

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for a draft permit for which a fact sheet under LAC 33:IX.3111 is not prepared, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0123269; AI 153322; PER20070001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: Southeastern Louisiana Water & Sewer Company, LLC (SELA)
Goodbee Regional Sewage Treatment Plant
350 North Causeway Boulevard
Mandeville, Louisiana 70448

II. PREPARED BY: Todd Franklin

DATE PREPARED: November 5, 2007

III. PERMIT ACTION: issue LPDES permit LA0123269, AI 153322; PER20070001

LPDES application received: September 12, 2007

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment facility serving the following subdivisions: Countryside, Eagle Landing, Tantella Ranch, and Bedico Ranch

B. The permit-application does not indicate the receipt of industrial wastewater.

C. The facility is located on LA Highway 1077 at the Tantella Ranch Subdivision northwest of Covington, St. Tammany Parish.

D. The treatment facility consists of an extended aeration sewage treatment plant with an activated sludge return process. Disinfection is by liquid hypochlorite solution.

E. Outfall 001

Discharge Location: Latitude 30° 30' 55" North
Longitude 90° 12' 20" West

Description: treated sanitary wastewater

Average Expected Flow: **Phase I:** 171 residences @ 400 GPD each = 0.0684 MGD
Phase II: 658 residences @ 400 GPD each = 0.2632 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using: Continuous Recorder

Statement of Basis

LA0123269; AI 153322; PER20070001

Page 2

V. RECEIVING WATERS:

The discharge is into an unnamed ditch; thence into Soap and Tallow Branch; thence into the Tchefuncte River; thence into Lake Pontchartrain in Subsegment 040801 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040801 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	Full	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Subsegment 040801 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040801 of the Lake Pontchartrain Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS) as habitat for the Gulf Sturgeon, which is listed as a threatened species. Since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat, LDEQ has determined that the issuance of this LPDES permit is not likely to adversely affect the Gulf sturgeon or its aquatic habitats. As instructed by the FWS in a letter dated October 24, 2007, from Boggs (FWS) to Brown (LDEQ), this statement of basis has been sent to the FWS for review and consultation.

VII. HISTORIC SITES:

Although this facility is considered a new discharger, the discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Statement of Basis

LA0123269; AI 153322; PER20070001

Page 3

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX.**PROPOSED PERMIT LIMITS:**

Subsegment 040801, Tchefuncte River and tributaries – headwaters to confluence with Bogue Falaya River, is listed on LDEQ's Final 2004 303(d) List as impaired for pathogen indicators and mercury. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

Pathogen Indicators

To protect against the development of pathogenic organisms in the receiving waterbodies, fecal coliform limits have been established in the permit. Also, to ensure that proper disinfection is performed at all times, flow proportional disinfection will be a requirement of the permit.

Mercury

Traditional approaches to pollution control emphasize treating for pollutants through end-of-pipe effluent limitations. Mercury is introduced into domestic wastewater treatment facilities from users of the treatment system (ex: dental offices, labs, hospitals, doctor's offices, schools, inflow, infiltration and other users). Since the removal of mercury from sanitary wastewater is difficult, waste minimization and pretreatment is a more effective way to control discharges of mercury.

Through mercury minimization, LDEQ anticipates that mercury pollution prevention and waste minimization rather than end-of-pipe controls will result in the most efficient reduction of mercury discharges to surface waters of Louisiana from domestic wastewater treatment facilities. Pollution prevention and waste minimization of mercury are more reasonably accomplished and cost productive than the implementation of controls and technologies to meet end-of-pipe mercury effluent limitations.

Mercury minimization employs effluent sampling and system wide monitoring programs to locate and identify potential sources of mercury into the treatment system. Once identified mercury minimization integrates cost-effective reduction controls, either treatment or prevention based, to reduce or eliminate mercury from the source. Therefore, the permittee will be required to develop and implement a Mercury Minimization Program Plan (MMPP).

Statement of Basis

LA0123269; AI 153322; PER20070001

Page 4

Discharges into Outstanding Natural Resource Waters

The Louisiana TMDL Technical Procedures approved by this Department on August 10, 2006, states the following concerning discharges into Outstanding Natural Resource Waters (3.4.4 Criteria for Scenic Streams):

“Additional consideration must be provided if the waterbodies under study are classified as scenic streams, or are tributary to a scenic stream. In this case, in addition to the numerical criteria, State Water Quality Standards require that “no degradation” of water quality occur in the segment designated as scenic because of the projected discharge from discharges that were not in existence prior to the scenic stream designation of the water of the waterbody. In this case, this more stringent water quality criterion, antidegradation or the numerical criterion, should be applied for water quality planning.

For the purposes of WLA dissolved oxygen projection, “no degradation” will require that the concentration of dissolved oxygen must not be reduced by more than a statistically significant difference at the 90% confidence interval. In practice, this interval is difficult to estimate, and resource, time, and data requirements for such determinations would be generally prohibitive. Therefore, an acceptable alternative criterion allows a reduction of no more than 0.5 mg/L relative to the conditions existing at the time of designation of the scenic stream. Based on experience in post-survey instrument comparison, this value is roughly equal to a confidence interval for instrument repeatability in DO measurement, and therefore represents a minimum confidence interval. In any case, the “no degradation” requirement will be applied or modeled under critical stream conditions.”

Based on the size of the discharge and the distance of the discharge from the Tchefuncte River (approximately 6.5 miles), the Department believes that this particular discharge will not cause a drop in dissolved oxygen of 0.5 mg/l. Therefore, this Department believes that a discharge from the Goodbee Regional STP, which meets the effluent limitations defined in the permit, should be allowed.

Interim Effluent Limits:

Outfall 001 – Phase I

Final limits shall become effective on the effective date of the permit and expire when the expected flow of the facility exceeds 0.0684 MGD (171 homes).

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	3	5 mg/l	8 mg/l	Limits are set in accordance with Best Professional Judgement (BPJ) for a new discharger into a receiving waterbody with a designated use of Outstanding Natural Resource Water.
TSS	3	5 mg/l	8 mg/l	
NH ₃ -N	1	2 mg/l	4 mg/l	
Dissolved Oxygen	---	5 mg/l*	---	

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Statement of Basis

LA0123269; AI 153322; PER20070001

Page 5

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Final Effluent Limits:

OUTFALL 001 – Phase II

Final limits shall become effective when the expected flow of the facility exceeds 0.0684 MGD and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	11	5 mg/l	8 mg/l	Limits are set in accordance with Best Professional Judgement (BPJ) for a new discharger into a receiving waterbody with a designated use of Outstanding Natural Resource Water.
TSS	11	5 mg/l	8 mg/l	
NH ₃ -N	4	2 mg/l	4 mg/l	
Dissolved Oxygen	---	5 mg/l*	---	

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml

Statement of Basis

LA0123269; A1 153322; PER20070001

Page 6

(Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

This is a proposed wastewater treatment plant; therefore, there are no previous water discharge permits.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

There have been no inspections performed for this facility.

B) Compliance and/or Administrative Orders

There have been no enforcement actions administered against this facility.

C) DMR Review

There has been no discharge from this treatment plant; therefore, no DMRs have been submitted.

XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Pontchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the expected flow of 0.2632 MGD.

Effluent loadings are calculated using the following example:

CBOD₅: 8.34 lb/gal x 0.2632 MGD x 5 mg/l = 11 lb/day

Statement of Basis

LA0123269; AI 153322; PER20070001

Page 7

The Monitoring Requirements, Sample Types, and Frequency of Sampling shall be as follows:

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

The permittee shall achieve compliance with the FINAL EFFLUENT LIMITATIONS and MONITORING REQUIREMENTS as specified in accordance with the following schedule:

ACTIVITY	DATE
Achieve Interim Effluent Limitations and Monitoring Requirements	On the effective date of the permit
Achieve Final Effluent Limitations and Monitoring Requirements	When the expected flow of the facility exceeds 0.0684 MGD

The above listed activities must be achieved on or before the deadline date. Additionally, the permittee shall submit a progress report outlining the status of all facility improvements on a yearly basis until compliance is achieved.

Within 14 days of completion of the new facility or facility upgrade and/or expansion, the Permittee shall notify the Department of Environmental Quality-Office of Environmental Services in writing that construction has been completed.

The Permittee shall achieve sustained compliance with Final Effluent Limitations.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Statement of Basis

LA0123269; A1 153322; PER20070001

Page 8

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Southeastern Louisiana Water & Sewer Company, LLC, Goodbee Regional Sewage Treatment Plant, September 12, 2007.