2.36
6/11/08 5:00	2.35
6/11/08 5:15	2.34
6/11/08 5:30	2.32
6/11/08 5:45	2.31
6/11/08 6:00	2.3
6/11/08 6:15	2.29
6/11/08 6:30	2.29
6/11/08 6:45	2.29
6/11/08 7:00	2.28
6/11/08 7:15	2.26
6/11/08 7:30	2.26
6/11/08 7:45	2.24
6/11/08 8:00	2.23
6/11/08 8:15	2.23
6/11/08 8:30	2.23
6/11/08 8:45	2.23
6/11/08 9:00	2.22
6/11/08 9:15	2.19

iginated: June 1, 2011	
6/11/08 9:30	2.19
6/11/08 9:45	2.18
6/11/08 10:00	2.18
6/11/08 10:15	2.18
6/11/08 10:30	2.19
6/11/08 10:45	2.18
6/11/08 11:00	2.17
6/11/08 11:15	2.16
6/11/08 11:30	2.16
6/11/08 11:45	2.16
6/11/08 12:00	2.17
6/11/08 12:15	2.18
6/11/08 12:30	2.17
6/11/08 12:45	2.15
6/11/08 13:00	2.15
6/11/08 13:15	2.13
6/11/08 13:30	2.14
6/11/08 13:45	2.15
6/11/08 14:00	2.15
6/11/08 14:15	2.16
6/11/08 14:30	2.16
6/11/08 14:45	2.16
6/11/08 15:00	2.15
6/11/08 15:15	2.16
6/11/08 15:30	2.18 2.19
6/11/08 15:45 6/11/08 16:00	2.19
6/11/08 16:15	2.22
6/11/08 16:30	2.23
6/11/08 16:45	2.24
6/11/08 17:00	2.25
6/11/08 17:15	2.28
6/11/08 17:30	2.3
6/11/08 17:45	2.33
6/11/08 18:00	2.38
6/11/08 18:15	2.38
6/11/08 18:30	2.36
6/11/08 18:45	2.34
6/11/08 19:00	2.34
6/11/08 19:15	2.37
6/11/08 19:30	2.39
6/11/08 19:45	2.4
6/11/08 20:00	2.41
6/11/08 20:15	2.39
6/11/08 20:30	2.38
6/11/08 20:45	2.37
6/11/08 21:00	2.38
6/11/08 21:15	2.41
6/11/08 21:30 6/11/08 21:45	2.43 2.44
6/11/08 21:45	2.44
6/11/08 22:15	2.43
6/11/06 22.15	2.42

6/11/08 22:30

2.43

inated: June 1, 2011	
6/11/08 22:45	2.44
6/11/08 23:00	2.47
6/11/08 23:15	2.49
6/11/08 23:30	2.49
6/11/08 23:45	2.47
6/12/08 0:00	2.46
6/12/08 0:15	2.44
6/12/08 0:30	2.45
6/12/08 0:45	2.47
6/12/08 1:00	2.5
6/12/08 1:15	2.5
6/12/08 1:30	2.51
6/12/08 1:45	2.49
6/12/08 2:00	2.47
6/12/08 2:15	2.46
6/12/08 2:30	2.47
6/12/08 2:45	2.48
6/12/08 3:00	2.5
6/12/08 3:15	2.48
6/12/08 3:30	2.47
6/12/08 3:45	2.47
6/12/08 4:00	2.46
6/12/08 4:15	2.46
6/12/08 4:30	2.46
6/12/08 4:45	2.45
	_
6/12/08 5:00	2.45
6/12/08 5:15	2.43
6/12/08 5:30	2.42
6/12/08 5:45	2.41
6/12/08 6:00	2.4
6/12/08 6:15	2.41
6/12/08 6:30	2.39
6/12/08 6:45	2.38
6/12/08 7:00	2.37
6/12/08 7:15	2.37
6/12/08 7:30	2.36
6/12/08 7:45	2.37
6/12/08 8:00	2.35
6/12/08 8:15	2.35
6/12/08 8:30	2.34
6/12/08 8:45	2.34
6/12/08 9:00	2.33
6/12/08 9:15	2.33
6/12/08 9:30	2.33
6/12/08 9:45	2.34
6/12/08 10:00	2.35
6/12/08 10:15	2.34
6/12/08 10:30	2.33
6/12/08 10:45	2.34
6/12/08 11:00	2.35
6/12/08 11:15	2.34
6/12/08 11:30	2.35
6/12/08 11:45	2.36
0/12/00 11. <del>4</del> 0	2.30

inated: June 1, 2011	
6/12/08 12:00	2.35
6/12/08 12:15	2.34
6/12/08 12:30	2.33
6/12/08 12:45	2.33
6/12/08 13:00	2.34
6/12/08 13:15	2.35
6/12/08 13:30	2.37
6/12/08 13:45	2.37
6/12/08 14:00	2.39
6/12/08 14:15	2.42
6/12/08 14:30	2.44
6/12/08 14:45	2.45
6/12/08 15:00	2.43
6/12/08 15:15	2.43
6/12/08 15:30	2.46
6/12/08 15:45	2.49
6/12/08 16:00	2.43
6/12/08 16:15	2.5
6/12/08 16:30	2.49
6/12/08 16:45	2.49
6/12/08 17:00	2.52
6/12/08 17:15	2.52
6/12/08 17:30	2.56
6/12/08 17:45	
6/12/08 17:45	2.57 2.58
6/12/08 18:15	
	2.6
6/12/08 18:30	2.6
6/12/08 18:45	2.6
6/12/08 19:00	2.61
6/12/08 19:15	2.61
6/12/08 19:30	2.63
6/12/08 19:45	2.63
6/12/08 20:00	2.61
6/12/08 20:15	2.63
6/12/08 20:30	2.63
6/12/08 20:45	2.62
6/12/08 21:00	2.63
6/12/08 21:15	2.62
6/12/08 21:30	2.63
6/12/08 21:45	2.64
6/12/08 22:00	2.65
6/12/08 22:15	2.64
6/12/08 22:30	2.63
6/12/08 22:45	2.62
6/12/08 23:00	2.61
6/12/08 23:15	2.62
6/12/08 23:30	2.62
6/12/08 23:45	2.61

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

# $\label{eq:Appendix G-Historical} \textbf{Ambient Data}$

90th

## **Appendix G1 – Ambient Temperature & DO Calculations**

# Critical Temperature and DO Determinations:

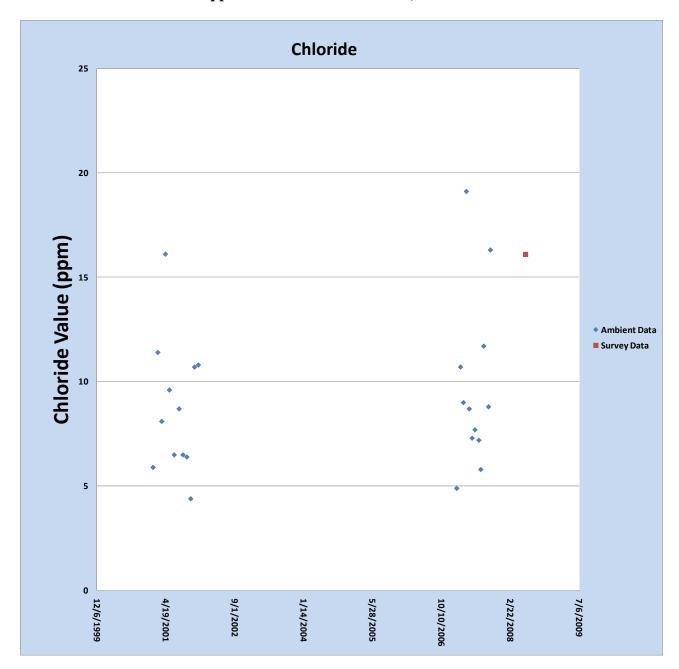
SITE NUMBER: 1121

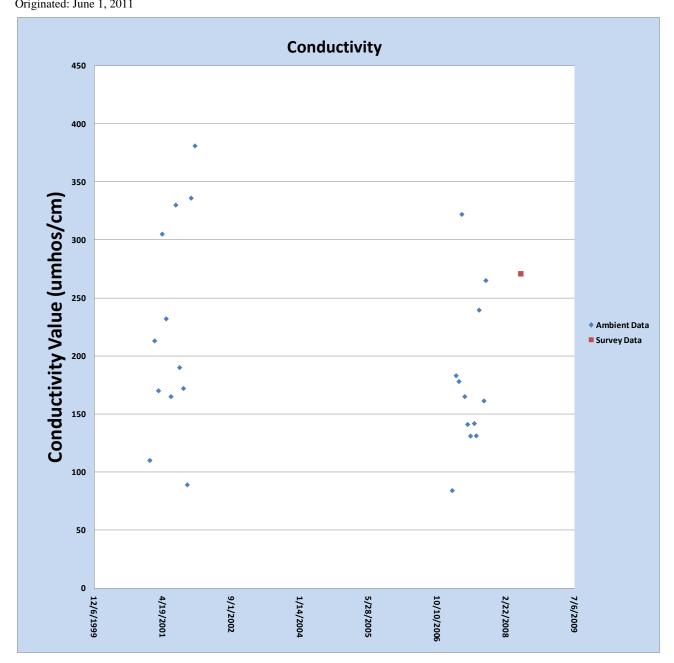
SITE DESCRIPTION: Selsers Creek at Weinberger Road, southeast of Ponchatoula, Louisiana

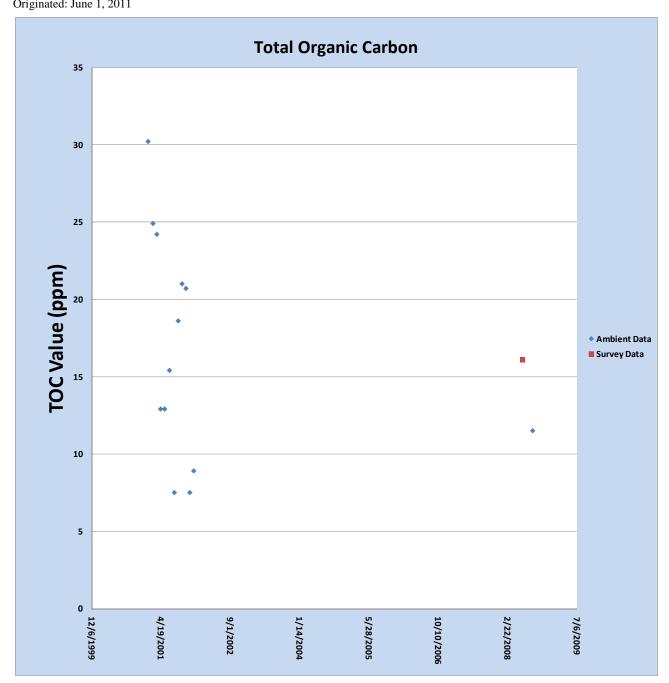
	Summer Season	Winter Season
Percentile Temperature(°C):	28.06	20.75
90 % DO Sat (mg/L):	7.04	8.06
Months:	May To Oct	Nov To Apr
Date	Water Temp. (°C)	DO(mg/L)
12/11/2001	14.92	6.24
11/13/2001	15.54	3.98
10/16/2001	18.58	6.47
9/18/2001	24.76	1.47
8/21/2001	27.09	2.16
7/24/2001	28.23	3.24
6/19/2001	26.20	2.49
5/15/2001	22.04	1.66
4/16/2001	22.65	3.92
3/20/2001	14.04	6.35
2/20/2001	12.93	6.65
1/16/2001	12.40	7.74

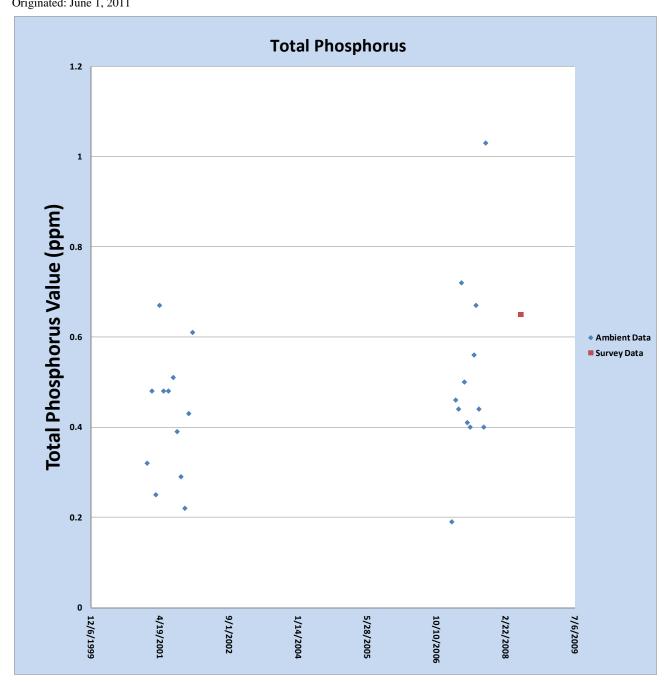
Tuesday, May 18, 2010 Page 1 of 1

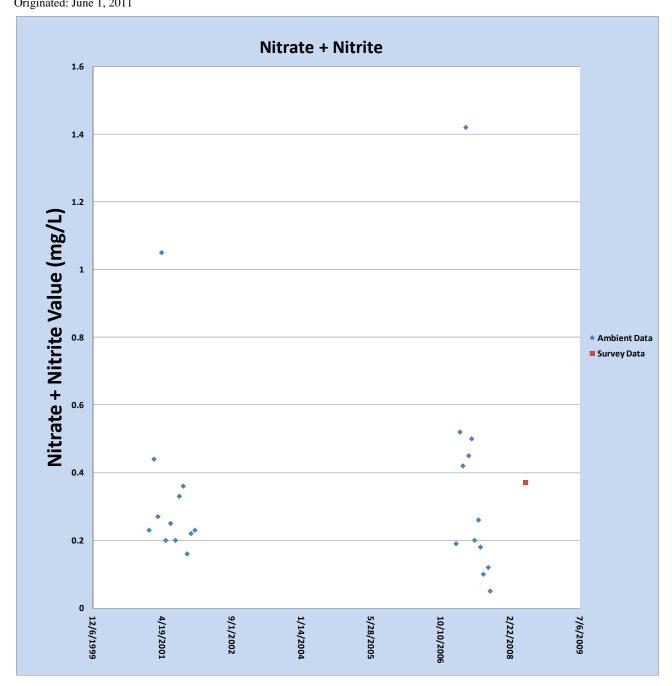
**Appendix G2 – Historical Data, Site 1121** 

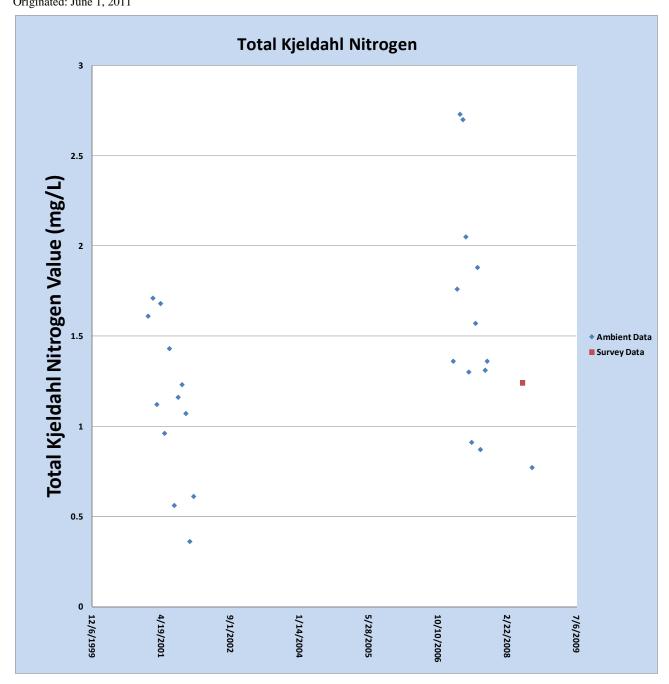


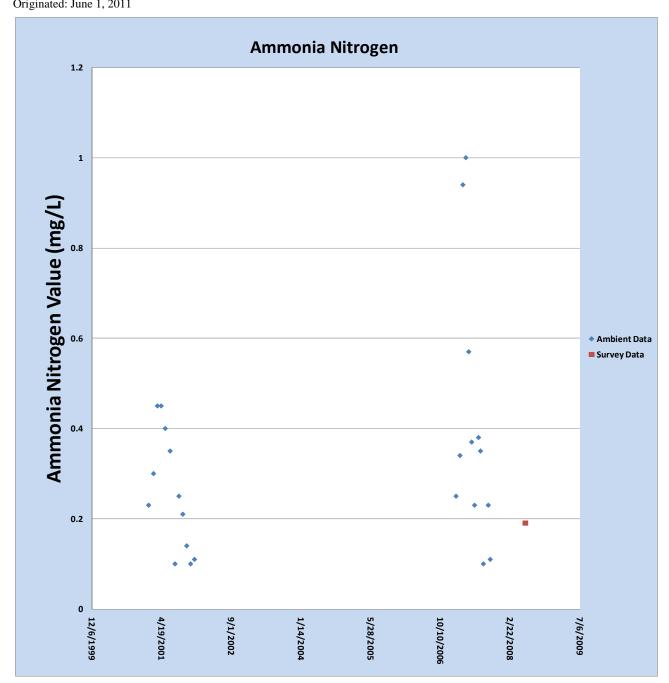


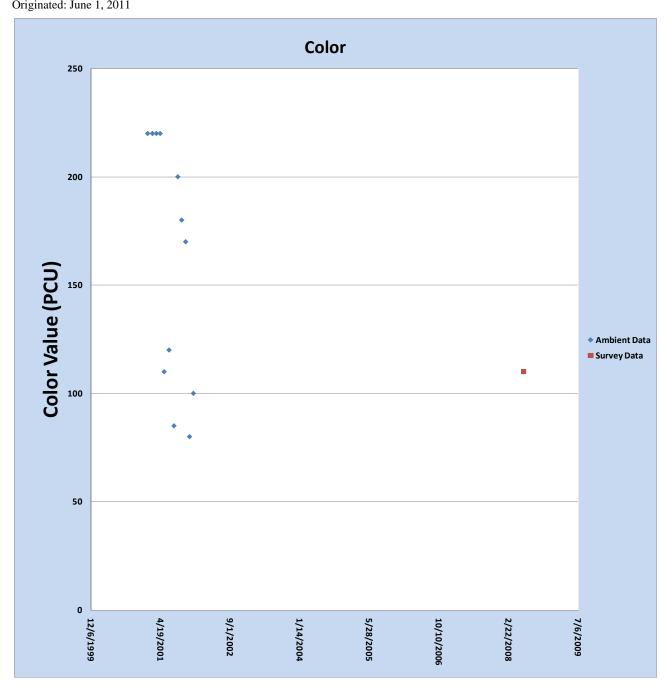


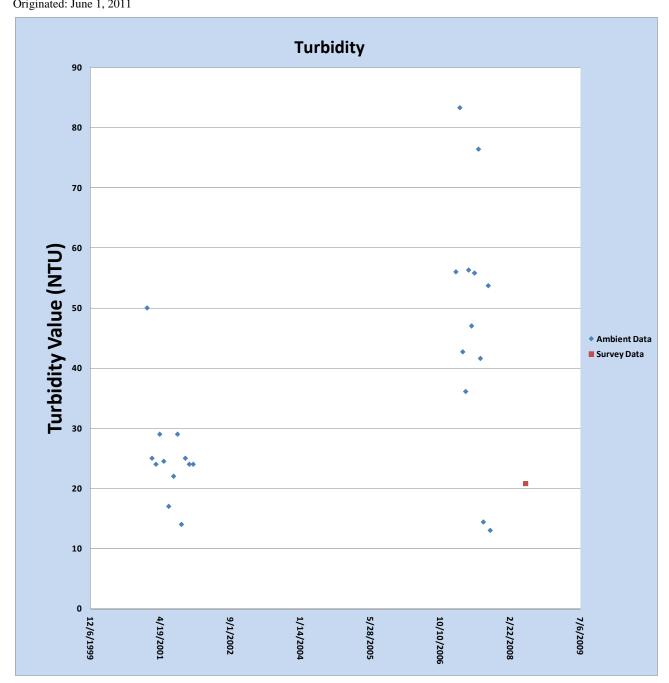








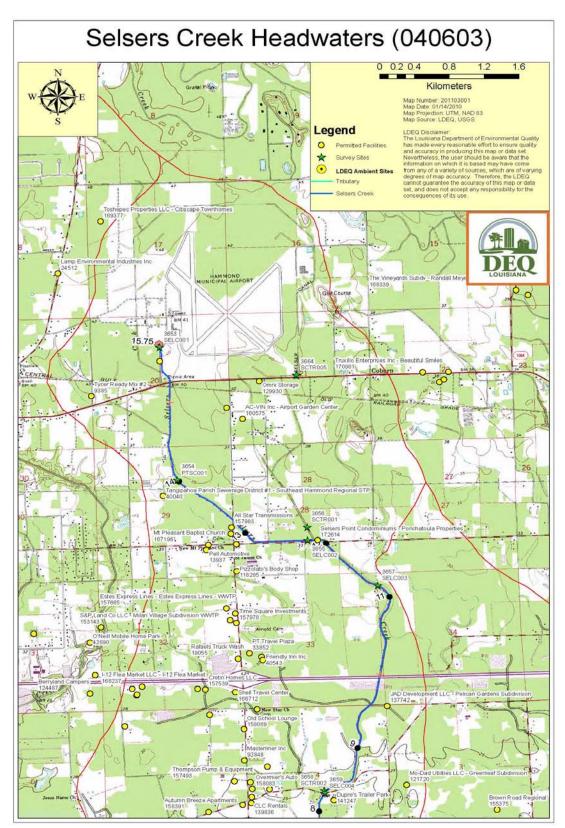


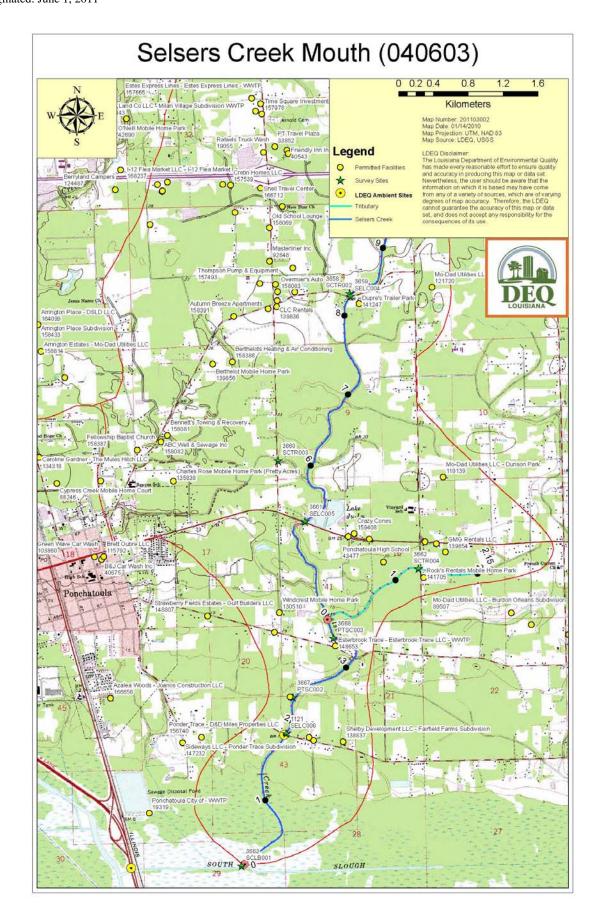


FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

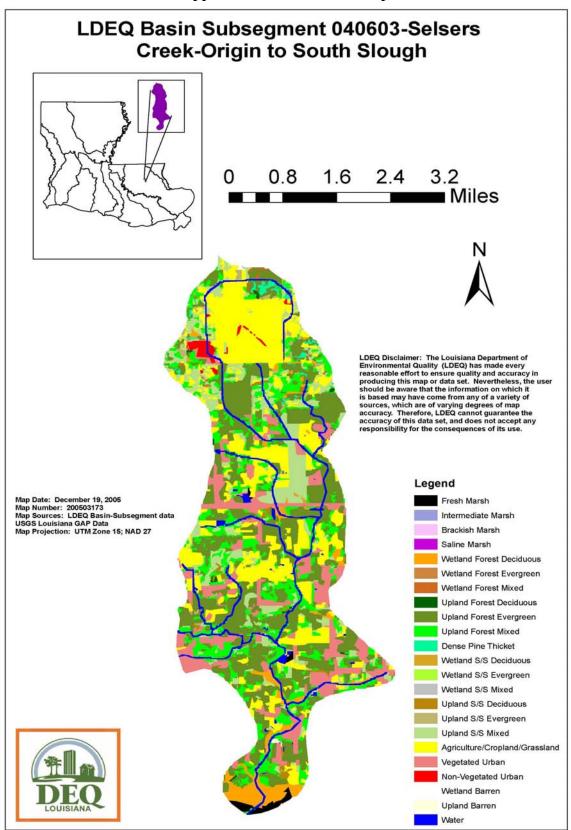
# Appendix H – Maps and Diagrams

**Appendix H1 – Overview Maps** 



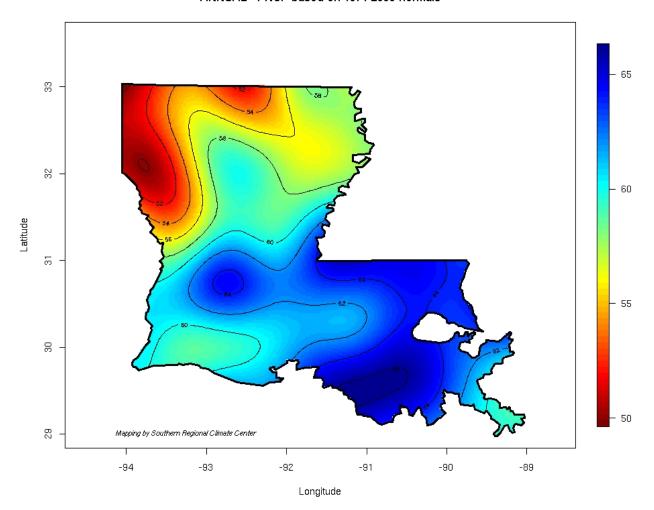


Appendix H2 – Land Use Map



# Appendix H3 – Louisiana Precipitation Map

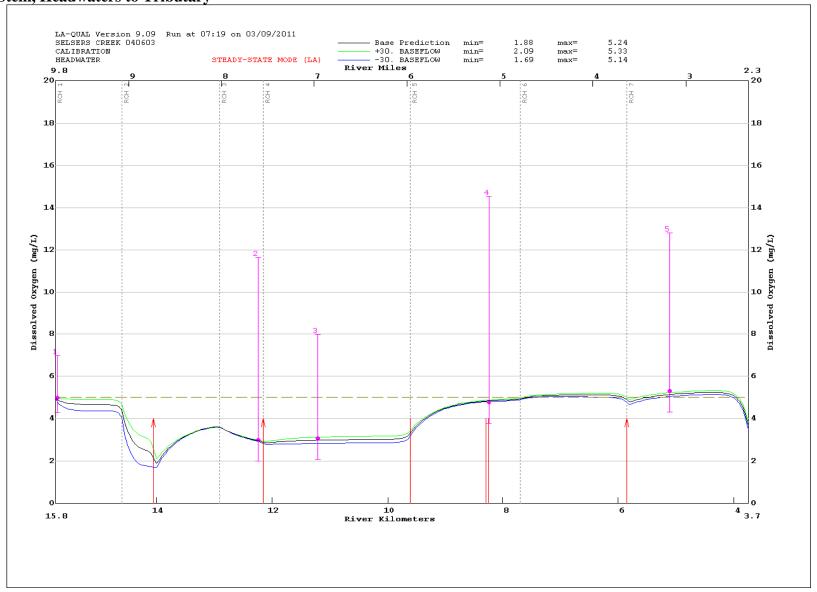
ANNUAL - PRCP based on 1971-2000 normals

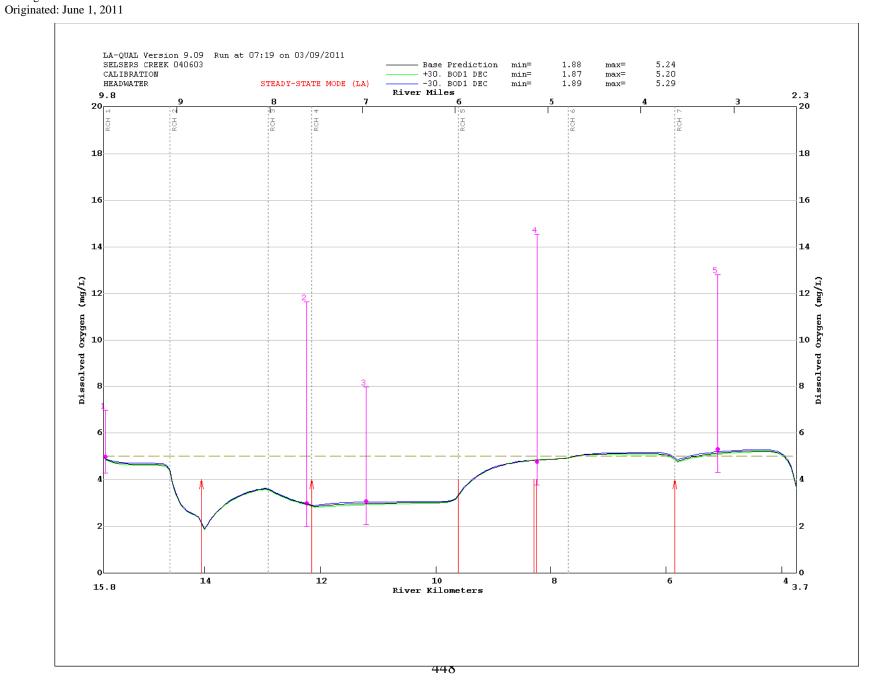


# Appendix I – Sensitivity Analysis

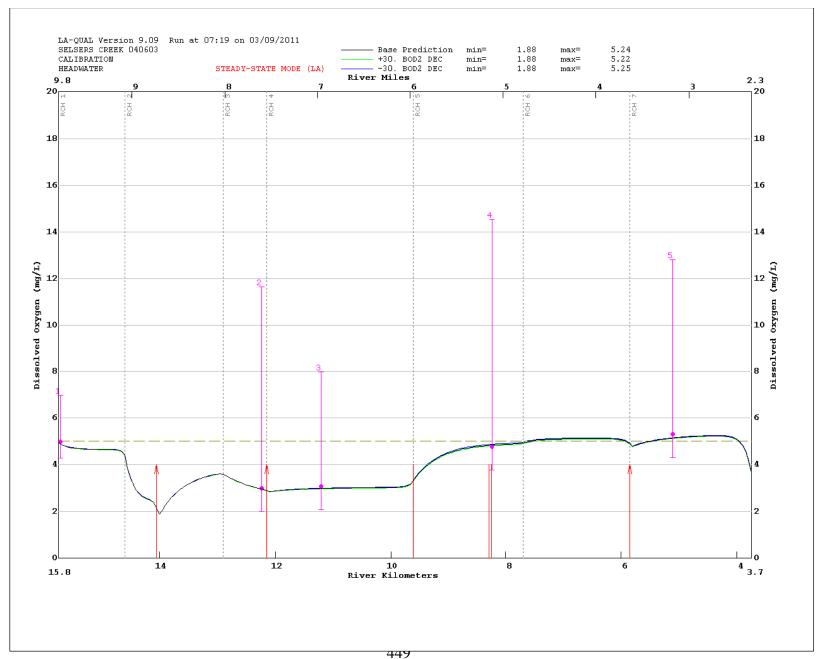
**Appendix I1 – Sensitivity Output Graphs** 

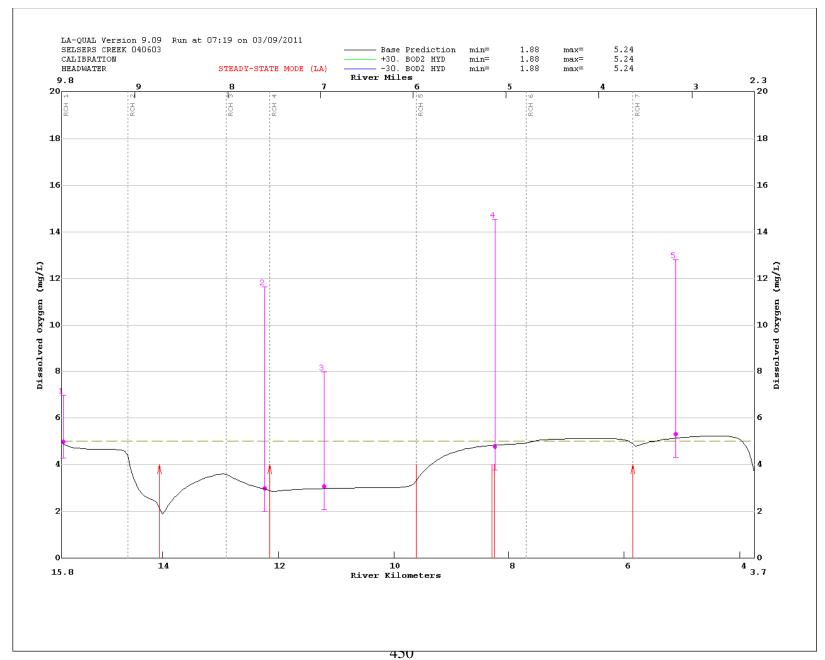
Main Stem, Headwaters to Tributary

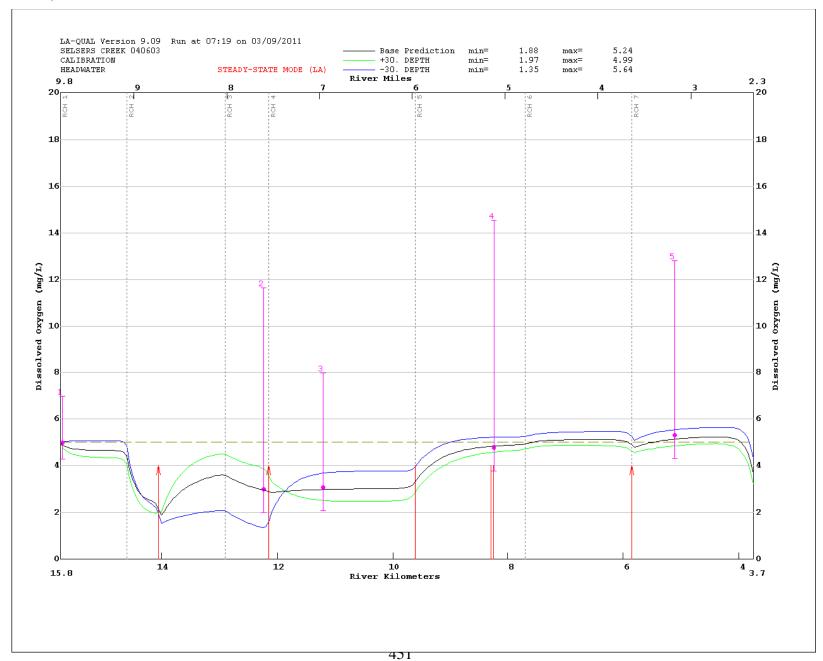


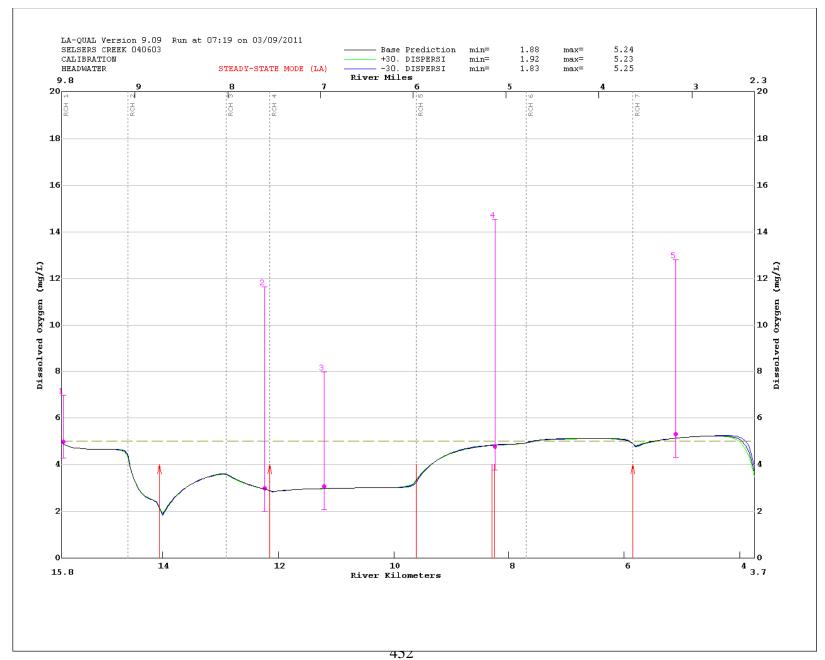




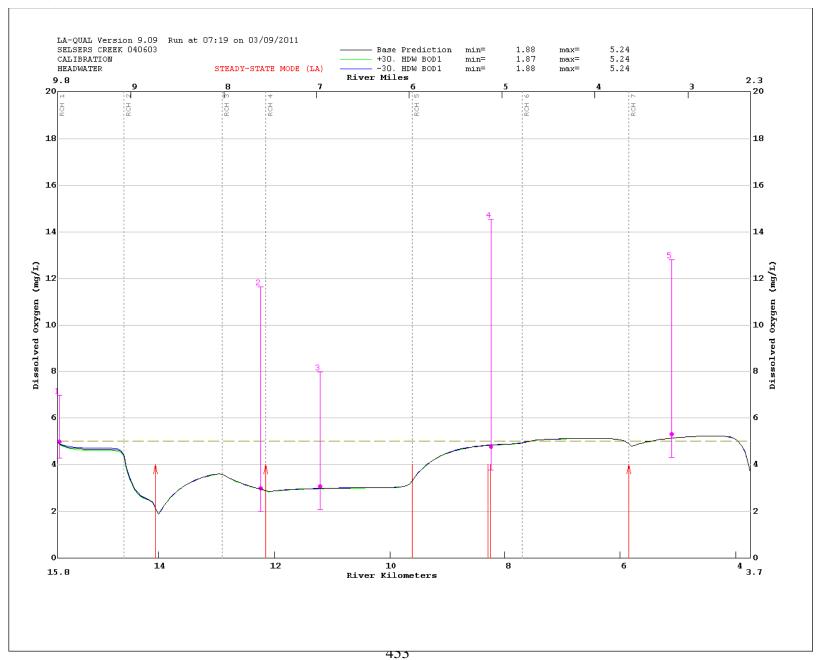




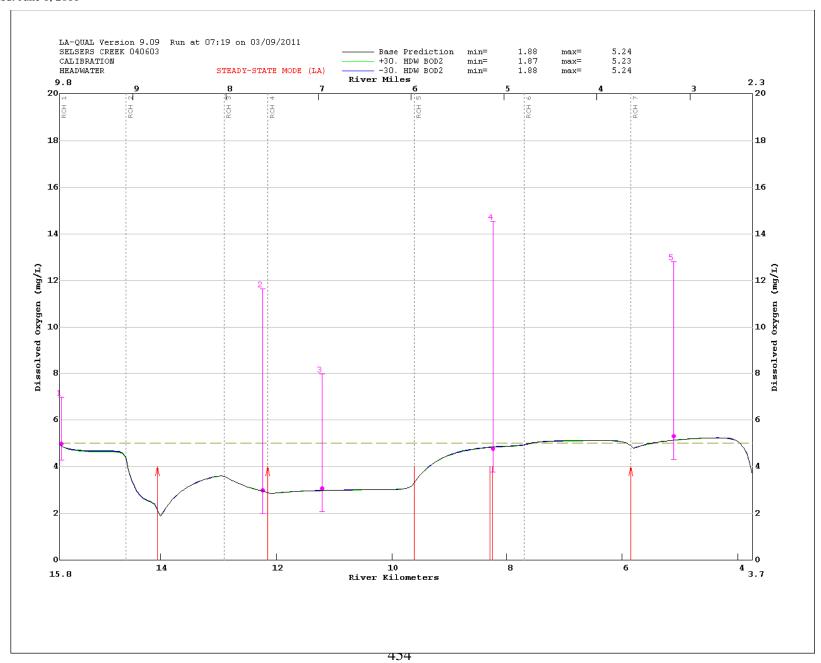




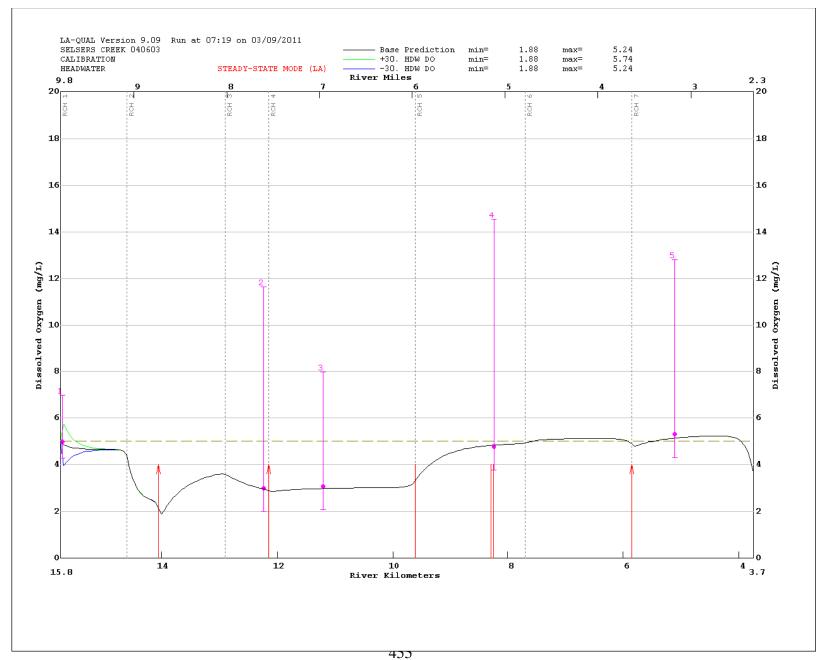




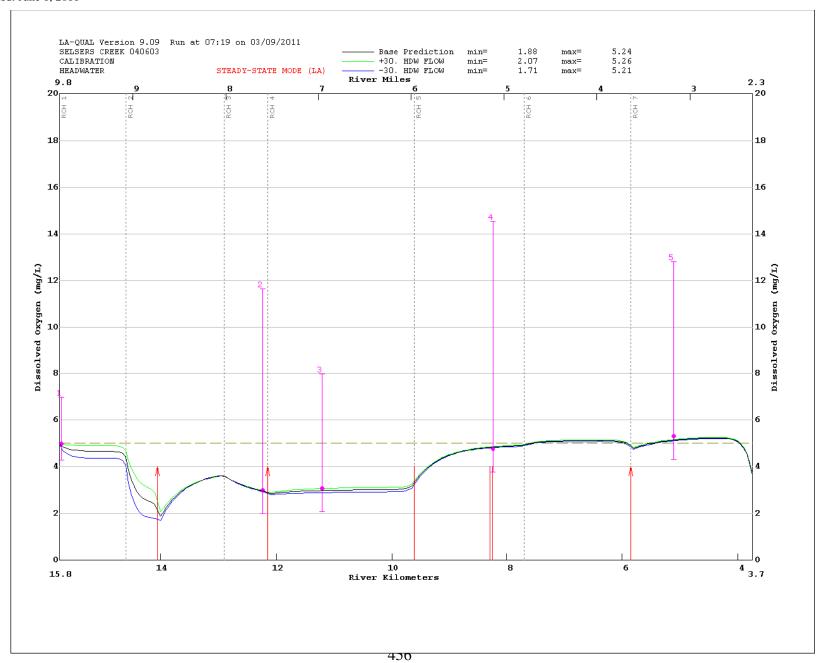




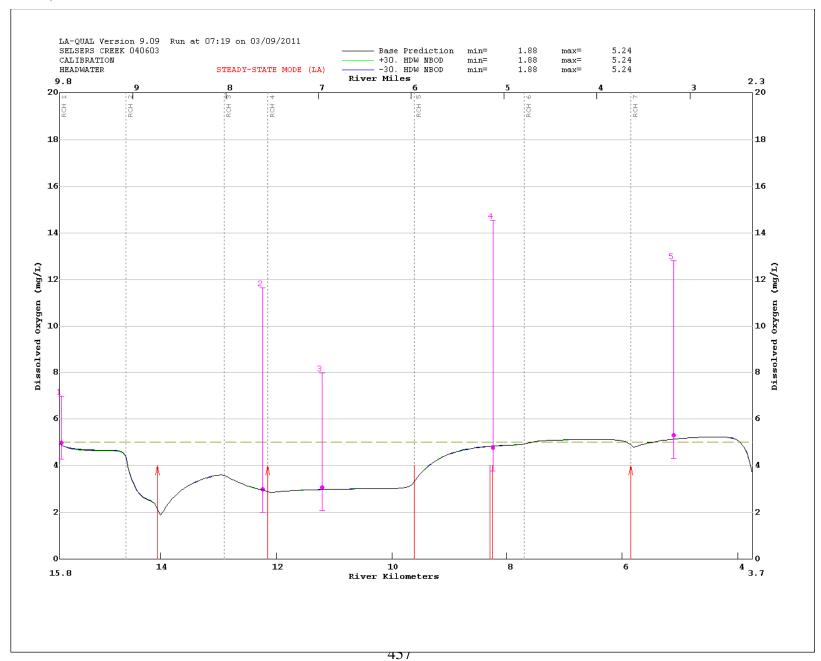


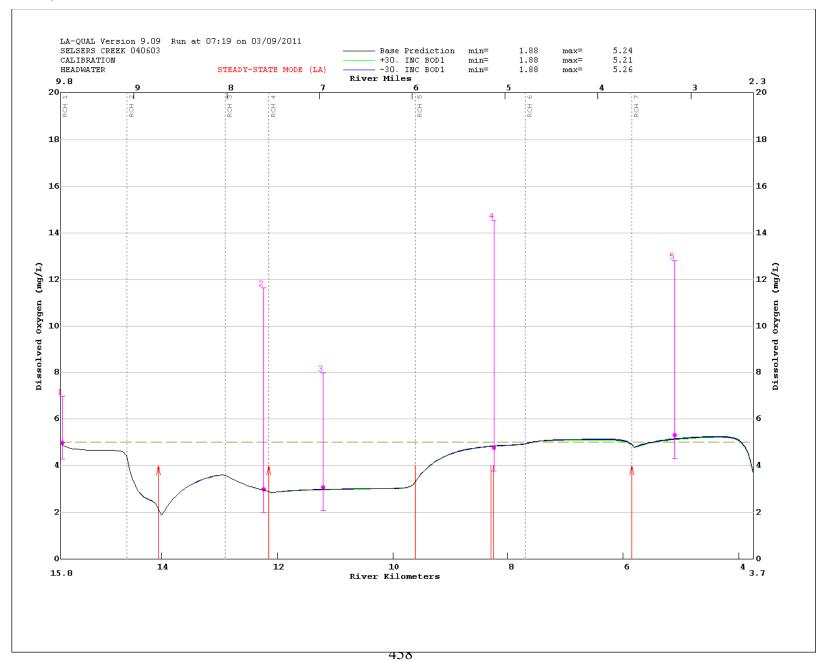




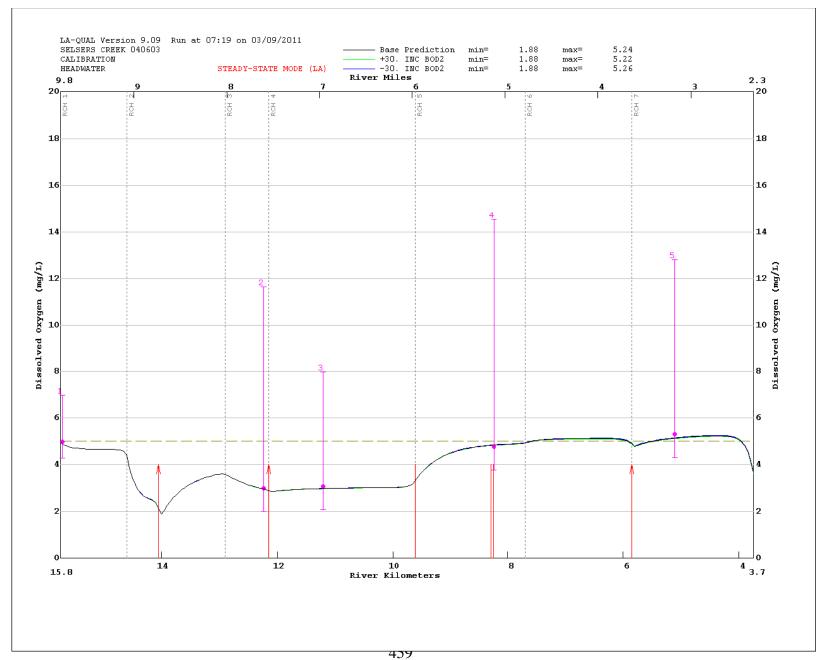


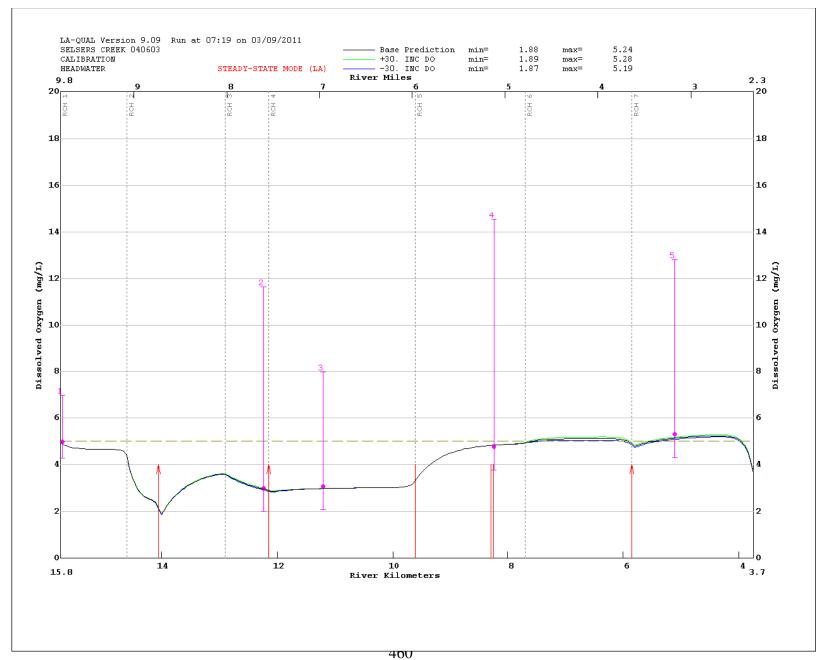


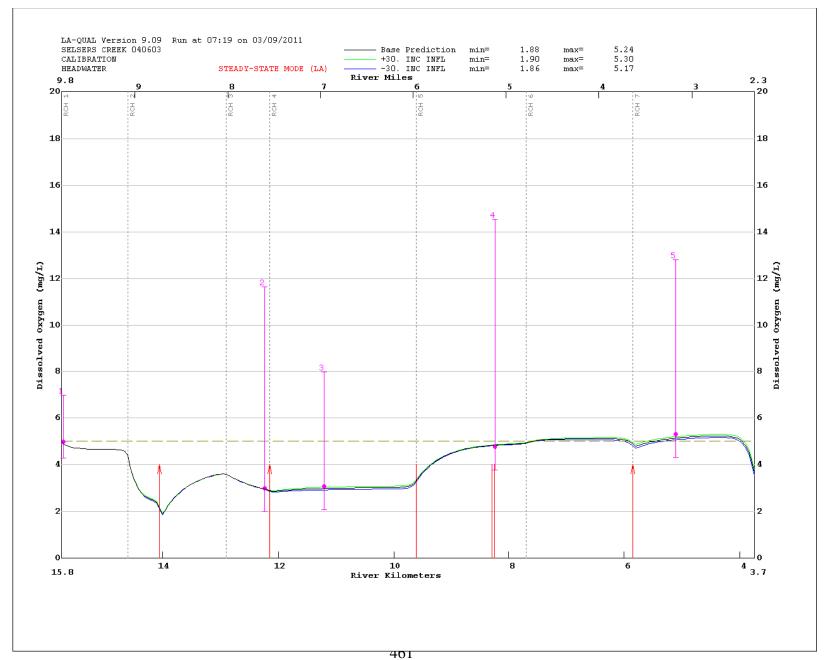


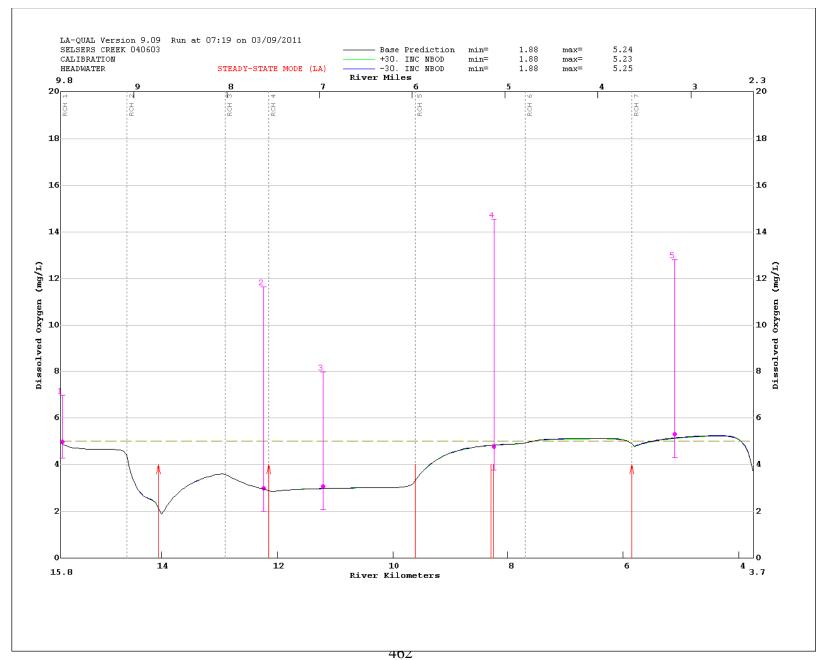




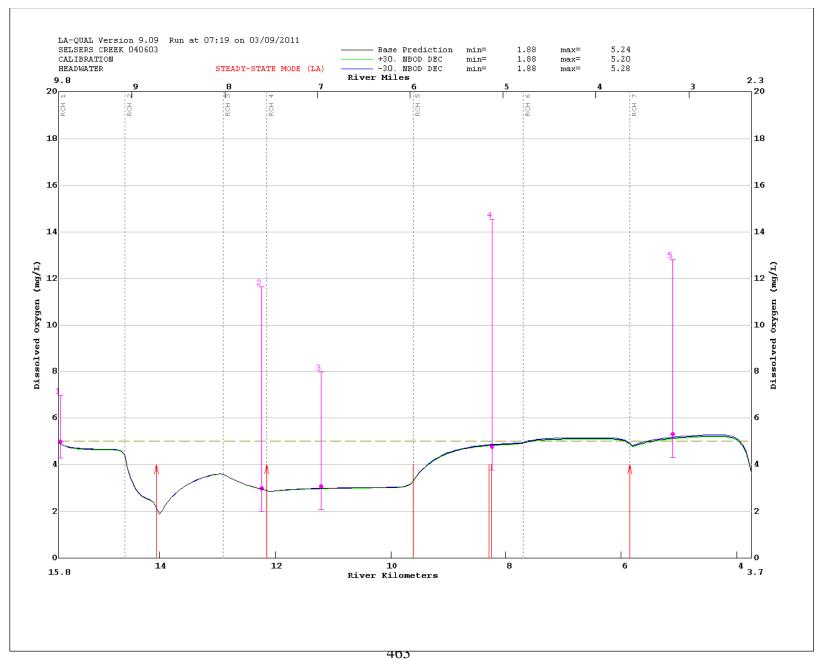


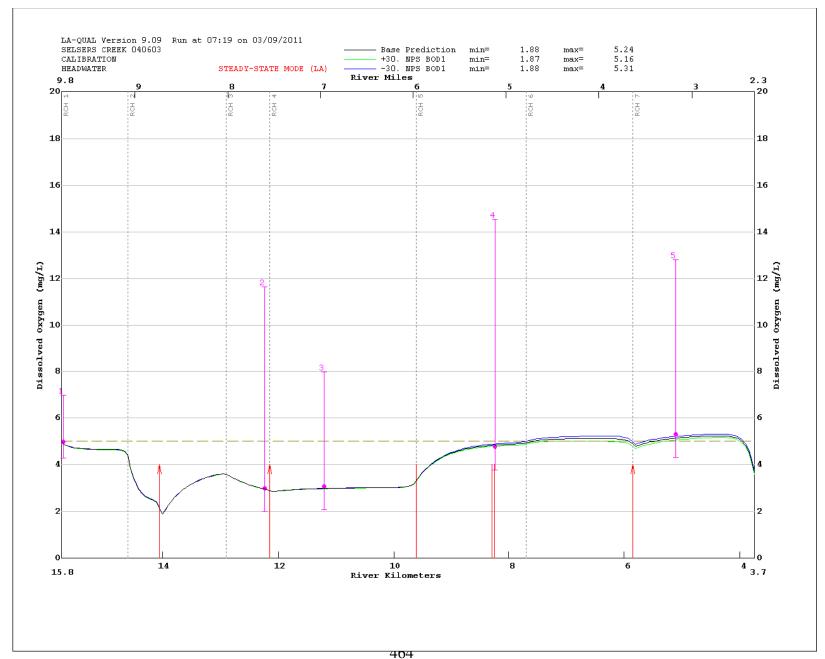




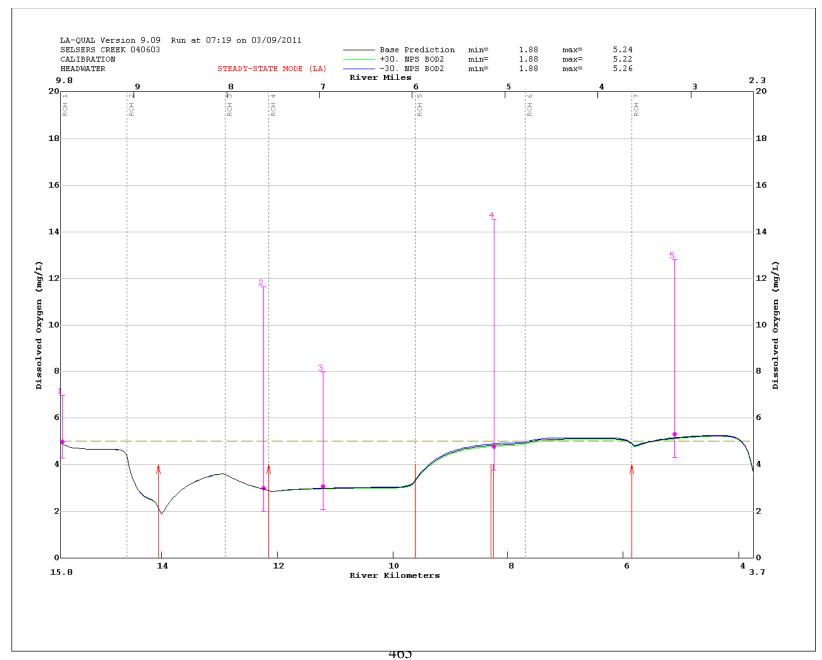


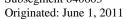


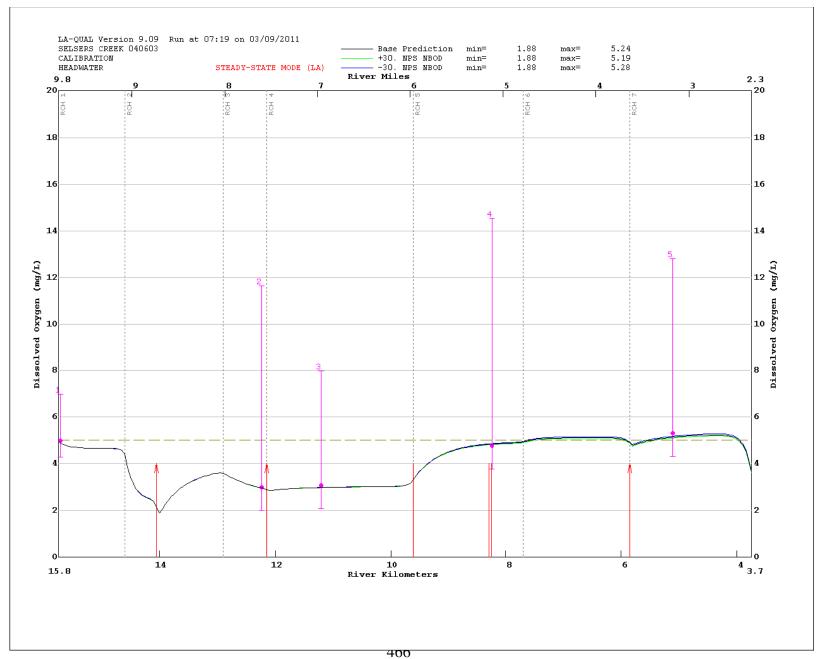




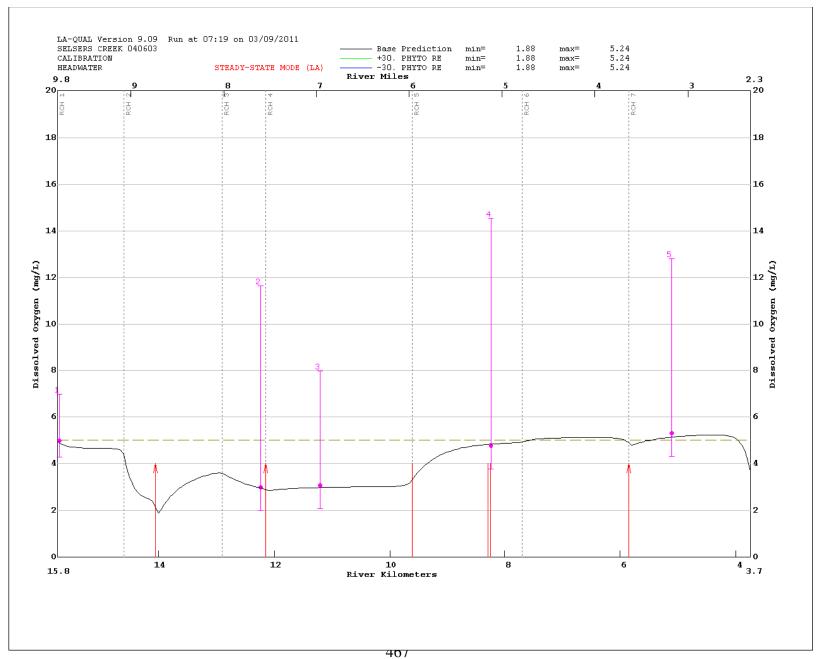




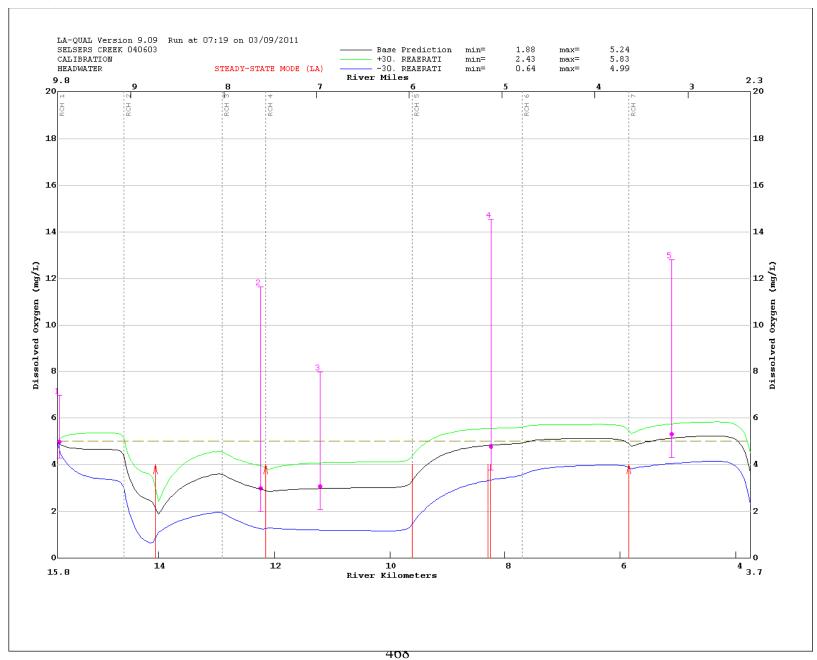


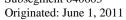


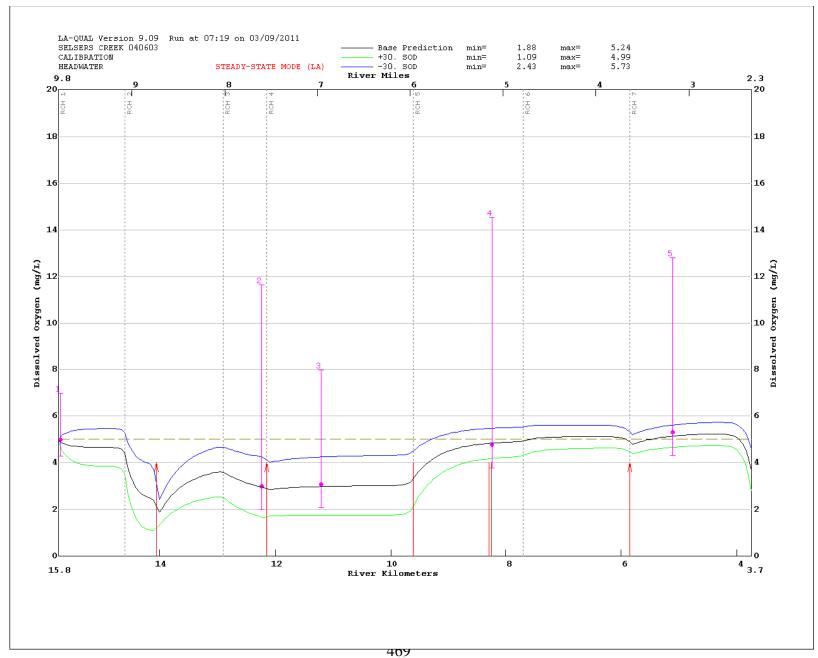


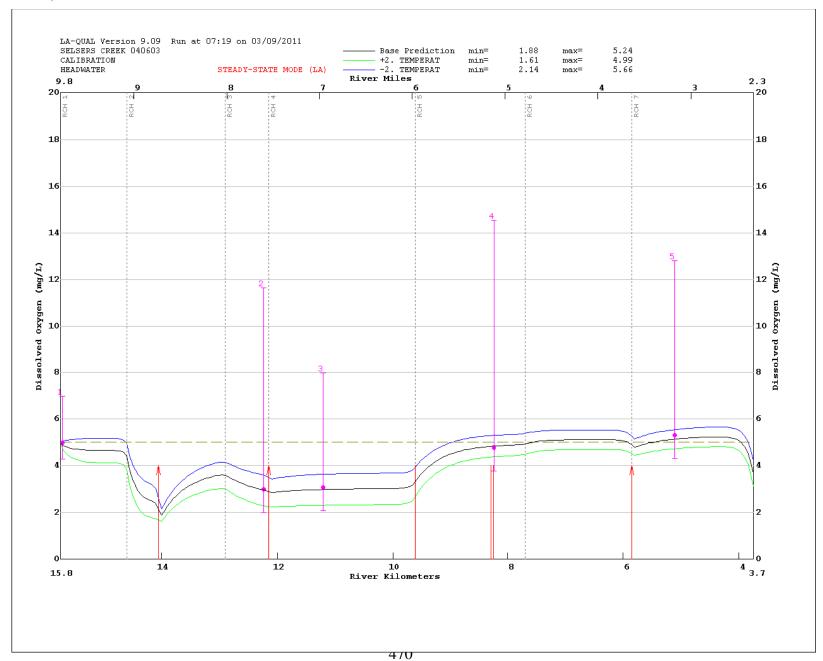




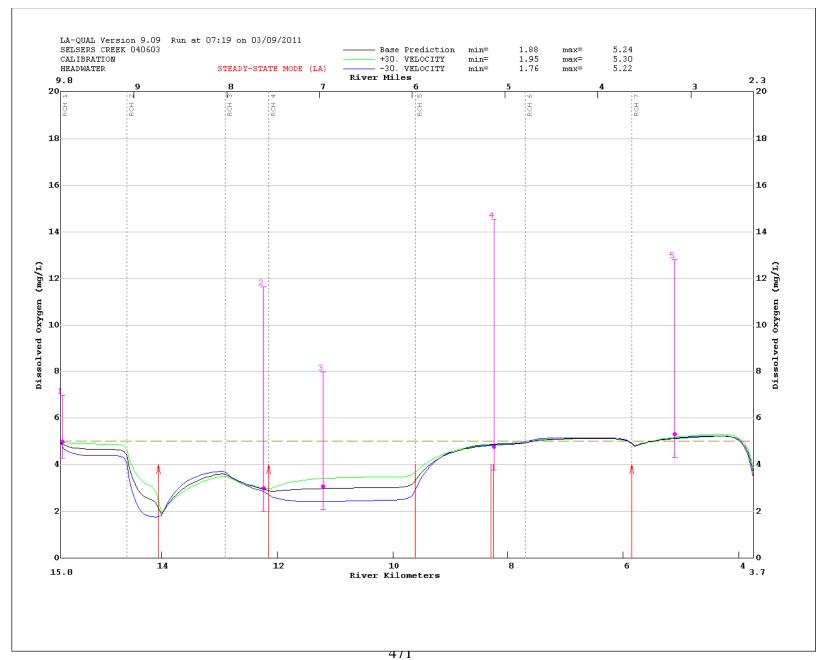


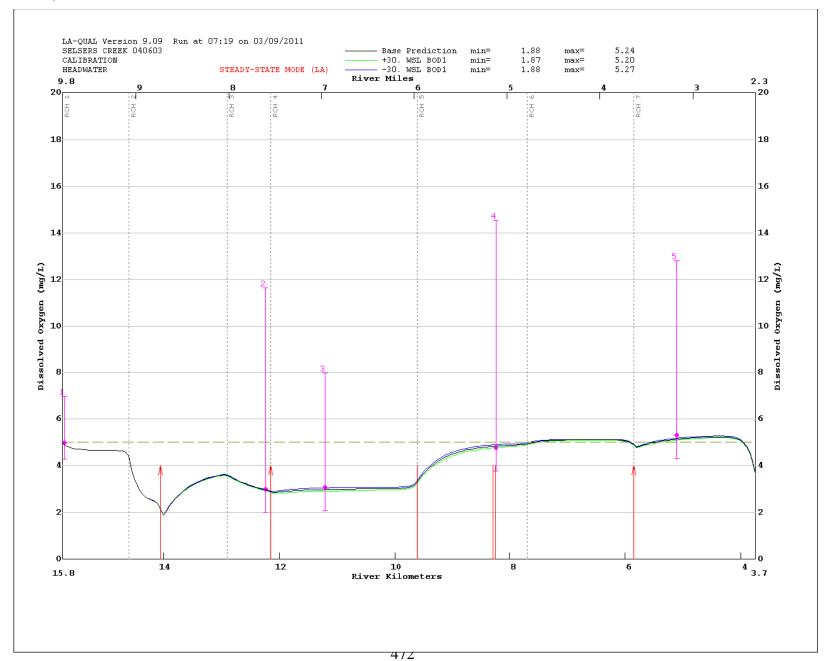




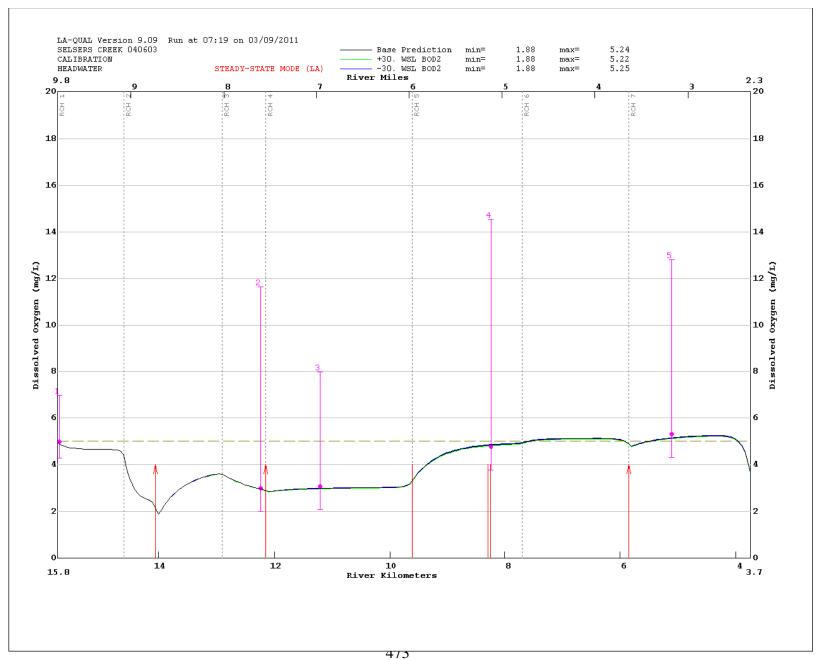


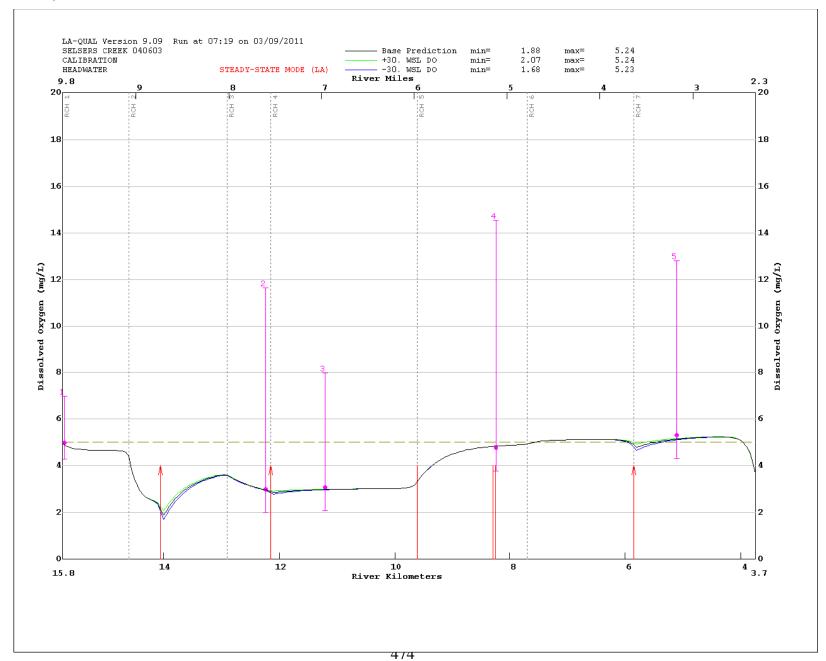




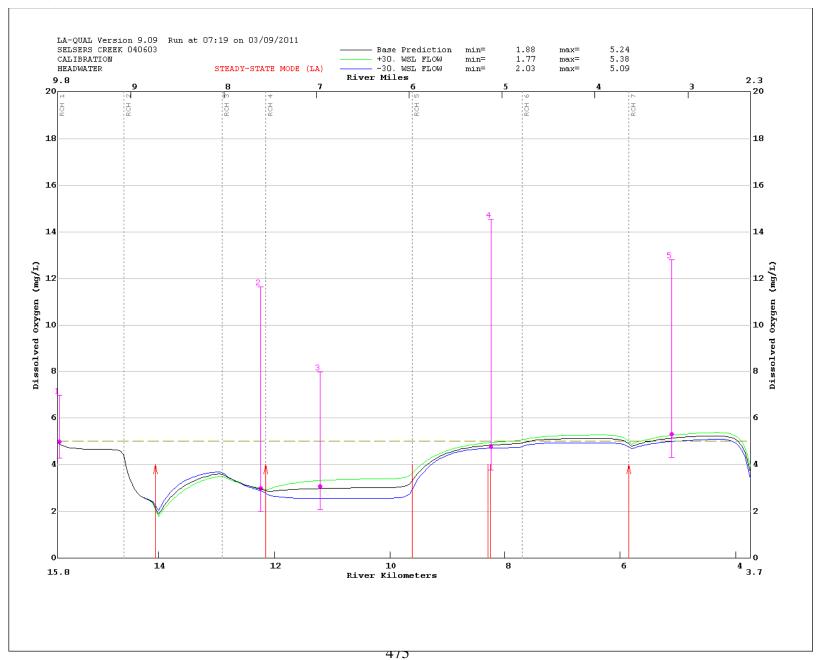


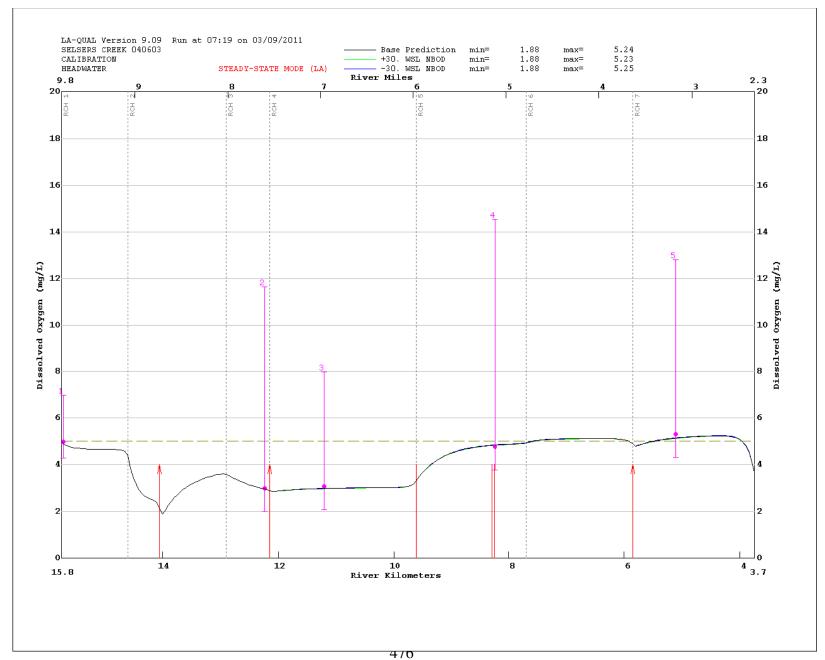




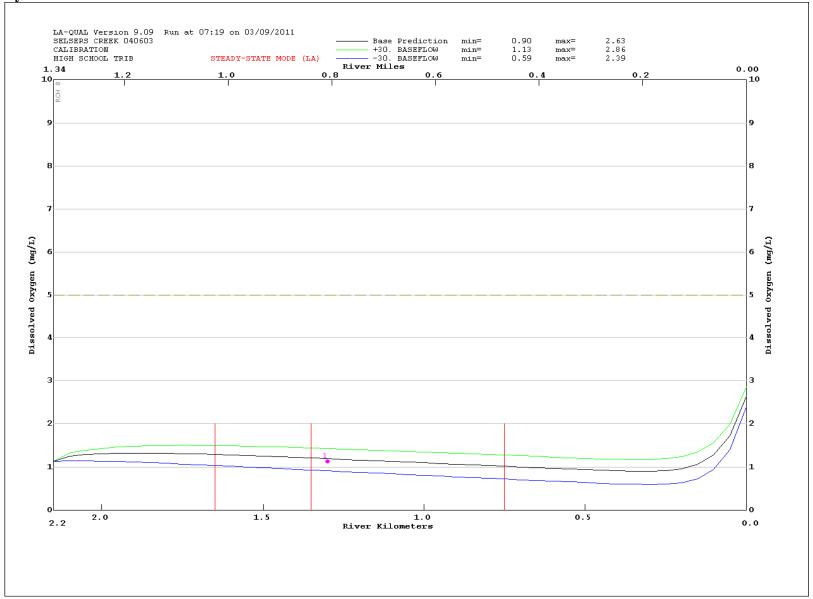


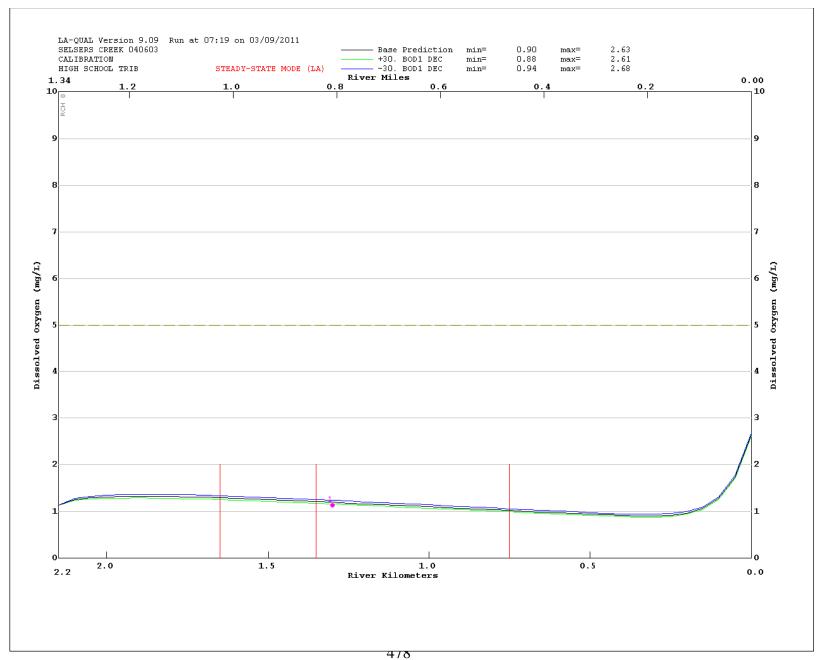


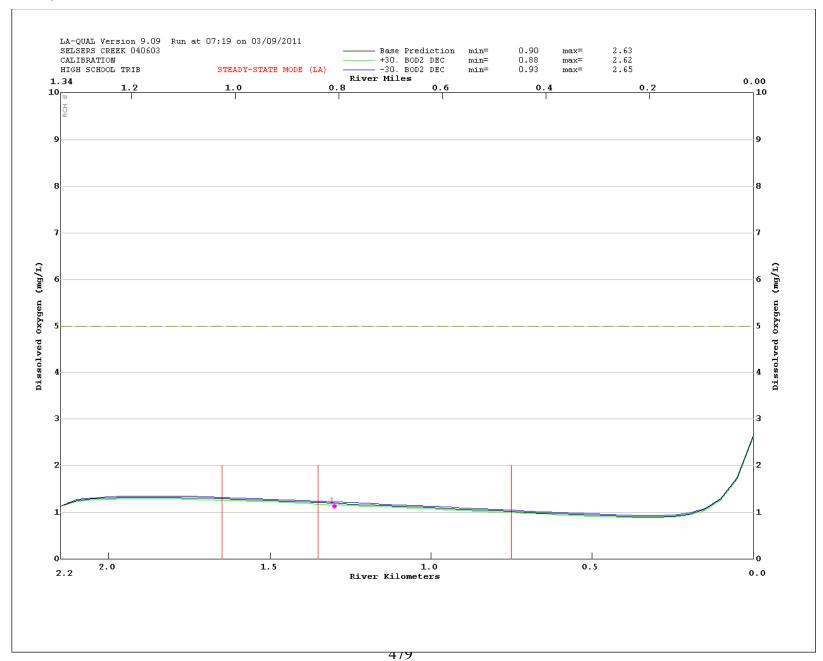


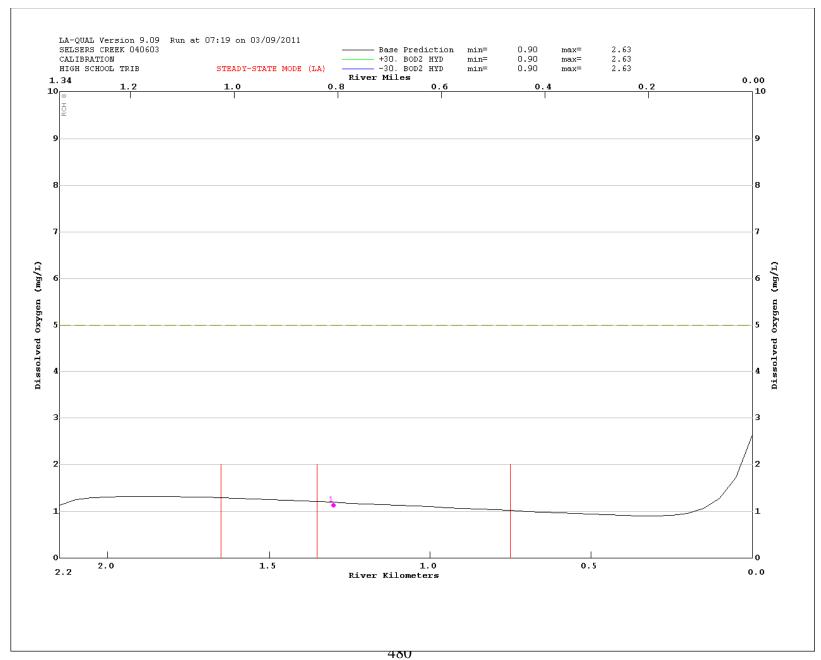


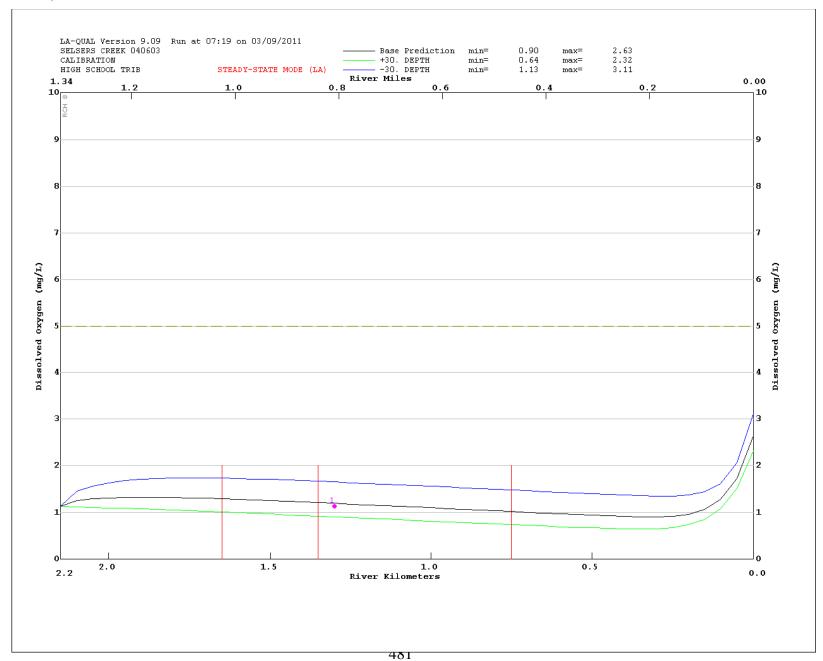
## **Tributary**

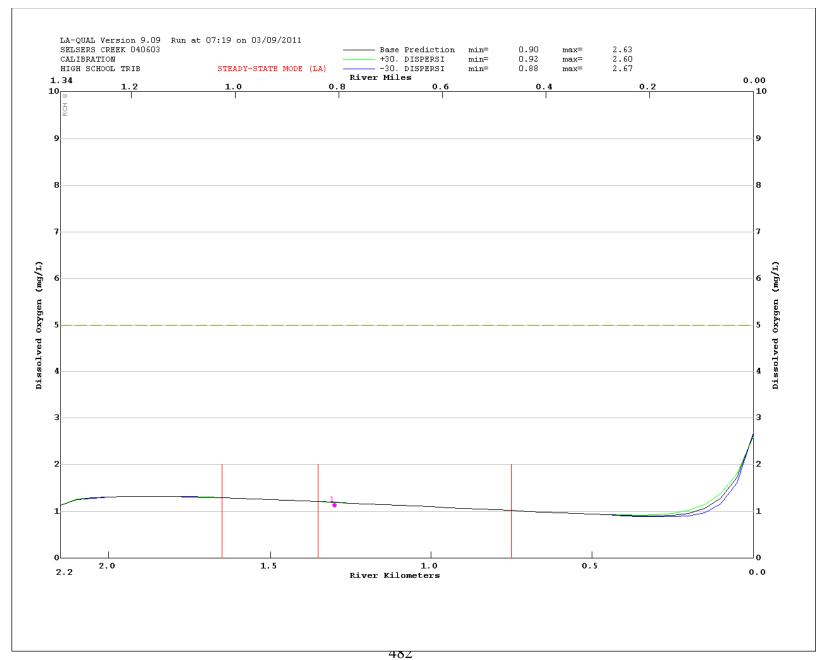


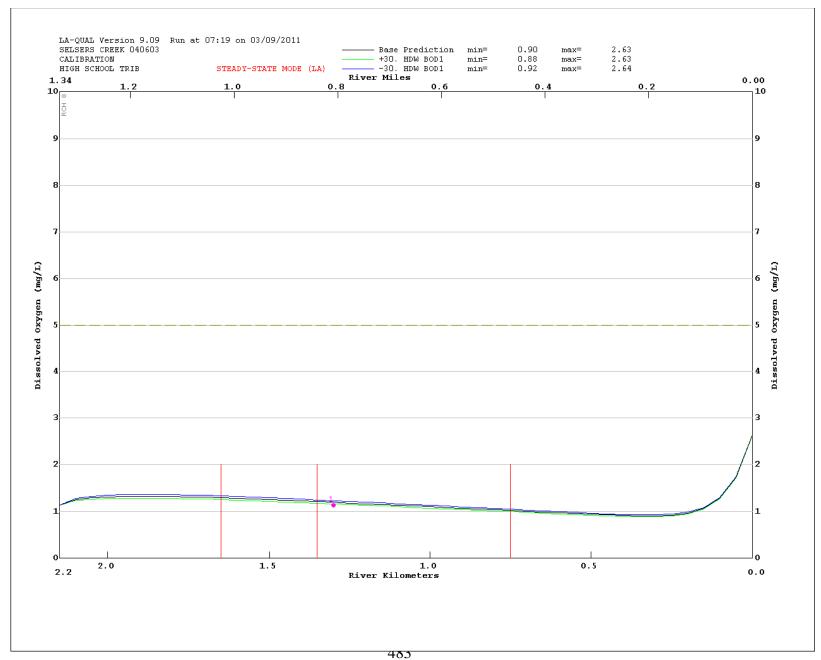


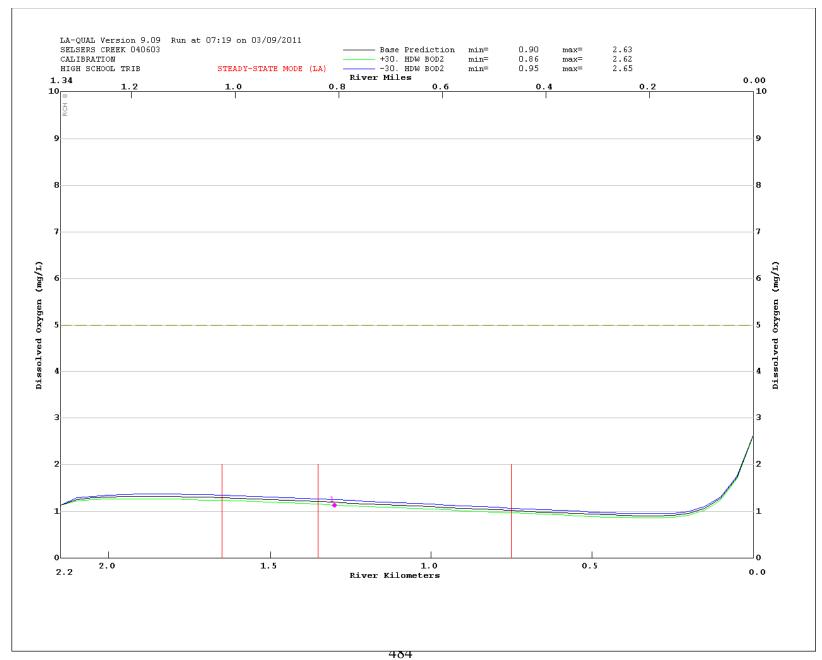


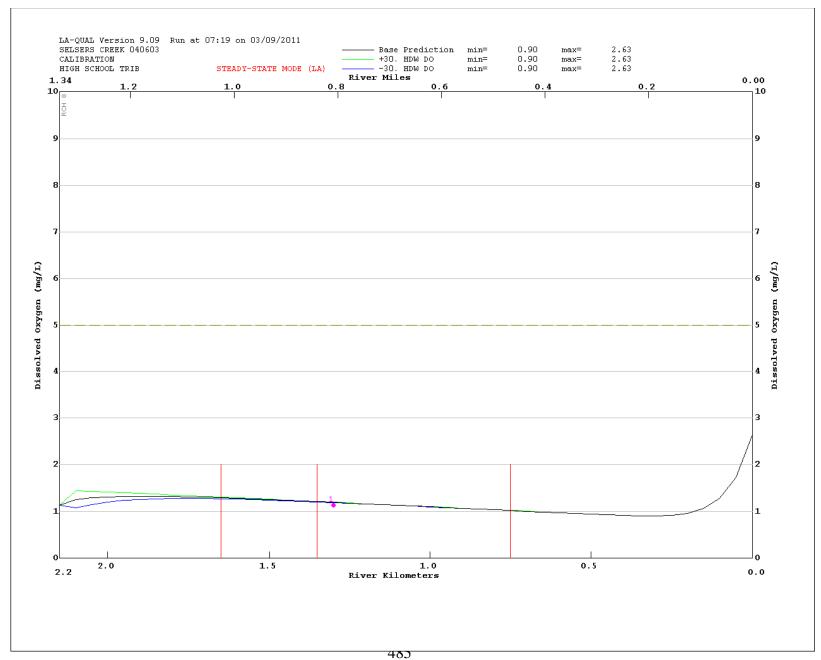


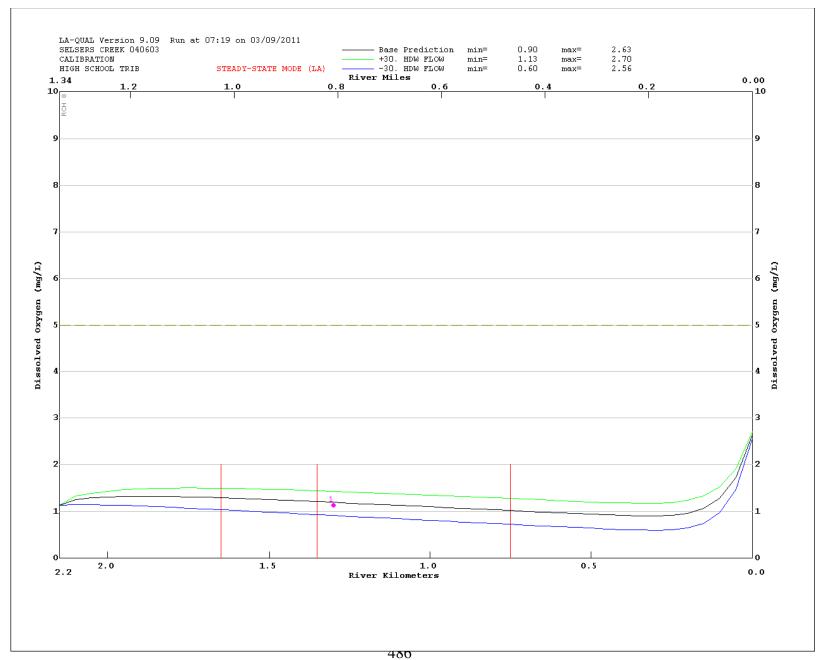


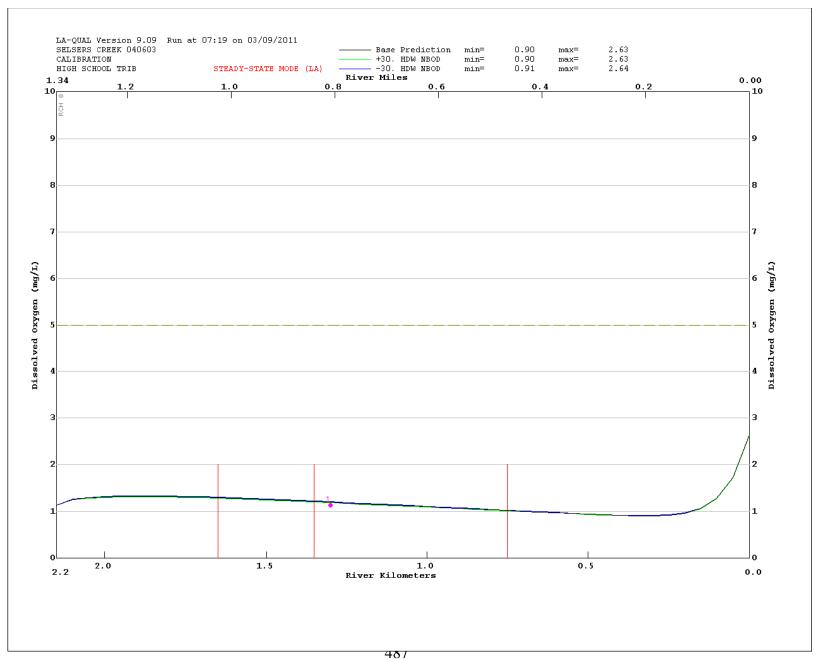


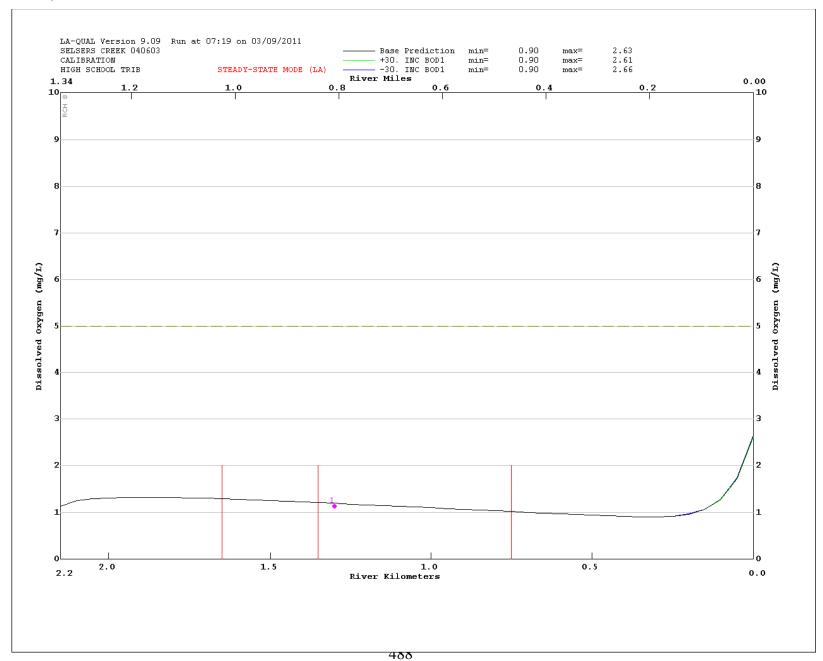


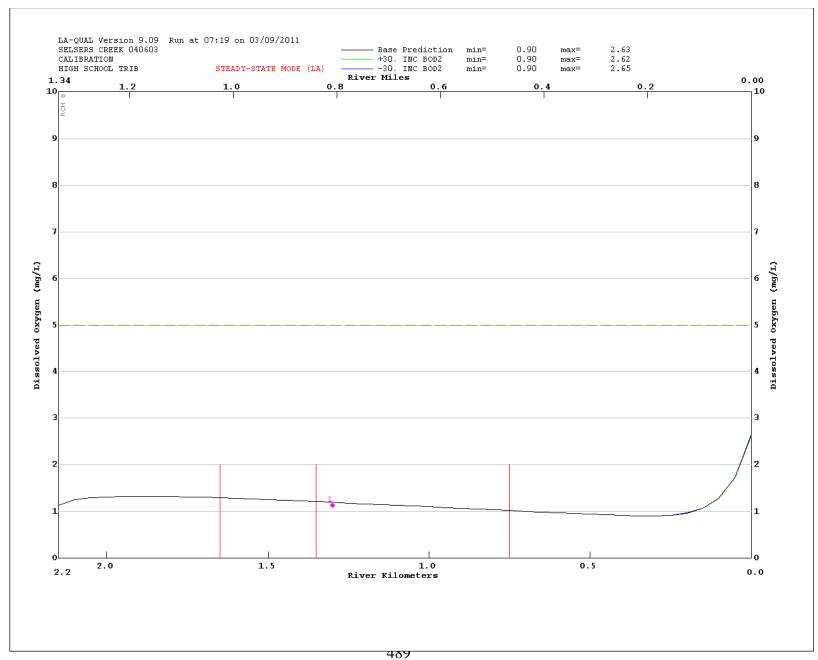


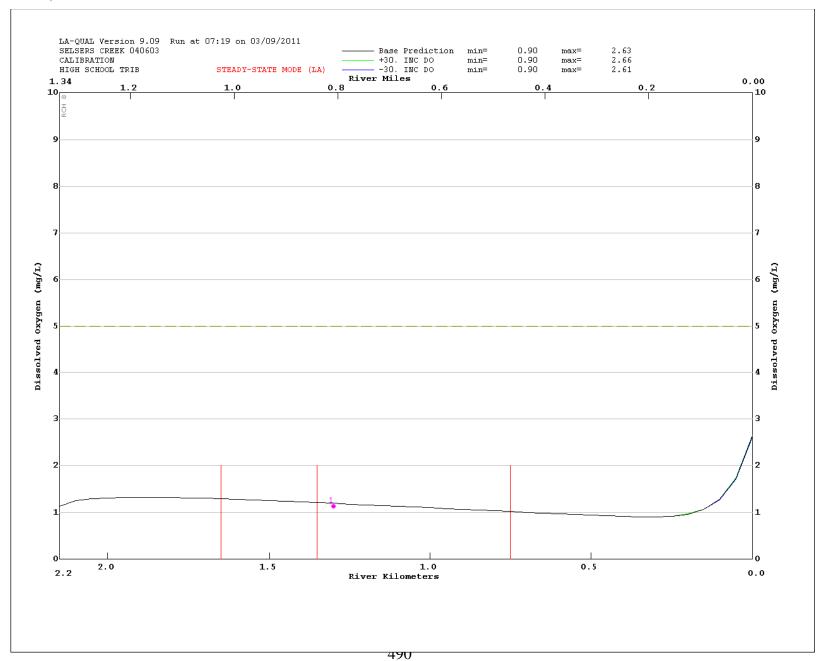


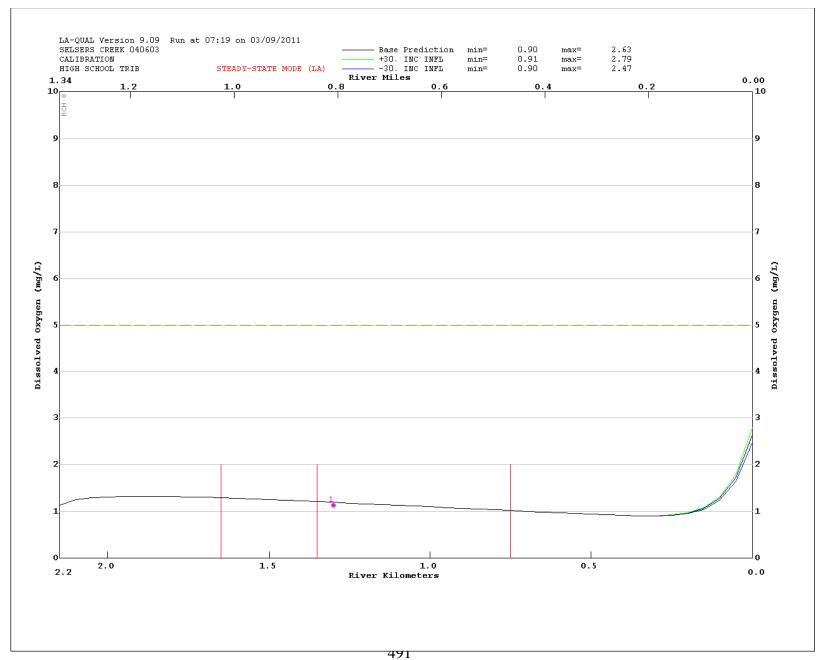


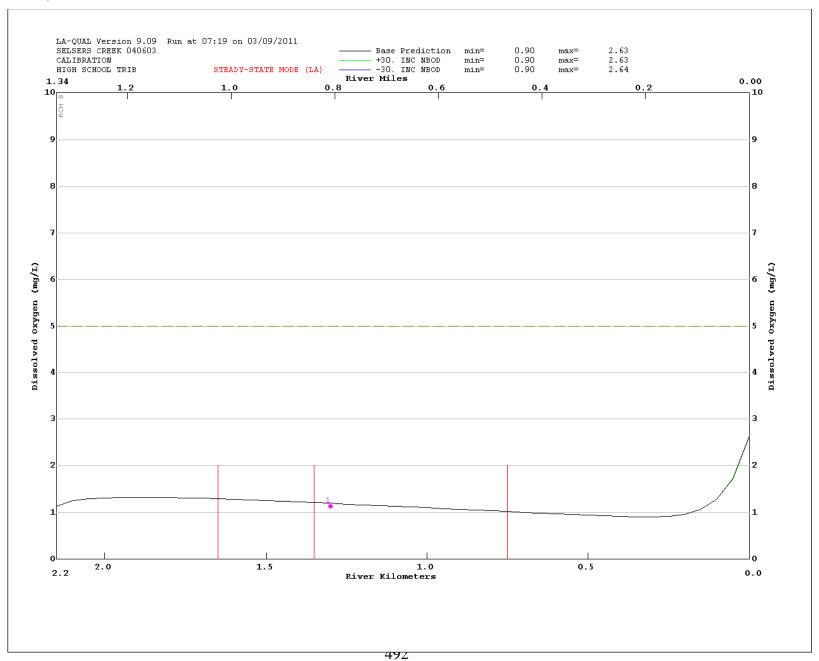


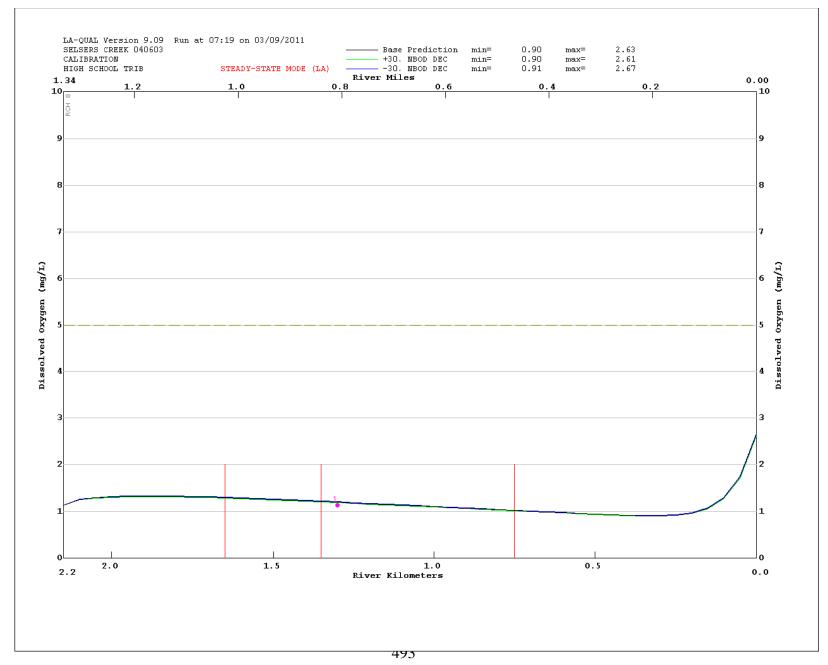


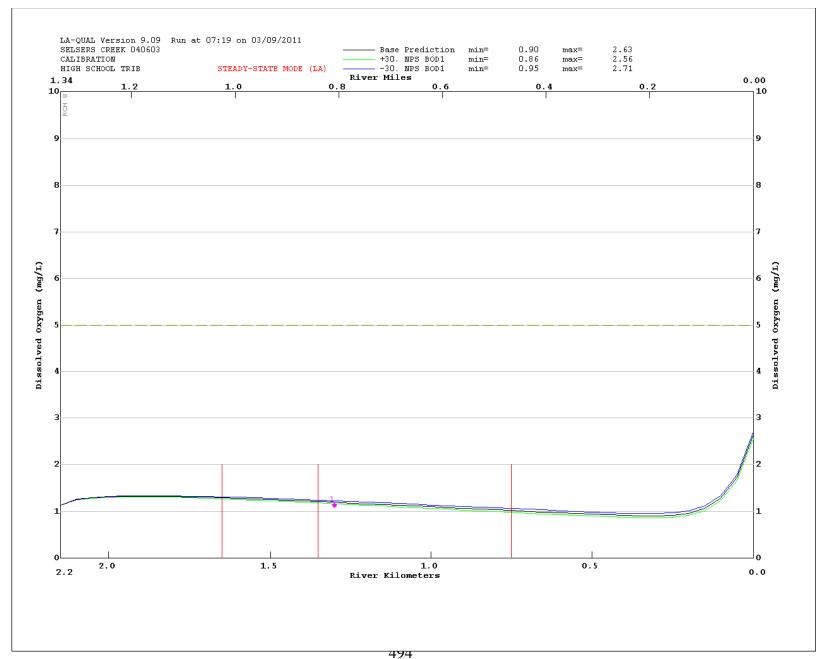


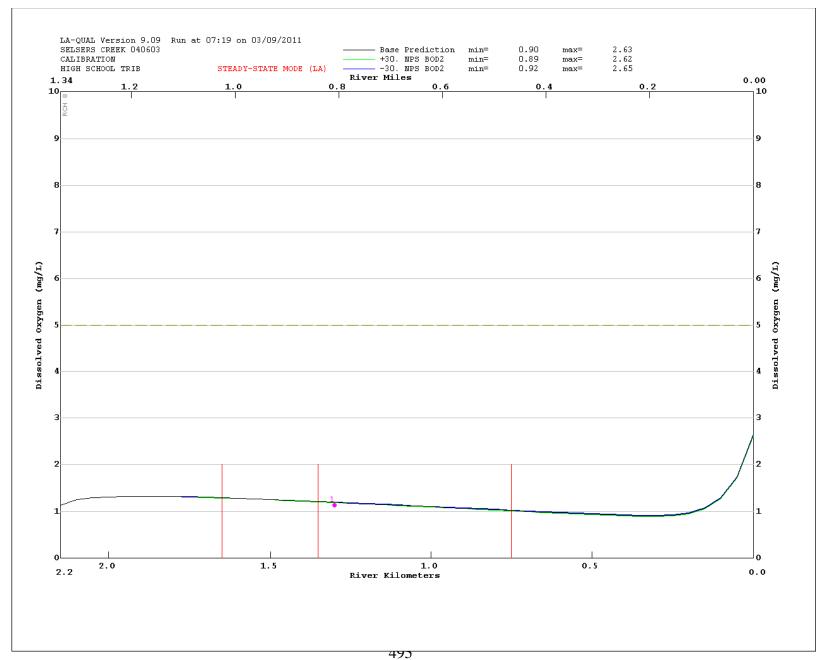


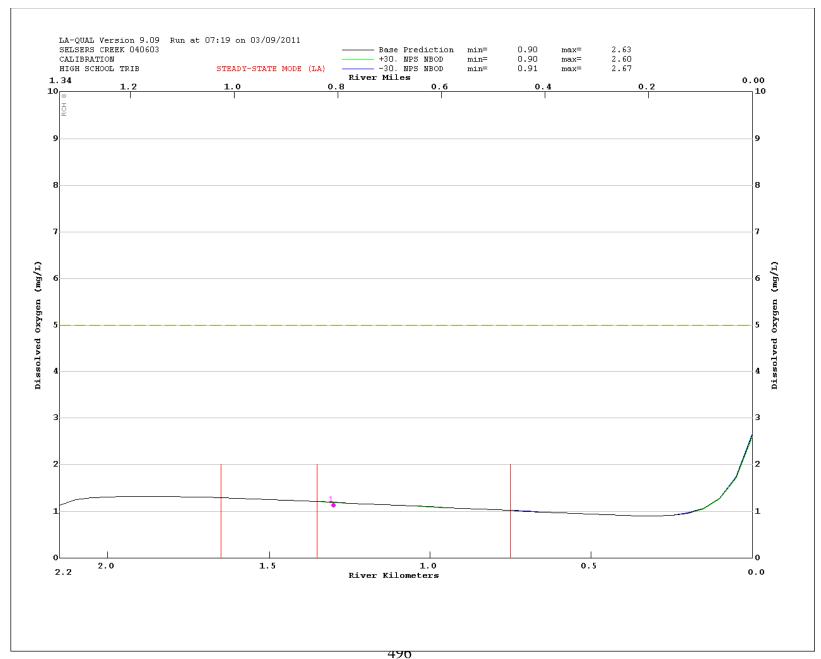


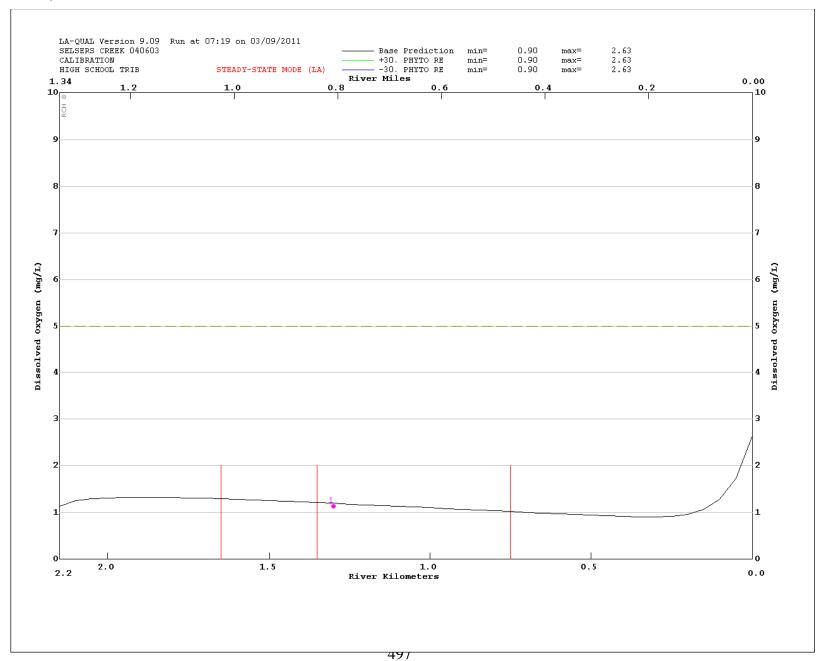




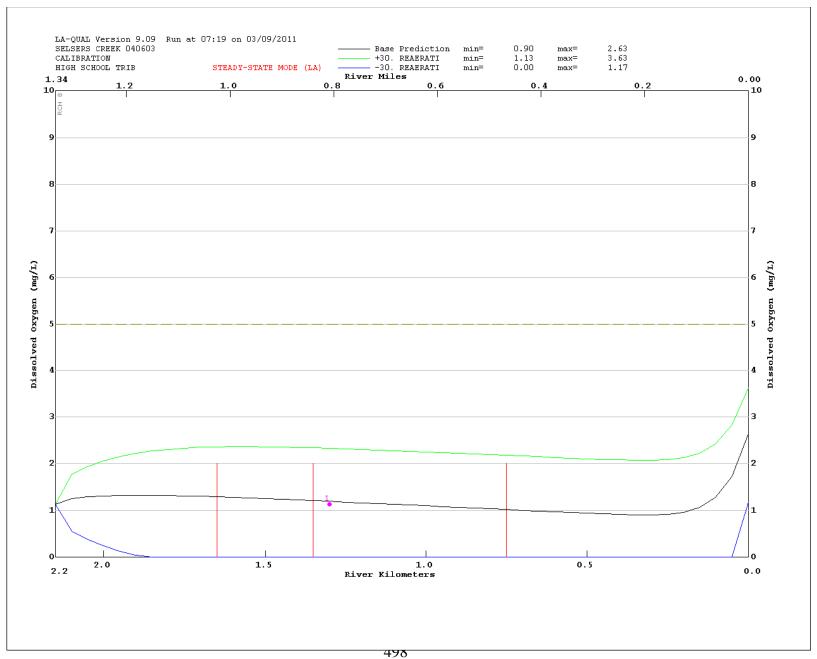


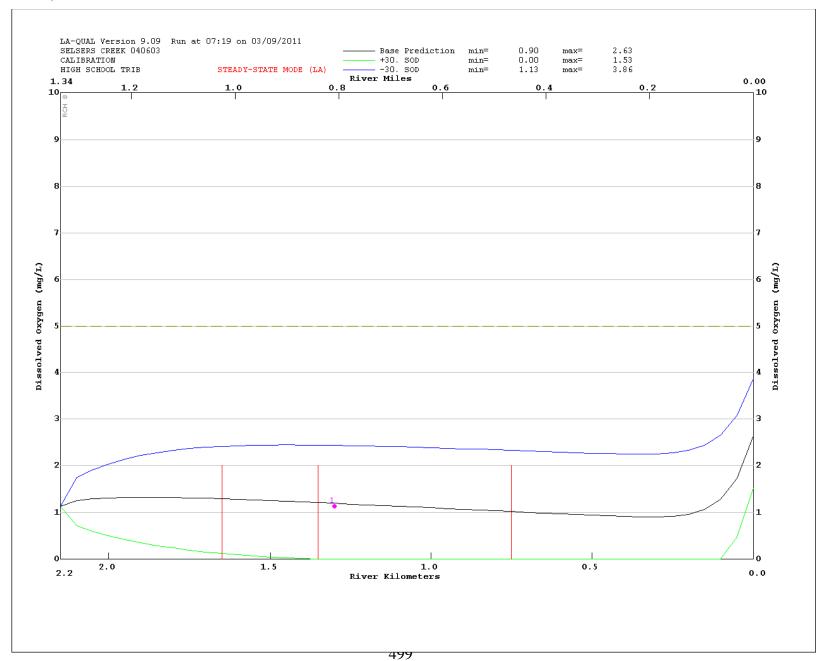


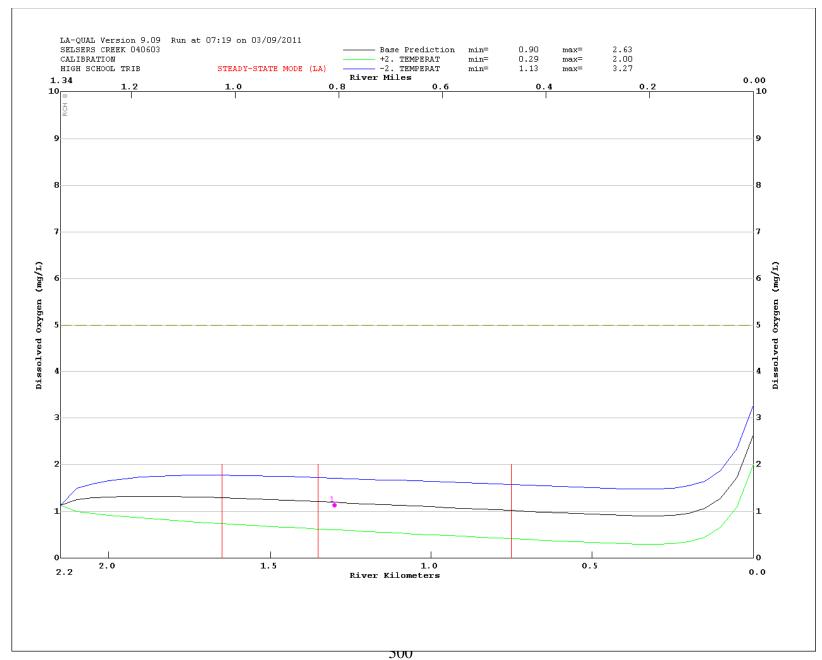


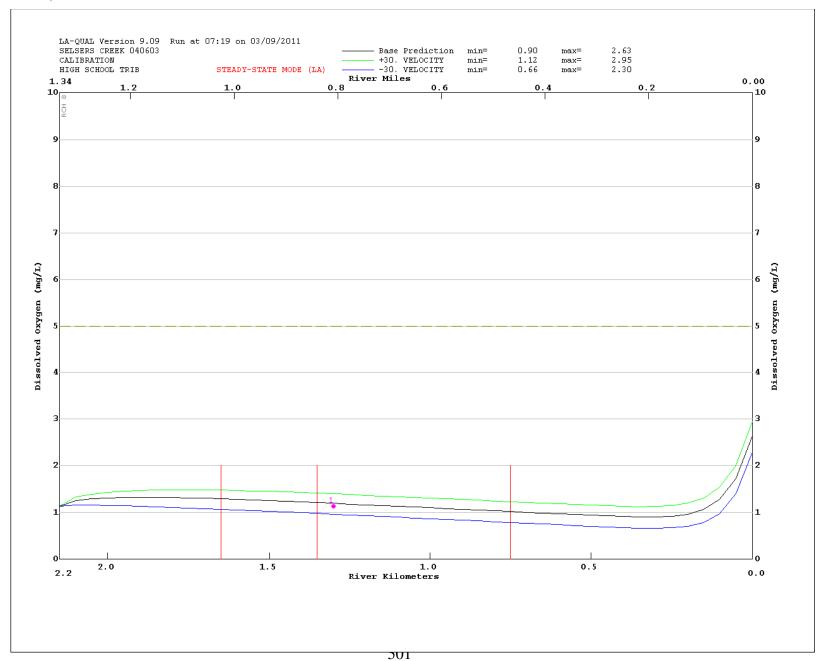


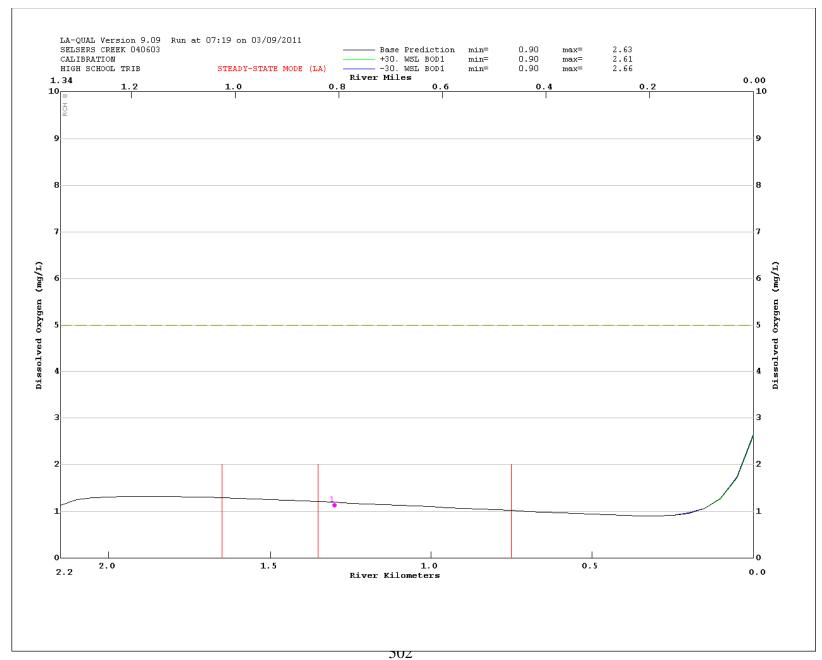


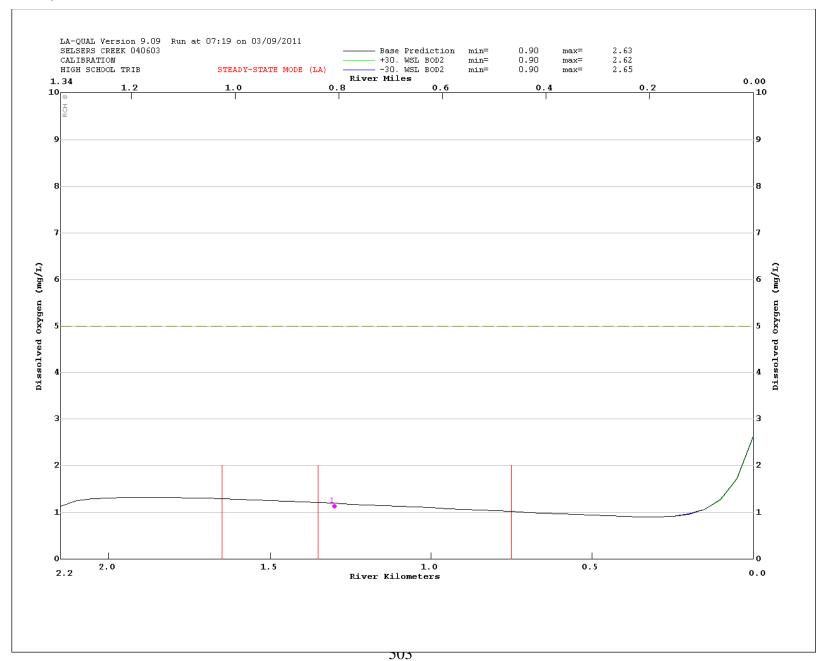


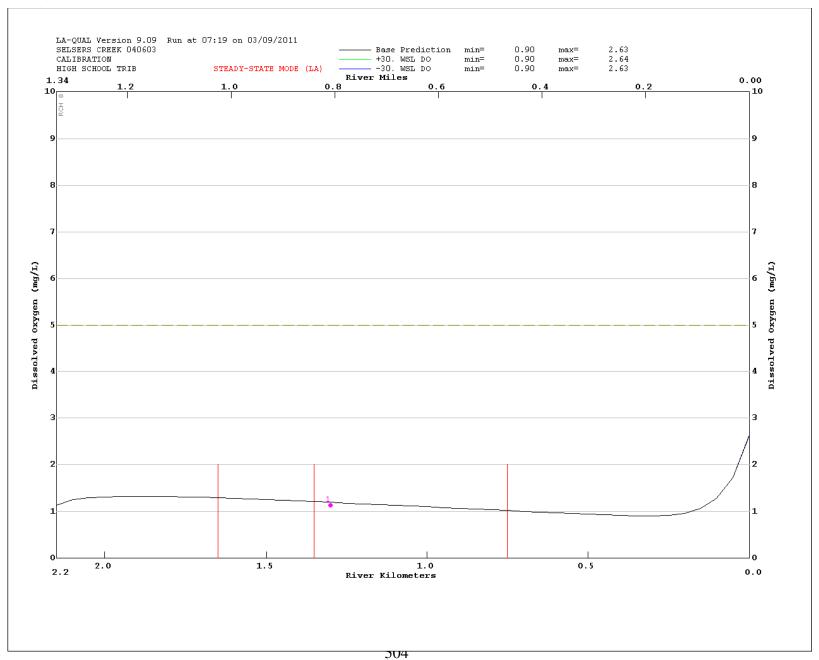


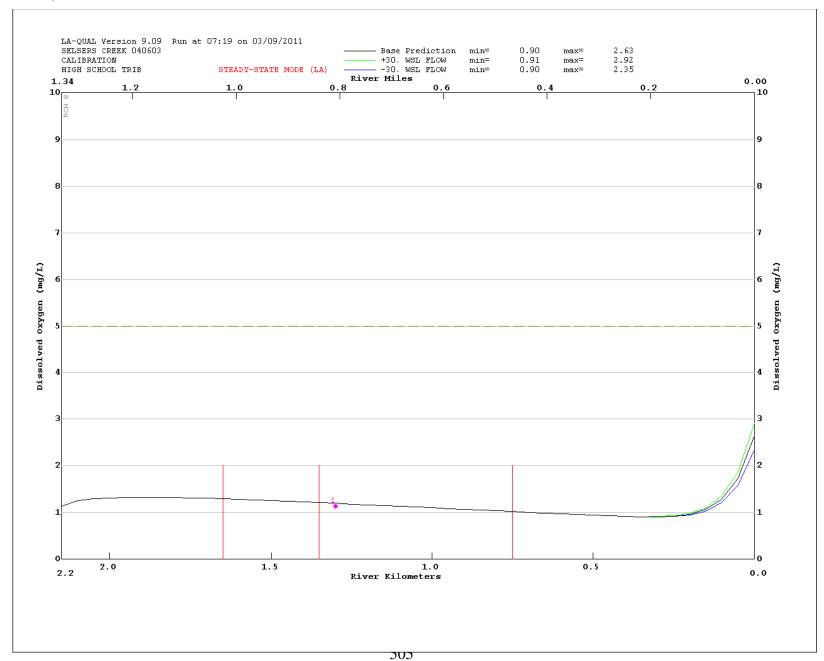


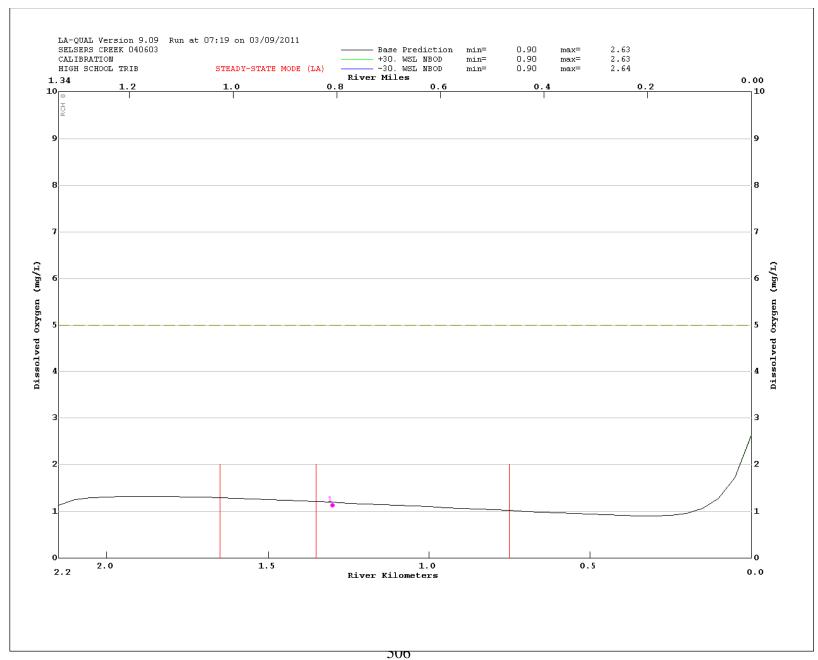




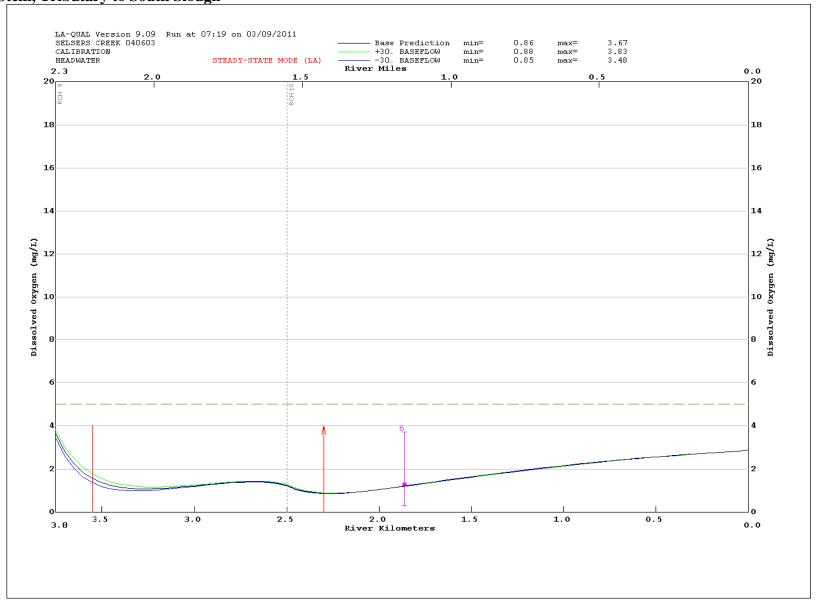




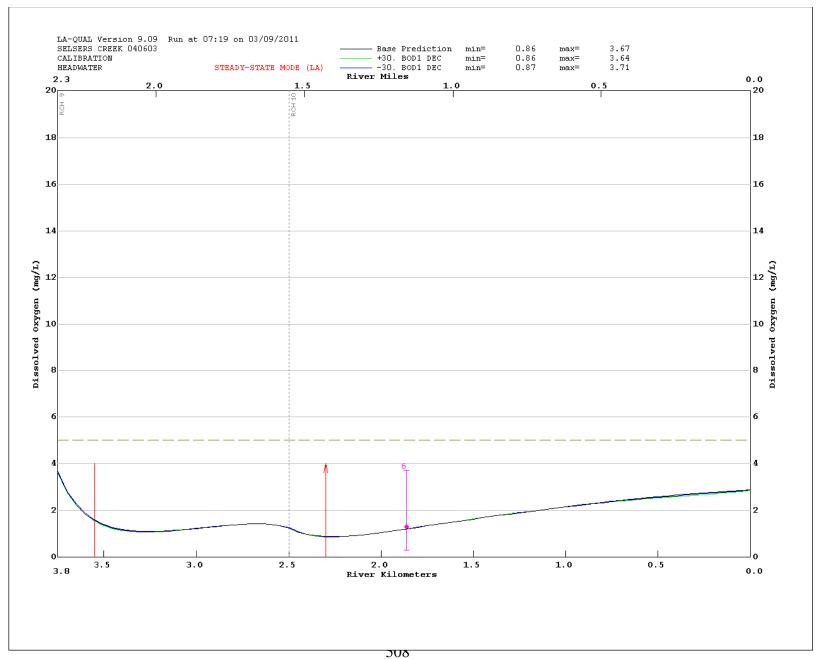




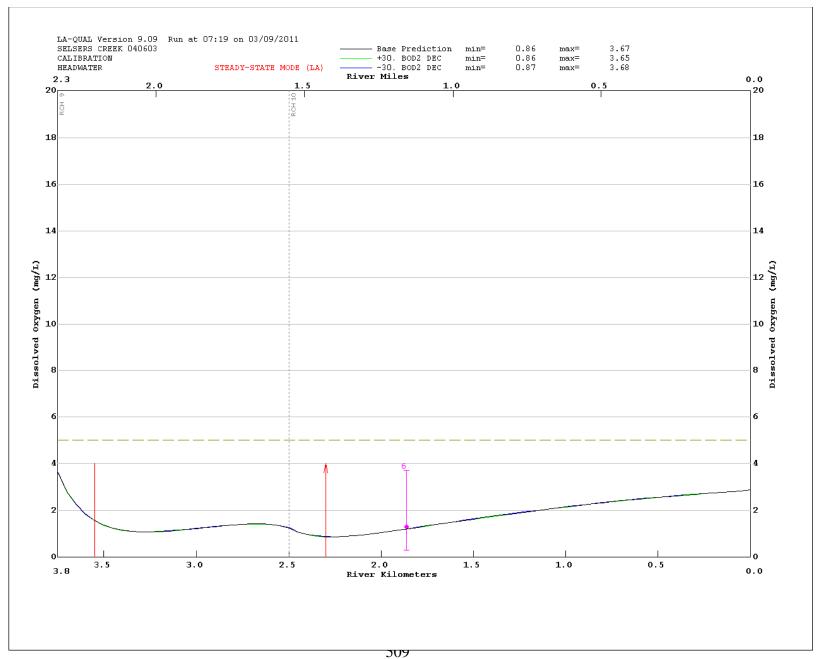
Main Stem, Tributary to South Slough



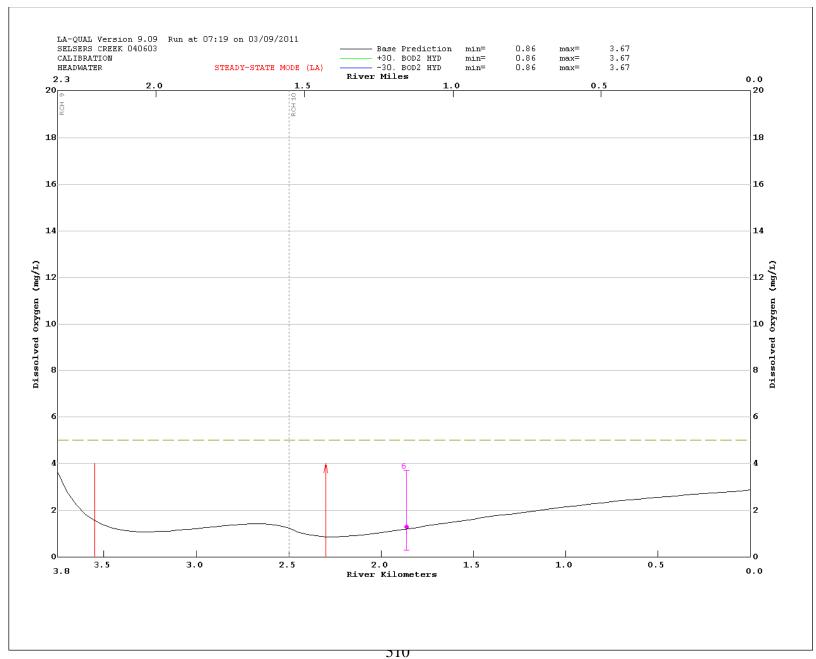


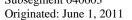


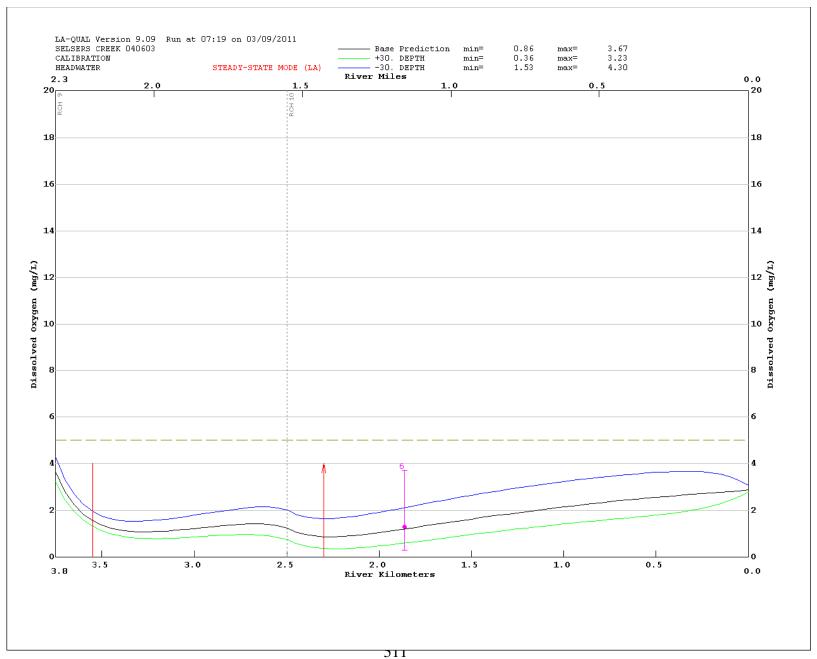


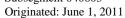


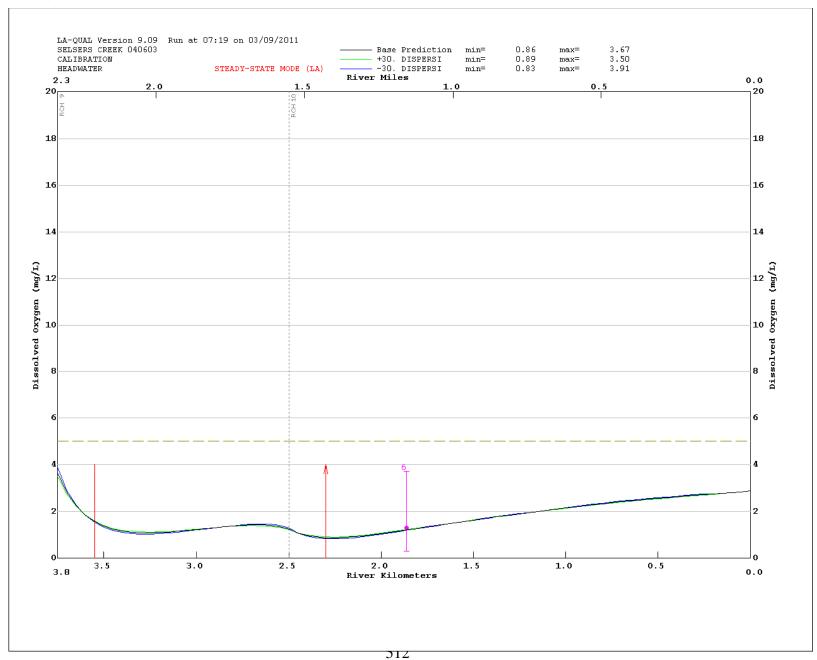


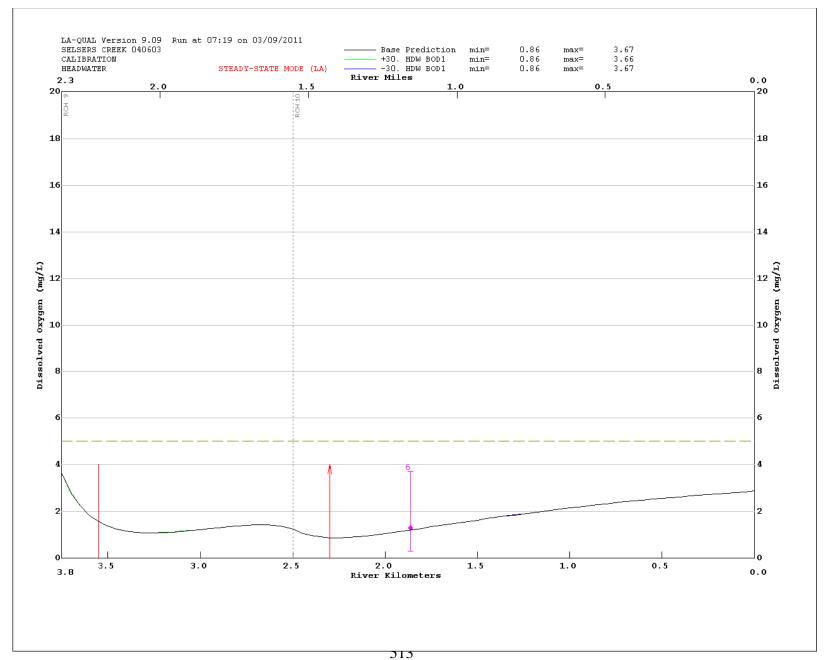




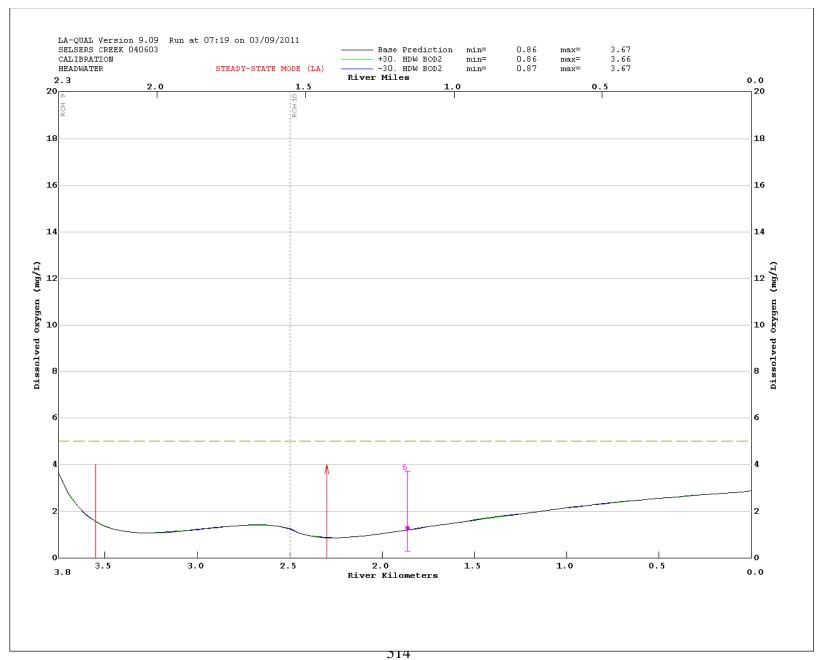


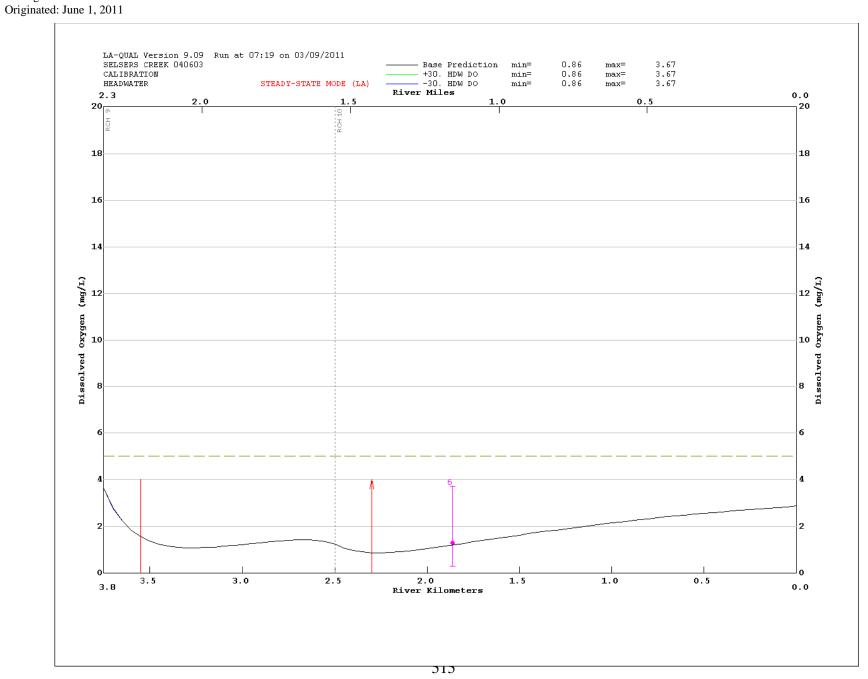




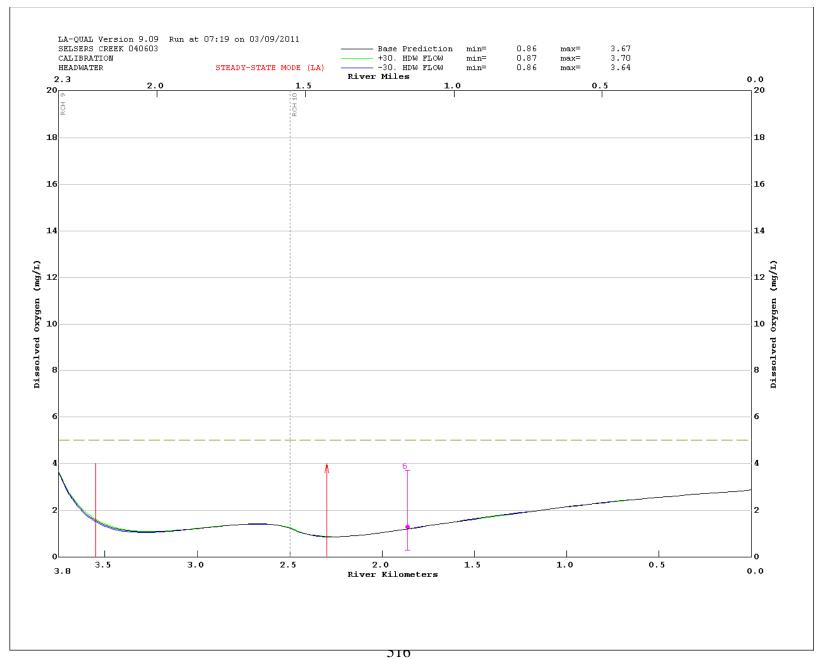




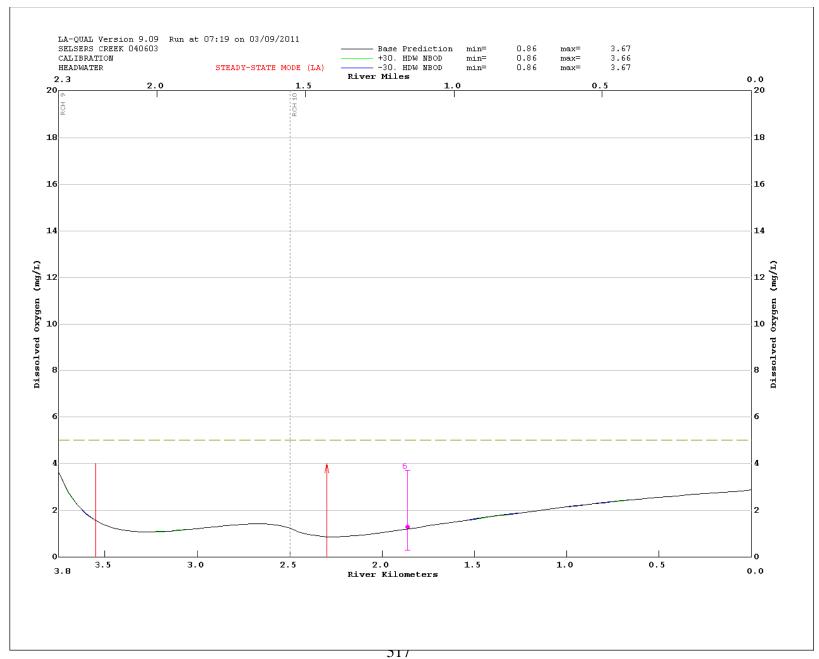




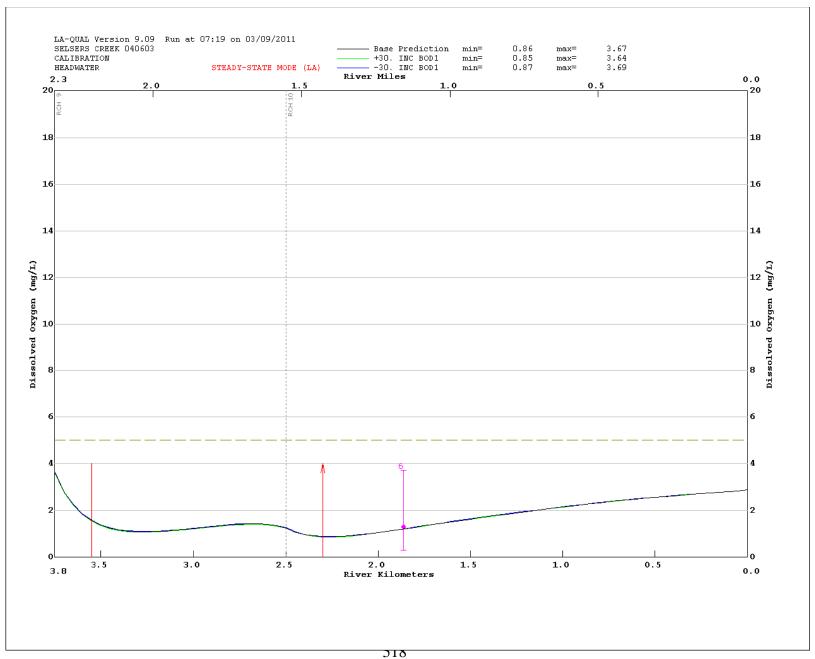




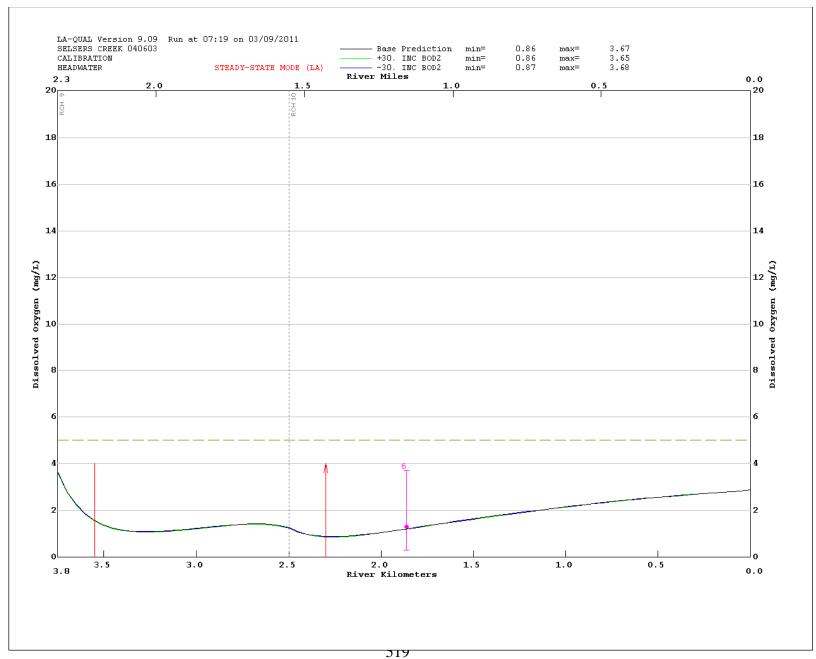




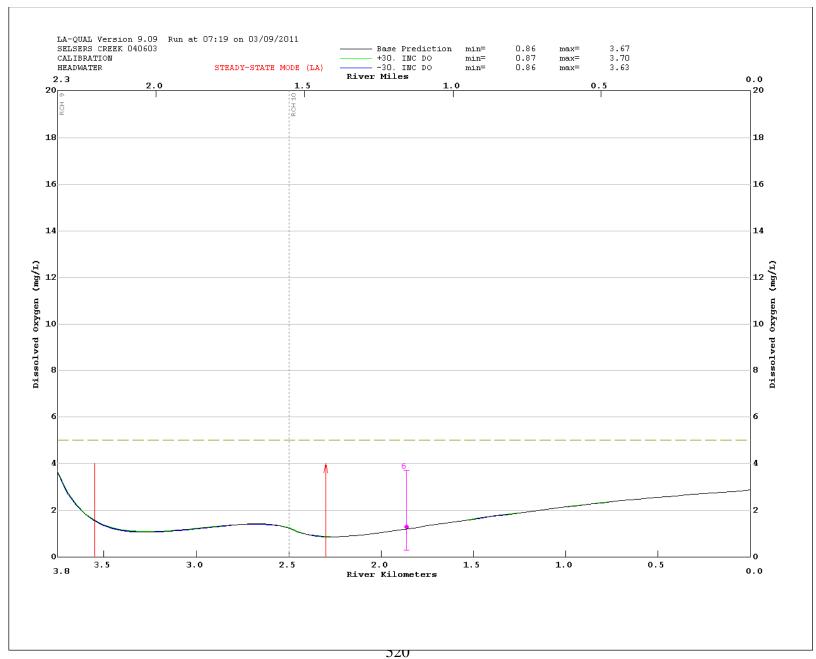




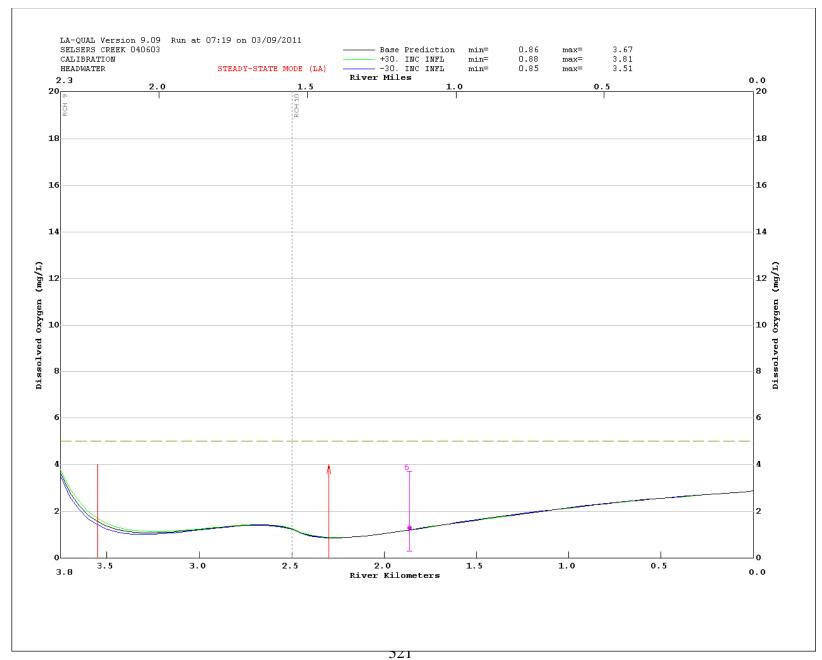




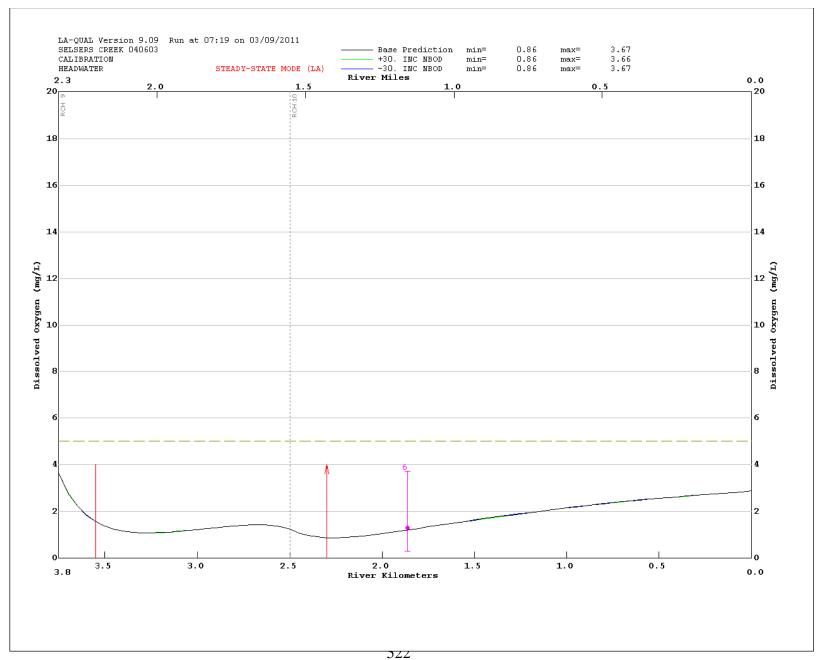




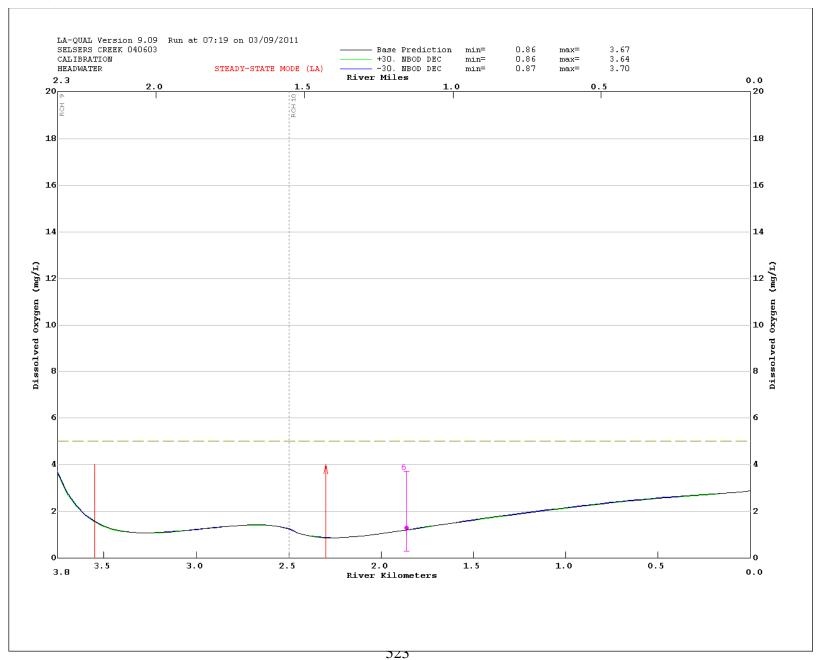




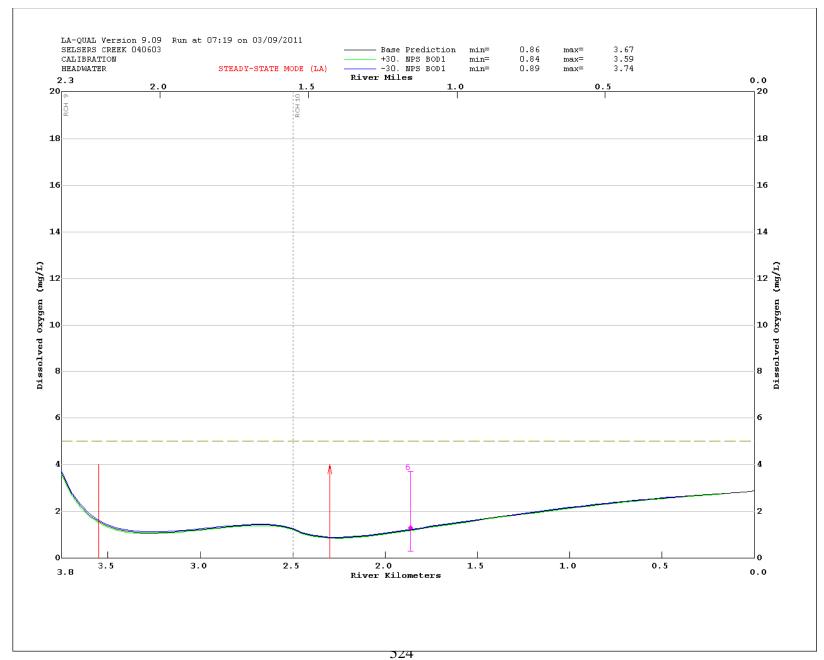




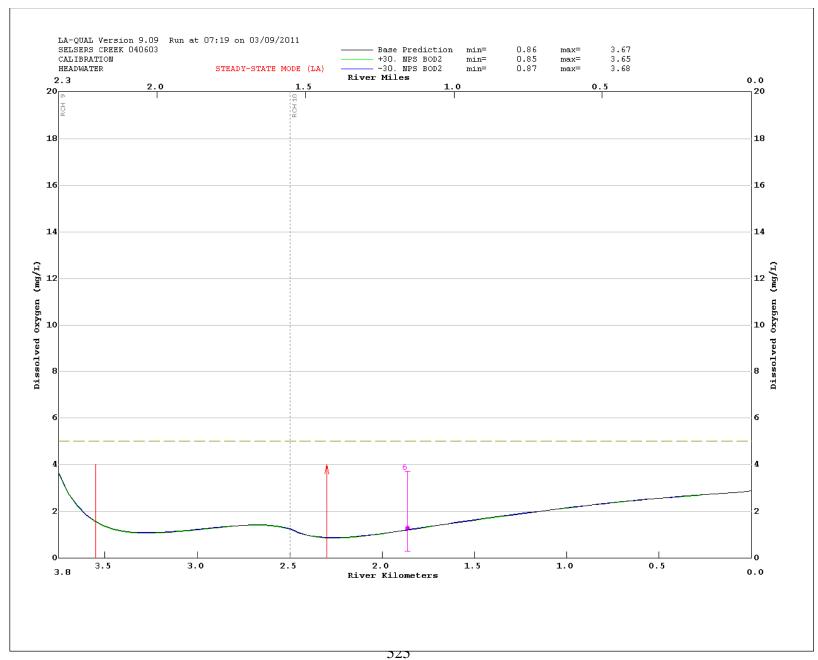


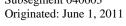


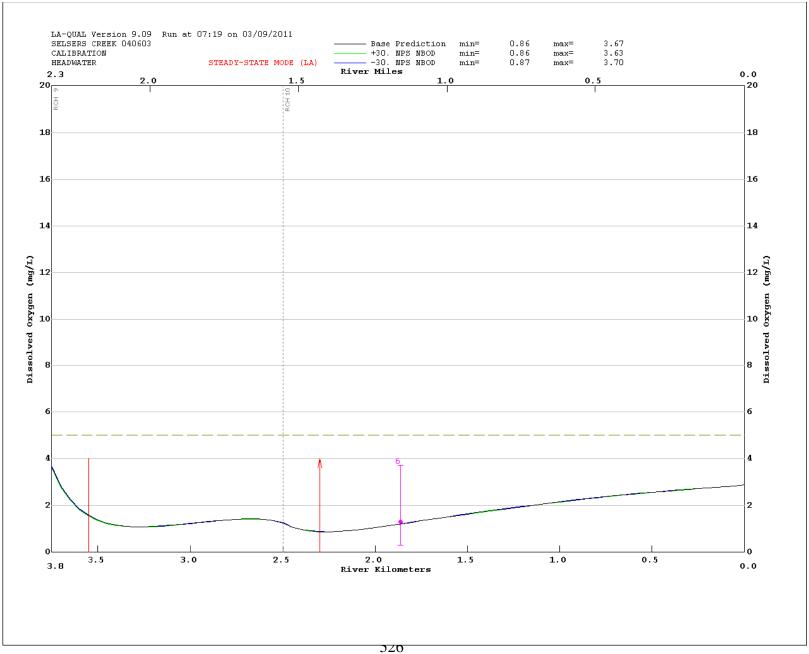
Originated: June 1, 2011



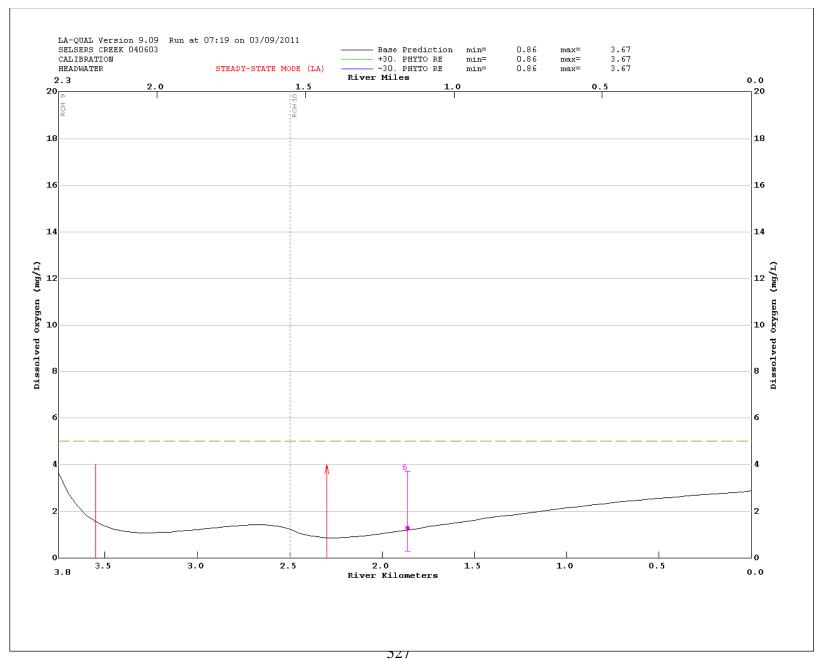


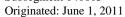


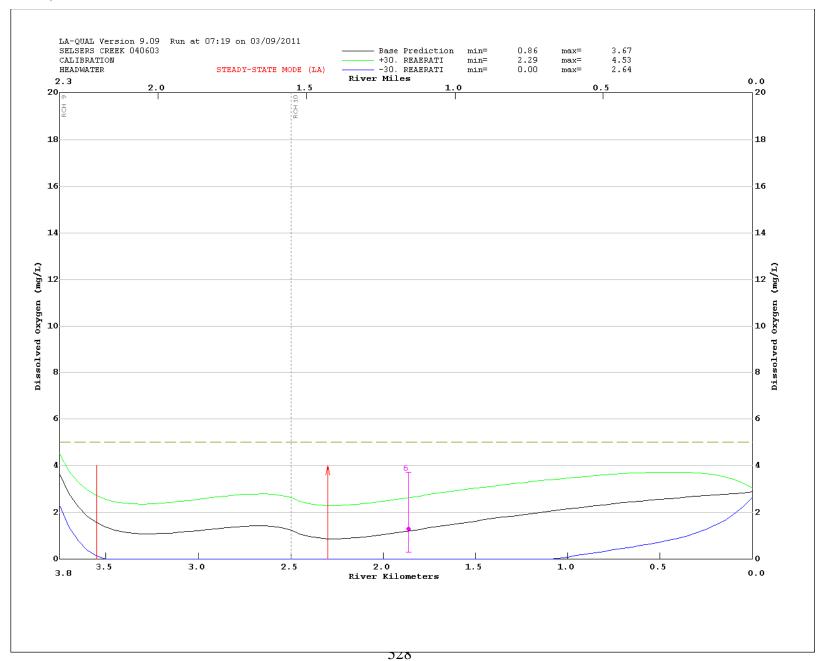


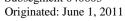


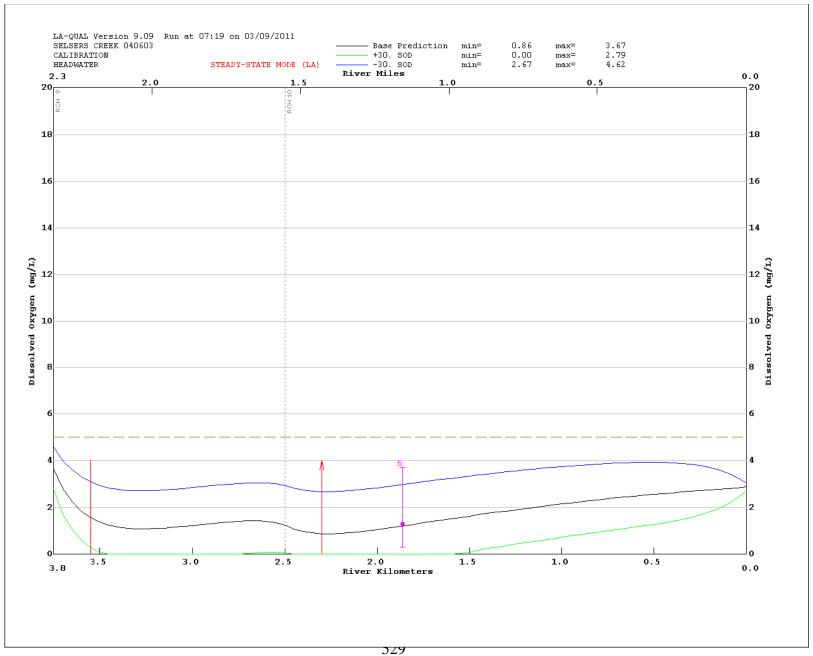




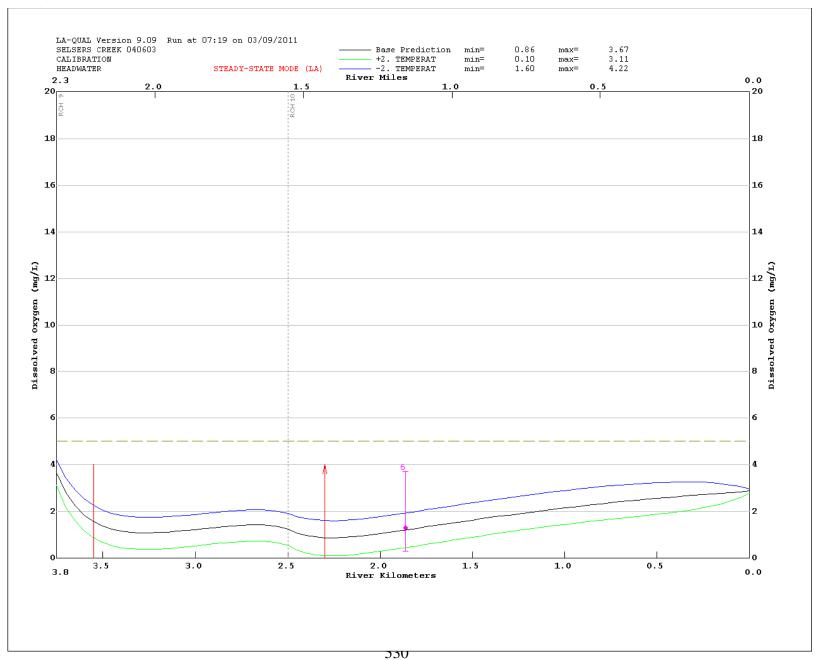




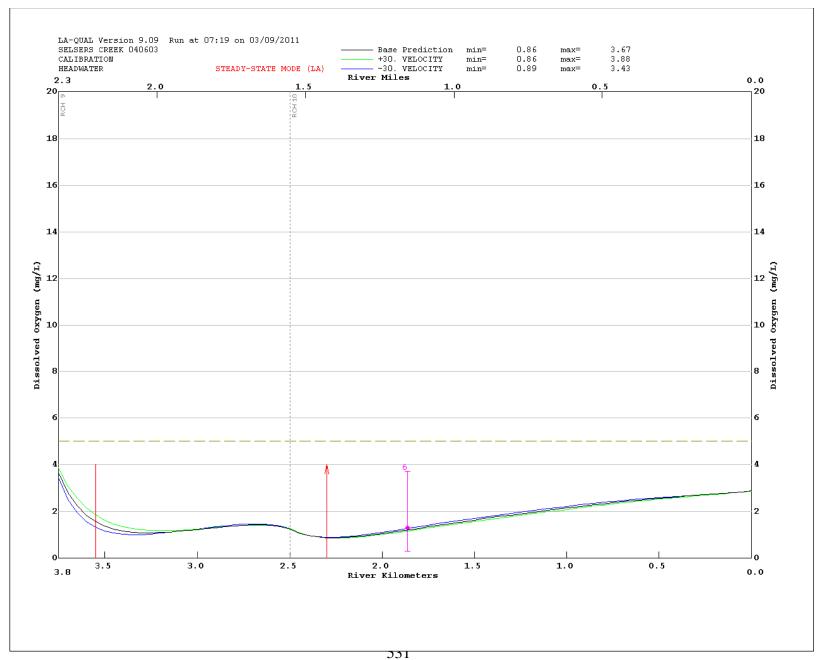




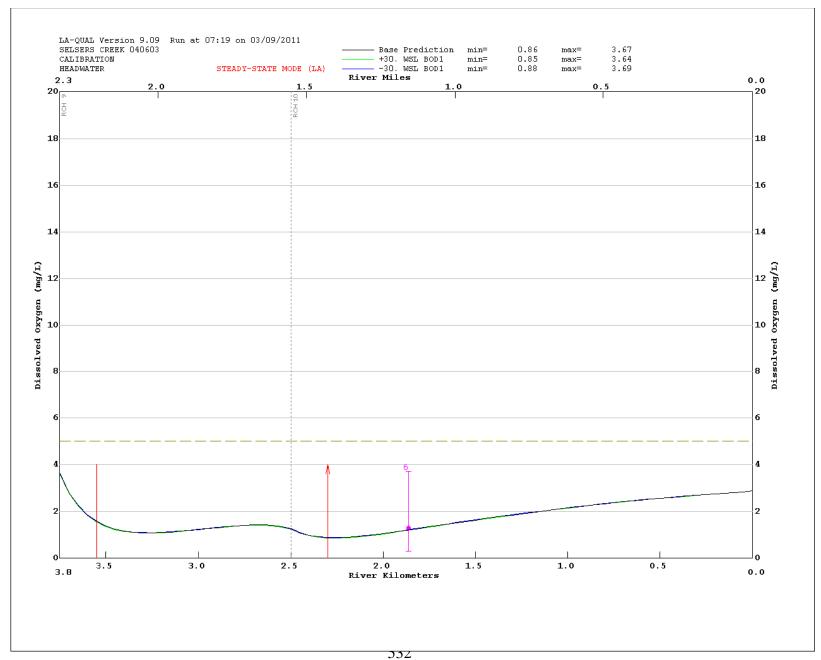


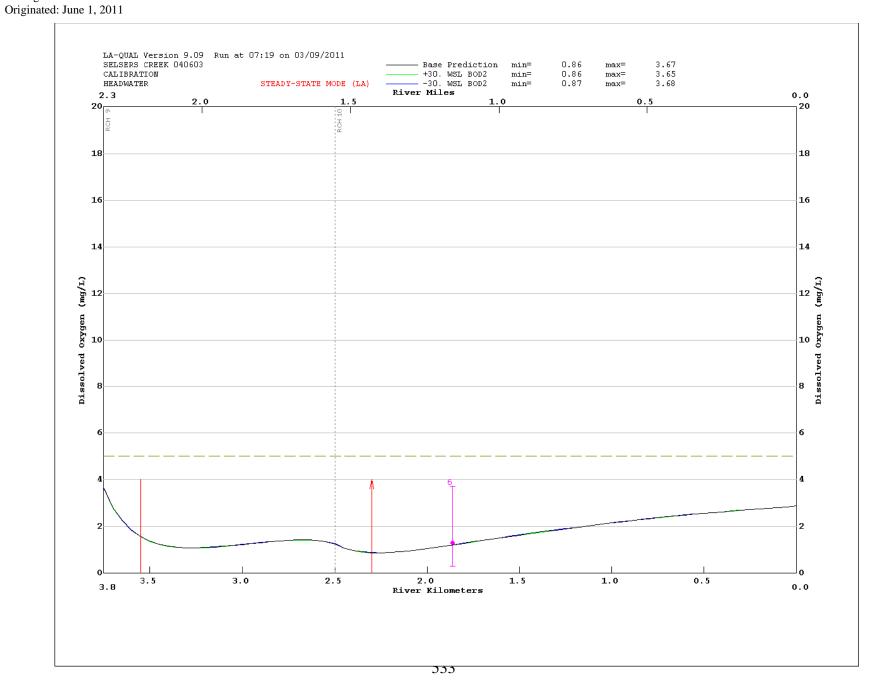




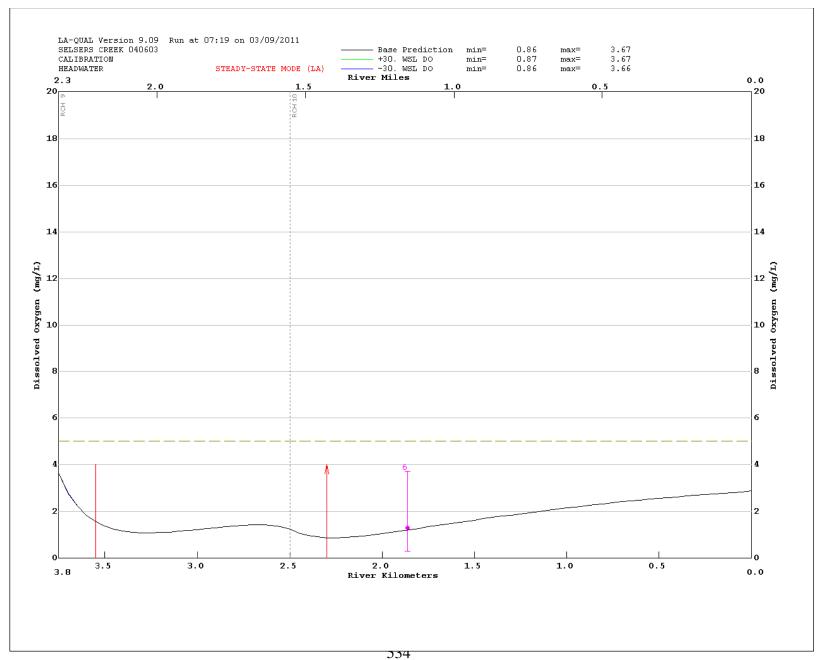




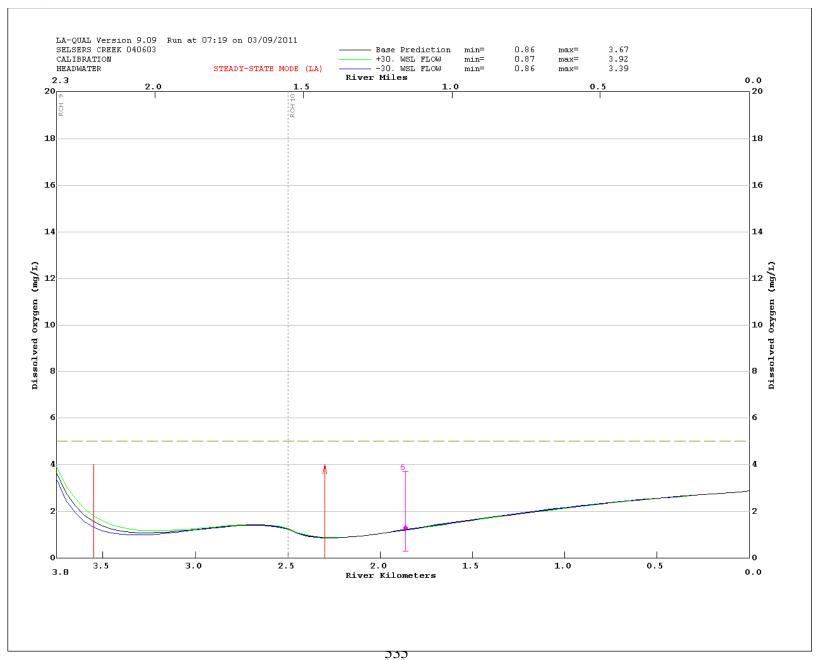




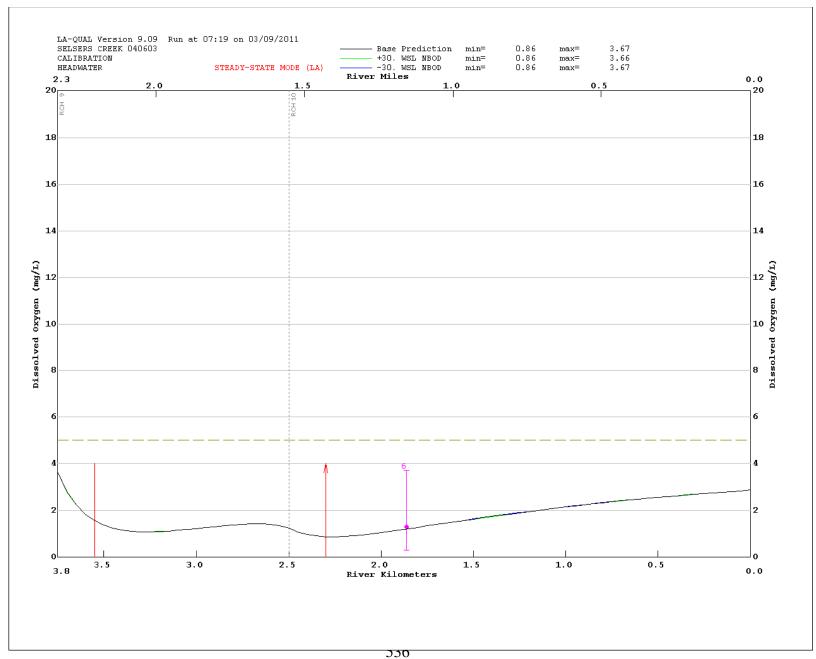












# Appendix I2 – Sensitivity Input and Output Data Sets

# Selsers Creek Sensitivity Analysis Input Data Set

```
! DATA TYPE 01 -- TITLES AND CONTROL DATA
       SELSERS CREEK 040603
TITLE02
       CALIBRATION
CONTROL YES METRIC UNITS
CONTROL YES USE EFFECTIVE CONCENTRATIONS
ENDATA01
! DATA TYPE 02 -- Model Options
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES
                                                       IN
                                                                 CL
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY
                                                                 COND
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD
MODOPT09 NO PHOSPHORUS SERIES
MODOPT10 NO PHYTOPLANKTON
MODOPT11 NO PERIPHYTON
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL
ENDATA02
! DATA TYPE 03 -- PROGRAM CONSTANTS
PROGRAM SETTLING RATE UNITS
                                    = 2
PROGRAM K2 MAXIMUM
                                    = 25
PROGRAM DISPERSION EQUATION
                                  = 3
PROGRAM TIDE HEIGHT
                                    = 0.158
PROGRAM INHIBITION CONTROL VALUE
                                    = 3
                                    = 0
PROGRAM PHYTOPLANKTON OXYGEN PROD
! DATA TYPE 04 -- TEMPERATURE CORRECTION CONSTANTS
ENDATA04
! DATA TYPE 05 -- TEMPERATURE DATA
ENDATA05
! DATA TYPE 06 -- ALGAE CONSTANTS
ENDATA06
! DATA TYPE 07 -- MACROPHYTE CONSTANTS
ENDATA07
! DATA TYPE 08 -- REACH IDENTIFICATION DATA
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** __ *********************
RKM LENGTH
                                                         0.0575
REACH ID 2 SC S OF 190 - OLD COVINGTON HWY 14.6 12.9
                                                          0.05
                                                12.15
REACH ID
        3 SC OLD COVINGTON HWY - 1ST UNNAMED 12.9
                                                          0.05
REACH ID 4 SC 1ST UNNAMED - S OF I-12 12.15
                                               9.6
                                                          0.05
```

```
Originated: June 1, 2011
```

```
REACH ID
      5 SC S OF I-12 - S OF SISTERS RD.
                                9.6
                                    7.7
                                            0.05
REACH ID 6 SC S OF SISTERS RD. - 3RD UNNAMED 7.7
                                      5.85
                                            0.05
                                    3.75
REACH ID 7 SC 3RD UNNAMED - S OF HWY 22
                                5.85
                                            0.05
REACH ID 8 HS HIGH SCHOOL TRIB
                                2.15
                                    0
                                            0.05
REACH ID 9 SC S OF HWY 22 - N OF WEINBERGER 3.75
                                    2.5
                                            0.05
REACH ID 10 SC N OF WEINBERGER - SOUTH SLOUGH 2.5
                                            0.05
                                      0
ENDATA08
! DATA TYPE 09 -- ADVECTIVE HYDRAULIC COEFFICIENTS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____*******
               b
                   С
                        d
                           е
                                  f
!
          a
          WIDTH WIDTH WIDTH DEPTH DEPTH
!
      R# COEFF EXP CONST COEFF EXP CONST SLOPE MANNING
      1 0
             0
                  1.859 0
                           0
HYDR-1
                                0.085 0.0001 0.035
HYDR-1
       2 0
              0
                  1.669 0
                           0
                              0.061 0.0001 0.035
HYDR-1
     3 0
                             0.043 0.0001 0.035
             0
                 1.524 0
                           0
HYDR-1
     4 0
              0
               3.962 0
                         0 0.146 0.0001 0.035
HYDR-1
     5 0
            0 4.191 0
                         0 0.274 0.0001 0.035
     6 0
            0 4.797 0
                         0
                             0.27 0.0001 0.035
HYDR-1
     7 0
                        0
HYDR-1
            0 5.486 0
                             0.265 0.0001 0.035
HYDR-1 8 0 0 2.103 0 0 0.183 0.0001 0.035
HYDR-1
      9 0
           0 19.287 0
                         0 0.209 0.0001 0.035
             0 30.267 0
                         0 0.165 0.0001 0.035
HYDR-1
     10 0
ENDATA09
! DATA TYPE 10 -- DISPERSIVE HYDRAULIC COEFFICIENTS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** ____********
!
         TIDAL
      R# RANGE a
                                   d
                      b
                            C
HYDR-2
     1 0 375
                   0.8333 0
HYDR-2
     2 0 375
                  0.8333 0
                               1
     3 0 375
HYDR-2
                  0.8333 0
                 0.8333 0
HYDR-2
     4 0 375
                               1
     5 0 375
HYDR-2
                 0.8333 0
     6 0 375
HYDR-2
                 0.8333 0
                               1
                0.8333 0
0.8333 0
     7 0.5 375
                               1
HYDR-2
HYDR-2
     8 0 375
                               1
HYDR-2
     9 1 375
                0.8333 0
                               1
     10 1 375
HYDR-2
                0.8333 0
ENDATA10
! DATA TYPE 11 -- INITIAL CONDITIONS
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____********____*******
      R# TEMP SALINITY DO
                          NH3 N NIT NIT I PHOS CHL A MACROPHYTES
INITIAL
      1 28.6 0.09 4.99
                                        11.4
     2 28.5
             0.14 3.86
INITIAL
                                        9.09
INITIAL 3 28.42 0.18 2.99
                                        7.65
      4 28.44 0.16
                   3.06
INITIAL
                                        6.1
INITIAL
      5 28.04 0.15
                   4.77
                                        5.43
```

\*\*\* \_\_\_\_\_\*\*\*\*\*\*\*\*

R# OUTFLOW INFLOW TEMP SALINITY CHLORIDE COND

!

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
INCR-1
        1
                 Ω
        2
                 0.001
INCR-1
INCR-1
        3
                 0.001
INCR-1
      4 -0.002
      5 -0.004
INCR-1
                 0.005
                                    13
                                           225
INCR-1
        6
INCR-1
        7
                 0.004
                                    13
                                           225
                 0
INCR-1
      8
INCR-1
       9
                 0.005
                                     13
                                           225
INCR-1
       10
                 0.004
                                     13
                                           225
ENDATA16
! DATA TYPE 17 -- INCREMENTAL DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
*** _____*********
       R#
           DO BOD 1 NBOD NH3 N NIT NIT BOD 2
INCR-2
      1
INCR-2
      2 3.86
                 5.054 2.134
                                           9.98
INCR-2
      3 2.99
                 4.519 2.085
                                           10.302
INCR-2
        4
INCR-2
      5
INCR-2 6 5.02
                 3.707 2.268
                                           9.922
INCR-2
     7 5.31
               4.912 2.672
                                           8.211
INCR-2
      8
       9 3.07
                                           8.33
INCR-2
                4.639 3.055
INCR-2
      10 1.29
               4.422 3.359
                                           8.425
ENDATA17
! DATA TYPE 18 -- Incremental Data
! \; - \; - \; -1- \; - \; - \; -2- \; - \; - \; -3- \; - \; - \; -4- \; - \; -5- \; - \; - \; -6- \; - \; -7- \; - \; -8- \; - \; -9- \; - \; -9- \; - \; -0- \; - \; -1
*** _____********
       R# PHOSPH CHL A COLIFORM NONCONSERVATIVE
INCR-3
        1
INCR-3
INCR-3
        3
INCR-3
INCR-3
        5
INCR-3
        6
INCR-3
        7
INCR-3
      8
INCR-3
        9
INCR-3
       10
ENDATA18
! DATA TYPE 19 -- NONPOINT SOURCE DATA
! \; - \; - \; -1 - \; - \; -2 - \; - \; -3 - \; - \; -4 - \; - \; -5 - \; - \; -6 - \; - \; -7 - \; - \; -8 - \; -9 - \; -9 - \; -0 - \; -1
*** _____********
       R# BOD 1 NBOD COLIFORM NONCONS
                                             BOD 2
       1 0.5 0.15
                                           0.5
NONPOINT
       2 0.1
                 0.25
NONPOINT
                                           1
       3 0.1
                 0.1
                                           2.5
NONPOINT
NONPOINT
       4 0.125
                 0.7
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
      5 2.25
NONPOINT
              1.65
                                      1.1
NONPOINT 6 6.5
               3
                                       0.25
              3.95
NONPOINT 7 3.75
                                       0.9
NONPOINT 8 2
              0.65
                                       1.3
NONPOINT 9 2.5
               1.5
                                       4
NONPOINT 10 8
                                       5.75
               3.5
ENDATA19
! DATA TYPE 20 -- HEADWATER DATA FOR FLOW, TEMPERATURE, SAALINITY, AND CONSERVATIVES
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
     E# NAME
                          FLOW TEMP SALIN CHLORIDE COND
HDWTR-1 1 HEADWATER
                         0.003 28.6 0.09 12.6 210.35
HDWTR-1 238 HIGH SCHOOL TRIB
                        0.004 25.63 0.19 14.2 389.2
ENDATA20
! DATA TYPE 21 -- HEADWATER DATA FOR DO, BOD, AND NITROGEN
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
      E# DO BOD 1 NBOD
                            NH3 N NIT NIT BOD 2
HDWTR-2 1 4.99 5.915 2.214
                                       9.462
HDWTR-2 238 1.13 6.599 7.185
                                       12.841
ENDATA21
! DATA TYPE 22 -- HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
       E# PHOSPHOR CHL A COLIFORM NCM
HDWTR-3 1
          11.4
HDWTR-3 238
               33.8
ENDATA22
! DATA TYPE 23 -- JUNCTION DATA
JUNCTION 281 237 HIGH SCHOOL TRIB CONFLUENCE
ENDATA23
! DATA TYPE 24
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____*********
      E# NAME
                      FLOW
                            TEMP SALINITY CHLORIDE COND
WSTLD-1 32 SE HAMMOND
                      0.010291 28.9
                                  0.28 37.8
                                             462
WSTLD-1 70 OLD COV HWY TRIB 0.0028 25.43 0.07
                                        13.2
                                             154.75
WSTLD-1 121 PELICAN GARDEN SUBD
WSTLD-1 147 SISTERS RD TRIB
                            25.35 0.1
                                        21.1
                                              220.4
WSTLD-1 148 DUPRE TRAILER PARK
WSTLD-1 196 HOOVER RD TRIB 0.006 26.31 0.11
                                        7.6
                                              232.13
WSTLD-1 248 GMG RENTALS
WSTLD-1 254 ROCK'S RENTALS
WSTLD-1 266 PONCHATOULA HIGH
WSTLD-1 285 ESTERBROOK TRACE
```

WSTLD-1 310 CREEKSIDE SUBD 0.000225328.1 0.36

ENDATA24 ! DATA TYPE 25 707.3

```
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
!
              DO BOD 1
                            NBOD
                                  NH3 N
                                             NIT NIT BOD 2
WSTLD-2 32 1.1 5.656
                                                   3.925
          2.14
WSTLD-2 70
                 7.346
                           5.011
                                                   10.143
WSTLD-2 121
WSTLD-2 147 5.99 2.272 0.528
                                                   4.696
WSTLD-2 148
WSTLD-2 196 2.88 6.283 1.768
                                                   6.244
WSTLD-2 248
WSTLD-2 254
WSTLD-2 266
WSTLD-2 285
WSTLD-2 310 3.7
              175.359
                           132.888
                                                   94.733
ENDATA25
! DATA TYPE 26 -- WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NCM
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
**** _____********
       E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE
WSTLD-3 32
          64
WSTLD-3 70
WSTLD-3 121
WSTLD-3 147
WSTLD-3 148
WSTLD-3 196
                3.6
WSTLD-3 248
WSTLD-3 254
WSTLD-3 266
WSTLD-3 285
WSTLD-3 310
ENDATA26
! DATA TYPE 27 -- Lower Boundary Conditions
                              = 29.13
LOWER BC TEMPERATURE
LOWER BC SALINITY
                                = 0.13
LOWER BC CONSERVATIVE MATERIAL I
                               = 29.5
                               = 267.7
LOWER BC CONSERVATIVE MATERIAL II
LOWER BC DISSOLVED OXYGEN
                               = 2.89
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND
                              = 6.858
LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND
                                = 6.331
LOWER BC PO4 PHOSPHORUS
                                = 0.4
LOWER BC PHYTOPLANKTON
                                = 11.6
LOWER BC NBOD
                                = 2.189
ENDATA27
! DATA TYPE 28 -- Dam Data
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
      ENDATA28
! DATA TYPE 29 -- SENSITIVITY ANALYSIS DATA
SENSITIV SOD
            -30 30
```

```
FINAL Selsers Creek Watershed TMDL
Subsegment 040603
Originated: June 1, 2011
SENSITIV BOD1 DEC -30
SENSITIV BOD2 DEC -30
                     30
SENSITIV BOD2 HYD -30
                    30
SENSITIV HDW BOD1 -30
                    30
SENSITIV HDW BOD2 -30
                    30
SENSITIV HDW DO -30
                    30
SENSITIV HDW FLOW -30
SENSITIV HDW NBOD -30
SENSITIV INC BOD1 -30
SENSITIV INC BOD2 -30
                    30
SENSITIV INC DO -30
                     30
                    30
SENSITIV INC INFL -30
SENSITIV INC NBOD -30
                    30
SENSITIV TEMPERAT -2
                    2
SENSITIV NBOD DEC -30
                    30
SENSITIV NPS BOD1 -30
                    3.0
SENSITIV NPS BOD2 -30
                    30
SENSITIV NPS NBOD -30
SENSITIV PHYTO RE -30
                    30
SENSITIV BASEFLOW -30
                     30
SENSITIV DEPTH -30
                    3.0
                    30
SENSITIV DISPERSI -30
SENSITIV REAERATI -30
SENSITIV VELOCITY -30
                    30
SENSITIV WSL BOD1 -30
SENSITIV WSL BOD2 -30
SENSITIV WSL DO -30
SENSITIV WSL FLOW -30
                    30
SENSITIV WSL NBOD -30
ENDATA29
! DATA TYPE 30 -- Plot Control Data
! \; - \; - \; -1- \; - \; - \; -2- \; - \; - \; -3- \; - \; - \; -4- \; - \; -5- \; - \; - \; -6- \; - \; - \; -7- \; - \; -8- \; - \; -9- \; - \; -9- \; - \; -0- \; - \; -1
PLOT1 SELSERS CREEK
RCH 1 2 3 4 5 6 7
PLOT2 HIGH SCHOOL TRIB
RCH 8
PLOT3
RCH 9 10
ENDATA30
! DATA TYPE 31 -- Overlay Plot Data
! - - - -1- - - - -2- - - -3- - - -4- - - -5- - - -6- - - -7- - - -8- - - -9- - - -0- - - -1
OVERLAY1 OVERLAY SC.TXT
OVERLAY2 OVERLAY HST.TXT
OVERLAY3 OVERLAY SC.TXT
ENDATA31
```

LA-OUAL Version 9.09

# Selsers Creek Sensitivity Analysis Output Data Set

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

Louisiana Department of Environmental Quality Input file is C:\Documents and Settings\shanec\My Documents\Modeling\Pontchartrain\040603\Modeling\SelsersCalibrationSens.txt Running in steady-state mode using LA defaults Output produced at 07:19 on 03/09/2011 \$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$ CARD TYPE CONTROL TITLES TITLE01 SELSERS CREEK 040603 TITLE02 CALIBRATION CONTROL YES METRIC UNITS CONTROL YES USE EFFECTIVE CONCENTRATION ENDATA01 \$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$ CARD TYPE MODEL OPTION MODOPT01 NO TEMPERATURE MODOPT02 NO SALINITY MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN CLMODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY TN COND MODOPT05 YES DISSOLVED OXYGEN MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND BOD2 BIOCHEMICAL OXYGEN DEMAND MODOPT07 YES MODOPT08 YES NBOD MODOPT09 NO PHOSPHORUS SERIES MODOPT10 NO PHYTOPLANKTON MODOPT11 NO PERIPHYTON MODOPT12 NO COLIFORM MODOPT13 NO NONCONSERVATIVE MATERIAL ENDATA02 \$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$ CARD TYPE DESCRIPTION OF CONSTANT VALUE 2.00000 (values entered as per day) PROGRAM SETTLING RATE UNITS PROGRAM K2 MAXIMUM 25.00000 per day PROGRAM DISPERSION EQUATION 3.00000 (values entered as a function of D,Q,Vmean) PROGRAM TIDE HEIGHT 0.15800 meters PROGRAM INHIBITION CONTROL VALUE 3.00000 (inhibit all rates but SOD) PROGRAM PHYTOPLANKTON OXYGEN PROD 0.00000 mg 0/ug chl a/day ENDATA03

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

1 1 1	- ,		, , , , , ,								
				BEGIN		END	ELEM	REACH	ELEMS	BEGIN	END
CARD TYPE	REACH	ID	NAME	REACH		REACH	LENGTH	LENGTH	PER RCH	ELEM	ELEM
				km		km	km	km		NUM	NUM
REACH ID	1	SC	HEADWATERS - S OF 190	15.75	TO	14.60	0.0575	1.15	20	1	20
REACH ID	2	SC	S OF 190 - OLD COVINGTON HWY	14.60	TO	12.90	0.0500	1.70	34	21	54
REACH ID	3	SC	OLD COVINGTON HWY - 1ST UNNAMED	12.90	TO	12.15	0.0500	0.75	15	55	69
REACH ID	4	SC	1ST UNNAMED - S OF I-12	12.15	TO	9.60	0.0500	2.55	51	70	120
REACH ID	5	SC	S OF I-12 - S OF SISTERS RD.	9.60	TO	7.70	0.0500	1.90	38	121	158
REACH ID	6	SC	S OF SISTERS RD 3RD UNNAMED	7.70	TO	5.85	0.0500	1.85	37	159	195
REACH ID	7	SC	3RD UNNAMED - S OF HWY 22	5.85	TO	3.75	0.0500	2.10	42	196	237
REACH ID	8	HS	HIGH SCHOOL TRIB	2.15	TO	0.00	0.0500	2.15	43	238	280
REACH ID	9	SC	S OF HWY 22 - N OF WEINBERGER	3.75	TO	2.50	0.0500	1.25	25	281	305
REACH ID	10	SC	N OF WEINBERGER - SOUTH SLOUGH	2.50	TO	0.00	0.0500	2.50	50	306	355
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	SC	0.000	0.000	1.859	0.000	0.000	0.085	0.00010	0.035
HYDR-1	2	SC	0.000	0.000	1.669	0.000	0.000	0.061	0.00010	0.035
HYDR-1	3	SC	0.000	0.000	1.524	0.000	0.000	0.043	0.00010	0.035
HYDR-1	4	SC	0.000	0.000	3.962	0.000	0.000	0.146	0.00010	0.035
HYDR-1	5	SC	0.000	0.000	4.191	0.000	0.000	0.274	0.00010	0.035
HYDR-1	6	SC	0.000	0.000	4.797	0.000	0.000	0.270	0.00010	0.035
HYDR-1	7	SC	0.000	0.000	5.486	0.000	0.000	0.265	0.00010	0.035

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

HYDR-1	8	HS	0.000	0.000	2.103	0.000	0.000	0.183	0.00010	0.035
HYDR-1	9	SC	0.000	0.000	19.287	0.000	0.000	0.209	0.00010	0.035
HYDR-1	10	SC	0.000	0.000	30.267	0.000	0.000	0.165	0.00010	0.035
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	SC	0.00	375.000	0.833	0.000	1.000
HYDR	2	SC	0.00	375.000	0.833	0.000	1.000
HYDR	3	SC	0.00	375.000	0.833	0.000	1.000
HYDR	4	SC	0.00	375.000	0.833	0.000	1.000
HYDR	5	SC	0.00	375.000	0.833	0.000	1.000
HYDR	6	SC	0.00	375.000	0.833	0.000	1.000
HYDR	7	SC	0.50	375.000	0.833	0.000	1.000
HYDR	8	HS	0.00	375.000	0.833	0.000	1.000
HYDR	9	SC	1.00	375.000	0.833	0.000	1.000
HYDR	10	SC	1.00	375.000	0.833	0.000	1.000
ENDATA10							

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CL	COND
INITIAL	1	SC	28.60	0.09	4.99	0.00	0.00	0.00	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	SC	28.50	0.14	3.86	0.00	0.00	0.00	9.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	SC	28.42	0.18	2.99	0.00	0.00	0.00	7.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	SC	28.44	0.16	3.06	0.00	0.00	0.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	SC	28.04	0.15	4.77	0.00	0.00	0.00	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	SC	27.83	0.15	5.02	0.00	0.00	0.00	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	7	SC	27.60	0.14	5.31	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	8	HS	25.63	0.19	1.13	0.00	0.00	0.00	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	9	SC	27.90	0.14	3.07	0.00	0.00	0.00	14.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	10	SC	28.14	0.14	1.29	0.00	0.00	0.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA11																		

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

								AEROB		SETTLD	ANAER	AEROB		ANAER	BOD2
CARD	RCH	RCH	K2	K2	K2	K2	BKGRND	BOD	BOD	SOD	BOD	BOD2	BOD2	BOD2	HYDR TO
TYPE	NUM	ID	OPT	"A"	"B"	"C"	SOD	DECAY	SETT	AVAIL	DECAY	DECAY	SETT	DECAY	BOD1
							g/m²/d	per day	per day	frac	per day				
COEF-1	1	SC	15 LOUISIANA	0.000	0.000	0.000	1.750	0.377	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	SC	15 LOUISIANA	0.000	0.000	0.000	4.000	0.394	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	SC	15 LOUISIANA	0.000	0.000	0.000	3.750	0.405	0.050	1.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	SC	15 LOUISIANA	0.000	0.000	0.000	3.250	0.420	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	5	SC	15 LOUISIANA	0.000	0.000	0.000	1.200	0.443	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	6	SC	15 LOUISIANA	0.000	0.000	0.000	1.000	0.367	0.050	1.000	0.000	0.031	0.050	0.000	0.000
COEF-1	7	SC	15 LOUISIANA	0.000	0.000	0.000	1.100	0.280	0.050	1.000	0.000	0.030	0.050	0.000	0.000

# FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 COEF-1 8 HS 15 LOUISIANA COEF-1 9 SC 15 LOUISIANA COEF-1 10 SC 15 LOUISIANA ENDATA12

COEF-1	8	HS	15 LOUISIANA	0.000	0.000	0.000	3.750	0.513	0.050	1.000	0.000	0.087	0.050	0.000	0.000
COEF-1	9	SC	15 LOUISIANA	0.000	0.000	0.000	4.000	0.446	0.050	1.000	0.000	0.032	0.050	0.000	0.000
COEF-1	10	SC	15 LOUISIANA	0.000	0.000	0.000	5.000	0.578	0.050	1.000	0.000	0.034	0.050	0.000	0.000

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

					SETTLD		BKGRND	BKGRND				SETTLD
CARD TYPE	REACH	ID	NBOD	NBOD	ORGN	NH3	NH3	PO4	DENIT	ORGP	ORGP	ORGP
			DECA	SETT	AVAIL	DECA	SRCE	SRCE	RATE	DECA	SETT	AVAIL
			per day	per day	frac	per day	g/m²/d	g/m²/d	per day	per day	per day	frac
COEF-2	1	SC	0.211	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	SC	0.194	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	SC	0.184	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	SC	0.170	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	SC	0.147	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	SC	0.179	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	7	SC	0.216	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	8	HS	0.307	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	9	SC	0.215	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	10	SC	0.214	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENDATA13												

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

MAX MAX CARD TYPE REACH ID SECCHI CHL A: PHYTO PHYTO PHYTO PHYTO PERIP PERIP PERIP BANK DEPTH ALGAE SETT DEATH GROW DEATH SHADING RESP GROW RESP m frac per day per day per day per day per day per day frac

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE REACH ID COLIFORM NCM NCM
DIE-OFF DECAY SETT
per day per day per day

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW m³/s	INFLOW m³/s	TEMP deg C	SALIN ppt	CL	COND	IN/DIST	OUT/DIST
INCR-1	1	SC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	SC	0.00000	0.00100	0.00	0.00	0.00	0.00	0.00059	0.00000
INCR-1	3	SC	0.00000	0.00100	0.00	0.00	0.00	0.00	0.00133	0.00000
INCR-1	4	SC	-0.00200	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00078
INCR-1	5	SC	-0.00400	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00211
INCR-1	6	SC	0.00000	0.00500	0.00	0.00	13.00	225.00	0.00270	0.00000
INCR-1	7	SC	0.00000	0.00400	0.00	0.00	13.00	225.00	0.00190	0.00000
INCR-1	8	HS	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011 INCR-1 9 SC 0.00000 0.00500 0.00 0.00 13.00 225.00 INCR-1 10 SC 0.00000 0.00400 0.00 0.00 13.00 225.00 0.00160 0.00000 ENDATA16 \$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$ CARD TYPE REACH ID NBOD BOD2 DO BOD1

0			20	2021	1.202			2022
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
INCR-2	1	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	SC	3.86	5.05	2.13	0.00	0.00	9.98
INCR-2	3	SC	2.99	4.52	2.09	0.00	0.00	10.30
INCR-2	4	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	5	SC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	6	SC	5.02	3.71	2.27	0.00	0.00	9.92
INCR-2	7	SC	5.31	4.91	2.67	0.00	0.00	8.21
INCR-2	8	HS	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	9	SC	3.07	4.64	3.06	0.00	0.00	8.33
INCR-2	10	SC	1.29	4.42	3.36	0.00	0.00	8.43
ENDATA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$ PHYTO CARD TYPE REACH ID PO4 CHL A COLI NCM ORGP mg/L #/100mL mg/L μg/L INCR-3 1 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 2 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 3 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 4 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 5 SC 0.00 0.00 0.00 0.00 0.00 INCR-3 6 SC 0.00 0.00 0.00 0.00 0.00 7 INCR-3 SC 0.00 0.00 0.00 0.00 0.00 8 HS 0.00 0.00 0.00 0.00 0.00 INCR-3 INCR-3 9 SC 0.00 0.00 0.00 0.00 0.00 10 INCR-3 SC 0.00 0.00 0.00 0.00 0.00 ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	SC	0.50	0.15	0.00	0.00	0.00	0.50	0.00
NONPOINT	2	SC	0.10	0.25	0.00	0.00	0.00	1.00	0.00
NONPOINT	3	SC	0.10	0.10	0.00	0.00	0.00	2.50	0.00
NONPOINT	4	SC	0.12	0.70	0.00	0.00	0.00	7.00	0.00
NONPOINT	5	SC	2.25	1.65	0.00	0.00	0.00	1.10	0.00
NONPOINT	6	SC	6.50	3.00	0.00	0.00	0.00	0.25	0.00
NONPOINT	7	SC	3.75	3.95	0.00	0.00	0.00	0.90	0.00
NONPOINT	8	HS	2.00	0.65	0.00	0.00	0.00	1.30	0.00
NONPOINT	9	SC	2.50	1.50	0.00	0.00	0.00	4.00	0.00

0.00400

FINAL Selsers Subsegment 04 Originated: Jun	40603	shed TMDI									
NONPOINT ENDATA19	10	SC	8.00	3.50	0.00	0.00	0.00	5.75	0.00		
\$\$\$ DATA TY	PE 20 (HEA	DWATER FO	R FLOW, TEM	IPERATURE,	SALINITY	AND CONSER	VATIVES) \$	\$\$\$			
CARD TYPE	ELEMENT	NAME		UNIT	FLOW m³/s	FLOW cfs		SALIN ppt	CL	COND	HDW DISP EXCHG frac
HDWTR-1 HDWTR-1 ENDATA20	1 238	HEADWA HIGH S	TER CHOOL TRIB	0	0.00300 0.00400	0.10593 0.14124		0.09 0.19	12.600 14.200	210.350 389.200	0.000
\$\$\$ DATA TY	PE 21 (HEA	DWATER DA	TA FOR DO,	BOD, AND	NITROGEN)	\$\$\$					
CARD TYPE	ELEMENT	NAME			DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L	
HDWTR-2 HDWTR-2 ENDATA21	1 238	HEADWA HIGH S	TER CHOOL TRIB		4.99 1.13	5.91 6.60	2.21 7.18	0.00	0.00	9.46 12.84	
\$\$\$ DATA TY	PE 22 (HEA	DWATER DA	TA FOR PHOS	PHORUS, P	HYTOPLANKT		RM, AND NO	ONCONSERVA	ATIVES) \$\$	\$	
CARD TYPE	ELEMENT	NAME			PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L		
HDWTR-3 HDWTR-3 ENDATA22	1 238	HEADWA HIGH S	TER CHOOL TRIB		0.00	11.40 33.80	0.00	0.00	0.00		
\$\$\$ DATA TY	PE 23 (JUN	CTION DAT	A) \$\$\$								
CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME							
JUNCTION ENDATA23	281	237	3.75	HIGH SCHO	OL TRIB CC	NFLUENCE					
\$\$\$ DATA TY	PE 24 (WAS	TELOAD DA	TA FOR FLOW	, TEMPERA	TURE, SALI	NITY, AND	CONSERVAT	IVES) \$\$\$			
CARD TYPE	ELEMENT	RKILO N	AME		FLOW m³/s	FLOW cfs		TEMP deg C	SALIN ppt	CL	COND
WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1 WSTLD-1	32 70 121 147 148 196	12.15 O 9.60 P 8.30 S 8.25 D	E HAMMOND LD COV HWY ELICAN GARD ISTERS RD T UPRE TRAILE OOVER RD TR	EN SUBD RIB R PARK	0.01029 0.00280 0.00000 0.00000 0.00000 0.00600	0.36338 0.09887 0.00000 0.00000 0.00000 0.21186	0.235 0.064 0.000 0.000 0.000 0.137	28.90 25.43 0.00 25.35 0.00 26.31	0.28 0.07 0.00 0.10 0.00 0.11	37.800 13.200 0.000 21.100 0.000 7.600	462.000 154.750 0.000 220.400 0.000 232.130
WSTLD-1 WSTLD-1	248 254	1.65 G	MG RENTALS OCK'S RENTA		0.00000	0.00000	0.000	0.00	0.00	0.000	0.000

0.00000 0.00000

0.000

0.00

WSTLD-1

266

0.75 PONCHATOULA HIGH

0.000

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Origina	ted: June	1	201	1
Origina	iicu. Junc	Ι,	201	. 1

WSTLD-1	285	3.55	ESTERBROOK TRACE	0.00000	0.00000	0.000	0.00	0.00	0.000	0.000
WSTLD-1	310	2.30	CREEKSIDE SUBD	0.00023	0.00796	0.005	28.10	0.36	38.700	707.300
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

γγγ <i>D</i> 11111 111	1 23 (WIST	ELOID BIIII TOR BO, BOB, III		., үүү	% BOD			%		
CARD TYPE	ELEMENT	NAME	DO	BOD	RMVL	NBOD		NITRIF		BOD2
			mg/L	mg/L		mg/L	mg/L		mg/L	mg/L
WSTLD-2	32	SE HAMMOND	1.10	5.66	0.00	0.00	0.00	0.00	0.00	3.92
WSTLD-2	70	OLD COV HWY TRIB	2.14	7.35	0.00	5.01	0.00	0.00	0.00	10.14
WSTLD-2	121	PELICAN GARDEN SUBD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	147	SISTERS RD TRIB	5.99	2.27	0.00	0.53	0.00	0.00	0.00	4.70
WSTLD-2	148	DUPRE TRAILER PARK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	196	HOOVER RD TRIB	2.88	6.28	0.00	1.77	0.00	0.00	0.00	6.24
WSTLD-2	248	GMG RENTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	254	ROCK'S RENTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	266	PONCHATOULA HIGH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	285	ESTERBROOK TRACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2 ENDATA25	310	CREEKSIDE SUBD	3.70	175.36	0.00	132.89	0.00	0.00	0.00	94.73
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

				PHYTO			
CARD TYPE	ELEMENT	NAME	PO4-P	CHL A	COLI	NCM	ORG-P
			mg/L	μg/L	#/100mL		mg/L
WSTLD-3	32	SE HAMMOND	0.00	64.00	0.00	0.00	0.00
WSTLD-3	70	OLD COV HWY TRIB	0.00	0.00	0.00	0.00	0.00
WSTLD-3	121	PELICAN GARDEN SUBD	0.00	0.00	0.00	0.00	0.00
WSTLD-3	147	SISTERS RD TRIB	0.00	0.00	0.00	0.00	0.00
WSTLD-3	148	DUPRE TRAILER PARK	0.00	0.00	0.00	0.00	0.00
WSTLD-3	196	HOOVER RD TRIB	0.00	3.60	0.00	0.00	0.00
WSTLD-3	248	GMG RENTALS	0.00	0.00	0.00	0.00	0.00
WSTLD-3	254	ROCK'S RENTALS	0.00	0.00	0.00	0.00	0.00
WSTLD-3	266	PONCHATOULA HIGH	0.00	0.00	0.00	0.00	0.00
WSTLD-3	285	ESTERBROOK TRACE	0.00	0.00	0.00	0.00	0.00
WSTLD-3	310	CREEKSIDE SUBD	0.00	0.00	0.00	0.00	0.00
ENDATA26							

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENT	RATION	
LOWER BC	TEMPERATURE	=	29.130	deg C
LOWER BC	SALINITY	=	0.130	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	29.500	
LOWER BC	CONSERVATIVE MATERIAL II	=	267.700	
LOWER BC	DISSOLVED OXYGEN	=	2.890	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	6.858	mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	=	6.331	mg/L
LOWER BC	PO4 PHOSPHORUS	=	0.400	mg/L

# FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

LOWER BC PHYTOPLANKTON = 11.600 μg/L LOWER BC NBOD 2.189 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE ELEMENT NAME EQN "B" "H"

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSITIV	SOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD1 DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 HYD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD1	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD1	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC INFL	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TEMPERAT	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD1	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	PHYTO RE	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BASEFLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DEPTH	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DISPERSI	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	REAERATI	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	VELOCITY	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD1	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

PLOT1

RCH 1 2 3 4 5 6 7

PLOT2

RCH 8

PLOT3 RCH 9 10 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY1 OVERLAY SC.TXT OVERLAY2 OVERLAY HST.TXT OVERLAY3 OVERLAY SC.TXT ENDATA31

....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

.....GRAPHICS DATA FOR PLOT 2 WRITTEN TO UNIT 12

.....GRAPHICS DATA FOR PLOT 3 WRITTEN TO UNIT 13

FINAL REPORT HEADWATER SELSERS CREEK 040603

REACH NO. 1 HEADWATERS - S OF 190 CALIBRATION

********* REACH INPUTS ************************************														*****	*****	****	*****	****	*****	*****	******	******	*****	***					
ELEM	TYPE	F	LOW	TEMP deg C		ALN	CL	CO			BOD1	BOD2	EBOD1				H3-N mg/L	NO3-N mg/L	PO4-P		4/10	COLI OmL	NCM						
1	HDWTR	0.0		28.60		_	12.60	210.			-	9.46					0.00	0.00		11.40		0.00	0.00						
****	. * * * * * * *	*****	*****	*****	*****	*****	: * * * * * *	*****	*****	*****	*****	* RTOT.	OGTCAT	. AND E	DHVQTC	AI. COF	FFTCTF	יאייכ **:	*****	*****	****	*****	****	*****	****	*****	*****	*****	***
												ВІОП	OGICAL	I AND E	111510	AL COE	rricin	INID											
ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM			
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT			
		${ m mg/L}$	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da			
1	15.693	7.74	12.92	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.01	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2	15.635		12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00			3.08	0.34	0.06					0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	15.578			0.56	0.06	0.00	0.00	0.04	0.06	0.00				0.34	0.06					0.00	0.00	0.00	0.00	0.00	0.00	0.00			
4	15.520	7.74	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00					0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
5	15.463	7.74	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.00	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
6	15.405	7.74	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.00	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
7	15.348	7.74	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.00	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
8	15.290	7.75	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.00	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	15.233	7.75	12.91	0.56	0.06	0.00	0.00	0.04	0.06	0.00	3.00	3.08	3.08	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

### FINAL Selsers Creek Watershed TMDL Subsegment 040603

Origina	ted: June	1	201	1
Origina	iicu. Junc	Ι,	201	. 1

\*  $g/m^2/d$  \*\* mg/L/day

****	**************************************																								
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NILI 2 NI	NO2 N	TOT-N	EODC_N	ETCT_N	OBC D	DO4 - D	<b>π</b> Ωπ_ D	FORC D	פייי∩ייי_ ד	CHL A	PERIP	COLI	NCM
				CL	COND																				INCIVI
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
1	15.693	20 60	0 00	12.60	210.35	4.85	4.69	9.57	5.89	9.57	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.3	0.0	0.	0.00
1																									
2	15.635			12.60	210.35	4.79	4.68	9.63	5.88	9.63	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.2	0.0	0.	0.00
3	15.578			12.60	210.35	4.75	4.68	9.69	5.86	9.69	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.1	0.0	0.	0.00
4	15.520	28.58	0.10	12.60	210.35	4.72	4.67	9.75	5.84	9.75	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.9	0.0	0.	0.00
5	15.463	28.58	0.10	12.60	210.35	4.70	4.67	9.81	5.82	9.81	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.8	0.0	0.	0.00
6	15.405	28.57	0.11	12.60	210.35	4.69	4.66	9.87	5.81	9.87	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.7	0.0	0.	0.00
7	15.348	28.57	0.11	12.60	210.35	4.68	4.66	9.93	5.79	9.93	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.6	0.0	0.	0.00
8	15.290	28.56	0.11	12.60	210.35	4.67	4.65	9.99	5.77	9.99	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.5	0.0	0.	0.00
9	15.233	28.56	0.11	12.60	210.35	4.66	4.65	10.05	5.76	10.05	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.4	0.0	0.	0.00
10	15.175			12.60	210.35	4.66	4.64	10.11	5.74	10.11	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.2	0.0	0.	0.00
11	15.118			12.60	210.35	4.66		10.17			2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.1	0.0	0.	0.00
12	15.060			12.60	210.35	4.66		10.23	5.71	10.23	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	15.003			12.60	210.34	4.66		10.29	5.69	10.29	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.9	0.0	0.	0.00
14	14.945			12.60	210.34	4.66		10.34	5.67	10.34	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.8	0.0	0.	0.00
15	14.888			12.60	210.32	4.65		10.40		10.40	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.7	0.0	0.	0.00
16	14.830			12.60	210.28	4.65			5.64	10.46	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.6	0.0	0.	0.00
17	14.773			12.59	210.20	4.65		10.52		10.52	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.4	0.0	0.	0.00
10																0.00				0.00		9.4			
18				12.58	210.03	4.63		10.58	5.60	10.58	2.18	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.0	0.	0.00
19	14.658			12.56	209.65	4.57		10.64	5.58	10.64	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.2	0.0	0.	0.00
20	14.600	28.50	0.14	12.51	208.81	4.40	4.58	10.70	5.55	10.70	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.1	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 2 S OF 190 - OLD COVINGTON HWY CALIBRATION

21	UPR RCH	0.00300	28.50	0.14	12.51	208.81	4.40	4.58	10.70	5.55	10.70	2.19	0.00	0.00	0.00	9.09	0.00	0.00
EACH	INCR	0.00003	0.00	0.00	0.00	0.00	3.86	5.05	9.98			2.13	0.00	0.00	0.00	0.00	0.00	
32	WSTLD	0.01029	28.90	0.28	37.80	462.00	1.10	5.66	3.92	5.66	3.92	0.00	0.00	0.00	0.00	64.00	0.00	0.00

****	******	*****	****	*****	*****	*****	*****	*****	*****	*****	*****	** BIOL	JOGICAI	AND P	HYSICA	AL COEF	FICIEN	ITS ***	*****	* * * * * *	****	*****	*****	*****	*****	*******
M.T.T.T	ENDING	SAT	REAER	BOD1	BOD1	AROD1	BOD1	BOD2	BOD2	ABOD2	BKGD	TIIIT.	CORR	ORG-N	ORG-N	инз-и	инз-и	DENTT	ORG-P	ORG-P	P04	рнуто	DERID	COLT	NCM	NCM
NO.	DIST							DECAY			SOD									SETT				DECAY		
		mq/L						1/da								1/da				1/da				1/da		
		5,	,	,	,	,	,	,	,	,				,	,	,		,	,	,				,	,	,
21	14.550	7.75	20.92	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	14.500	7.75	21.00	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	14.450	7.75	21.08	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	14.400	7.75	21.16	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.89	6.89	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	14.350	7.75	21.24	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	14.300	7.75	21.31	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.83	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	14.250	7.75	21.39	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	14.200	7.76	21.47	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	14.150	7.76	21.55	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	14.100	7.76	21.63	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.88	6.88	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	14.050	7.76	21.71	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.87	6.87	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	14.000	7.76	29.28	0.55	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	13.950																									
34	13.900	7.76	29.28	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.82	6.86	6.86	0.25	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	13.850																									
36	13.800																									
37	13.750																									0.00
38	13.700																									0.00
39	13.650																									
40	13.600																									
41	13.550																									
42	13.500																									
43	13.450																									
44	13.400																									
45	13.350																									
46	13.300																									
47	13.250																									
48	13.200																									
49	13.150																									
50	13.100																									
51	13.050																									
52	13.000																									
53	12.950																									
54	12.900	7.76	29.25	0.58	0.06	0.00	0.00	0.04	0.06	0.00	6.80	6.84	6.84	0.29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 2	0 DEG C	RATE	22.80	0.39	0.05	0.00	0.00	0.03	0.05	0.00	4.00			0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

EACH INCR

0.00007

0.00

ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1									PO4-P				CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
21	14.550	28.50	0.14	12.39	206.89	3.84	4.54	10.78	5.51	10.78	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.0	0.0	0.	0.00
22	14.500	28.50	0.14	12.28	204.94	3.43	4.50	10.86	5.46	10.86	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.0	0.0	0.	0.00
23	14.450	28.49	0.14	12.17	203.08	3.13	4.46	10.94	5.42	10.94	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.0	0.0	0.	0.00
24	14.400	28.49	0.14	12.07	201.37	2.91	4.43	11.01	5.38	11.01	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.9	0.0	0.	0.00
25	14.350	28.49	0.15	12.01	199.94	2.76	4.40	11.08	5.34	11.08	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.9	0.0	0.	0.00
26	14.300			12.00	199.16	2.65		11.12		11.12	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
27	14.250			12.13	199.83	2.57		11.13		11.13	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
28	14.200			12.59	203.91	2.52		11.04		11.04	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
29	14.150			13.83	216.01	2.46	4.38	10.72		10.72	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.7	0.0	0.	0.00
30	14.100			16.89	247.02	2.37	4.52	9.88	5.45	9.88	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.7	0.0	0.	0.00
31	14.050			24.29	322.73	2.15	4.91	7.80	5.83	7.80	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.6	0.0	0.	0.00
32	14.000			31.23	394.10	1.88	5.28	5.82	6.20	5.82	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.6	0.0	0.	0.00
33	13.950			31.17	393.25	2.08	5.27	5.86	6.18	5.86	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
34	13.900			31.10	392.41	2.26	5.26	5.89	6.16	5.89	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
35	13.850			31.03	391.57	2.43	5.24	5.92	6.15	5.92	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5	0.0	0.	0.00
36	13.800			30.97	390.73	2.57	5.23	5.95	6.13	5.95	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.4	0.0	0.	0.00
37	13.750			30.90	389.90	2.70	5.22	5.98	6.11	5.98	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.4	0.0	0.	0.00
38	13.700			30.83	389.07	2.82	5.21	6.01	6.10	6.01	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3	0.0	0.	0.00
39	13.650 13.600			30.77 30.70	388.25 387.43	2.92 3.02	5.20 5.18	6.04 6.07	6.08 6.06	6.04 6.07	0.64 0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3 8.2	0.0	0.	0.00
40 41	13.550			30.70	387.43	3.02	5.18	6.10	6.05	6.10	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.0	0. 0.	0.00
42	13.500			30.57	385.80	3.17	5.16	6.13	6.03	6.13	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.2	0.0	0.	0.00
43	13.450			30.57	384.98	3.24	5.15	6.16	6.01	6.16	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	0.0	0.	0.00
44	13.400			30.45	384.18	3.30	5.14	6.19	6.00	6.19	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	0.0	0.	0.00
45	13.350			30.38	383.37	3.35	5.12	6.22	5.98	6.22	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.0	0.0	0.	0.00
46	13.300			30.32	382.57	3.40	5.11	6.25	5.97	6.25	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.0	0.0	0.	0.00
47	13.250			30.26	381.77	3.44	5.10	6.28	5.95	6.28	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
48	13.200			30.19	380.98	3.48	5.09	6.31	5.93	6.31	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
49	13.150	28.43	0.17	30.13	380.18	3.51	5.08	6.34	5.92	6.34	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
50	13.100	28.43	0.18	30.07	379.38	3.54	5.07	6.37	5.90	6.37	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.8	0.0	0.	0.00
51	13.050	28.43	0.18	30.00	378.58	3.57	5.06	6.40	5.89	6.40	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.8	0.0	0.	0.00
52	13.000	28.42	0.18	29.94	377.75	3.59	5.05	6.43	5.87	6.43	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00
53	12.950	28.42	0.18	29.87	376.85	3.60	5.04	6.48	5.86	6.48	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00
54	12.900	28.42	0.18	29.78	375.80	3.59	5.03	6.55	5.85	6.55	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 3 OLD COVINGTON HWY - 1ST UNNAMED CALIBRATION

0.00

0.00

0.00

2.99

4.52 10.30

CLELEM TYPE FLOW TEMP SALN COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM NO. deg C ppt mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L  $\mu$ g/L #/100mL 55 UPR RCH 0.01429 28.42 0.18 29.78 375.80 3.59 5.03 6.55 5.85 6.55 0.76 0.00 0.00 7.65 0.00 0.00 0.00

2.09

0.00

0.00 0.00

0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

**************************************															*****															
		a		2021	2021	10001	5051	2020	2020		21102		2000	000.17	000					~ ~	0000	201			go	17.01				
ELEM		SAT	REAER			ABOD1												-N DEN												
NO.	DIST					DECAY						SOD *						CE RA					**	**			SETT			
		mg/L	1/ua	1/da	1/ua	1/da	1/ua	1/ua	I/Ua	I/ua		••		1/da	1/06	a 1/u	.a	* 1/	ua I	/ua	1/ua	-			1/ua	I/Uc	a 1/da			
55	12.850	7.76	29.25	0.60	0.06	0.00	0.00	0.04	0.06	0.00	6.37	6.40	6.40	0.27	0.06	5 0.0	0 0.	00 0.	00 0	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
56	12.800																													
57	12.750																													
58	12.700																													
59	12.650																													
60	12.600																													
61	12.550																													
62	12.500																													
63	12.450		29.26																											
64	12.400																													
65	12.350																													
66	12.300																													
67	12.250																													
68	12.200																													
69	12.150																													
0,5	11.150		27.20	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.50	0.12	0.12	0.25	0.00	0.0	• • •				0.00	0.00	0.00	0.00	0.00	0.00				
AVG 2	20 DEG C	RATE	25.00	0.41	0.05	0.00	0.00	0.03	0.05	0.00	3.75			0.18	0.05	5 0.0	0 0.	00 0.	00 0	.00	0.00	0.00			0.00	0.00	0.00			
* 9	g/m²/d		**	mg/L/	'day																									
**************************************															*****															
ELEM	ENDING	תשיים	SALN		CL	COND	DO	BOD	1 D	DD2 E	BOD1	EBOD2	ODC N	ו ביווו	NI NIOS	ייי דאַ כ	IOT N	FODC_N	₽ਾ⊓∩ਾ	_ NT	OPC D	DO4_1	ייים מ	ם ביטם	ייים כורי	ОП. П	CHL A	PERIP	COLI	NCM
NO.			! ppt		CLI	COND	mg/I				mg/L	mg/L	mg/L				mg/L	mg/L			mg/L	mg/I				mq/L	μg/L		#/100mL	INCIN
NO.	DISI	ueg c	. ppc				ilig/ L	1 11197	ш ш	g / Ll	шу/п	шg/ п	ш9/ п	ilig/.	בוווים ונוויפ	9/11	шу/п	ilig/ Li	ilig,	/ Ш	щg/п	ilig/1	J 1119/	ш ш	9/11	ш9/п	μ9/ш	9/111	#/10011111	
55	12.850	28.42	0.18	29.	65 3	374.15	3.52	2 5.0	2 6.	. 69	5.83	6.69	0.77	0.0	0 0.	.00	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0 0	.00	0.00	7.5	0.0	0.	0.00
56	12.800			29.		372.43	3.45				5.81	6.84	0.78	0.0			0.00	0.00			0.00	0.00				0.00	7.4	0.0	0.	0.00
57	12.750			29.		370.72	3.39				5.80	6.98	0.79				0.00	0.00			0.00	0.00				0.00	7.3	0.0	0.	0.00
58	12.700			29.		369.03	3.33				5.78	7.13	0.81	0.0			0.00	0.00			0.00	0.00				0.00	7.2	0.0	0.	0.00
59	12.650			29.		367.35	3.27				5.76	7.27	0.82	0.0			0.00	0.00			0.00	0.00				0.00	7.1	0.0	0.	0.00
60	12.600			28.		365.68	3.22				5.75	7.41	0.82	0.0			0.00	0.00			0.00	0.00				0.00	7.1	0.0	0.	0.00
	12.550			28.		364.03	3.18				5.73	7.56	0.83	0.0			0.00	0.00			0.00	0.00				0.00	6.9	0.0		0.00
61 62											5.73	7.70	0.85	0.0			0.00				0.00						6.8	0.0	0. 0.	
62 63	12.500			28.		362.39	3.13										0.00	0.00				0.00				0.00				0.00
63	12.450			28.		360.75	3.09				5.70	7.83	0.86	0.0				0.00			0.00	0.00				0.00	6.7	0.0	0.	0.00
64	12.400			28.		359.09	3.06				5.68	7.97	0.87	0.0			0.00	0.00			0.00	0.00				0.00	6.6	0.0	0.	0.00
65	12.350			28.		357.35	3.02				5.67	8.11	0.88	0.0			0.00	0.00			0.00	0.00				0.00	6.5	0.0	0.	0.00
66	12.300					355.33	2.99				5.65	8.25	0.90	0.0			0.00	0.00			0.00	0.00				0.00	6.4	0.0	0.	0.00
67	12.250	28.44	0.16	27.	95	352.51	2.96	5 4.9	1/ 8.	. 40	5.65	8.40	0.94	0.0	υ 0.	.00	0.00	0.00	0.0	υÜ	0.00	0.00	0.0	JU 0	.00	0.00	6.3	0.0	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 4 1ST UNNAMED - S OF I-12

12.200 28.44 0.16

12.150 28.44 0.16

SELSERS CREEK 040603 CALIBRATION

27.56 347.39 2.92 5.00 8.56 5.66 8.56 1.02

26.69 335.77 2.88 5.07 8.79 5.72 8.79 1.25

0.00

0.00 0.00

0.00

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

0.00

0.00 0.00

0.00

6.2

0.00 0.00

0.0

0.0

0.00

****	******	*****	*****	*****	*****	****	*****	*****	*****	*****	*****	* * * * * * *	*****	** REAC	CH IN	PUTS *	*****	*****	*****	*****	*****	*****	*****	*****	*****	******	*****
ELEM	TYPE	F	LOW	TEMP	SA	LN	CL	CC	OND	DO	BOD1	BOD2	EBOD1	l EBOI	02 0	RG-N N	IH3-N	NO3-N	PO4-P	CHL A		COLI	NCM				
NO.				deg C		pt				ng/L	mg/L	mg/L	mg/I				mg/L	mg/L	mg/L		#/10						
70	UPR RCH	0.0	1529	28.44	0.	16	26.69	335.	.77 2	2.88	5.07	8.79	5.72	2 8.7	79	1.25	0.00	0.00	0.00	6.10	C	0.00	0.00				
	INCR	-0.0	00004																								
70	WSTLD	0.00	0280	25.43	0.	07	13.20	154.	.75 2	2.14	7.35	10.14	7.35	5 10.1	L4	5.01	0.00	0.00	0.00	0.00	C	0.00	0.00				
****	******	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	** BIOI	LOGICAL	AND E	PHYSI	CAL COL	FFICIE	NTS **	*****	*****	*****	*****	******	*****	*****	*******	******
	ENDING			BOD1												N NH3-1						PHYTO			NCM	NCM	
NO.	DIST	D.O. mg/L		DECAY 1/da				DECAY			SOD *					T DECAY la 1/da		RATE 1/da		SETT 1/da				DECAY 1/da			
		mg/ n	I/ua	1/ua	1/da	1/ua	1/ua	1/ua	1/ua	1/ua				1/ua	1/4	.a 1/uc		1/ua	1/da	1/da				1/ua	1/ua	1/ua	
70	12.100		8.90	0.62	0.06	0.00	0.00	0.05	0.06	0.00	5.53	5.65	5.65	0.23	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
71	12.050			0.62																0.00						0.00	
72	12.000																			0.00						0.00	
73	11.950			0.62																0.00				0.00		0.00	
74 75	11.900 11.850																			0.00						0.00	
76	11.800																			0.00						0.00	
77	11.750			0.62																0.00						0.00	
78	11.700																			0.00						0.00	
79	11.650																			0.00						0.00	
80	11.600	7.77																		0.00						0.00	
81	11.550	7.77	8.80	0.62	0.06	0.00	0.00	0.05	0.06	0.00	5.50	5.62	5.62	0.24	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
82	11.500	7.77	8.79	0.62	0.06	0.00	0.00	0.05	0.06	0.00	5.49	5.62	5.62	0.24	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
83	11.450	7.78	8.78	0.62	0.06	0.00	0.00	0.05	0.06	0.00	5.49	5.62	5.62	0.24	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
84	11.400	7.78	8.77	0.62	0.06	0.00	0.00	0.05	0.06	0.00	5.49	5.62	5.62	0.24	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
85	11.350																			0.00					0.00	0.00	
86	11.300																			0.00						0.00	
87	11.250																			0.00						0.00	
88	11.200																			0.00						0.00	
89	11.150																			0.00						0.00	
90	11.100																			0.00						0.00	
91 92	11.050 11.000																			0.00						0.00	
93	10.950			0.61																0.00				0.00		0.00	
94	10.900																			0.00						0.00	
95	10.850						0.00													0.00						0.00	
96	10.800																			0.00						0.00	
97	10.750			0.61																0.00						0.00	
98	10.700	7.79	8.65	0.61																0.00					0.00	0.00	
99	10.650	7.79	8.64	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	10.600	7.79	8.63	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.45	5.58	5.58	0.23	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
101	10.550	7.79																		0.00						0.00	
102	10.500																			0.00						0.00	
103	10.450	7.80	8.60	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.0	6 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

FINAL Selsers Creek Watershed TMDL Subsegment 040603

Originated: June 1, 2011

104	10.400 7.80	8.59	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.44	5.57	5.57	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	10.350 7.80	8.58	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.43	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	10.300 7.80	8.58	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.43	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	10.250 7.80	8.57	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.43	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	10.200 7.80	8.56	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.42	5.56	5.56	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109	10.150 7.80	8.55	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.42	5.55	5.55	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	10.100 7.81	8.54	0.61	0.06	0.00	0.00	0.05	0.06	0.00	5.42	5.55	5.55	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	10.050 7.81	8.53	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.42	5.55	5.55	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112	10.000 7.81	8.52	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.41	5.55	5.55	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	9.950 7.81	8.51	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.41	5.54	5.54	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	9.900 7.81	8.50	0.61	0.06	0.00											0.00				0.00	0.00	0.00	0.00	0.00	0.00
115	9.850 7.81	8.50	0.61	0.06	0.00											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116	9.800 7.81	8.49	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.40	5.54	5.54	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	9.750 7.81	8.48	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.40	5.53	5.53	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
118	9.700 7.81	8.47	0.61	0.06	0.00											0.00				0.00	0.00	0.00	0.00	0.00	0.00
119	9.650 7.81	0.10		0.00												0.00					0.00			0.00	0.00
120	9.600 7.82	8.45	0.61	0.06	0.00	0.00	0.04	0.06	0.00	5.39	5.53	5.53	0.24	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG :	20 DEG C RATE	7.44	0.42	0.05	0.00	0.00	0.03	0.05	0.00	3.25			0.17	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d \*\* mg/L/day

TEMP SALN COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A PERIP COLI NCM ELEM ENDING CLNO. DIST deg C ppt mg/L uq/L q/m² #/100mL 0. 0.00 12.100 28.43 0.16 25.63 321.64 2.84 5.17 8.99 5.82 8.99 1.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.1 0.0 0.00 71 12.050 28.42 0.16 25.63 321.64 2.86 5.11 9.06 5.75 9.06 1.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.1 0.0 0. 321.64 72 12.000 28.42 0.16 25.63 2.87 5.04 9.13 5.69 9.13 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.1 0.00 0.0 0. 11.950 28.41 0.16 321.64 2.88 4.98 9.20 5.63 9.20 1.55 0.00 0.00 0.00 0.00 0.00 25.63 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0. 0.00 11.900 28.40 0.16 25.63 321.64 2.90 4.92 9.27 5.57 9.27 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0. 0.00 75 11.850 28.39 0.16 25.63 321.64 2.91 4.87 9.34 5.51 9.34 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0.00 0. 11.800 28.39 0.16 25.63 321.64 2.91 4.81 9.41 5.45 9.41 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76 6.0 0.0 0. 11.750 28.38 0.16 25.63 321.64 2.92 4.75 9.48 5.39 9.48 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0.00 78 11.700 28.37 0.16 25.63 321.64 2.93 4.69 9.55 5.33 9.55 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0.00 0. 11.650 28.36 0.16 25.63 321.64 2.94 9.62 5.27 9.62 1.55 0.00 0.00 79 4.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0. 80 11.600 28.35 0.16 25.63 321.64 2.94 4.58 9.69 5.22 9.69 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.0 0.0 0.00 0. 11.550 28.35 0.16 25.63 321.64 2.95 4.52 9.76 5.16 9.76 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0.00 321.64 11.500 28.34 0.16 25.63 2.95 4.47 9.83 5.10 9.83 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 0.00 28.33 0.16 25.63 321.64 2.96 9.90 5.05 9.90 0.00 0.00 0.00 0.00 83 11.450 4.41 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 84 11.400 28.32 0.16 25.63 321.64 2.96 4.36 9.97 4.99 9.97 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 0.00 11.350 28.31 0.16 321.64 4.94 10.04 0.00 0.00 0.00 0.00 0.00 0.00 25.63 2.97 4.31 10.04 1.55 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 11.300 28.31 0.16 25.63 321.64 2.97 4.26 10.11 4.88 10.11 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0.00 87 11.250 28.30 0.16 25.63 321.64 2.97 4.20 10.18 4.83 10.18 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 0.00 4.78 1.55 88 11.200 28.29 0.16 25.63 321.64 2.98 4.15 10.25 10.25 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.9 0.0 0. 0.00 89 11.150 28.28 0.16 25.63 321.64 2.98 4.10 10.32 4.72 10.32 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.8 0.0 0. 0.00 11.100 28.28 0.16 25.63 321.64 2.98 4.05 10.39 4.67 10.39 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.8 0.0 0. 0.00 91 11.050 28.27 0.16 25.63 321.64 2.99 4.00 10.46 4.62 10.46 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.8 0.0 0. 0.00 92 11.000 28.26 0.16 25.63 321.64 2.99 3.95 10.53 4.57 10.53 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5.8 0.00 0.0 0. 10.950 28.25 0.16 25.63 321.64 2.99 3.90 10.60 4.52 10.60 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0. 0.00

Subseg	Selsers Creek Watershed TM ment 040603 ated: June 1, 2011	IDL																
94	10.900 28.24 0.16	25.63 321.6	4 2.99 3.86 1	10.67 4.47 10.67	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
95	10.850 28.24 0.15	25.63 321.6	4 2.99 3.81 1	10.74 4.42 10.74	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.0	0.	0.00
96	10.800 28.23 0.15	25.63 321.6	4 3.00 3.76 1	10.81 4.37 10.81	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
97	10.750 28.22 0.15	25.64 321.6	4 3.00 3.71 1	10.88 4.33 10.88	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
98	10.700 28.21 0.15	25.64 321.6	4 3.00 3.67 1	10.95 4.28 10.95	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
99	10.650 28.20 0.15	25.64 321.6	4 3.00 3.62 1	11.02 4.23 11.02	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
100	10.600 28.20 0.15	25.64 321.6	4 3.00 3.58 1	11.09 4.19 11.09	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
101	10.550 28.19 0.15	25.64 321.6		11.16 4.14 11.16	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
102	10.500 28.18 0.15	25.64 321.6		11.23 4.09 11.23	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
103	10.450 28.17 0.15	25.64 321.6		11.30 4.05 11.30	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
104	10.400 28.17 0.15	25.64 321.6		11.38 4.00 11.38	1.55 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
105	10.350 28.16 0.15	25.64 321.6		11.45 3.96 11.45	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
106	10.300 28.15 0.15	25.64 321.6		11.52 3.92 11.52	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
107	10.250 28.14 0.15	25.64 321.6		11.59 3.87 11.59	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
108	10.200 28.13 0.15	25.64 321.6		11.66 3.83 11.66	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
109	10.150 28.13 0.15	25.64 321.6		11.73 3.79 11.73	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
110	10.100 28.12 0.15	25.64 321.6		11.80 3.75 11.80	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.6	0.0	0.	0.00
111	10.050 28.11 0.15	25.64 321.6		11.87 3.71 11.87	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
112	10.000 28.10 0.15	25.64 321.6		11.94 3.67 11.94	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
113	9.950 28.09 0.15	25.64 321.6		12.01 3.62 12.01	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
114	9.900 28.09 0.15	25.64 321.6		12.07 3.58 12.07	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
115	9.850 28.08 0.15	25.64 321.6		12.14 3.54 12.14	1.56 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
116 117	9.800 28.07 0.15 9.750 28.06 0.15	25.64 321.6 25.64 321.6		12.20 3.50 12.20 12.26 3.46 12.26	1.56 0.00 1.57 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0. 0.	0.00
TT/	9.750 40.00 U.15	25.04 321.0	± 3.00 2.00 1	12.20 3.40 12.20	1.57 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	υ.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603 REACH NO. 5 S OF I-12 - S OF SISTERS RD. CALIBRATION

321.64 3.17 2.80 12.33 3.38 12.33 1.58

25.64 321.64 3.30 2.75 12.33 3.33 12.33 1.59 0.00 0.00 0.00 0.00

9.700 28.06 0.15

9.650 28.05 0.15

9.600 28.04 0.15

-0.00011

EACH INCR

****	*****	*******	******	******	******	******	*****	*****	*****	*****	REACH	INPUTS	*****	*****	*****	*****	*****	*****	:****	*****	******	*****	***
ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND						ORG-N mg/L					COLI #/100mL	NCM					
121	UPR RCH	0.01609	28.04	0.15	25.64	321.64	3.30	2.75	12.33	3.33	12.33	1.59	0.00	0.00	0.00	5.43	0.00	0.00					

0.00 0.00

0.00

0.00

0.00

0.00

0.00 0.00 0.00 0.00

0.00

0.00

0.00 0.00

0.00

0.0

0.0

0.0

0.00

0.00

0.00

ELEM ENDING SAT REAER BOD1 BOD1 ABOD1 BOD1 BOD2 BOD2 ABOD2 BKGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PAG-P PAG-P PROPORED P

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

Ongma	tea. same 1, 2011																								
125	9.350 7.82	3.64 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.99	2.23	2.23	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	9.300 7.82	3.63 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.99	2.23	2.23	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127	9.250 7.82	3.62 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.99	2.23	2.23	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128	9.200 7.82	3.62 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.99	2.23	2.23	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	9.150 7.82	3.61 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	9.100 7.82	3.61 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
131	9.050 7.82	3.60 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	9.000 7.82	3.60 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
133	8.950 7.83	3.59 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	8.900 7.83	3.58 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.22	2.22	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	8.850 7.83	3.58 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	8.800 7.83	3.57 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	8.750 7.83	3.57 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	8.700 7.83	3.56 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139	8.650 7.83	3.55 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	8.600 7.83	3.55 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.21	2.21	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	8.550 7.83	3.54 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	8.500 7.83	3.54 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
143	8.450 7.83	3.53 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.98	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	8.400 7.83	3.52 0	0.64	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	8.350 7.83	3.52 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	8.300 7.84	3.51 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	8.250 7.84	3.51 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.20	2.20	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148	8.200 7.84	3.50 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149	8.150 7.84	3.49 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	8.100 7.84	3.49 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151	8.050 7.84	3.48 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152	8.000 7.84	3.48 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	7.950 7.84	3.47 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.19	2.19	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
154	7.900 7.84	3.47 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	7.850 7.84	3.46 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	7.800 7.84	3.45 0	0.64 0	0.06	0.00	0.00	0.04	0.06	0.00	1.97	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157	7.750 7.84	3.45 0	0.63 0	0.06	0.00					1.97			0.23		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158	7.700 7.84	3.44 0	0.63 0	0.06	0.00	0.00	0.04	0.06	0.00	1.96	2.18	2.18	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 2	0 DEG C RATE	3.06 0	0.44	0.05	0.00	0.00	0.03	0.05	0.00	1.20			0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\* g/m²/d \*\* mg/L/day

****	*****	*****	*****	******	****	*****	*****	*****	*****	**** W.	ATER QU.	ALITY C	ONSTITU	ENT VAL	JES ***	*****	*****	*****	*****	******	*****	*****	*****	******	*****
ELEM NO.	_	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L												EORG-P E mg/L			PERIP g/m²	COLI #/100mL	NCM
121	9.550	28.03	0.15	25.64	321.64	3.50	2.71	12.29	3.29	12.29	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
122	9.500	28.03	0.15	25.64	321.64	3.64	2.68	12.26	3.25	12.26	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
123	9.450	28.02	0.15	25.64	321.64	3.77	2.65	12.22	3.22	12.22	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
124	9.400	28.02	0.15	25.64	321.64	3.89	2.61	12.19	3.19	12.19	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
125	9.350	28.01	0.15	25.64	321.64	4.00	2.58	12.16	3.16	12.16	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
126	9.300	28.01	0.15	25.64	321.64	4.09	2.55	12.13	3.12	12.13	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.4	0.0	0.	0.00
127	9.250	28.00	0.15	25.64	321.64	4.18	2.52	12.09	3.09	12.09	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00

FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

· ·																				
128	9.200 28.00 0.15	25.64 33	21.64 4.26	2.49 12.06	3.06 12.06	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
129	9.150 27.99 0.15	25.64 33	21.64 4.32	2.47 12.03	3.03 12.03	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
130	9.100 27.98 0.15	25.64 32	21.64 4.39	2.44 12.00	3.01 12.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
131	9.050 27.98 0.15	25.64 32	21.64 4.44	2.41 11.96	2.98 11.96	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
132	9.000 27.97 0.15	25.64 32	21.64 4.49	2.39 11.93	2.95 11.93	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
133	8.950 27.97 0.15	25.64 32	21.64 4.54	2.36 11.90	2.92 11.90	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	0.0	0.	0.00
134	8.900 27.96 0.15	25.64 33	21.64 4.58	2.33 11.86	2.90 11.86	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
135	8.850 27.96 0.15	25.64 32	21.64 4.61	2.31 11.83	2.87 11.83	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
136	8.800 27.95 0.15	25.63 33	21.64 4.65	2.29 11.80	2.84 11.80	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
137	8.750 27.95 0.15	25.63 33	21.64 4.67	2.26 11.76	2.82 11.76	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
138	8.700 27.94 0.15	25.63 32	21.64 4.70	2.24 11.73	2.79 11.73	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
139	8.650 27.94 0.15	25.63 33	21.64 4.72	2.22 11.70	2.77 11.70	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
140	8.600 27.93 0.15	25.63 33	21.64 4.74	2.20 11.66	2.75 11.66	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
141	8.550 27.92 0.15	25.63 32	21.64 4.76	2.17 11.63	2.73 11.63	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
142	8.500 27.92 0.15	25.63 33	21.63 4.78	2.15 11.60	2.70 11.60	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
143	8.450 27.91 0.15	25.63 33	21.63 4.79	2.13 11.56	2.68 11.56	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
144	8.400 27.91 0.15	25.63 33	21.62 4.81	2.11 11.53	2.66 11.53	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
145	8.350 27.90 0.15	25.63 33	21.61 4.82	2.10 11.49	2.64 11.49		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
146	8.300 27.90 0.15	25.63 3	21.60 4.83	2.08 11.46	2.62 11.46	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
147	8.250 27.89 0.15	25.63 33	21.58 4.84	2.06 11.42	2.60 11.42	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
148	8.200 27.89 0.15		21.56 4.85	2.04 11.39	2.59 11.39		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
149	8.150 27.88 0.15	25.62 3	21.53 4.86	2.03 11.35	2.57 11.35		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.0	0.	0.00
150	8.100 27.87 0.15		21.48 4.86	2.02 11.32	2.55 11.32		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
151	8.050 27.87 0.15		21.41 4.87	2.00 11.28	2.54 11.28		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
152	8.000 27.86 0.15	25.59 32	21.32 4.87	2.00 11.24	2.53 11.24		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
153	7.950 27.86 0.15		21.19 4.88	1.99 11.20	2.53 11.20	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
154	7.900 27.85 0.15		21.00 4.88	1.99 11.16	2.53 11.16	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
155	7.850 27.85 0.15		20.74 4.89	2.00 11.12	2.53 11.12	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
156	7.800 27.84 0.15		20.38 4.90	2.02 11.07	2.55 11.07		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
157	7.750 27.84 0.15		19.87 4.91	2.06 11.02	2.59 11.02	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
158	7.700 27.83 0.15	25.31 3	19.15 4.93	2.12 10.96	2.65 10.96	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 6 S OF SISTERS RD. - 3RD UNNAMED CALIBRATION

ELEM TYPE FLOW TEMP SALN COND EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A COLI NCM μg/L #/100mL NO. deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ppt

159 UPR RCH 0.01209 27.83 25.31 0.00 0.15 319.15 4.93 2.12 10.96 2.65 10.96 2.06 0.00 0.00 0.00 4.94 0.00 EACH INCR 0.00014 0.00 0.00 13.00 225.00 5.02 3.71 9.92 2.27 0.00 0.00 0.00 0.00 0.00

ELEM ENDING SAT REAER BOD1 BOD1 ABOD1 BOD1 BOD2 BOD2 BOD2 ABOD2 BKGD FULL CORR ORG-N ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM NCM NCM NCM DIST D.O. RATE DECAY SETT DECAY HYDR DECAY SETT DECAY SOD SOD SOD HYDR SETT DECAY SRCE RATE HYDR SETT SRCE PROD PROD DECAY DECAY SETT 
FINAL Selsers Creek Watershed TMDL

Subsegment 040603

Originated: June 1, 2011

0																										
159	7.650	7.85	3.43	0.53	0.06	0.00	0.00	0.04	0.06	0.00	1.64	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	7.600	7.85	3.43	0.53	0.06	0.00	0.00	0.04	0.06	0.00	1.64	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
161	7.550	7.85	3.44	0.53	0.06	0.00	0.00	0.04	0.06	0.00	1.64	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	7.500	7.85	3.44	0.53	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163	7.450	7.85	3.45	0.53	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
164	7.400	7.85	3.46	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	7.350	7.85	3.46	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	7.300	7.85	3.47	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167	7.250	7.85	3.47	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.63	1.85	1.85	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168	7.200		3.48	0.52	0.06	0.00	0.00	0.04					1.85			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
169	7.150		3.49	0.52	0.06	0.00	0.00						1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	7.100		3.49	0.52	0.06	0.00	0.00	0.04					1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
171	7.050		3.50	0.52	0.06	0.00	0.00	0.04					1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
172	7.000		3.50	0.52	0.06	0.00	0.00	0.04					1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
173	6.950		3.51	0.52		0.00	0.00						1.84		0.06		0.00		0.00	0.00		0.00	0.00	0.00		0.00
174	6.900			0.52		0.00	0.00						1.84		0.06		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
175	6.850		3.52	0.52		0.00	0.00						1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
176	6.800		3.53	0.52	0.06	0.00	0.00						1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	6.750		3.53			0.00	0.00	0.04					1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
178 179	6.700 6.650		3.54	0.52		0.00	0.00	0.04		0.00			1.84			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	6.600		3.55	0.52	0.06	0.00	0.00	0.04		0.00			1.84		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
181	6.550		3.55 3.56			0.00	0.00						1.84		0.06		0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00
182	6.500			0.52			0.00						1.84		0.06		0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00
183	6.450			0.52	0.06	0.00	0.00	0.04					1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
184	6.400		3.58	0.52	0.06	0.00	0.00	0.04					1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
185	6.350		3.58	0.52	0.06	0.00	0.00	0.04		0.00			1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
186	6.300		3.59	0.52	0.06	0.00	0.00						1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
187	6.250		3.59	0.52	0.06	0.00	0.00	0.04		0.00			1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
188	6.200		3.60	0.52	0.06	0.00	0.00	0.04					1.83			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
189	6.150	7.87	3.61	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.83	1.83	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
190	6.100	7.87	3.61	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.83	1.83	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
191	6.050	7.87	3.62	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.83	1.83	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
192	6.000	7.87	3.62	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.83	1.83	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
193	5.950	7.88	3.63	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.62	1.82	1.82	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
194	5.900	7.88	3.64	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.61	1.82	1.82	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
195	5.850	7.88	3.64	0.52	0.06	0.00	0.00	0.04	0.06	0.00	1.61	1.82	1.82	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 20	DEG C	RATE	3.06	0.37	0.05	0.00	0.00	0.03	0.05	0.00	1.00			0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

ELEM ENDING TEMP SALN CLCOND BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N TOT-N EORG-N ETOT-N ORG-P PO4-P TOT-P EORG-P ETOT-P CHL A NCM BOD1 COLI DIST deg C ppt mg/L /m² #/100mL 0.00 7.650 27.82 0.15 25.18 318.14 4.97 2.21 10.89 2.74 10.89 2.09 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 4.9 0.0 0. 159 7.600 27.82 0.15 25.05 317.14 5.00 2.30 10.82 2.83 10.82 2.12 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 4.9 0.0 0. 0.00 7.550 27.81 0.15 24.92 316.17 5.02 2.39 10.75 2.91 10.75 2.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 4.9 0.0 0.00 7.500 27.81 0.15 24.80 315.22 5.04 2.47 10.68 2.99 10.68 2.18 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

0		T	1	2011
OH2	inated:	June	Ι.	2011

U	· ·																						
163	7.450 27.80 0.15	24.67	314.29	5.05	2.55	10.62	3.07	10.62	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
164	7.400 27.79 0.15	24.55	313.38	5.06	2.62	10.55	3.14	10.55	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
165	7.350 27.79 0.15	24.44	312.48	5.07	2.69	10.49	3.21	10.49	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.9	0.0	0.	0.00
166	7.300 27.78 0.15	24.32	311.61	5.08	2.76	10.43	3.28	10.43	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
167	7.250 27.77 0.15	24.21	310.75	5.09	2.82	10.38	3.34	10.38	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
168	7.200 27.77 0.15	24.10	309.91	5.09	2.88	10.32	3.40	10.32	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
169	7.150 27.76 0.15	23.99	309.08	5.10	2.94	10.26	3.46	10.26	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
170	7.100 27.76 0.15	23.89	308.27	5.10	3.00	10.21	3.51	10.21	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
171	7.050 27.75 0.15	23.78	307.47	5.10	3.05	10.16	3.56	10.16	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
172	7.000 27.74 0.15	23.68	306.69	5.11	3.10	10.11	3.61	10.11	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
173	6.950 27.74 0.15	23.58	305.93	5.11	3.15	10.06	3.66	10.06	2.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.0	0.	0.00
174	6.900 27.73 0.15	23.48	305.17	5.11	3.19	10.01	3.70	10.01	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
175	6.850 27.72 0.15	23.38	304.43	5.11	3.24	9.96	3.74	9.96	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
176	6.800 27.72 0.15	23.29	303.70	5.11	3.28	9.91	3.78	9.91	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
177	6.750 27.71 0.14	23.19	302.99	5.11	3.32	9.87	3.82	9.87	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
178	6.700 27.71 0.14	23.10	302.28	5.11	3.36	9.82	3.86	9.82	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
179	6.650 27.70 0.14	23.01	301.58	5.11	3.40	9.78	3.90	9.78	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
180	6.600 27.69 0.14	22.91	300.88	5.11	3.43	9.73	3.93	9.73	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
181	6.550 27.69 0.14	22.82	300.19	5.11	3.47	9.69	3.97	9.69	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
182	6.500 27.68 0.14	22.72	299.50	5.11	3.50	9.65	4.00	9.65	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
183	6.450 27.67 0.14	22.63	298.80	5.12	3.53	9.60	4.03	9.60	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
184	6.400 27.67 0.14	22.53	298.10	5.12	3.57	9.56	4.06	9.56	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
185	6.350 27.66 0.14	22.42	297.37	5.12	3.60	9.52	4.09	9.52	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
186	6.300 27.66 0.14	22.30	296.60	5.12	3.63	9.47	4.12	9.47	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
187	6.250 27.65 0.14	22.17	295.79	5.11	3.66	9.43	4.15	9.43	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
188	6.200 27.64 0.14	22.02	294.89	5.11	3.70	9.38	4.19	9.38	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
189	6.150 27.64 0.14	21.84	293.89	5.11	3.73	9.32	4.22	9.32	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
190	6.100 27.63 0.14	21.63	292.72	5.10	3.77	9.26	4.26	9.26	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.0	0.	0.00
191	6.050 27.62 0.14	21.35	291.33	5.09	3.82	9.18	4.31	9.18	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
192	6.000 27.62 0.14	21.00	289.62	5.07	3.88	9.09	4.37	9.09	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
193	5.950 27.61 0.14	20.54	287.46	5.03	3.95	8.98	4.44	8.98	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
194	5.900 27.61 0.14	19.93	284.67	4.98	4.05	8.83	4.53	8.83	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00
195	5.850 27.60 0.14	19.11	280.99	4.90	4.17	8.64	4.66	8.64	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603
REACH NO. 7 3RD UNNAMED - S OF HWY 22 CALIBRATION

ELEM TYPE FLOW TEMP SALN COND DO BOD1 BOD2 EBOD1 EBOD2 ORG-N NH3-N NO3-N PO4-P CHL A NCM ppt deg C mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L μg/L #/100mL 196 UPR RCH 0.01709 27.60 0.14 19.11 280.99 4.17 8.64 4.66 8.64 2.58 0.00 0.00 0.00 4.50 0.00 0.00 0.00010 13.00 225.00 0.00 EACH INCR 0.00 0.00 5.31 4.91 8.21 2.67 0.00 0.00 0.00 0.00 0.00600 26.31 0.11 232.13 2.88 6.28 6.24 6.28 6.24 1.77 0.00 0.00 196 WSTLD 7.60 0.00 0.00 3.60 0.00

ELEM ENDING SAT REAER BOD1 BOD1 BOD1 BOD1 BOD2 BOD2 BOD2 BKGD FULL CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P PO4 PHYTO PERIP COLI NCM NCM

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

- 0		, -																								
NO.	DIST	D.O.		DECAY				DECAY			SOD	SOD	SOD	HYDR		DECAY			HYDR		SRCE *	PROD		DECAY		SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
196	5.800	7.88	3.88	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197	5.750	7.88	3.89	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
198	5.700	7.87	3.89	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	5.650	7.87	3.90	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	5.600	7.87	3.90	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
201	5.550	7.87	3.91	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.78	1.98	1.98	0.33	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202	5.500	7.87	3.91	0.40	0.06	0.00	0.00		0.06									0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
203	5.450			0.40			0.00		0.06									0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
204	5.400			0.40	0.06	0.00	0.00						1.98					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
205	5.350				0.06	0.00	0.00			0.00			1.98					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
206	5.300		3.93	0.40	0.06	0.00	0.00						1.98			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
207	5.250					0.00	0.00		0.06				1.98					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
208	5.200		3.94		0.06	0.00	0.00						1.98			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
209	5.150		3.94		0.06	0.00	0.00						1.98				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210	5.100		3.95	0.40	0.06	0.00	0.00					1.98		0.34		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
211	5.050						0.00		0.06									0.00	0.00		0.00	0.00	0.00	0.00		0.00
212	5.000		3.96	0.40			0.00						1.98 1.98				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
213 214	4.950 4.900		3.96 3.96	0.40	0.06	0.00	0.00		0.06	0.00			1.98				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
214	4.850			0.40	0.06	0.00	0.00		0.06										0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
216	4.800		3.97		0.06	0.00	0.00						1.98			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
217	4.750		3.98	0.40	0.06	0.00	0.00						1.98				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
218	4.700		3.98	0.40	0.06	0.00	0.00					1.98		0.34		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
219	4.650		3.99	0.40	0.06	0.00	0.00		0.06								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	4.600		3.99	0.40	0.06		0.00					1.98		0.34			0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
221	4.550		4.00		0.06	0.00	0.00					1.98		0.34			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	4.500		4.00	0.40			0.00			0.00		1.99					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
223	4.450	7.85	4.01	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
224	4.400	7.85	4.01	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225	4.350	7.85	4.01	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
226	4.300	7.85	4.02	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
227	4.250	7.85	4.02	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
228	4.200	7.84	4.03	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
229	4.150	7.84	4.03	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	4.100	7.84	4.04	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.80	1.99	1.99	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
231	4.050		4.05	0.40	0.06	0.00	0.00					1.99		0.34		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
232	4.000		4.05	0.40	0.06	0.00	0.00		0.06									0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
233	3.950		4.07	0.40	0.06	0.00	0.00					1.99		0.34		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
234	3.900		4.08	0.40	0.06	0.00	0.00		0.06				1.99				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
235	3.850		4.09	0.40	0.06		0.00						1.99			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
236	3.800			0.40	0.06		0.00		0.06									0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
237	3.750	7.83	4.12	0.40	0.06	0.00	0.00	0.04	0.06	0.00	1.81	2.00	1.99	0.31	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	3.44	0.28	0.05	0.00	0.00	0.03	0.05	0.00	1.10			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
+	/ 2 /-I		++	/T	/																					

\* g/m²/d \*\* mg/L/day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
196	5.800	27.61	0.14	18.14	276.76	4.79	4.32	8.42	4.83	8.42	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.0	0.	0.00
197		27.61		18.12	276.55	4.83	4.30	8.40	4.83	8.40	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.0	0.0	0.	0.00
198		27.62		18.10	276.34	4.87	4.28	8.38	4.83	8.38	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.0	0.	0.00
199	5.650	27.63	0.14	18.08	276.14	4.91	4.25	8.36	4.84	8.36	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.0	0.	0.00
200	5.600	27.64	0.14	18.06	275.93	4.94	4.23	8.34	4.84	8.34	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	0.0	0.	0.00
201	5.550	27.64	0.14	18.04	275.73	4.97	4.21	8.32	4.84	8.32	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.9	0.0	0.	0.00
202	5.500	27.65	0.14	18.02	275.53	5.00	4.19	8.30	4.85	8.30	2.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.2	0.0	0.	0.00
203	5.450	27.66	0.14	18.00	275.33	5.02	4.17	8.28	4.86	8.28	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4	0.0	0.	0.00
204	5.400	27.66	0.14	17.98	275.13	5.04	4.15	8.26	4.86	8.26	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.7	0.0	0.	0.00
205	5.350	27.67	0.14	17.96	274.93	5.06	4.13	8.24	4.87	8.24	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.9	0.0	0.	0.00
206	5.300	27.68	0.14	17.94	274.74	5.08	4.11	8.22	4.87	8.22	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.1	0.0	0.	0.00
207	5.250	27.69	0.14	17.92	274.54	5.10	4.09	8.20	4.88	8.20	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.4	0.0	0.	0.00
208	5.200	27.69	0.14	17.91	274.35	5.11	4.07	8.18	4.89	8.18	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	0.0	0.	0.00
209	5.150	27.70	0.14	17.89	274.16	5.13	4.06	8.17	4.90	8.17	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.0	0.	0.00
210	5.100	27.71	0.14	17.87	273.97	5.14	4.04	8.15	4.90	8.15	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	0.0	0.	0.00
211	5.050	27.71	0.14	17.85	273.79	5.15	4.02	8.13	4.91	8.13	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3	0.0	0.	0.00
212	5.000	27.72	0.14	17.83	273.60	5.16	4.01	8.11	4.92	8.11	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.6	0.0	0.	0.00
213	4.950	27.73	0.14	17.81	273.42	5.17	3.99	8.09	4.93	8.09	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.8	0.0	0.	0.00
214		27.74		17.79	273.23	5.18	3.97	8.08	4.94	8.08	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.1	0.0	0.	0.00
215		27.74		17.78	273.05	5.19	3.96	8.06	4.95	8.06	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.3	0.0	0.	0.00
216		27.75		17.76	272.88	5.20	3.94	8.04	4.96	8.04	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.5	0.0	0.	0.00
217		27.76		17.74	272.70	5.20	3.93	8.03	4.97	8.03	2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.8	0.0	0.	0.00
218		27.76		17.72	272.53	5.21	3.91	8.01	4.98	8.01	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
219		27.77		17.70	272.36	5.22	3.90	7.99	4.99	7.99	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.3	0.0	0.	0.00
220		27.78		17.69	272.19	5.22	3.88	7.98	5.01	7.98	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.5	0.0	0.	0.00
221		27.79		17.67	272.03	5.23	3.87	7.96	5.02	7.96	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.7	0.0	0.	0.00
222		27.79		17.65	271.88	5.23	3.86	7.95	5.03	7.95	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.0	0.0	0.	0.00
223		27.80		17.63	271.73	5.23	3.84	7.93	5.04	7.93	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.2	0.0	0.	0.00
224		27.81		17.61	271.60	5.24	3.83	7.92	5.05	7.92	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.5	0.0	0.	0.00
225		27.81		17.60	271.48	5.24	3.82	7.90	5.06	7.90	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.7	0.0	0.	0.00
226		27.82		17.58	271.39	5.24	3.80	7.89	5.08	7.89	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.9	0.0	0.	0.00
227		27.83		17.56	271.33	5.23	3.79	7.88	5.09	7.88	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.2	0.0	0.	0.00
228		27.84		17.54	271.31	5.23	3.77	7.87	5.10	7.87	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.4	0.0	0.	
229		27.84 27.85		17.51 17.49	271.35 271.48	5.21 5.19	3.76 3.74	7.87 7.87	5.11 5.12	7.87 7.87	2.80 2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.7 12.9	0.0	0.	0.00
230												0.00				0.00			0.00		0.00		0.0	0.	
231 232		27.86 27.86		17.46 17.43	271.72 272.13	5.15 5.08	3.73 3.71	7.87 7.88	5.13 5.14	7.87 7.88	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.1 13.4	0.0	0. 0.	0.00
232		27.86		17.43	272.13	4.98	3.71	7.88	5.14	7.88	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.4	0.0	0.	0.00
233		27.88		17.39	272.76	4.83	3.66	7.94	5.14	7.94	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.0	0.0	0.	0.00
235		27.89		17.34	275.70	4.59	3.62	8.00	5.14	8.00	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.1	0.0	0.	0.00
236		27.89		17.19	277.03	4.23	3.58	8.08	5.11	8.08	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.1	0.0	0.	0.00
230		27.89		17.19	277.03		3.53	8.21	5.08	8.21	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.5	0.0	0.	0.00
231	3.730	27.50	5.11	17.09	277.00	3.07	3.33	0.21	3.00	0.21	J.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.0	0.0	٠.	0.00

FINAL REPORT HEADWATER
REACH NO. 9 S OF HWY 22 - N OF WEINBERGER

SELSERS CREEK 040603 CALIBRATION

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

ΞM •	TYPE	FI	LOW	TEMP deg C		ALN opt	CL	C	OND 1	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L					NO3-N mg/L	PO4-P mg/L	CHL A µg/L	#/10	COLI OmL	NCM					
	UPR RCH			27.90		.14	17.09	279			3.53	8.21	5.08				0.00	0.00		14.58		0.00	0.00					
	TRIB INCR	0.00	0400 0020	27.90 0.00		.14 .00	16.82 13.00	288 225			3.50 4.64	8.58 8.33	5.06	8.5			0.00	0.00	0.00	14.58		0.00	0.00					
**	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	** BIOI	JOGICAL	AND P	HYSICA	L COE	FFICIE	NTS **	*****	*****	*****	*****	*****	*****	*****	******	******	*****
	ENDING																			ORG-P								
	DIST	D.O. mg/L					HYDR 1/da					SOD *						RATE 1/da		SETT 1/da				DECAY 1/da				
	3.700	7.83	4.33	0.64	0.06	0.00	0.00	0.05	0.06	0.00	6.58	6.73	6.73	0.28	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	3.650																			0.00								
	3.600		4.42	0.59	0.06	0.00	0.00	0.04	0.06	0.00	6.59	6.74	6.73	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	3.550																			0.00								
	3.500 3.450																			0.00								
	3.400																			0.00								
	3.350																			0.00								
	3.300																			0.00								
	3.250	7.82	4.84	0.35	0.06	0.00	0.00	0.02	0.06	0.00	6.62	6.76	6.75	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	3.200	7.82	4.90	0.35	0.06	0.00	0.00	0.03	0.06	0.00	6.62	6.76	6.76	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	3.150																			0.00								
	3.100																			0.00								
	3.050 3.000																			0.00								
	2.950																			0.00								
	2.900																			0.00								
	2.850																			0.00								
	2.800	7.81	5.42	0.44	0.06	0.00	0.00	0.03	0.06	0.00	6.65	6.79	6.78	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	2.750	7.81																		0.00								
	2.700																			0.00								
	2.650																			0.00								
	2.600 2.550																			0.00								
	2.500																											
20	DEG C I	RATE	4.34	0.45	0.05	0.00	0.00	0.03	0.05	0.00	4.00			0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00		
g	m²/d		**	mg/L	/day																							
* :	*****	*****	*****	*****	*****	*****	*****	*****	*****	* * * * * *	*****	**** WZ	ATER QU	ALITY	CONSTI	TUENT	VALUE	S ****	*****	*****	*****	*****	*****	*****	*****	******	******	******

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

_																							
281	3.700 27.91 0.14	16.94	283.79	2.79	3.45	8.39	5.04	8.39	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.9	0.0	0.	0.00
282	3.650 27.92 0.14	16.91	283.36	2.23	3.35	8.39	4.97	8.39	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.2	0.0	0.	0.00
283	3.600 27.93 0.14	16.88	282.94	1.84	3.26	8.39	4.92	8.39	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.5	0.0	0.	0.00
284	3.550 27.94 0.14	16.86	282.52	1.56	3.19	8.39	4.89	8.39	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.9	0.0	0.	0.00
285	3.500 27.95 0.14	16.83	282.11	1.36	3.13	8.39	4.86	8.39	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.2	0.0	0.	0.00
286	3.450 27.96 0.14	16.80	281.71	1.23	3.08	8.40	4.84	8.40	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.5	0.0	0.	0.00
287	3.400 27.97 0.14	16.78	281.32	1.15	3.03	8.40	4.83	8.40	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.8	0.0	0.	0.00
288	3.350 27.98 0.14	16.75	280.93	1.10	2.99	8.41	4.82	8.41	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.1	0.0	0.	0.00
289	3.300 27.99 0.14	16.73	280.56	1.08	2.94	8.41	4.81	8.41	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.5	0.0	0.	0.00
290	3.250 28.00 0.14	16.70	280.20	1.07	2.90	8.42	4.80	8.42	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.8	0.0	0.	0.00
291	3.200 28.01 0.14	16.68	279.86	1.09	2.86	8.42	4.80	8.42	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.1	0.0	0.	0.00
292	3.150 28.02 0.14	16.66	279.52	1.11	2.82	8.43	4.79	8.43	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.4	0.0	0.	0.00
293	3.100 28.02 0.14	16.64	279.20	1.14	2.78	8.43	4.79	8.43	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.8	0.0	0.	0.00
294	3.050 28.03 0.14	16.62	278.90	1.18	2.75	8.44	4.79	8.44	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.1	0.0	0.	0.00
295	3.000 28.04 0.14	16.61	278.62	1.22	2.71	8.44	4.79	8.44	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.4	0.0	0.	0.00
296	2.950 28.05 0.14	16.59	278.35	1.26	2.68	8.44	4.79	8.44	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.7	0.0	0.	0.00
297	2.900 28.06 0.14	16.58	278.10	1.30	2.65	8.45	4.79	8.45	3.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.0	0.0	0.	0.00
298	2.850 28.07 0.14	16.57	277.88	1.34	2.63	8.45	4.80	8.45	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.4	0.0	0.	0.00
299	2.800 28.08 0.14	16.56	277.68	1.37	2.61	8.46	4.82	8.46	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.7	0.0	0.	0.00
300	2.750 28.09 0.14	16.55	277.51	1.40	2.59	8.46	4.83	8.46	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.0	0.0	0.	0.00
301	2.700 28.10 0.14	16.55	277.37	1.41	2.58	8.47	4.86	8.47	3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.3	0.0	0.	0.00
302	2.650 28.11 0.14	16.55	277.26	1.41	2.58	8.48	4.89	8.48	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.6	0.0	0.	0.00
303	2.600 28.12 0.14	16.55	277.19	1.39	2.58	8.49	4.93	8.49	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.0	0.0	0.	0.00
304	2.550 28.13 0.14	16.56	277.17	1.34	2.59	8.50	4.97	8.50	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.3	0.0	0.	0.00
305	2.500 28.14 0.14	16.57	277.18	1.24	2.61	8.51	5.02	8.51	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.6	0.0	0.	0.00

FINAL REPORT HEADWATER SELSERS CREEK 040603 CALIBRATION REACH NO. 10 N OF WEINBERGER - SOUTH SLOUGH

******	******	********	********	*****	*****	*****	******	*****	*****	* REACH	INPUTS	*****	*****	*****	****	*****	*************
ELEM TYPE	FLOW	TEMP deg C	SALN ppt	CL	COND		BOD1 mg/L								CHL A µg/L	COLI #/100mL	NCM
306 UPR RCH	0.03609	28.14	0.14	16.57	277.18	1.24	2.61	8.51	5.02	8.51	3.41	0.00	0.00	0.00	22.60	0.00	0.00
EACH INCR	0.00008	0.00	0.00	13.00	225.00	1.29	4.42	8.43			3.36	0.00	0.00	0.00	0.0	0.00	
210 छटना 🗅	0 00022	20 10	0 26	20 70	707 20	2 70	175 26	0/1 72	175 26	01 72	122 00	0 00	0 00	0 00	0 00	0 00	0.00

ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	PHYTO	PERIP	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	* *	* *	1/da	1/da	1/da
306	2.450	7.80	6.96	0.45	0.06	0.00	0.00	0.03	0.06	0.00	8.36	8.47	8.46	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
307	2.400	7.80	7.07	0.41	0.06	0.00	0.00	0.02	0.06	0.00	8.37	8.48	8.47	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
308	2.350	7.79	7.18	0.38	0.06	0.00	0.00	0.02	0.06	0.00	8.38	8.49	8.48	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
309	2.300	7.79	7.29	0.37	0.06	0.00	0.00	0.02	0.06	0.00	8.39	8.50	8.50	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
310	2.250	7.79	7.40	0.36	0.06	0.00	0.00	0.02	0.06	0.00	8.40	8.52	8.51	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

U		′																								
311	2.200	7.79	7.50	0.37	0.06	0.00	0.00	0.02	0.06	0.00	8.41	8.53	8.52	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
312	2.150	7.78	7.61	0.38	0.06	0.00	0.00	0.02	0.06	0.00	8.42	8.54	8.53	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
313	2.100	7.78	7.72	0.40	0.06	0.00	0.00			0.00		8.55				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
314	2.050		7.83			0.00	0.00	0.02		0.00		8.56				0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
315	2.000		7.94		0.06	0.00	0.00	0.03		0.00		8.56					0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
316	1.950		8.05	0.46	0.06	0.00	0.00	0.03	0.06	0.00		8.57				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
317	1.900		8.16	0.49	0.06	0.00	0.00	0.03		0.00		8.58					0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
318	1.850		8.27		0.06	0.00	0.00	0.03	0.06	0.00		8.59				0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
319	1.800		8.38	0.54		0.00	0.00	0.03	0.06	0.00			8.59			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320	1.750		8.49	0.54		0.00	0.00	0.03	0.06	0.00		8.61				0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
321	1.700		8.60	0.59		0.00	0.00	0.03		0.00		8.62					0.00		0.00	0.00	0.00			0.00	0.00	0.00
321	1.650		8.71		0.06	0.00	0.00			0.00		8.63			0.06		0.00		0.00	0.00	0.00			0.00	0.00	0.00
323	1.600		8.82	0.64		0.00	0.00	0.04		0.00		8.64				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.550				0.06	0.00	0.00	0.04		0.00		8.65					0.00		0.00	0.00		0.00	0.00		0.00	0.00
324			8.93				0.00																	0.00		
325 326	1.500 1.450		9.04	0.70	0.06	0.00	0.00	0.04	0.06	0.00		8.66		0.12		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			9.15	0.74		0.00	0.00			0.00		8.67													0.00	0.00
327	1.400 1.350		9.26	0.74		0.00	0.00	0.04	0.06	0.00		8.68			0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
328	1.350		9.37 9.48	0.77	0.06	0.00	0.00	0.05					8.69		0.06		0.00		0.00	0.00	0.00			0.00	0.00	0.00
329										0.00			8.70													
330	1.250		9.59	0.81		0.00	0.00	0.05		0.00		8.71				0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
331	1.200		9.71		0.06	0.00	0.00	0.05				8.72					0.00		0.00	0.00	0.00			0.00	0.00	0.00
332	1.150		9.82	0.86		0.00	0.00	0.05				8.73				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
333 334	1.100	7.73	9.93	0.86		0.00	0.00	0.05	0.06	0.00		8.74 8.75	8.74	0.26	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
334	1.050	–	10.04 10.15		0.06	0.00	0.00		0.06						0.06		0.00		0.00		0.00	0.00		0.00	0.00	0.00
			10.15		0.06	0.00													0.00	0.00	0.00			0.00	0.00	0.00
336 337	0.950			0.86		0.00	0.00		0.06	0.00			8.77 8.78		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
338			10.37		0.06	0.00	0.00	0.05	0.06			8.79 8.80	8.78			0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
338	0.850		10.49			0.00	0.00		0.06			8.80	8.79			0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
340			10.71		0.06	0.00	0.00		0.06						0.06		0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
341	0.750				0.06	0.00	0.00		0.06							0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
342			10.82		0.06	0.00	0.00			0.00		8.84				0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00
343			11.05		0.06	0.00	0.00			0.00		8.85	8.85			0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
344			11.16		0.06	0.00	0.00		0.06				8.86		0.06		0.00		0.00	0.00	0.00			0.00	0.00	0.00
345			11.10		0.06	0.00	0.00		0.06			8.88			0.06		0.00		0.00	0.00	0.00			0.00	0.00	0.00
346	0.300	7.69	11.27	0.87		0.00	0.00	0.05				8.89	8.88			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
347			11.50		0.06	0.00	0.00		0.06						0.06		0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00
348	0.400				0.06	0.00	0.00	0.05				8.91				0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
349				0.87		0.00	0.00		0.06			8.92			0.06		0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00
350	0.300	7.68				0.00	0.00					8.94				0.00	0.00		0.00	0.00	0.00			0.00	0.00	0.00
351	0.250	7.68	11.03	0.88	0.06	0.00	0.00	0.05		0.00		8.95				0.00	0.00		0.00	0.00	0.00			0.00	0.00	0.00
352			12.06	0.88		0.00	0.00	0.05				8.96			0.06		0.00		0.00	0.00	0.00			0.00	0.00	0.00
353	0.100			0.88		0.00	0.00	0.05				8.98					0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00
354			12.17	0.88		0.00	0.00		0.06								0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
354			12.29						0.06										0.00		0.00		0.00		0.00	0.00
333	0.000	1.07	12.40	0.08	0.06	0.00	0.00	0.05	0.00	0.00	0.09	9.01	9.0⊥	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/0	20 DEG C	סאייני	g 22	0 50	0 05	0 00	0 00	0.03	0 05	0 00	5 00			0 21	0 05	0 00	0.00	0 00	0 00	0 00	0 00			0 00	0.00	0 00
AVG	ZU DEG C	WHIL	0.22	0.50	0.05	0.00	0.00	0.03	0.05	0.00	5.00			0.21	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

\*  $g/m^2/d$  \*\* mg/L/day

196   2,450   2,45   2,46   0,14   16,50   277,22   1,08   2,64   8,52   5,03   8,72   1,08   0,00	ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CL	COND	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N I	EORG-N mg/L		ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P :	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
Section   Sect	306	2 450	28 16	0 14	16 58	277 25	1 08	2 64	8 52	5 03	8 52	3 46	0 00	0 00	0 00	0 00	0 00	0 00	0 01	0 00	0 00	0 00	22 4	0 0	0	0 00
2.356 28.26 28.10 16.66 277.56 0.90 2.78 8.67 5.99 8.57 3.61 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0																										
190   2,300   28,24   0,14   16,70   277,89   0,86   2,28   8,56   3,69   0,00   0,0																										
11   2.500   28.24   0.14   16.70   277.97   0.88   2.90   8.65																										
311   2.200   28.26   0.14   16.73   277.60   0.98   2.86   8.62   5.13   8.62   3.77   0.00   0.0																										
312   2.150   28.28   0.14   16.75   277.60   0.90   2.80   8.59   5.05   8.59   3.75   0.00   0.0																										
14   2.050   28.32   0.14   18.85   27.72   0.09   2.58   8.82   4.88   8.52   3.71   0.00	312					277.60	0.90			5.05	8.59	3.75	0.00	0.00	0.00	0.00	0.00	0.00			0.00		21.1	0.0	0.	0.00
315   2.000   28.34   0.14   16.95   277.14   1.04   2.02   8.88   4.89   8.48   3.68   0.00   0.0	313	2.100	28.30	0.14	16.78	277.45	0.94	2.74	8.55	4.97	8.55	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	20.8	0.0	0.	0.00
1.980	314	2.050	28.32	0.14	16.81	277.29	0.99	2.68	8.52	4.88	8.52	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	20.6	0.0	0.	0.00
1.90	315	2.000	28.34	0.14	16.85	277.14	1.04	2.62	8.48	4.80	8.48	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	20.4	0.0	0.	0.00
338   1.895   28.40   0.14   17.00   276.57   1.21   2.15   8.37   4.95   8.37   3.95   0.00   0.0	316	1.950	28.36	0.14	16.90	276.98	1.10	2.56	8.45	4.72	8.45	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	20.2	0.0	0.	0.00
31	317	1.900	28.38	0.14	16.95	276.82	1.15	2.50	8.41	4.63	8.41	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	20.0	0.0	0.	0.00
320   1.750   28.44   0.14   17.13   276.18   1.35   2.38   8.29   4.40   8.29   3.51   0.00   0.0	318	1.850	28.40	0.14	17.00	276.67	1.21	2.45	8.37	4.55	8.37	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	19.7	0.0	0.	0.00
321   1.700   28.46   0.14   17.21   276.12   1.45   2.28   8.25   4.32   8.25   3.48   0.00   0.0	319	1.800	28.42	0.14	17.07	276.51	1.27	2.39	8.33	4.47	8.33	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	19.5	0.0	0.	0.00
322         1,650         28.48         0.14         17,29         276,02         1.45         2,23         8,21         4,28         8,21         3.43         0.00	320	1.750	28.44	0.14	17.13	276.34	1.33	2.33	8.29	4.40	8.29	3.51	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	19.3	0.0	0.	0.00
324   1.500   28.50   0.14   17.39   27.58   1.51   2.19   8.17   4.18   8.17   3.19   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   3.6.   0.00   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00   0.00   3.5.   0.00																										
324         1,550         28,52         0.14         17,49         275,68         1,57         2.14         81,39         4.11         8.13         3.34         0.00																										
325																										
326         1,450         28,56         0.14         17,72         275,34         1,68         2,06         8.04         3,99         8.04         3,29         0.00																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$																										
338																										
339  0.800  28.81  0.13  20.49  272.73  2.33  2.14  7.43  3.76  7.43  2.66  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  15.1  0.0  0.0																										
340 0.750 28.83 0.13 20.82 272.49 2.37 2.21 7.38 3.80 7.38 2.62 0.00 0.00 0.00 0.00 0.00 0.00 0.00																										
341 0.700 28.85 0.13 21.18 272.25 2.41 2.29 7.32 3.85 7.32 2.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0																										
342																										
343																										
344 0.550 28.91 0.13 22.38 271.48 2.52 2.60 7.15 4.10 7.15 2.48 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0																										
345       0.500       28.93       0.13       22.84       271.20       2.56       2.74       7.09       4.21       7.09       2.45       0.00																										
346       0.450       28.95       0.13       23.32       270.92       2.59       2.89       7.03       4.34       7.03       2.42       0.00																										
347  0.400  28.97  0.13  23.83  270.63  2.62  3.07  6.97  4.50  6.97  2.39  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  13.4  0.0  0.00  348  0.350  28.99  0.13  24.36  270.32  2.65  3.26  6.90  4.67  6.90  2.36  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  13.1  0.0  0.0																										
348 0.350 28.99 0.13 24.36 270.32 2.65 3.26 6.90 4.67 6.90 2.36 0.00 0.00 0.00 0.00 0.00 0.00 0.34 0.00 0.00																										
349       0.300       29.01       0.13       24.93       270.01       2.68       3.48       6.84       4.86       6.84       2.33       0.00       0.00       0.00       0.00       0.35       0.00																										
350 0.250 29.03 0.13 25.54 269.69 2.71 3.72 6.77 5.08 6.77 2.31 0.00 0.00 0.00 0.00 0.00 0.00 0.36 0.00 0.00																										
351 0.200 29.05 0.13 26.17 269.35 2.74 3.99 6.69 5.33 6.69 2.28 0.00 0.00 0.00 0.00 0.00 0.00 0.37 0.00 0.00																										
352 0.150 29.07 0.13 26.84 269.01 2.77 4.29 6.62 5.60 6.62 2.26 0.00 0.00 0.00 0.00 0.00 0																										
353 0.100 29.09 0.13 27.55 268.65 2.80 4.63 6.54 5.91 6.54 2.24 0.00 0.00 0.00 0.00 0.00 0.38 0.00 0.00																		0.00								
	353	0.100	29.09	0.13	27.55	268.65	2.80	4.63	6.54	5.91	6.54	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	12.0	0.0	0.	0.00

Subsegment 040603

Originated: June 1, 2011

FINAL REPORT HIGH SCHOOL TRIB SELSERS CREEK 040603
REACH NO. 8 HIGH SCHOOL TRIB CALIBRATION

ELEM TYPE	FLOW	TEMP	SALN	CT	COND	DO	BOD1	BUD3	EBUD1	EBOD3	OPC-N	ипз-и	M∪3 = M	DO4_D	СПТ. У	COLI	NCM
	LIOW	_		CII	COND												INCIA
NO.		deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	#/100mL	

238 HDWTR 0.00400 25.63 0.19 14.20 389.20 1.13 2.99 12.84 6.60 12.84 7.18 0.00 0.00 0.00 33.80 0.00 0.00

ELEM	ENDING	SAT	REAER	BOD1	BOD1	ABOD1	BOD1	BOD2	BOD2	ABOD2	BKGD	FULL	CORR	ORG-N	ORG-N	NH3-N	NH3-N	DENIT	ORG-P	ORG-P	PO4	РНҮТО	PERIP	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	HYDR	DECAY	SETT	DECAY	SOD	SOD	SOD	HYDR	SETT	DECAY	SRCE	RATE	HYDR	SETT	SRCE	PROD	PROD	DECAY	DECAY	SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
238	2.100	8.15	4.95	0.42	0.06	0.00	0.00	0.07	0.06	0.00	5.36	5.53	5.53	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
239	2.050	8.14	4.95	0.43	0.06	0.00	0.00	0.07	0.06	0.00	5.38	5.55	5.55	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240	2.000	8.14	4.96	0.43	0.06	0.00	0.00	0.07	0.06	0.00	5.40	5.57	5.57	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
241	1.950	8.13	4.96	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.42	5.59	5.59	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
242	1.900	8.12	4.97	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.44	5.60	5.60	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
243	1.850	8.11	4.97	0.44	0.06	0.00	0.00	0.08	0.06	0.00	5.45	5.62	5.62	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
244	1.800	8.10	4.98	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.47	5.64	5.64	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
245	1.750	8.10	4.98	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.49	5.66	5.66	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
246	1.700	8.09	4.98	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.51	5.68	5.68	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247	1.650	8.08	4.99	0.44	0.06	0.00	0.00	0.07	0.06	0.00	5.53	5.70	5.70	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
248	1.600	8.07	4.99	0.43	0.06	0.00	0.00	0.07	0.06	0.00	5.54	5.72	5.72	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
249	1.550	8.07	5.00	0.43	0.06	0.00	0.00	0.07	0.06	0.00	5.56	5.74	5.73	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	1.500	8.06	5.00	0.43	0.06	0.00	0.00	0.07	0.06	0.00	5.58	5.76	5.75	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
251	1.450	8.05	5.01	0.42	0.06	0.00	0.00	0.07	0.06	0.00	5.60	5.77	5.77	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
252	1.400	8.04	5.01	0.42	0.06	0.00	0.00	0.07	0.06	0.00	5.62	5.79	5.79	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
253	1.350	8.04	5.02	0.41	0.06	0.00	0.00	0.07	0.06	0.00	5.64	5.81	5.81	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
254	1.300	8.03	5.02	0.41	0.06	0.00	0.00	0.07	0.06	0.00	5.66	5.83	5.83	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255	1.250	8.02	5.03	0.41	0.06	0.00	0.00	0.07	0.06	0.00	5.68	5.85	5.85	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
256	1.200	8.01	5.03	0.40	0.06	0.00	0.00	0.07	0.06	0.00	5.69	5.87	5.86	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
257	1.150	8.01	5.04	0.40	0.06	0.00	0.00	0.07	0.06	0.00	5.71	5.89	5.88	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
258	1.100	8.00	5.04	0.39	0.06	0.00	0.00	0.07	0.06	0.00	5.73	5.91	5.90	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
259	1.050	7.99	5.05	0.39	0.06	0.00	0.00	0.07	0.06	0.00	5.75	5.93	5.92	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
260	1.000	7.98	5.05	0.38	0.06	0.00	0.00	0.06	0.06	0.00	5.77	5.95	5.94	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
261	0.950	7.98	5.06	0.38	0.06	0.00	0.00	0.06	0.06	0.00	5.79	5.97	5.96	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
262	0.900	7.97	5.06	0.37	0.06	0.00	0.00	0.06	0.06	0.00	5.81	5.99	5.98	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
263	0.850	7.96	5.07	0.37	0.06	0.00	0.00	0.06	0.06	0.00	5.83	6.01	6.00	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
264	0.800	7.95	5.07	0.36	0.06	0.00	0.00	0.06	0.06	0.00	5.85	6.03	6.02	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
265	0.750	7.95	5.08	0.36	0.06	0.00	0.00	0.06	0.06	0.00	5.87	6.05	6.03	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
266	0.700	7.94	5.08	0.35	0.06	0.00	0.00	0.06	0.06	0.00	5.89	6.07	6.05	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
267	0.650	7.93	5.09	0.35	0.06	0.00	0.00	0.06	0.06	0.00	5.91	6.09	6.07	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FINAL Selsers Creek Watershed TMDL Subsegment 040603

0		T	1	2011
OH2	inated:	June	Ι.	2011

268	0.600	7.92	5.09	0.34	0.06	0.00	0.00	0.06	0.06	0.00	5.93	6.11	6.09	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
269	0.550	7.92	5.10	0.34	0.06	0.00	0.00	0.06	0.06	0.00	5.95	6.13	6.11	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270	0.500	7.91	5.10	0.33	0.06	0.00	0.00	0.06	0.06	0.00	5.97	6.15	6.13	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
271	0.450	7.90	5.10	0.33	0.06	0.00	0.00	0.06	0.06	0.00	5.99	6.17	6.15	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
272	0.400	7.89	5.11	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.01	6.19	6.17	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
273	0.350	7.89	5.11	0.32	0.06	0.00	0.00	0.06	0.06	0.00	6.03	6.21	6.19	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
274	0.300	7.88	5.12	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.05	6.23	6.21	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
275	0.250	7.87	5.12	0.33	0.06	0.00	0.00	0.06	0.06	0.00	6.07	6.25	6.23	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
276	0.200	7.86	5.13	0.35	0.06	0.00	0.00	0.06	0.06	0.00	6.09	6.27	6.24	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
277	0.150	7.86	5.13	0.39	0.06	0.00	0.00	0.07	0.06	0.00	6.11	6.28	6.26	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
278	0.100	7.85																							0.00	0.00
279	0.050	7.84							0.06																0.00	
280	0.000	7.83	5.15	0.74	0.06	0.00	0.00	0.13	0.06	0.00	6.17	6.30	6.30	0.40	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG 20	DEG C	RATE	4.44	0.51	0.05	0.00	0.00	0.09	0.05	0.00	3.75			0.31	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

<sup>\*</sup>  $g/m^2/d$  \*\* mg/L/day

****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**** W.	ATER QU	ALITY C	ONSTITU	ENT VAL	UES ***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ELEM	ENDING	TEMP	SALN	CL	COND	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	TOT-N	EORG-N	ETOT-N	ORG-P	PO4-P	TOT-P	EORG-P I	ETOT-P	CHL A	PERIP	COLI	NCM
NO.	DIST	deg C	ppt			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	g/m²	#/100mL	
238		25.68		14.20	389.20	1.26		12.83		12.83	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.4	0.0	0.	0.00
239		25.74		14.20	389.20	1.29		12.82		12.82	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.9	0.0	0.	0.00
240			0.19	14.20	389.20	1.31		12.81		12.81	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.5	0.0	0.	0.00
241		25.84		14.20	389.20	1.32	3.26			12.81	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.0	0.0	0.	0.00
242		25.89		14.20	389.20	1.32		12.80		12.80	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.6	0.0	0.	0.00
243		25.95		14.20	389.20	1.32		12.79		12.79	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.1	0.0	0.	0.00
244		26.00		14.20	389.20	1.32	3.38			12.79	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.7	0.0	0.	0.00
245		26.05		14.20	389.20	1.31	3.42			12.78	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.2	0.0	0.	0.00
246		26.11		14.20	389.20	1.30		12.78		12.78	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.8	0.0	0.	0.00
247		26.16		14.20	389.20	1.29		12.77		12.77	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.3	0.0	0.	0.00
248		26.21		14.20	389.20	1.28		12.77		12.77	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.9	0.0	0.	0.00
249		26.26		14.20	389.20	1.26		12.76		12.76	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.4	0.0	0.	0.00
250		26.32		14.20	389.20	1.25		12.76		12.76	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.0	0.0	0.	0.00
251		26.37		14.20	389.20	1.24		12.75		12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.5	0.0	0.	0.00
252	1.400	26.42	0.17	14.20	389.20	1.22		12.75	6.57	12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.1	0.0	0.	0.00
253	1.350	26.47	0.17	14.20	389.20	1.21		12.75	6.56	12.75	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.6	0.0	0.	0.00
254	1.300	26.53	0.17	14.20	389.20	1.19		12.75	6.55	12.75	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.2	0.0	0.	0.00
255	1.250	26.58	0.17	14.20	389.20	1.18		12.74	6.54	12.74	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.8	0.0	0.	0.00
256	1.200	26.63	0.17	14.20	389.20	1.16	3.83	12.74	6.53	12.74	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.3	0.0	0.	0.00
257	1.150	26.69	0.17	14.20	389.20	1.14	3.87	12.74	6.52	12.74	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.9	0.0	0.	0.00
258	1.100	26.74	0.17	14.20	389.19	1.13	3.90	12.74	6.51	12.74	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.4	0.0	0.	0.00
259	1.050	26.79	0.16	14.20	389.19	1.11	3.94	12.74	6.50	12.74	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.0	0.0	0.	0.00
260	1.000	26.84	0.16	14.20	389.18	1.10	3.98	12.74	6.49	12.74	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.5	0.0	0.	0.00
261	0.950	26.90	0.16	14.20	389.18	1.08	4.01	12.74	6.48	12.74	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.1	0.0	0.	0.00
262	0.900	26.95	0.16	14.20	389.16	1.06	4.05	12.74	6.47	12.74	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.6	0.0	0.	0.00
263	0.850	27.00	0.16	14.20	389.14	1.05	4.09	12.75	6.46	12.75	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.2	0.0	0.	0.00
264	0.800	27.06	0.16	14.20	389.11	1.03	4.13	12.75	6.45	12.75	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.7	0.0	0.	0.00
265	0.750	27.11	0.16	14.20	389.06	1.02	4.16	12.75	6.44	12.75	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.3	0.0	0.	0.00

# FINAL Selsers Creek Watershed TMDL

Subsegment 040603 Originated: June 1, 2011

•																							
266	0.700 27.16 0.16	14.21	388.98	1.00	4.20	12.75	6.43	12.75	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.8	0.0	0.	0.00
267	0.650 27.21 0.16	14.21	388.86	0.98	4.24	12.75	6.42	12.75	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.4	0.0	0.	0.00
268	0.600 27.27 0.15	14.21	388.67	0.97	4.28	12.74	6.41	12.74	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.9	0.0	0.	0.00
269	0.550 27.32 0.15	14.22	388.38	0.95	4.31	12.74	6.39	12.74	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.5	0.0	0.	0.00
270	0.500 27.37 0.15	14.23	387.93	0.94	4.35	12.73	6.38	12.73	7.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.0	0.0	0.	0.00
271	0.450 27.42 0.15	14.25	387.24	0.92	4.38	12.70	6.36	12.70	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.6	0.0	0.	0.00
272	0.400 27.48 0.15	14.28	386.16	0.91	4.40	12.66	6.34	12.66	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.2	0.0	0.	0.00
273	0.350 27.53 0.15	14.32	384.49	0.90	4.42	12.60	6.31	12.60	7.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.7	0.0	0.	0.00
274	0.300 27.58 0.15	14.39	381.90	0.90	4.42	12.50	6.27	12.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.3	0.0	0.	0.00
275	0.250 27.64 0.15	14.49	377.90	0.92	4.41	12.33	6.20	12.33	6.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.8	0.0	0.	0.00
276	0.200 27.69 0.14	14.66	371.69	0.96	4.36	12.08	6.11	12.08	6.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.4	0.0	0.	0.00
277	0.150 27.74 0.14	14.91	362.08	1.06	4.27	11.68	5.97	11.68	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.9	0.0	0.	0.00
278	0.100 27.79 0.14	15.29	347.20	1.27	4.12	11.05	5.77	11.05	5.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.5	0.0	0.	0.00
279	0.050 27.85 0.14	15.89	324.14	1.72	3.87	10.08	5.48	10.08	4.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.0	0.0	0.	0.00
280	0.000 27.90 0.14	16.82	288.42	2.63	3.50	8.58	5.06	8.58	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.6	0.0	0.	0.00

SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

FLOW	=	0.00300	TO	0.04032	m³/s
DISPERSION	=	0.8248	TO	6.3575	$m^2/s$
VELOCITY	=	0.00724	TO	0.23334	m/s
DEPTH	=	0.04	TO	0.27	m
WIDTH	=	1.52	TO	30.27	m
DOD DEGIN		0.25	mo.	0.00	
BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY SOD	=	1.82	TO TO	9.01	per day g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					-
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
STREAM SUMMARY REPO	ORT:	HIGH SC	HOOL T	TRIB	
TRAVEL TIME	=		2.39	DAYS	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
MAXIMUM EFFLUENT	=	0.00400	0.00	PERCENT	m³/s
MAXIMUM EFFLUENT FLOW		0.00400 0.9467	0.00 TO		m³/s m²/s
MAXIMUM EFFLUENT FLOW DISPERSION	=	0.9467	0.00 TO TO	PERCENT 0.00400 0.9467	m <sup>3</sup> /s m <sup>2</sup> /s m/s
MAXIMUM EFFLUENT FLOW	= = =		0.00 TO TO	PERCENT 0.00400	$m^2/s$
MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY	= = = =	0.9467 0.01039	0.00 TO TO	DERCENT 0.00400 0.9467 0.01039	m²/s m/s
MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	0.00 TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10	m²/s m/s m
MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10	0.00  TO TO TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10	m²/s m/s m m
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	0.00  TO TO TO TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	0.00  TO TO TO TO TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m/s m m per day per day g/m²/d
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	0.00  TO TO TO TO TO TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
MAXIMUM EFFLUENT  FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	0.00  TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 1 ON PARAMETER SET 1 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO m²/s DISPERSION 6.3575 VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.40	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.34	TO	6.34	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.23	TO	0.35	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	2.43	TO	5.73	mg/L
STREAM SUMMARY REP	`D	IITCII COI	TOOT 1	PD T D	
SIREAM SUMMARI REP	JKI.	nigh Sci	HOOL I	IKIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FI.OW	=	0 00400	TΟ	0 00400	m 3 / s
FLOW DISPERSION	=	0.00400		0.00400 0.9467	m³/s m²/s
FLOW DISPERSION VELOCITY		0.00400 0.9467 0.01039	TO	0.00400 0.9467 0.01039	m²/s
DISPERSION	=	0.9467	TO	0.9467	,
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00 0.00 4.95 0.06 0.19 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00 5.15 0.06 0.45 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.58 0.00 3.92 0.00 0.00 4.95 0.06 0.19	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 4.45 0.00 0.00 5.15 0.06 0.45	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kq/d	kq/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
	,	3,	3,	3,	5,	5,	3,	3, -	5,			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.56	-1.45	-5.89	-0.88	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.61	-18.76	-22.16	-7.52	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-16.87	25.17	-3.33	3.13	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		802.49										
DAM REAERATION		0.00										
SOD BACKGROUND		-683.96										
BOD1 DECAY		-49.68	-49.68									
BOD1 SETTLING		-4.51	-4.51									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-11.86		-11.86								
BOD2 SETTLING		-14.37		-14.37								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-18.94			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	TIRCE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY:		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CKETTON	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	PCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHITON GROWTH/PHOTOSINIA PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHTION RESPIRATION/EXCRE	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	813.61	74.38	57.60	31.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-813.36	-74.39	-57.60	-8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.24	-0.01	0.00	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 2 ON PARAMETER SET 1 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 18 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

\*\*\*\*\* WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen

SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
	KIII	12111	Jetti	days	11137 13	111/15	111	ttt	CIB	125	10	10
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

WIDTH	=	1.52	TO	30.27	m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.00 0.00 2.31 0.00 0.00 3.43 0.06 0.00 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 11.67 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	= =	27.60 0.00	TO TO	29.13 4.74	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 7	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.01039 0.18 2.10		0.9467 0.01039 0.18 2.10	m²/s m/s m
VELOCITY DEPTH	=	0.01039 0.18	TO TO	0.01039 0.18	m/s m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-1.62	-1.52	-5.91	-0.96	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.38	-19.14	-22.32	-7.83	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		21.30	13.22	-8.14	-6.17	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1286.93										
DAM REAERATION		0.00										
SOD BACKGROUND		-1270.22										
BOD1 DECAY		-34.32	-34.32									
BOD1 SETTLING		-7.41	-7.41									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-5.81		-5.81								
BOD2 SETTLING		-15.41		-15.41								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-7.37			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING	TID OF							0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO		0.00				0 00	0.00		0.00	0 00		
PHYTOPLANKTON GROWTH/PHOTOSY						0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXP	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	TOTO .	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHITON GROWTH/PHOTOSINIA PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHTION RESPIRATION/EXCRE	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM DEFILING		0.00										0.00
TOTAL INPUTS	0.04632	1319.34	62.43	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1351.54	-62.39	-57.60	-14.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-32.20	0.04	0.01	13.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 3 ON PARAMETER SET 2 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.25	TO	0.62	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	$q/m^2/d$
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.29	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL I	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
FLOW DISPERSION	= =	0.9467	TO	0.9467	$m^3/s$ $m^2/s$
		0.9467 0.01039	TO TO	0.9467 0.01039	,
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.52 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.24 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.52 0.00 6.31 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.11	-1.78	-5.89	-0.89	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.03	-18.96	-22.20	-7.65	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		1.25	18.97	-4.68	-0.92	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1062.06										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-41.23	-41.23									
BOD1 SETTLING		-6.22	-6.22									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.11		-10.11								
BOD2 SETTLING		-14.72		-14.72								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.58			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1074.42	68.18	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1075.08	-68.19	-57.60	-9.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.66	0.00	0.00	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 4 ON PARAMETER SET 2 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.45	TO	1.14	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.81	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.20	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 7	TRIB	
TRAVEL TIME	=		2.39	DAVC	
MAXIMUM EFFLUENT	_			PERCENT	
MAXIMOM EFFICENT	_		0.00	FERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.96 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.41 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.96 0.00 6.29 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.20	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.96	-18.67	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		3.32	27.76	-4.72	-1.02	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1069.42										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-52.83	-52.83									
BOD1 SETTLING		-4.27	-4.27									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.05		-10.05								
BOD2 SETTLING		-14.74		-14.74								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.44			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1083.86	76.97	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1084.46	-76.97	-57.60	-9.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.61	-0.01	0.00	18.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 5 ON PARAMETER SET 3 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY 3 OLD COVINGTON HWY - 1ST UNNAMED	14.60 12.90	12.90 12.15	1.70 0.75	0.30 0.04	0.01429 0.01529	0.06532 0.22613	0.061 0.043	1.67 1.52	0.505 0.540	0.214 0.742	0.200 0.141	5.48 5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					-
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.25	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	= =	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9467 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.11	-1.45	-6.01	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.00	-18.79	-22.27	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.20	24.03	-6.68	-0.94	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.52										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.96	-47.96									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-7.34		-7.34								
BOD2 SETTLING		-15.31		-15.31								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.55			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1077.83	73.24	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1078.40	-73.25	-57.60	-9.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.56	-0.01	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 6 ON PARAMETER SET 3 AND COLUMN 2

DIST

km

2.15

DIST

km

0.00

LENGTH

km

2.15

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG

TIME

days

2.39

RCH END

0.00400

m3/s

SELSERS CREEK 040603 CALIBRATION

8 HIGH SCHOOL TRIB

NO.

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FLOW = 0.00300 TO 0.04032 DISPERSION = 0.8248 TO 6.3575 m²/s VELOCITY = 0.00724 TO 0.23334 m/s DEPTH 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

VELO

0.01039

m/s

DEPTH

0.183

m

WIDTH

2.10

m

RCH END

cfs

0.141

VELO

fps

0.034

DEPTH

0.600

ft

WIDTH

6.90

ft

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.22	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 7	ΓRIB	
TRAVEL TIME	=		2.39		
MAXIMUM EFFLUENT	=		0.00	PERCENT	
== 0		0 00400		0 00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.08	-1.45	-5.77	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.15	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	******	2.41	24.00	-2.89	-1.01	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45	0.00	0.00	0.00	0.00	0.00		0.00
NATURAL REAERATION		1068.16										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.91	-47.91									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY		3.00	0.00									
BOD2 DECAY		-12.60	0.00	-12.60								
BOD2 SETTLING		-14.19		-14.19								
ANAEROBIC BOD2 DECAY		11.17		0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.46	0.00	0.00	0.00	0.00						
NBOD SETTLING		10.10			0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00			0.00	0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	TRCE	0.00				0.00	0.00					
DENITRIFICATION	31.02		0.00			0.00	0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	TRCE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CRETTON	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
New Settling		0.00										0.00
TOTAL INPUTS	0.04632	1081.69	73.21	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1082.39	-73.22	-57.60	-9.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.71	-0.01	0.00	18.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 7 ON PARAMETER SET 4 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 1	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY		3.00	0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CILLITON	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
Neil BETTEING		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 8 ON PARAMETER SET 4 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	q/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
					5,
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m per day
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY		3.00	0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CILLITON	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
Neil BETTEING		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 9 ON PARAMETER SET 5 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING TEMPERATURE	= = = = = = = = = = = = = = = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
DISSOLVED OXYGEN	=	0.86	TO	5.24	mq/L
STREAM SUMMARY REP	ORT:				
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 0.9467 0.01039 0.18 2.10	TO	0.00400 0.9467 0.01039 0.18 2.10	m³/s m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	1.58	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.42	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.03	-4.70	-0.96	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.84										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.38	-47.38									
BOD1 SETTLING		-4.98	-4.98									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.09		-10.09								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.52			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	ΓΙΟΝ	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.26	72.57	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1079.88	-72.57	-57.60	-9.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.62	0.00	0.00	18.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 10 ON PARAMETER SET 5 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
NDOD BETTEING		0.00	10	0.00	per day
TEMPERATURE	=	27.60	TO	29.13	dea C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mq/L
212202122 0111021		0.00		3.21	9, 2
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	= =	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.54 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.93	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.48	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.00	-4.72	-0.99	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.98										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-48.49	-48.49									
BOD1 SETTLING		-5.13	-5.13									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.05		-10.05								
BOD2 SETTLING		-14.74		-14.74								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.48			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1080.41	73.89	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.07	-73.89	-57.60	-9.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.66	-0.01	0.00	18.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 11 ON PARAMETER SET 6 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01	TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.87	TO TO	29.13 5.24	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW	=	0.00400	TO	0 00400	2 /
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10	m3/s m2/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.49 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	4.82	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.70	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.18	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.30	24.03	-3.90	-0.94	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.49										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.96	-47.96									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.64		-9.64								
BOD2 SETTLING		-14.12		-14.12								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.55			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1078.90	73.24	55.53	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1079.49	-73.24	-55.54	-9.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.59	-0.01	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 12 ON PARAMETER SET 6 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.23	mg/L
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL '	TRIB	
TRAVEL TIME	=			DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	= =	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	= =	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.57 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	8.96	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-6.08	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.23	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.32	24.00	-5.53	-1.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.33										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.91	-47.91									
BOD1 SETTLING		-5.07	-5.07									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.49		-10.49								
BOD2 SETTLING		-15.34		-15.34								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.46			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYI	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1080.76	73.21	59.67	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.45	-73.22	-59.67	-9.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.69	-0.01	0.00	18.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 13 ON PARAMETER SET 7 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062 0.214	0.279	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	q/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
					5,
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m per day
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

			2021	2020				0000	201 2	G 3		37637
	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
	ш / Б	kg/u	kg/u	kg/u	kg/u	kg/u	kg/u	kg/u	kg/u			
HEADWATER FLOW	0.00700	1.18	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.01	-4.71	-0.98	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.89										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.06		-10.06								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.49			0.00	0.00						
NBOD SETTLING		0.00			0.00	0.00	0 00					
NH3-N DECAY (NITRIFICATION)	0.TTD 0.TT	0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	JURCE		0.00			0.00	0 00					
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING	OIDGE							0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWTH/PHOTOSY							0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXPHYTOPLANKTON SETTLING	ACRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTE	прото	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHTION GROWIH/PHOTOSINIE PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	FITON	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.81	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.45	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 14 ON PARAMETER SET 7 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	$q/m^2/d$
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.36	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.74	mg/L
STREAM SUMMARY REPO	ORT:	HIGH SCI	HOOL I	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
FLOW DISPERSION	=	0.9467	TO	0.9467	$m^3/s$ $m^2/s$
		0.9467 0.01039	TO TO	0.9467 0.01039	,
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	2.19	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.70	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.93										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.94	-47.94									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.08		-10.08								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.51			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	ΓΙΟΝ	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.86	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.49	-73.23	-57.60	-9.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.63	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 15 ON PARAMETER SET 8 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	1.00	0.00210	0.01329	0.085	1.86	0.074	0.044	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.39	0.01339	0.05060	0.061	1.67	0.473	0.166	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01439	0.21239	0.043	1.52	0.508	0.697	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.06	0.01519	0.02792	0.146	3.96	0.536	0.092	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.94	0.01119	0.01135	0.274	4.19	0.395	0.037	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	2.04	0.01619	0.01050	0.270	4.80	0.572	0.034	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.46	0.02619	0.01663	0.265	5.49	0.925	0.055	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.85	0.03399	0.00782	0.209	19.29	1.200	0.026	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.99	0.03822	0.00725	0.165	30.27	1.349	0.024	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	3.42	0.00280	0.00728	0.183	2.10	0.099	0.024	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 13.77 DAYS MAXIMUM EFFLUENT = 80.75 PERCENT

= 0.00210 TO 0.03822 FLOW = 0.6389 TO 6.2136 DISPERSION m²/s VELOCITY = 0.00682 TO 0.21960 m/sDEPTH = 0.04 TO 0.27 WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = =	0.34 0.00 1.82 0.00 0.00 3.38 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.86	TO TO	29.13 5.21	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL :	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00280 0.6627 0.00728 0.18 2.10	TO	0.00280 0.6627 0.00728 0.18 2.10	m <sup>3</sup> /s m <sup>2</sup> /s m/s m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.21 0.00 5.53 0.00 0.00 4.68 0.06 0.01	TO TO TO TO TO TO TO TO	0.74 0.00 6.29 0.00 0.00 4.87 0.06 0.39	per day per day g/m²/d g/m²/d per day per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	25.68 0.60	TO TO	27.90 2.56	deg C mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00490	1.18	1.58	4.82	2.14	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.07	-1.42	-5.93	-0.89	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.03822	-9.47	-17.83	-21.03	-7.25	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.30	23.56	-4.11	-0.77	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.50										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.76	-47.76									
BOD1 SETTLING		-5.10	-5.10									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.83		-9.83								
BOD2 SETTLING		-14.63		-14.63								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.22			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04422	1078.41	72.10	55.53	27.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04422	-1079.16	-72.10	-55.54	-8.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.76	-0.01	0.00	18.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 16 ON PARAMETER SET 8 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15	0.54	0.00390 0.01519	0.02468 0.07863	0.085	1.86 1.67	0.138 0.536	0.081 0.258	0.279	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED 4 1ST UNNAMED - S OF I-12 5 S OF I-12 - S OF SISTERS RD.	12.90 12.15 9.60	12.15 9.60 7.70	0.75 2.55 1.90	0.04 0.95 1.70	0.01619 0.01699 0.01299	0.23987 0.03104 0.01293	0.043 0.146 0.274	1.52 3.96 4.19	0.572 0.600 0.459	0.787 0.102 0.042	0.141 0.479 0.899	5.00 13.00 13.75
6 S OF SISTERS RD 3RD UNNAMED 7 3RD UNNAMED - S OF HWY 22	7.70 5.85	5.85 3.75	1.85	1.80 1.36	0.01799 0.02799	0.01191 0.01788	0.270	4.80	0.635 0.988	0.039	0.886	15.74 18.00
9 S OF HWY 22 - N OF WEINBERGER 10 N OF WEINBERGER - SOUTH SLOUGH	3.75 2.50	2.50 0.00	1.25 2.50	1.63 3.58	0.03819 0.04242	0.00886 0.00809	0.209 0.165	19.29 30.27	1.349 1.498	0.029 0.027	0.686 0.541	63.28 99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME NO.	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT RCH END	AVG VELO	AVG DEPTH	AVG WIDTH	FLOW AT RCH END	AVG VELO	AVG DEPTH	AVG WIDTH
	km	km	km	days	m3/s	m/s	m m	m m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	1.84	0.00520	0.01351	0.183	2.10	0.184	0.044	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 11.84 DAYS
MAXIMUM EFFLUENT = 70.76 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = =	0.35 0.00 1.82 0.00 0.00 3.47 0.06	TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06	per day per day g/m²/d g/m²/d g/m²/d per day per day
NBOD DECAY	_	0.01	TO	0.34	per day
NBOD SETTLING	_	0.01	TO	0.06	per day
NBOD SETTLING	=	0.06	10	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.26	mg/L
DIBBOHVED OXIGEN		0.07	10	3.20	mg/ L
STREAM SUMMARY REP	ORT:	HIGH SCI	TOOT.	TRTB	
DIREIT DOIMING REI	0111	111011 001	.1002		
TRAVEL TIME	=		1.84	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
			0.00	1 21(021(1	
FLOW	=	0.00520	TO	0.00520	m³/s
FLOW DISPERSION	=	0.00520 1.2307	TO TO	0.00520 1.2307	m³/s m²/s
					,
DISPERSION VELOCITY	=	1.2307	TO TO	1.2307 0.01351	m²/s
DISPERSION VELOCITY DEPTH	=	1.2307 0.01351 0.18	TO TO TO	1.2307 0.01351 0.18	m²/s m/s m
DISPERSION VELOCITY	= = =	1.2307 0.01351	TO TO	1.2307 0.01351	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	1.2307 0.01351 0.18	TO TO TO	1.2307 0.01351 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	1.2307 0.01351 0.18 2.10	TO TO TO TO	1.2307 0.01351 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	1.2307 0.01351 0.18 2.10	TO TO TO TO	1.2307 0.01351 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00	TO TO TO TO	1.2307 0.01351 0.18 2.10 0.74 0.00	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00	TO TO TO TO TO TO TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22	TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06	TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05	TO TO TO TO TO TO TO TO TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06	TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05 0.06	TO T	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01351 0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05	TO TO TO TO TO TO TO TO TO	1.2307 0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00910	2.19	2.93	8.96	3.97	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.12	-1.47	-5.85	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04242	-10.51	-19.76	-23.38	-8.06	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	0.01212	2.32	24.47	-5.32	-1.16	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45	0.00	0.00	0.00	0.00	0.00		0.00
NATURAL REAERATION		1067.30	20.00	21.50	13.13			0.00				0.00
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-48.10	-48.10									
BOD1 SETTLING		-5.03	-5.03									
ANAEROBIC BOD1 DECAY		3.03	0.00									
BOD2 DECAY		-10.29	0.00	-10.29								
BOD2 SETTLING		-14.83		-14.83								
ANAEROBIC BOD2 DECAY		11.00		0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.81			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYI	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04842	1081.23	74.36	59.67	28.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04842	-1081.79	-74.36	-59.67	-10.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.56	0.00	0.00	18.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 17 ON PARAMETER SET 9 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY 3 OLD COVINGTON HWY - 1ST UNNAMED 4 1ST UNNAMED - S OF I-12 5 S OF I-12 - S OF SISTERS RD. 6 S OF SISTERS RD 3RD UNNAMED 7 3RD UNNAMED - S OF HWY 22 9 S OF HWY 22 - N OF WEINBERGER 10 N OF WEINBERGER - SOUTH SLOUGH REACH SUMMARY REPORT: HIGH SCHOOL TRIB	15.75 14.60 12.90 12.15 9.60 7.70 5.85 3.75 2.50	14.60 12.90 12.15 9.60 7.70 5.85 3.75 2.50	1.15 1.70 0.75 2.55 1.90 1.85 2.10 1.25 2.50	0.70 0.30 0.04 1.00 1.81 1.91 1.41 1.73 3.77	0.00300 0.01429 0.01529 0.01609 0.01209 0.01709 0.02709 0.03609 0.04032	0.01899 0.06532 0.22613 0.02948 0.01214 0.01121 0.01726 0.00834 0.00767	0.085 0.061 0.043 0.146 0.274 0.270 0.265 0.209 0.165	1.86 1.67 1.52 3.96 4.19 4.80 5.49 19.29 30.27	0.106 0.505 0.540 0.568 0.427 0.603 0.957 1.274	0.062 0.214 0.742 0.097 0.040 0.037 0.057 0.027	0.279 0.200 0.141 0.479 0.899 0.886 0.869 0.686 0.541	6.10 5.48 5.00 13.00 13.75 15.74 18.00 63.28 99.31
RCH REACH NAME NO.  8 HIGH SCHOOL TRIB	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days 2.39	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps 0.034	AVG DEPTH ft 0.600	AVG WIDTH ft 6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
STREAM SUMMARY REP	∩рт•	שומש פרו	JOOT. 1	מדסי	
SIKEAM SOMMAKI KEF	01(1.	niidh bei	.1001	IKIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.87	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.65	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	******	2.30	24.02	-4.70	-0.69	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.07										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.94	-47.94									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.08		-10.08								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY		11.75		0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.13			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.48	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.11	-73.23	-57.60	-9.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.63	0.00	0.00	18.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 18 ON PARAMETER SET 9 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 m³/s FLOW = 0.8248 TO m²/s DISPERSION 6.3575 VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	_	0.06	TO	0.06	per day
NBOD DECAY	=	0.00	TO	0.06	
NBOD DECAY	=	0.01	TO	0.34	per day per day
NROD SELLTING	=	0.06	10	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	dea C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mq/L
					5, =
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY		0.9467 0.01039	TO TO	0.9467 0.01039	,
DISPERSION	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.92	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.67	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.32	24.01	-4.71	-1.28	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.73										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.06		-10.06								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.85			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1080.16	73.22	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.81	-73.23	-57.60	-9.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.0000	-0.65	-0.01	0.00	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 19 ON PARAMETER SET 10 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING TEMPERATURE	= = = = = = = = = = = = = = = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
-					_
DISSOLVED OXYGEN	=	0.87	TO	5.26	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	$m^3/s$
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING TEMPERATURE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day deg C
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	5.36	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.41	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.78	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.28	24.37	-4.69	-0.93	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.66										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-46.25	-46.25									
BOD1 SETTLING		-4.84	-4.84									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.10		-10.10								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.55			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1078.05	71.28	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1078.65	-71.29	-57.60	-9.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.60	-0.01	0.00	18.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 20 ON PARAMETER SET 10 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 DISPERSION m²/s VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.85	TO	5.21	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.32	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.30	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.39	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.61	mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	9.96	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.48	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.80	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.34	23.66	-4.73	-1.01	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1068.16										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-49.62	-49.62									
BOD1 SETTLING		-5.27	-5.27									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.05		-10.05								
BOD2 SETTLING		-14.74		-14.74								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.45			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYI	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1081.62	75.17	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1082.29	-75.17	-57.60	-9.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.67	-0.01	0.00	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 21 ON PARAMETER SET 11 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062 0.214	0.279 0.200	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO DISPERSION 6.3575 m²/s VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = =	0.35 0.00 1.81 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.26	mg/L
STREAM SUMMARY REE	ORT:	HIGH SCI	HOOL .	TRIB	
			2.39	DAMO	
TRAVEL TIME	=		2.39	DAIS	
TRAVEL TIME MAXIMUM EFFLUENT	=			PERCENT	
		0.00400 0.9467 0.01039 0.18 2.10	0.00 TO TO		m3/s m2/s m/s m
MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH	= = = =	0.9467 0.01039 0.18	0.00 TO TO TO	0.00400 0.9467 0.01039 0.18	m²/s m/s m
MAXIMUM EFFLUENT FLOW DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	0.000 TO	0.00400 0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	10.77	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.74	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.12	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.28	24.04	-1.97	-0.94	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.91										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.96	-47.96									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.45		-9.45								
BOD2 SETTLING		-13.72		-13.72								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.55			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0 00	0.00	0 00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1078.30	73.25	52.99	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1078.91	-73.25	-52.99	-9.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.61	-0.01	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 22 ON PARAMETER SET 11 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	q/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.22	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m per day
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	20.00	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-6.04	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.29	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.34	23.99	-7.45	-1.01	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.92										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.90	-47.90									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.69		-10.69								
BOD2 SETTLING		-15.75		-15.75								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.45			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1081.37	73.21	62.22	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1082.03	-73.21	-62.22	-9.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.66	-0.01	0.00	18.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 23 ON PARAMETER SET 12 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062 0.214	0.279	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING TEMPERATURE	= = = = = = = = = = = = = = = = = = = =	0.34 0.00 1.82 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
DISSOLVED OXYGEN	=	0.86	TO	5.19	mq/L
DISSOLVED OXIGEN	_	0.80	10	5.19	шg/ L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	$m^3/s$
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	4.46	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.32	24.00	-4.72	-1.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1068.24										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.92	-47.92									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.06		-10.06								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.47			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	rion	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.77	73.21	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.41	-73.22	-57.60	-9.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.65	-0.01	0.00	18.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 24 ON PARAMETER SET 12 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	$q/m^2/d$
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.28	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL I	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
FLOW DISPERSION	=	0.9467	TO	0.9467	$m^3/s$ $m^2/s$
		0.9467 0.01039	TO TO	0.9467 0.01039	,
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	8.28	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.30	24.03	-4.70	-0.95	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.59										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.95	-47.95									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.09		-10.09								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.54			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0 00	0.00	0 00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.90	73.24	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.53	-73.24	-57.60	-9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.0000	-0.63	-0.01	0.00	18.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 25 ON PARAMETER SET 13 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.31	0.01399	0.06429	0.061	1.67	0.494	0.211	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01469	0.21915	0.043	1.52	0.519	0.719	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.04	0.01549	0.02844	0.146	3.96	0.547	0.093	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.89	0.01149	0.01162	0.274	4.19	0.406	0.038	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	2.10	0.01499	0.01020	0.270	4.80	0.529	0.033	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.58	0.02379	0.01540	0.265	5.49	0.840	0.051	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.97	0.03129	0.00734	0.209	19.29	1.105	0.024	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	4.39	0.03432	0.00659	0.165	30.27	1.212	0.022	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 14.02 DAYS
MAXIMUM EFFLUENT = 76.02 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.33	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.40	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.85	TO	5.17	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.32	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.29	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.39	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.47	mq/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.01400	4.46	5.36	10.77	3.32	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00420	-1.46	-1.00	-4.14	-0.63	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.03432	-8.51	-16.03	-18.87	-6.51	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.27	22.88	-3.67	-0.69	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.85										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.34	-47.34									
BOD1 SETTLING		-5.00	-5.00									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.94		-9.94								
BOD2 SETTLING		-14.60		-14.60								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.45			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04032	1077.32	69.79	52.99	26.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.03852	-1077.38	-69.37	-51.22	-7.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00180	-0.06	0.42	1.77	18.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 26 ON PARAMETER SET 13 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01459	0.06633	0.061	1.67	0.515	0.218	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01589	0.23309	0.043	1.52	0.561	0.765	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.97	0.01669	0.03052	0.146	3.96	0.589	0.100	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.74	0.01269	0.01267	0.274	4.19	0.448	0.042	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.75	0.01919	0.01220	0.270	4.80	0.678	0.040	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.27	0.03039	0.01910	0.265	5.49	1.073	0.063	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.55	0.04089	0.00935	0.209	19.29	1.444	0.031	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.31	0.04632	0.00875	0.165	30.27	1.635	0.029	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 11.62 DAYS
MAXIMUM EFFLUENT = 74.84 PERCENT

= 0.00300 TO 0.04632 FLOW = 0.8841 TO 6.6069 m²/s DISPERSION VELOCITY = 0.00821 TO 0.24249 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.37	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.46	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.88	TO	5.30	mg/L
					J.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02600	8.28	9.96	20.00	6.17	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00780	-2.74	-1.91	-7.63	-1.17	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04632	-11.48	-21.55	-25.55	-8.81	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.35	25.15	-5.76	-1.23	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.98										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-48.54	-48.54									
BOD1 SETTLING		-5.10	-5.10									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.20		-10.20								
BOD2 SETTLING		-14.84		-14.84								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.58			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PHYTOPLANKTON DEATH	DOTO	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0 00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.05232	1082.35	76.66	62.22	29.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05412	-1083.57	-77.10	-63.98	-11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	-0.00180	-1.22	-0.45	-1.76	18.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 27 ON PARAMETER SET 14 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING TEMPERATURE	= = = = = = = = = = = = = = = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
DISSOLVED OXYGEN	=	0.86	TO	5.25	mq/L
STREAM SUMMARY REP					g, 1
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	$m^3/s$ $m^2/s$
		0.9467 0.01039	TO	0.9467 0.01039	,
DISPERSION	=	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.87	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.64	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.29	24.02	-4.70	-0.36	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.89										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.94	-47.94									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.08		-10.08								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-12.95			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0 00					
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING PO4-P BACKGROUND SEDIMENT SO	IIDOR							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIH/PHOTOSI PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHITOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	PCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	1101	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM DETIDING		0.00										0.00
TOTAL INPUTS	0.04632	1079.30	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1079.94	-73.24	-57.60	-8.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	0.00	0.00	19.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 28 ON PARAMETER SET 14 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m /d g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m /d g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	_
NBOD DECAY		0.00		0.06	per day
NBOD DECAY	=		TO		per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	то	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.23	mq/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=			DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
ET OU		0 00400	шо.	0 00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY		0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.92	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.68	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.33	24.01	-4.71	-1.59	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.93										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-14.04			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1080.37	73.22	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.01	-73.23	-57.60	-10.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	17.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 29 ON PARAMETER SET 15 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.36	TO	0.80	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.63	TO	7.95	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.30	TO	28.26	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.10	TO	0.30	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	25.60	TO	27.13	deg C
DISSOLVED OXYGEN	=	1.60	TO	5.66	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.45	TO	0.67	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	4.89	TO	5.56	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.77	TO	4.97	per day
BOD SETTLING	=	0.05	TO	0.06	per day
NBOD DECAY	=	0.09	TO	0.37	per day
NBOD SETTLING	=	0.05	TO	0.06	per day
-			-		2
TEMPERATURE	=	23.68	TO	25.90	deg C
DISSOLVED OXYGEN	=	1.48	TO	3.27	mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.37	-1.54	-5.95	-0.92	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.30	-18.80	-22.21	-7.60	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-7.30	23.76	-4.68	0.91	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		963.93										
DAM REAERATION		0.00										
SOD BACKGROUND		-861.46										
BOD1 DECAY		-47.97	-47.97									
BOD1 SETTLING		-4.67	-4.67									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.68		-10.68								
BOD2 SETTLING		-14.09		-14.09								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-16.13			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	975.04	72.97	57.60	28.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-974.97	-72.98	-57.60	-8.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.07	-0.01	0.00	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 30 ON PARAMETER SET 15 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 17 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.05	TO	0.96	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	2.04	TO	10.20	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.55	TO	30.31	per day
BOD SETTLING	=	0.06	TO	0.07	per day
NBOD DECAY	=	0.00	TO	0.39	per day
NBOD SETTLING	=	0.06	TO	0.07	per day
					F
TEMPERATURE	=	29.60	TO	31.13	deg C
DISSOLVED OXYGEN	=	0.10	TO	4.82	mg/L
					J,
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
			TO		,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.81 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00 5.13	TO	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00 5.33	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00 5.13 0.06	TO	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00 5.33 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00 5.13 0.06 0.00	TO T	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00 5.33 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00 5.13 0.06 0.00	TO T	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00 5.33 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.11 0.00 6.26 0.00 0.00 5.13 0.06 0.00 0.00	TO T	0.9467 0.01039 0.18 2.10 0.81 0.00 7.13 0.00 0.00 5.33 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-1.81	-1.36	-5.82	-0.87	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.66	-18.85	-22.23	-7.73	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	0.01032	12.65	22.15	-5.48	-3.27	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1179.70										
DAM REAERATION		0.00										
SOD BACKGROUND		-1108.24										
BOD1 DECAY		-45.14	-45.14									
BOD1 SETTLING		-6.01	-6.01									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-8.54		-8.54								
BOD2 SETTLING		-15.53		-15.53								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-10.62			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1203.46	71.36	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1205.55	-71.36	-57.60	-11.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-2.09	0.00	0.00	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 31 ON PARAMETER SET 16 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01 0.06	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.24 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.28	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 0.9467 0.01039 0.18 2.10	TO	0.00400 0.9467 0.01039 0.18 2.10	m³/s m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.98	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.00	-18.79	-22.21	-7.73	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.10	24.03	-4.69	-3.14	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1063.84										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.96	-47.96									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.09		-10.09								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-10.65			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1077.05	73.24	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1077.67	-73.25	-57.60	-11.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.0000	-0.62	0.00	0.00	16.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 32 ON PARAMETER SET 16 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY	=	0.34	TO TO	0.88	per day per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.00	TO	0.45	per day
NBOD SETTLING	=	0.02	TO	0.15	per day
NBOD SETTEING	_	0.00	10	0.00	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.20	mg/L
					5, =
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	$m^3/s$
DISPERSION	=	0.9467	TO	0.9467	m²/s
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.32	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.30	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.03	TO	0.51	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.61	mq/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	$m^3/s$	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.82	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.60	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.50	24.00	-4.72	0.77	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1068.47										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.92	-47.92									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.06		-10.06								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-15.81			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1082.09	73.21	57.60	28.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1082.74	-73.22	-57.60	-8.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.65	-0.01	0.00	20.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 33 ON PARAMETER SET 17 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.36	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.81	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.89	TO	5.31	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
ET.OM	_	0 00400	TΩ	0 00400	m 3 / a
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.34 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.11	-1.35	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.00	-18.75	-22.20	-7.65	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.21	25.40	-4.65	-0.84	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	18.08	24.30	15.45			0.00				0.00
NATURAL REAERATION		1060.67										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-42.40	-42.40									
BOD1 SETTLING		-4.37	-4.37									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.15		-10.15								
BOD2 SETTLING		-14.71		-14.71								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.68			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRET	ΓΙΟΝ	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1073.99	66.87	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1074.51	-66.87	-57.60	-9.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.53	0.00	0.00	18.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 34 ON PARAMETER SET 17 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.33	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.84	TO	5.16	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 1	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FI.OW	=	0 00400	ТΟ	0 00400	m 3 / g
FLOW DISPERSION	=	0.00400		0.00400	m³/s m²/s
DISPERSION	= =	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	= = =	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.31 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.08	-1.54	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.84	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.42	22.60	-4.77	-1.10	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	33.57	24.30	15.45			0.00				0.00
NATURAL REAERATION		1072.13										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-53.44	-53.44									
BOD1 SETTLING		-5.75	-5.75									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.99		-9.99								
BOD2 SETTLING		-14.75		-14.75								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.33			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0.00					
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING PO4-P BACKGROUND SEDIMENT SO	IIDOR							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIH/PHOTOSI PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHITOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	PCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWIN/FHOTOSININ PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM BETTEING		0.00										0.00
TOTAL INPUTS	0.04632	1085.66	79.56	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1086.42	-79.57	-57.60	-9.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.76	-0.01	0.00	18.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 35 ON PARAMETER SET 18 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062 0.214	0.279	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.81	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	_	0.00	TO	0.00	g/m²/d g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	_	0.06	TO	0.06	
NBOD DECAY		0.00	TO	0.06	per day
	=				per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.26	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
MD MARIE MAND			0 20	DAMO	
TRAVEL TIME	=			DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
			TO		,
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	= = =	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

HEADWATER FLOW 0.00700 1.68 2.25 6.89 3.06 0.00 0.00 0.00 0.00 0.00 0.00 1NCREMENTAL INFLOW 0.02000 6.37 7.66 15.39 4.75 0.00 0.00 0.00 0.00 0.00 0.00 1NCREMENTAL OUTFLOW -0.00600 -2.12 -1.45 -4.96 -0.90 0.00 0.00 0.00 0.00 0.00 0.00 0.0	NCM
INCREMENTAL OUTFLOW -0.00600 -2.12 -1.45 -4.96 -0.90 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00
WASTELOADS 0.01932 3.06 13.48 11.02 4.72 0.00 0.00 0.00 0.00 0.00 0.00 WITHDRAWLS 0.00000 0.00 0.00 0.00 0.00 0.00 0.00	0.00
WITHDRAWLS 0.00000 0.00 0.00 0.00 0.00 0.00 0.00	0.00
FLOW THRU LOWER BNDRY -0.04032 -9.99 -18.79 -22.09 -7.66 0.00 0.00 0.00 0.00 0.00 0.00 DISPERSION THRU LOWER BNDRY 2.27 24.04 -1.10 -0.93 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00
DISPERSION THRU LOWER BNDRY  2.27 24.04 -1.10 -0.93 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00
DISPERSION THRU HDWTR BNDRY 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.00
NON-POINT INPUT       0.00       25.83       17.01       15.45       0.00         NATURAL REAERATION       0.00       0.00         SOD BACKGROUND       -977.09       -977.09         BOD1 DECAY       -47.97       -47.97         BOD1 SETTLING       -5.05       -5.05         ANAEROBIC BOD1 DECAY       0.00         BOD2 DECAY       -9.03       -9.03         BOD2 SETTLING       -13.13       -13.13	0.00
NATURAL REAERATION       1063.95         DAM REAERATION       0.00         SOD BACKGROUND       -977.09         BOD1 DECAY       -47.97         BOD1 SETTLING       -5.05         ANAEROBIC BOD1 DECAY       0.00         BOD2 DECAY       -9.03         BOD2 SETTLING       -13.13	0.00
DAM REAERATION 0.00  SOD BACKGROUND -977.09  BOD1 DECAY -47.97 -47.97  BOD1 SETTLING -5.05 -5.05  ANAEROBIC BOD1 DECAY 0.00  BOD2 DECAY -9.03 -9.03  BOD2 SETTLING -13.13 -13.13	0.00
SOD BACKGROUND       -977.09         BOD1 DECAY       -47.97       -47.97         BOD1 SETTLING       -5.05       -5.05         ANAEROBIC BOD1 DECAY       0.00         BOD2 DECAY       -9.03       -9.03         BOD2 SETTLING       -13.13       -13.13	
BOD1 DECAY       -47.97       -47.97         BOD1 SETTLING       -5.05       -5.05         ANAEROBIC BOD1 DECAY       0.00         BOD2 DECAY       -9.03       -9.03         BOD2 SETTLING       -13.13       -13.13	
BOD1 SETTLING       -5.05       -5.05         ANAEROBIC BOD1 DECAY       0.00         BOD2 DECAY       -9.03       -9.03         BOD2 SETTLING       -13.13       -13.13	
ANAEROBIC BOD1 DECAY 0.00  BOD2 DECAY -9.03 -9.03  BOD2 SETTLING -13.13 -13.13	
BOD2 DECAY -9.03 -9.03 BOD2 SETTLING -13.13 -13.13	
BOD2 SETTLING -13.13 -13.13	
ANAEROBIC BOD2 DECAY 0.00	
BOD2 HYDROLYSIS 0.00 0.00	
NBOD DECAY -13.56 0.00 0.00	
NBOD SETTLING 0.00 0.00	
NH3-N DECAY (NITRIFICATION) 0.00 0.00 0.00	
NH3-N BACKGROUND SEDIMENT SOURCE 0.00	
DENITRIFICATION 0.00 0.00	
ORG-P HYDROLYSIS 0.00 0.00	
ORG-P SETTLING 0.00 0.00	
PO4-P BACKGROUND SEDIMENT SOURCE 0.00	
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS 0.00 0.00 0.00 0.00 0.00 0.00	
PHYTOPLANKTON RESPIRATION/EXCRETION 0.00 0.00 0.00 0.00	
PHYTOPLANKTON SETTLING 0.00 0.00 0.00	
PHYTOPLANKTON DEATH 0.00 0.00 0.00 0.00 0.00 0.00 0.00	
PERIPHYTON GROWTH/PHOTOSYNTHESIS 0.00 0.00 0.00 0.00 0.00	
PERIPHYTON RESPIRATION/EXCRETION 0.00 0.00 0.00	
PERIPHYTON DEATH 0.00 0.00 0.00 0.00 0.00 0.00	
NCM DECAY 0.00	0.00
NCM SETTLING 0.00	0.00
TOTAL INPUTS 0.04632 1077.34 73.25 50.31 27.97 0.00 0.00 0.00 0.00 0.00 0.00	0.00
TOTAL OUTPUTS -0.04632 -1077.94 -73.26 -50.31 -9.48 0.00 0.00 0.00 0.00 0.00 0.00	0.00
NET CONVERGENCE ERROR 0.00000 -0.60 -0.01 0.00 18.49 0.00 0.00 0.00 0.00 0.00 0.00	0.00

....BEGIN SENSITIVITY RUN 36 ON PARAMETER SET 18 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.84	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
11505 521121110		0.00		0.00	Por day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.85	TO	5.22	mq/L
515502,125 0111021.		0.05		3.22	3, =
STREAM SUMMARY REP	ORT:	HIGH SCI	TOOT.	TRIB	
DIRELLI DOLLINICI REI	0111	111011 001	1002		
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
			0.00	1 21(021(1	
FLOW	=	0.00400	TO	0 00400	3 /
		0.00400	TO	0.00400	m³/s
	=		TO	0.00400 0.9467	m³/s m²/s
DISPERSION		0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	= = =	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d ger day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	$m^3/s$	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.07	-1.45	-6.81	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.32	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	******	2.35	23.99	-8.32	-1.02	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	31.59	15.45			0.00				0.00
NATURAL REAERATION		1068.87										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.90	-47.90									
BOD1 SETTLING		-5.07	-5.07									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-11.11		-11.11								
BOD2 SETTLING		-16.33		-16.33								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.44			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1082.33	73.20	64.89	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1083.00	-73.21	-64.89	-9.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.67	-0.01	0.00	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 37 ON PARAMETER SET 19 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

## DOU DEAGU NAME

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = =	0.35 0.00 1.82 0.00 0.00 3.43 0.06 0.01	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.28	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 0.9467 0.01039 0.18 2.10	TO	0.00400 0.9467 0.01039 0.18 2.10	m3/s m2/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.76	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.60	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.27	24.03	-4.70	0.76	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	10.81			0.00				0.00
NATURAL REAERATION		1064.51										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.95	-47.95									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.09		-10.09								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-11.52			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	JRCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	JRCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRET	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1077.89	73.24	57.60	24.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1078.52	-73.24	-57.60	-8.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.63	0.00	0.00	15.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 38 ON PARAMETER SET 19 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	q/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.19	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m per day per day
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-1.03	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.71	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.35	24.00	-4.72	-2.72	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	20.08			0.00				0.00
NATURAL REAERATION		1068.30										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.92	-47.92									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.06		-10.06								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-15.47			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PHYTOPLANKTON DEATH	TROTO	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0 00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE PERIPHYTON DEATH	ITION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1081.77	73.21	57.60	32.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1082.41	-73.22	-57.60	-11.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	21.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 39 ON PARAMETER SET 20 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
					3,
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL '	TRIB	
TRAVEL TIME	=			DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	то	0.00400	m³/s
DISPERSION	=	0.00400	TO	0.00400	m²/s
VELOCITY	=	0.9467		0.9467	m/s
DEPTH	=	0.01039	TO	0.01039	m
WIDTH		2.10	TO	2.10	
WIDIR	=	2.10	10	2.10	m
BOD DECAY	=	0.32	то	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.30	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.40	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					F ==
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.63	mq/L
					5, —

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS		12 50	0.00	0.00	0.00	0.00						
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING		0.00			0.00	0.00	0 00					
NH3-N DECAY (NITRIFICATION)	IDOR	0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0 00			0.00	0 00					
DENITRIFICATION ORG-P HYDROLYSIS			0.00				0.00	0 00	0.00			
ORG-P HIDROLISIS ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	TIDOR							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIN/FNOIOSI: PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	11011	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
52112110		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 40 ON PARAMETER SET 20 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.24	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
ET.OM	_	0 00400	т∩	0 00400	m 3 / a
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.41										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.47	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 41 ON PARAMETER SET 21 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY 3 OLD COVINGTON HWY - 1ST UNNAMED 4 1ST UNNAMED - S OF I-12 5 S OF I-12 - S OF SISTERS RD.	15.75	14.60	1.15	1.00	0.00210	0.01329	0.085	1.86	0.074	0.044	0.279	6.10
	14.60	12.90	1.70	0.40	0.01309	0.04955	0.061	1.67	0.462	0.163	0.200	5.48
	12.90	12.15	0.75	0.04	0.01379	0.20542	0.043	1.52	0.487	0.674	0.141	5.00
	12.15	9.60	2.55	1.10	0.01459	0.02688	0.146	3.96	0.515	0.088	0.479	13.00
	9.60	7.70	1.90	2.03	0.01059	0.01083	0.274	4.19	0.374	0.036	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED 7 3RD UNNAMED - S OF HWY 22 9 S OF HWY 22 - N OF WEINBERGER 10 N OF WEINBERGER - SOUTH SLOUGH REACH SUMMARY REPORT: HIGH SCHOOL TRIB	7.70	5.85	1.85	2.25	0.01409	0.00950	0.270	4.80	0.498	0.031	0.886	15.74
	5.85	3.75	2.10	1.64	0.02289	0.01478	0.265	5.49	0.808	0.049	0.869	18.00
	3.75	2.50	1.25	2.12	0.02919	0.00682	0.209	19.29	1.031	0.022	0.686	63.28
	2.50	0.00	2.50	4.69	0.03222	0.00617	0.165	30.27	1.138	0.020	0.541	99.31
RCH REACH NAME NO.  8 HIGH SCHOOL TRIB	BEGIN DIST km 2.15	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps 0.024	AVG DEPTH ft 0.600	AVG WIDTH ft 6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 15.28 DAYS
MAXIMUM EFFLUENT = 81.43 PERCENT

= 0.00210 TO 0.03222 FLOW = 0.6389 TO 6.2098 m²/s DISPERSION VELOCITY = 0.00586 TO 0.21045 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.32 0.00 1.82 0.00 0.00 3.35 0.06 0.01	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.85	TO TO	29.13 5.14	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00280 0.6627 0.00728 0.18 2.10	TO TO TO TO	0.00280 0.6627 0.00728 0.18 2.10	m <sup>3</sup> /s m <sup>2</sup> /s m/s m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = =	0.21 0.00 5.53 0.00 0.00 4.68	TO TO TO TO TO	0.74 0.00 6.29 0.00 0.00 4.87	per day per day g/m²/d g/m²/d g/m²/d per day
BOD SETTLING NBOD DECAY NBOD SETTLING	= = =	0.06 0.01 0.06	TO TO TO	0.06 0.38 0.06	per day per day per day
NBOD DECAY	=	0.01	TO	0.38	per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00490	1.18	1.58	4.82	2.14	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.01400	4.46	5.36	10.77	3.32	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00420	-1.44	-0.98	-4.17	-0.62	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.03222	-7.99	-15.06	-17.70	-6.11	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.26	22.43	-3.09	-0.48	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.92										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.17	-47.17									
BOD1 SETTLING		-5.04	-5.04									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.69		-9.69								
BOD2 SETTLING		-14.48		-14.48								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.17			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0.00					
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING PO4-P BACKGROUND SEDIMENT SO	IIDOR							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIH/PHOTOSI PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHITOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	PCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM DETIDING		0.00										0.00
TOTAL INPUTS	0.03822	1075.88	68.67	50.92	25.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.03642	-1076.07	-68.25	-49.13	-7.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00180	-0.19	0.41	1.78	18.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 42 ON PARAMETER SET 21 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.54 0.25	0.00390 0.01549	0.02468 0.07965	0.085 0.061	1.86 1.67	0.138 0.547	0.081 0.261	0.279 0.200	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED 4 1ST UNNAMED - S OF I-12	12.90	12.15 9.60	0.75	0.04	0.01679	0.24684 0.03207	0.043	1.52 3.96	0.593	0.810 0.105	0.141	5.00 13.00
5 S OF I-12 - S OF SISTERS RD. 6 S OF SISTERS RD 3RD UNNAMED 7 3RD UNNAMED - S OF HWY 22	9.60 7.70 5.85	7.70 5.85 3.75	1.90 1.85 2.10	1.63 1.66 1.23	0.01359 0.02009 0.03129	0.01346 0.01291 0.01972	0.274 0.270 0.265	4.19 4.80 5.49	0.480 0.709 1.105	0.044	0.899 0.886 0.869	13.75 15.74 18.00
9 S OF HWY 22 - N OF WEINBERGER 10 N OF WEINBERGER - SOUTH SLOUGH	3.75 2.50	2.50 0.00	1.25 2.50	1.47 3.16	0.03129 0.04299 0.04842	0.01972 0.00987 0.00917	0.209 0.165	19.29 30.27	1.105 1.518 1.710	0.065 0.032 0.030	0.869 0.686 0.541	63.28 99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB	2.30	0.00	2.50	3.10	0.04042	0.00317	0.103	30.27	1.710	0.030	0.541	JJ.31
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST km	DIST km	LENGTH km	TIME days	RCH END m3/s	VELO m/s	DEPTH m	WIDTH m	RCH END cfs	VELO fps	DEPTH ft	WIDTH ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	1.84	0.00520	0.01351	0.183	2.10	0.184	0.044	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 10.89 DAYS
MAXIMUM EFFLUENT = 70.25 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.37	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.50	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
1,505 521121110		0.00		0.00	Por day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.88	TO	5.33	mq/L
					5, =
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
DIREIT DOIMING REI	0111	111011 001			
TRAVEL TIME	=		1.84	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00520	TO	0.00520	m³/s
DISPERSION	=	1.2307	TO	1.2307	m²/s
VELOCITY	=	0.01351	TO	0.01351	m/s
VELOCITY DEPTH	=	0.01351	TO TO		,
				0.01351	m/s
DEPTH	=	0.18	TO	0.01351 0.18	m/s m
DEPTH WIDTH	=	0.18	TO	0.01351 0.18 2.10	m/s m m
DEPTH	=	0.18 2.10	TO TO	0.01351 0.18	m/s m m
DEPTH WIDTH BOD DECAY	= =	0.18 2.10	TO TO	0.01351 0.18 2.10	m/s m m per day per day
DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.18 2.10 0.42 0.00	TO TO TO	0.01351 0.18 2.10 0.74 0.00	m/s m m per day per day g/m²/d
DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = =	0.18 2.10 0.42 0.00 5.53 0.00	TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30	m/s m m per day per day g/m²/d g/m²/d
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = =	0.18 2.10 0.42 0.00 5.53	TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m/s m m per day per day g/m²/d g/m²/d g/m²/d
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00	TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00	m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06	TO TO TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06	m/s m m  per day per day g/m²/d g/m²/d per day per day per day
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05	TO TO TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.41	m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06	TO TO TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06	m/s m m  per day per day g/m²/d g/m²/d per day per day per day
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05 0.06	TO TO TO TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.41 0.06	m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.18 2.10 0.42 0.00 5.53 0.00 0.00 5.22 0.06 0.05	TO TO TO TO TO TO TO TO	0.01351 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.43 0.06 0.41	m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	$m^3/s$	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00910	2.19	2.93	8.96	3.97	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02600	8.28	9.96	20.00	6.17	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00780	-2.77	-1.94	-7.58	-1.17	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04842	-12.00	-22.51	-26.73	-9.21	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.35	25.61	-6.39	-1.42	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.85										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-48.72	-48.72									
BOD1 SETTLING		-5.08	-5.08									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.41		-10.41								
BOD2 SETTLING		-14.93		-14.93								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.89			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.05442	1083.73	77.79	64.28	30.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05622	-1084.88	-78.24	-66.04	-11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	-0.00180	-1.15	-0.45	-1.75	18.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 43 ON PARAMETER SET 22 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.49	0.00300	0.02712	0.059	1.86	0.106	0.089	0.195	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.21	0.01429	0.09331	0.043	1.67	0.505	0.306	0.140	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.03	0.01529	0.32304	0.030	1.52	0.540	1.060	0.099	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.70	0.01609	0.04211	0.102	3.96	0.568	0.138	0.335	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.27	0.01209	0.01735	0.192	4.19	0.427	0.057	0.629	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.34	0.01709	0.01601	0.189	4.80	0.603	0.053	0.620	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	0.99	0.02709	0.02465	0.186	5.49	0.957	0.081	0.609	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.21	0.03609	0.01192	0.146	19.29	1.274	0.039	0.480	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	2.64	0.04032	0.01096	0.115	30.27	1.424	0.036	0.379	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	1.68	0.00400	0.01485	0.128	2.10	0.141	0.049	0.420	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 8.88 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.40	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.78	TO	8.97	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	5.25	TO	29.29	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.05	TO	0.35	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					F
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	1.35	TO	5.64	mg/L
					3,
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		1.68	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400	TO TO	0.00400 1.0047	m³/s m²/s
					,
DISPERSION	=	1.0047	TO	1.0047	m²/s
DISPERSION VELOCITY	=	1.0047 0.01485	TO TO	1.0047 0.01485	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	1.0047 0.01485 0.13	TO TO TO	1.0047 0.01485 0.13	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	1.0047 0.01485 0.13	TO TO TO	1.0047 0.01485 0.13	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	1.0047 0.01485 0.13 2.10	TO TO TO TO	1.0047 0.01485 0.13 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = = =	1.0047 0.01485 0.13 2.10	TO TO TO TO	1.0047 0.01485 0.13 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00	TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48	TO TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00	TO TO TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00	TO TO TO TO TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00 7.62	TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00 7.93	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00 7.62 0.06	TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00 7.93 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00 7.62 0.06 0.08	TO TO TO TO TO TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00 7.93 0.06 0.42	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00 7.62 0.06 0.08	TO TO TO TO TO TO TO TO TO	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00 7.93 0.06 0.42	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.0047 0.01485 0.13 2.10 0.48 0.00 5.48 0.00 0.00 7.62 0.06 0.08 0.06	TO T	1.0047 0.01485 0.13 2.10 0.74 0.00 6.27 0.00 0.00 7.93 0.06 0.42 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.35	-1.83	-6.18	-0.99	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.65	-18.76	-22.44	-7.67	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-13.34	18.69	-8.79	-0.99	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1074.62										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-43.26	-43.26									
BOD1 SETTLING		-4.06	-4.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-8.89		-8.89								
BOD2 SETTLING		-11.31		-11.31								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-14.75			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1085.73	67.90	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1085.71	-67.91	-57.60	-9.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.02	-0.01	0.00	18.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 44 ON PARAMETER SET 22 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.91	0.00300	0.01460	0.110	1.86	0.106	0.048	0.363	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.39	0.01429	0.05024	0.079	1.67	0.505	0.165	0.260	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.05	0.01529	0.17395	0.056	1.52	0.540	0.571	0.183	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.30	0.01609	0.02268	0.190	3.96	0.568	0.074	0.623	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	2.35	0.01209	0.00934	0.356	4.19	0.427	0.031	1.169	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	2.48	0.01709	0.00862	0.351	4.80	0.603	0.028	1.152	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.83	0.02709	0.01327	0.344	5.49	0.957	0.044	1.130	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	2.25	0.03609	0.00642	0.272	19.29	1.274	0.021	0.891	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	4.90	0.04032	0.00590	0.215	30.27	1.424	0.019	0.704	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	3.11	0.00400	0.00800	0.238	2.10	0.141	0.026	0.781	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 16.48 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.7895 TO 6.0854 m²/s DISPERSION VELOCITY = 0.00557 TO 0.17949 m/s DEPTH = 0.06 TO 0.36 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.15	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.86	TO	9.04	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	2.53	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.00	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.36	TO	4.94	mg/L
STREAM SUMMARY REP	OPT:	אומא פרו	100T. T	rp T B	
DIREAN DONNAKI KEI	OICI ·	nion bei		IKID	
TRAVEL TIME	=		3.11	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FIOW	=	0.00400	TΩ	0.00400	m³/s
FLOW DISPERSION	=	0.00400		0.00400 0.9062	m³/s m²/s
DISPERSION		0.9062	TO TO TO	0.00400 0.9062 0.00800	m²/s
DISPERSION VELOCITY	=	0.9062	TO	0.9062	,
DISPERSION	=	0.9062 0.00800	TO TO	0.9062 0.00800	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9062 0.00800 0.24 2.10	TO TO TO	0.9062 0.00800 0.24 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH	= = =	0.9062 0.00800 0.24 2.10	TO TO TO TO	0.9062 0.00800 0.24 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9062 0.00800 0.24 2.10 0.23 0.00	TO TO TO TO	0.9062 0.00800 0.24 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58	TO TO TO TO	0.9062 0.00800 0.24 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00	TO TO TO TO	0.9062 0.00800 0.24 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00	TO TO TO TO TO TO TO TO	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64	TO T	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64 0.06	TO TO TO TO TO TO TO TO TO	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64 0.06 0.01	TO T	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79 0.06 0.38	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64 0.06	TO TO TO TO TO TO TO TO TO	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64 0.06 0.01	TO T	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79 0.06 0.38	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9062 0.00800 0.24 2.10 0.23 0.00 5.58 0.00 0.00 3.64 0.06 0.01 0.06	TO T	0.9062 0.00800 0.24 2.10 0.74 0.00 6.31 0.00 0.00 3.79 0.06 0.38 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-1.92	-1.18	-5.61	-0.82	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.64	-18.86	-22.10	-7.67	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		16.24	27.35	-1.87	-1.83	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1055.61										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-50.31	-50.31									
BOD1 SETTLING		-6.22	-6.22									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.26		-10.26								
BOD2 SETTLING		-17.76		-17.76								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS		11 40	0.00	0.00	0.00	0.00						
NBOD DECAY		-11.49			0.00	0.00						
NBOD SETTLING		0.00			0.00	0.00	0 00					
NH3-N DECAY (NITRIFICATION)	TID OF	0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0 00					
DENITRIFICATION ORG-P HYDROLYSIS			0.00				0.00	0 00	0.00			
ORG-P HIDROLISIS ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	TIDOP							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIN/PHOTOSIS		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	FCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	11011	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
New BETTEING		0.00										0.00
TOTAL INPUTS	0.04632	1082.96	76.56	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1084.69	-76.57	-57.60	-10.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-1.74	-0.01	0.00	17.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 45 ON PARAMETER SET 23 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY 3 OLD COVINGTON HWY - 1ST UNNAMED 4 1ST UNNAMED - S OF I-12 5 S OF I-12 - S OF SISTERS RD. 6 S OF SISTERS RD 3RD UNNAMED 7 3RD UNNAMED - S OF HWY 22 9 S OF HWY 22 - N OF WEINBERGER 10 N OF WEINBERGER - SOUTH SLOUGH REACH SUMMARY REPORT: HIGH SCHOOL TRIB	15.75 14.60 12.90 12.15 9.60 7.70 5.85 3.75 2.50	14.60 12.90 12.15 9.60 7.70 5.85 3.75 2.50	1.15 1.70 0.75 2.55 1.90 1.85 2.10 1.25 2.50	0.70 0.30 0.04 1.00 1.81 1.91 1.41 1.73 3.77	0.00300 0.01429 0.01529 0.01609 0.01209 0.01709 0.02709 0.03609 0.04032	0.01899 0.06532 0.22613 0.02948 0.01214 0.01121 0.01726 0.00834 0.00767	0.085 0.061 0.043 0.146 0.274 0.270 0.265 0.209 0.165	1.86 1.67 1.52 3.96 4.19 4.80 5.49 19.29 30.27	0.106 0.505 0.540 0.568 0.427 0.603 0.957 1.274	0.062 0.214 0.742 0.097 0.040 0.037 0.057 0.027	0.279 0.200 0.141 0.479 0.899 0.886 0.869 0.686 0.541	6.10 5.48 5.00 13.00 13.75 15.74 18.00 63.28 99.31
RCH REACH NAME NO.  8 HIGH SCHOOL TRIB	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days 2.39	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps 0.034	AVG DEPTH ft 0.600	AVG WIDTH ft 6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.5774 TO 4.4502 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = =	0.33 0.00 1.82 0.00 0.00 3.43 0.06 0.01	TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34	per day per day g/m²/d g/m²/d g/m²/d per day per day per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.83	TO TO	29.13 5.25	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SCH	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW DISPERSION VELOCITY DEPTH	= = = =	0.00400 0.6627 0.01039 0.18	TO TO TO	0.00400 0.6627 0.01039 0.18	m³/s m²/s m/s
WIDTH	=	2.10	TO	2.10	m
WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =		TO		

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.89	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.00	-18.55	-22.26	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		1.55	21.98	-4.51	-0.81	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.58										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-46.23	-46.23									
BOD1 SETTLING		-4.96	-4.96									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.11		-10.11								
BOD2 SETTLING		-14.83		-14.83								
ANAEROBIC BOD2 DECAY			0.00	0.00								
BOD2 HYDROLYSIS		12 61	0.00	0.00	0 00	0.00						
NBOD DECAY		-13.61			0.00	0.00						
NBOD SETTLING		0.00			0.00	0.00	0.00					
NH3-N DECAY (NITRIFICATION) NH3-N BACKGROUND SEDIMENT SO	IDGE	0.00				0.00	0.00					
DENITRIFICATION	UKCE		0.00			0.00	0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	TIRCE:							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY:		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING	CILLION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1078.24	71.19	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1078.93	-71.19	-57.60	-9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.68	-0.01	0.00	18.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 46 ON PARAMETER SET 23 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD	= =	0.36 0.00 1.82	TO TO TO	0.88 0.00 9.01	per day per day g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.89	TO	5.23	mg/L
STREAM SUMMARY REP	TRC:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2 39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
DISPERSION	= =	1.2307	TO	1.2307	m²/s
DISPERSION VELOCITY		1.2307 0.01039	TO TO	1.2307 0.01039	,
DISPERSION VELOCITY DEPTH	=	1.2307 0.01039 0.18	TO TO TO	1.2307 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	1.2307 0.01039	TO TO	1.2307 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	1.2307 0.01039 0.18	TO TO TO	1.2307 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	1.2307 0.01039 0.18 2.10	TO TO TO TO	1.2307 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	1.2307 0.01039 0.18 2.10	TO TO TO TO	1.2307 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00	TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD	= = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53	TO TO TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00	TO TO TO TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	1.2307 0.01039 0.18 2.10 0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	1.2307 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.39	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.88	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.93	-22.17	-7.65	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		3.05	25.68	-4.87	-1.10	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.03										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-49.38	-49.38									
BOD1 SETTLING		-5.14	-5.14									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.04		-10.04								
BOD2 SETTLING		-14.64		-14.64								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.42			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE		0.00			0.00	0 00					
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING PO4-P BACKGROUND SEDIMENT SO	IDGE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON GROWIH/PHOTOSI		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	PCTC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM DETIDING		0.00										0.00
TOTAL INPUTS	0.04632	1081.19	74.89	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.79	-74.90	-57.60	-9.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.60	-0.01	0.00	18.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 47 ON PARAMETER SET 24 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 18 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

\*\*\*\*\* WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen

SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
	TXIII	12111	Jetti	days	11137 13	111/15	111	ttt	CIB	125	10	10
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

WIDTH	=	1.52	TO	30.27	m
BOD DECAY NH3 DECAY SOD	= = =	0.00 0.00 1.82	TO TO TO	0.88 0.00 9.01	per day per day g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	2.40	TO	20.50	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.00	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.00	TO	4.44	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
a		0 00400		0.00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10 0.00 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46 0.06 0.00	TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60 0.06 0.05	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46 0.06 0.00 0.06	TO T	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60 0.06 0.05 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.00 0.00 5.53 0.00 0.00 3.46 0.06 0.00	TO	0.9467 0.01039 0.18 2.10 0.43 0.00 6.30 0.00 0.00 3.60 0.06 0.05	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-1.23	-1.70	-5.97	-1.04	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.19	-19.32	-22.34	-7.85	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		27.11	7.68	-8.89	-6.92	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		948.89										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-27.85	-27.85									
BOD1 SETTLING		-7.95	-7.95									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-4.85		-4.85								
BOD2 SETTLING		-15.54		-15.54								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-6.38			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	987.11	56.89	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1050.09	-56.83	-57.59	-15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-62.98	0.06	0.01	12.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
THE CONVERGENCE ENTROIT	0.0000	02.90	0.00	0.01	14.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 48 ON PARAMETER SET 24 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO DISPERSION 6.3575 m²/s VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.40	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.45	TO	38.06	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.23	TO	0.35	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	2.29	TO	5.83	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL 7	TRIB	
TRAVEL TIME	=		2.39		
MAXIMUM EFFLUENT	=		0.00	PERCENT	
		0 00400		0 00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00 6.43	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 6.69	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00 6.43 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 6.69 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00 6.43 0.06 0.20	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 6.69 0.06 0.44	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00 6.43 0.06 0.20	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 6.69 0.06 0.44	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.59 0.00 5.53 0.00 0.00 6.43 0.06 0.20 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 6.69 0.06 0.44 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	EI ON	D0	DOD1	DOD2	MDOD			ODG D	DO4 D	CIII A	DEDID	NOM
	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
	, 2	119, 4	π, α	119, 0	,,,, c	119, 0	119, 4	71g, Q	71g/ Q			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.56	-1.45	-5.89	-0.88	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.58	-18.76	-22.16	-7.53	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-15.79	25.17	-3.33	2.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1094.30										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-49.68	-49.68									
BOD1 SETTLING		-4.51	-4.51									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-11.86		-11.86								
BOD2 SETTLING		-14.37		-14.37								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-18.73			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT S	OURCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT S	OURCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOS		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/E		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNT	HESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCR		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	211011	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NON BETTEING		0.00										0.00
TOTAL INPUTS	0.04632	1105.41	74.38	57.60	30.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1105.17	-74.39	-57.60	-8.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.25	-0.01	0.00	22.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 49 ON PARAMETER SET 25 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	1.00	0.00300	0.01329	0.085	2.66	0.106	0.044	0.279	8.71
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.43	0.01429	0.04572	0.061	2.38	0.505	0.150	0.200	7.82
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.05	0.01529	0.15829	0.043	2.18	0.540	0.519	0.141	7.14
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.43	0.01609	0.02063	0.146	5.66	0.568	0.068	0.479	18.57
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	2.59	0.01209	0.00850	0.274	5.99	0.427	0.028	0.899	19.64
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	2.73	0.01709	0.00785	0.270	6.85	0.603	0.026	0.886	22.48
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	2.01	0.02709	0.01208	0.265	7.84	0.957	0.040	0.869	25.71
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	2.48	0.03609	0.00584	0.209	27.55	1.274	0.019	0.686	90.40
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	5.39	0.04032	0.00537	0.165	43.24	1.424	0.018	0.541	141.87
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	3.42	0.00400	0.00728	0.183	3.00	0.141	0.024	0.600	9.86

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 18.11 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY	=	0.32	TO TO	0.88	per day per day
SOD	=	1.79	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.25	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.89	TO	5.22	mg/L
STREAM SUMMARY REP	ORT:	HIGH SC	HOOL :	TRIB	
TRAVEL TIME	=		3.42	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	$m^3/s$
DISPERSION	=	0.6627	TO	0.6627	m²/s
VELOCITY	=	0.00728	TO	0.00728	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	3.00	TO	3.00	m
BOD DECAY	=	0.24	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.27	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.68	TO	4.87	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.38	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
02112110		0.00	-0		
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.66	TO	2.30	mq/L
DISSOLVED OXIGEN	_	0.00	10	2.30	шg/ь

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.01	-1.09	-5.51	-0.78	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-10.00	-18.83	-22.03	-7.57	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.97	32.80	1.11	2.34	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1502.18										
DAM REAERATION		0.00										
SOD BACKGROUND		-1395.85										
BOD1 DECAY		-56.28	-56.28									
BOD1 SETTLING		-5.82	-5.82									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-12.63		-12.63								
BOD2 SETTLING		-18.55		-18.55								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-16.04			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1516.26	82.01	58.72	30.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1517.17	-82.02	-58.72	-8.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.91	0.00	0.00	21.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 50 ON PARAMETER SET 25 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.54	0.00300	0.02468	0.085	1.43	0.106	0.081	0.279	4.69
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.23	0.01429	0.08491	0.061	1.28	0.505	0.279	0.200	4.21
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.03	0.01529	0.29397	0.043	1.17	0.540	0.965	0.141	3.85
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.77	0.01609	0.03832	0.146	3.05	0.568	0.126	0.479	10.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.39	0.01209	0.01578	0.274	3.22	0.427	0.052	0.899	10.58
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.47	0.01709	0.01457	0.270	3.69	0.603	0.048	0.886	12.11
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.08	0.02709	0.02243	0.265	4.22	0.957	0.074	0.869	13.85
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.33	0.03609	0.01085	0.209	14.84	1.274	0.036	0.686	48.68
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	2.90	0.04032	0.00997	0.165	23.28	1.424	0.033	0.541	76.39
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	1.84	0.00400	0.01351	0.183	1.62	0.141	0.044	0.600	5.31

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 9.75 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 m³/s FLOW = 1.0267 TO 8.2647 m²/s DISPERSION VELOCITY = 0.00942 TO 0.30334 m/s DEPTH = 0.04 TO 0.27 WIDTH = 1.17 TO 23.28 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.36 0.00 1.84 0.00 0.00 3.60 0.06 0.01	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.86	TO TO	29.13 5.30	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	= =			DAYS PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 1.2307 0.01351 0.18 1.62	TO TO TO TO	0.00400 1.2307 0.01351 0.18 1.62	m <sup>3</sup> /s m <sup>2</sup> /s m/s m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.40 0.00 5.53 0.00 0.00 5.22 0.06 0.04 0.06	TO TO TO TO TO TO TO TO	0.74 0.00 6.31 0.00 0.00 5.43 0.06 0.41	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	= =	25.68 1.12	TO TO	27.90 2.95	deg C mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.19	-1.72	-6.11	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.98	-18.78	-22.41	-7.76	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.01	18.82	-8.38	-3.12	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		830.31										
DAM REAERATION		0.00										
SOD BACKGROUND		-751.61										
BOD1 DECAY		-42.98	-42.98									
BOD1 SETTLING		-4.55	-4.55									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-8.46		-8.46								
BOD2 SETTLING		-12.26		-12.26								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-11.87			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	843.42	68.03	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-843.89	-68.03	-57.60	-11.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.47	-0.01	0.00	16.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 51 ON PARAMETER SET 26 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062	0.279 0.200	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.90	0.75	0.30	0.01429	0.06532	0.061	1.52	0.540	0.214 0.742	0.200	5.48
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01529	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					F
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.88	TO	5.27	mg/L
					3,
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=			PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.13	-1.17	-5.89	-0.89	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	9.43	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.78	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.29	24.30	-4.69	-0.93	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1063.11										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-44.82	-44.82									
BOD1 SETTLING		-4.70	-4.70									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.10		-10.10								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.56			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0 00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1076.51	69.47	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1077.11	-69.47	-57.60	-9.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.60	0.00	0.00	18.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 52 ON PARAMETER SET 26 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.85	TO	5.20	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.32	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.30	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.39	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.61	mq/L
DIDDOLIED OHIOLH					

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.06	-1.72	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	17.52	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.80	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.34	23.73	-4.73	-1.02	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1069.71										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-51.05	-51.05									
BOD1 SETTLING		-5.42	-5.42									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.05		-10.05								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.44			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSY	NTHESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1083.16	76.98	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1083.83	-76.99	-57.60	-9.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.67	-0.01	0.00	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

.....BEGIN SENSITIVITY RUN 53 ON PARAMETER SET 27 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

### REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190 2 S OF 190 - OLD COVINGTON HWY	15.75 14.60	14.60 12.90	1.15 1.70	0.70	0.00300 0.01429	0.01899 0.06532	0.085 0.061	1.86 1.67	0.106 0.505	0.062 0.214	0.279	6.10 5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.90	0.75	0.30	0.01429	0.22613	0.043	1.52	0.540	0.742	0.200	5.40
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01529	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.81	TO	9.01	$q/m^2/d$
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.25	mg/L
STREAM SUMMARY REPO	ORT:	HIGH SCI	HOOL I	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400		0.00400	$m^3/s$
FLOW DISPERSION	=	0.9467	TO	0.9467	$m^3/s$ $m^2/s$
		0.9467 0.01039	TO TO	0.9467 0.01039	,
DISPERSION VELOCITY DEPTH	=	0.9467 0.01039 0.18	TO TO	0.9467 0.01039 0.18	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.11	-1.45	-5.38	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	7.72	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.16	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.30	24.03	-3.35	-0.95	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.09										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.95	-47.95									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.52		-9.52								
BOD2 SETTLING		-13.88		-13.88								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.53			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1078.50	73.24	54.29	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1079.12	-73.24	-54.30	-9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.62	-0.01	0.00	18.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 54 ON PARAMETER SET 27 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY 3 OLD COVINGTON HWY - 1ST UNNAMED	14.60 12.90	12.90 12.15	1.70 0.75	0.30 0.04	0.01429 0.01529	0.06532 0.22613	0.061 0.043	1.67 1.52	0.505 0.540	0.214 0.742	0.200 0.141	5.48 5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 m²/s DISPERSION VELOCITY = 0.00724 TO 0.23334 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.34	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.83	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.22	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	ΓRIB	
TRAVEL TIME	=		2.39		
MAXIMUM EFFLUENT	=		0.00	PERCENT	
== 0		0 00400		0 00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.08	-1.45	-6.39	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	14.33	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.25	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.33	24.00	-6.07	-0.99	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.73										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.92	-47.92									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.62		-10.62								
BOD2 SETTLING		-15.58		-15.58								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.47			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00	0.00	0.00			
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING	IID CD							0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX PHYTOPLANKTON SETTLING	CRETION	0.00				0.00			0.00			
PHYTOPLANKTON SETTLING PHYTOPLANKTON DEATH		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	тете	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHITON GROWTH/PHOTOSINIA PERIPHYTON RESPIRATION/EXCRE		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON DEATH	IION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM DETIDING		0.00										0.00
TOTAL INPUTS	0.04632	1081.17	73.21	60.91	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.82	-73.22	-60.91	-9.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.65	-0.01	0.00	18.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 55 ON PARAMETER SET 28 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.23	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TR TB	
DITEDIAL DOLLARICE TELE	0111	112011 001	.1002		
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
					2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	2.14	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.31	24.01	-4.71	-0.98	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1067.32										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SC	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SC									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
PHYTOPLANKTON DEATH	TRATA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0 00	0 00	0 00	0.00		0 00	0.00		0.00	
PERIPHYTON DEATH NCM DECAY		0.00	0.00	0.00	0.00			0.00			0.00	0.00
NCM SETTLING		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.83	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.46	-73.23	-57.60	-9.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.0000	-0.64	-0.01	0.00	18.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 56 ON PARAMETER SET 28 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					-
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.87	TO	5.24	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	$m^3/s$
DISPERSION	=	0.9467	TO	0.9467	$m^2/s$
VELOCITY	=	0.01039	TO	0.01039	m/s
DEPTH	=	0.18	TO	0.18	m
WIDTH	=	2.10	TO	2.10	m
BOD DECAY	=	0.32	TO	0.74	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	5.53	TO	6.30	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	4.95	TO	5.15	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.02	TO	0.40	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					_
TEMPERATURE	=	25.68	TO	27.90	deg C
DISSOLVED OXYGEN	=	0.90	TO	2.64	mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.90	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.98	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.66	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY	******	2.31	24.02	-4.71	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.50										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.94	-47.94									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY		111.73		0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.50			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	URCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYN		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING	011212011	0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHI	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.84	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1080.48	-73.23	-57.60	-9.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 57 ON PARAMETER SET 29 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

....CONSTITUENT CALCULATIONS COMPLETED

### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.33	0.01120	0.05984	0.061	1.67	0.396	0.196	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.05	0.01220	0.17900	0.043	1.52	0.431	0.587	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.30	0.01216	0.02268	0.146	3.96	0.429	0.074	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	2.53	0.00816	0.00869	0.274	4.19	0.288	0.029	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	2.63	0.01316	0.00813	0.270	4.80	0.465	0.027	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.83	0.02136	0.01330	0.265	5.49	0.754	0.044	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	2.09	0.03036	0.00692	0.209	19.29	1.072	0.023	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	4.45	0.03452	0.00651	0.165	30.27	1.219	0.021	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 15.91 DAYS
MAXIMUM EFFLUENT = 68.24 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.32	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	q/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.24	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
					1
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.09	mg/L
					3.
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL '	TRIB	
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
FLOW	=	0.00400	TO	0.00400	m³/s
FLOW DISPERSION	=	0.00400 0.9467	TO TO	0.00400 0.9467	m³/s m²/s
					,
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.29 0.00 0.00 5.15 0.06 0.38 0.06	m²/s m/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW	DO	BOD1	BOD2	NBOD			ORG-P	PO4-P	CHL A	PERIP	NCM
	m³/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-1.98	-1.25	-6.61	-0.97	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01352	2.14	9.43	7.72	3.30	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.03452	-8.56	-16.12	-18.98	-6.54	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.27	23.01	-3.53	-0.40	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1064.07										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-45.95	-45.95									
BOD1 SETTLING		-4.87	-4.87									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.20		-10.20								
BOD2 SETTLING		-14.97		-14.97								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.60			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04052	1076.54	68.18	54.29	26.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04052	-1077.22	-68.19	-54.30	-7.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.69	0.00	0.00	18.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 58 ON PARAMETER SET 29 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.28	0.01738	0.06936	0.061	1.67	0.614	0.228	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.03	0.01838	0.27326	0.043	1.52	0.649	0.897	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	0.81	0.02002	0.03627	0.146	3.96	0.707	0.119	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.41	0.01602	0.01558	0.274	4.19	0.566	0.051	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.50	0.02102	0.01426	0.270	4.80	0.742	0.047	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.15	0.03282	0.02120	0.265	5.49	1.159	0.070	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.48	0.04182	0.00977	0.209	19.29	1.477	0.032	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.28	0.04611	0.00883	0.165	30.27	1.628	0.029	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 10.65 DAYS MAXIMUM EFFLUENT = 79.96 PERCENT

= 0.00300 TO 0.04611 FLOW = 0.9127 TO 7.6410 m²/s DISPERSION VELOCITY = 0.00839 TO 0.28045 m/s DEPTH = 0.04 TO 0.27 m WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.37 0.00 1.82 0.00 0.00 3.61 0.06 0.01	TO TO TO TO TO TO TO TO	0.88 0.00 9.01 0.00 0.00 29.28 0.06 0.34 0.06	per day per day g/m²/d g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	27.60 0.87	TO TO	29.13 5.38	deg C mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TRIB	
TRAVEL TIME MAXIMUM EFFLUENT	=			DAYS PERCENT	
FLOW DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.00400 0.9467 0.01039 0.18 2.10	TO TO TO TO	0.00400 0.9467 0.01039 0.18 2.10	m <sup>3</sup> /s m <sup>2</sup> /s m/s m
BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.33 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO TO TO TO TO TO TO TO	0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.41	per day per day g/m²/d g/m²/d per day per day per day per day
TEMPERATURE DISSOLVED OXYGEN	=	25.68 0.91	TO TO	27.90 2.92	deg C mg/L

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.20	-1.62	-5.39	-0.85	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.02511	3.98	17.52	14.33	6.13	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04611	-11.43	-21.46	-25.43	-8.78	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.35	24.97	-5.68	-1.47	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1068.76										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-49.92	-49.92									
BOD1 SETTLING		-5.23	-5.23									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-9.95		-9.95								
BOD2 SETTLING		-14.46		-14.46								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-13.45			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SO	URCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO									0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX	CRETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.05211	1083.14	78.23	60.91	29.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05211	-1083.72	-78.23	-60.91	-11.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.58	-0.01	0.00	18.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 59 ON PARAMETER SET 30 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

# SELSERS CREEK 040603

CALIBRATION

REACH SUMMARY REPORT: HEADWATER

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME 12.68 DAYS MAXIMUM EFFLUENT = 75.43 PERCENT

= 0.00300 TO 0.04032 FLOW = 0.8248 TO 6.3575 DISPERSION m²/s VELOCITY = 0.00724 TO 0.23334 m/sDEPTH = 0.04 TO 0.27 WIDTH = 1.52 TO 30.27 m

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.25	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL :	TRIB	
TRAVEL TIME	=			DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
		0 00400		0 00400	2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.10	-1.45	-5.89	-0.81	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.64	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.30	24.02	-4.71	-0.43	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1065.88										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.94	-47.94									
BOD1 SETTLING		-5.05	-5.05									
ANAEROBIC BOD1 DECAY		10.00	0.00	10.00								
BOD2 DECAY		-10.08		-10.08								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY			0.00	0.00								
BOD2 HYDROLYSIS NBOD DECAY		-12.94	0.00	0.00	0.00	0.00						
NBOD SETTLING		-12.94			0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00			0.00	0.00	0.00					
NH3-N BECAT (NITRIFICATION) NH3-N BACKGROUND SEDIMENT SO	IIDCE	0.00				0.00	0.00					
DENITRIFICATION	ORCE		0.00			0.00	0.00					
ORG-P HYDROLYSIS			0.00				0.00	0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SO	URCE							0.00	0.00			
PHYTOPLANKTON GROWTH/PHOTOSY		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EX		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTH	ESIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRE	TION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1079.29	73.23	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1079.92	-73.23	-57.60	-8.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	0.00	0.00	19.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....BEGIN SENSITIVITY RUN 60 ON PARAMETER SET 30 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

#### SELSERS CREEK 040603 CALIBRATION

REACH SUMMARY REPORT: HEADWATER

#### Tellien Committe Tellioner Indiaminine

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 HEADWATERS - S OF 190	15.75	14.60	1.15	0.70	0.00300	0.01899	0.085	1.86	0.106	0.062	0.279	6.10
2 S OF 190 - OLD COVINGTON HWY	14.60	12.90	1.70	0.30	0.01429	0.06532	0.061	1.67	0.505	0.214	0.200	5.48
3 OLD COVINGTON HWY - 1ST UNNAMED	12.90	12.15	0.75	0.04	0.01529	0.22613	0.043	1.52	0.540	0.742	0.141	5.00
4 1ST UNNAMED - S OF I-12	12.15	9.60	2.55	1.00	0.01609	0.02948	0.146	3.96	0.568	0.097	0.479	13.00
5 S OF I-12 - S OF SISTERS RD.	9.60	7.70	1.90	1.81	0.01209	0.01214	0.274	4.19	0.427	0.040	0.899	13.75
6 S OF SISTERS RD 3RD UNNAMED	7.70	5.85	1.85	1.91	0.01709	0.01121	0.270	4.80	0.603	0.037	0.886	15.74
7 3RD UNNAMED - S OF HWY 22	5.85	3.75	2.10	1.41	0.02709	0.01726	0.265	5.49	0.957	0.057	0.869	18.00
9 S OF HWY 22 - N OF WEINBERGER	3.75	2.50	1.25	1.73	0.03609	0.00834	0.209	19.29	1.274	0.027	0.686	63.28
10 N OF WEINBERGER - SOUTH SLOUGH	2.50	0.00	2.50	3.77	0.04032	0.00767	0.165	30.27	1.424	0.025	0.541	99.31
REACH SUMMARY REPORT: HIGH SCHOOL TRIB												
RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVG	AVG	AVG	FLOW AT	AVG	AVG	AVG
NO.	DIST	DIST	LENGTH	TIME	RCH END	VELO	DEPTH	WIDTH	RCH END	VELO	DEPTH	WIDTH
	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
8 HIGH SCHOOL TRIB	2.15	0.00	2.15	2.39	0.00400	0.01039	0.183	2.10	0.141	0.034	0.600	6.90

SELSERS CREEK 040603 CALIBRATION

STREAM SUMMARY REPORT: HEADWATER

TRAVEL TIME = 12.68 DAYS
MAXIMUM EFFLUENT = 75.43 PERCENT

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

BOD DECAY	=	0.35	TO	0.88	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.82	TO	9.01	g/m²/d
NH3 SED SOURCE	=	0.00	TO	0.00	g/m²/d
PO4 SED SOURCE	=	0.00	TO	0.00	g/m²/d
REAERATION	=	3.43	TO	29.28	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.01	TO	0.34	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	27.60	TO	29.13	deg C
DISSOLVED OXYGEN	=	0.86	TO	5.23	mg/L
STREAM SUMMARY REP	ORT:	HIGH SCI	HOOL	TR TB	
DITEDIAL DOLLARICE TELE	0111	112011 001	.1002		
TRAVEL TIME	=		2.39	DAYS	
MAXIMUM EFFLUENT	=		0.00	PERCENT	
					2 /
FLOW	=	0.00400		0.00400	m³/s
DISPERSION	=	0.9467	TO	0.9467	m²/s
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY	=	0.9467 0.01039	TO TO	0.9467 0.01039	m²/s m/s
DISPERSION VELOCITY DEPTH	= = =	0.9467 0.01039 0.18	TO TO TO	0.9467 0.01039 0.18	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY	= = = =	0.9467 0.01039 0.18 2.10	TO TO TO TO	0.9467 0.01039 0.18 2.10	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00	TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00	m²/s m/s m m
DISPERSION VELOCITY DEPTH WIDTH BOD DECAY NH3 DECAY SOD	= = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53	TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30	m²/s m/s m m per day per day g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00	TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00	m²/s m/s m m  per day per day g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00	TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00	m²/s m/s m m per day per day g/m²/d g/m²/d g/m²/d
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02	TO TO TO TO TO TO TO TO TO	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40	m²/s m/s m m  per day per day g/m²/d g/m²/d g/m²/d per day per day per day
DISPERSION VELOCITY DEPTH WIDTH  BOD DECAY NH3 DECAY SOD NH3 SED SOURCE PO4 SED SOURCE REAERATION BOD SETTLING NBOD DECAY NBOD SETTLING	= = = = = = = = = = = = = = = = = = = =	0.9467 0.01039 0.18 2.10 0.32 0.00 5.53 0.00 0.00 4.95 0.06 0.02 0.06	TO T	0.9467 0.01039 0.18 2.10 0.74 0.00 6.30 0.00 0.00 5.15 0.06 0.40 0.06	m²/s m/s m m  per day per day g/m²/d g/m²/d per day per day per day per day per day per day

FINAL Selsers Creek Watershed TMDL Subsegment 040603 Originated: June 1, 2011

INPUT/OUTPUT LOADING SUMMARY

	EI OM	<b>D</b> O	DOD1	DOD2	MDOD			ODG D	DO4 D	CITT A	DEDID	NOM
	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
	iii / D	ng/ a	ng/α	ng/ a	ng/ a	ng/ a	ng/ a	ng/ a	ng/ a			
HEADWATER FLOW	0.00700	1.68	2.25	6.89	3.06	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02000	6.37	7.66	15.39	4.75	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00600	-2.09	-1.45	-5.89	-0.98	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.01932	3.06	13.48	11.02	4.72	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWLS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER BNDRY	-0.04032	-9.99	-18.79	-22.21	-7.67	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		2.33	24.01	-4.71	-1.52	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWTR BNDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	25.83	24.30	15.45			0.00				0.00
NATURAL REAERATION		1066.95										
DAM REAERATION		0.00										
SOD BACKGROUND		-977.09										
BOD1 DECAY		-47.93	-47.93									
BOD1 SETTLING		-5.06	-5.06									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		-10.07		-10.07								
BOD2 SETTLING		-14.73		-14.73								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-14.06			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOU	RCE					0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOU	RCE								0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNT	THESIS	0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXC	RETION	0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHES	SIS	0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRET:	ION	0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.04632	1080.38	73.22	57.60	27.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.04632	-1081.02	-73.23	-57.60	-10.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.64	-0.01	0.00	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED