STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0020133; AI 19451; PER20060001** 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: Town of Lake Arthur
Town of Lake Arthur Wastewater Treatment Facility
Post Office Drawer AK
Lake Arther, LA 70549

II. PREPARED BY: Todd Franklin

DATE PREPARED: August 22, 2006

III. PERMIT ACTION: reissue LPDES permit LA0020133, AI 19451; PER20060001

LPDES application received: June 7, 2006

EPA has not retained enforcement authority.
92-500 Facility

Previous LPDES permit effective: January 1, 2002
Previous LPDES permit expires: December 31, 2006

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Lake Arthur.

B. The permit application does not indicate the receipt of industrial wastewater into the Town of Lake Arthur Wastewater Treatment Facility.

C. The facility is located at 185 West Third Street in Lake Arthur, Jefferson Davis Parish.

D. The treatment facility consists of screening, followed by biological treatment using an oxidation ditch / boat clarifier, then UV disinfection.

E. Outfall 001

Discharge Location: Latitude 30° 4' 36" North
Longitude 92° 41' 1" West

Description: treated sanitary wastewater

Design Capacity: 0.75 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into an unnamed canal; thence into Lake Arthur in segment 050402 of the Mermentau River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 050402 of the Mermentau River Basin are as indicated in the table below[1/]:

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

[1/]The designated uses and degree of support for Segment 050402 of the Mermentau River 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 050402 of the Mermentau River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005, from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

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.

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 050402, Lake Arthur and Lower Mermentau River to Grand Lake, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 050402 was previously listed as impaired for organic enrichment / low DO, suspended solids / turbidity / siltation, ammonia, nutrients, and phosphorus, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 050402:

Lake Arthur, Grand Lake, and Gulf Intracoastal Waterway TMDLs for Dissolved Oxygen, Nutrients, and Ammonia

The TMDL modeled the Town of Lake Arthur Wastewater Treatment Facility and assumed the following effluent concentrations: 10 mg/L $CBOD_5$, 2 mg/L ammonia N, 5 mg/L DO. Therefore, these limitations shall apply to this facility. An interim schedule shall be placed into the permit to give the Town of Lake Arthur time to upgrade, if necessary, to meet the newly imposed NH_3-N and DO limitations.

Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for the Mermentau River Basin

As per the TMDL,

> Point Sources do not represent a significant source of TSS as defined in this TMDL. Point Sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because the point sources are minor contributors and discharges or organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocations for point source contributions were set to zero. This TMDL only addresses the landform contribution of TSS / sediment and does not address the insignificant point source contributions.

Therefore, TSS limitations are being placed into the permit according to the current state policy.

Interim Effluent Limits:

Outfall 001

Final limits shall become effective on the effective date of the permit and expire on May 2, 2008.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	63	10 mg/l	15 mg/l	Limits are set in accordance with the *Lake Arthur, Grand Lake, and Gulf Intracoastal Waterway TMDLs for Dissolved Oxygen, Nutrients, and Ammonia*
TSS	94	15 mg/l	23 mg/l	As per the *Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for the Mermentau River Basin*, no reductions were required for point sources. Therefore, the limitations shall remain as previously permitted under the LPDES permit.
Ammonia-Nitrogen	Report	Report mg/l	Report mg/l	NH_3-N limitations will be required in the final limitations of this permit. Therefore, "Report" is being placed into the permit during this interim period for informational gathering purposes.
Dissolved Oxygen*	---	Report mg/l	N/A	DO limitations will be required in the final limitations of this permit. Therefore, "Report" is being placed into the permit during this interim period for informational gathering purposes.

*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 (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**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

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

Final limits shall become effective on May 3, 2008, and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	63	10 mg/l	15 mg/l	Limits are set in accordance with the *Lake Arthur, Grand Lake, and Gulf Intracoastal Waterway TMDLs for Dissolved Oxygen, Nutrients, and Ammonia*
TSS	94	15 mg/l	23 mg/l	As per the *Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for the Mermentau River Basin*, no reductions were required for point sources. Therefore, the limitations shall remain as previously permitted under the LPDES permit.
Ammonia-Nitrogen	13	2 mg/l	4 mg/l	Limits are set in accordance with the *Lake Arthur, Grand Lake, and Gulf Intracoastal Waterway TMDLs for Dissolved Oxygen, Nutrients, and Ammonia*
Dissolved Oxygen*	---	5 mg/l	N/A	Limits are set in accordance with the *Lake Arthur, Grand Lake, and Gulf Intracoastal Waterway TMDLs for Dissolved Oxygen, Nutrients, and Ammonia*

*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 (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

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

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:

LPDES Permit No. LA0020125: Issued: January 1, 2002
Expired: December 31, 2006

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
BOD_5	10 mg/l	15 mg/l	1/week	3-Hour Composite
TSS	15 mg/l	23 mg/l	1/week	3-Hour Composite
Ammonia-Nitrogen	Report mg/l	Report mg/l	1/week	3-Hour Composite
Fecal Coliform Colonies/100 ml	200	400	1/week	Grab
pH	Range (6.0 su – 9.0 su)		1/week	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspections performed for this facility.

Date – September 27, 2004
Inspector – LDEQ
Findings and/or Violations -

1. DMR review from 09/03 to 08/04 revealed exceedances: 06/04 – TSS, 05/04 – Fecal Coliform, 04/04 – TSS and Fecal Coliform, 02/04 – TSS.
2. CCO and NOPP reviewed – areas of concern were addressed.
3. DMR loading calculation and flow meter check conducted with satisfactory results. Flow meter last calibrated on 04/01/2004.
4. Facility site review revealed no areas of concern.

Date – August 16, 2005
Inspector – LDEQ
Findings and/or Violations –

1. Records / Reports: Inspector reviewed DMRs and lab reports for the period of September 2004 to July 2005. Petroleum Laboratories conducts analysis.
2. Lab: The review of lab reports revealed exceedances for the holding time for fecal coliform. pH logbooks were satisfactory.
3. Effluent: The review of the effluent revealed no color, odor, sheen, or foam. Inspector collected a 3 hour composite sample for TSS @ Outfall 001.
4. Operation / Maintenance: All units were operating, no apparent problems revealed.

Date – October 6, 2005 (In response to Hurricane Rita)
Inspector – LDEQ
Findings and/or Violations –

1. Interviewed Conrad Whitman, Superintendent.
2. Facility is operating on grid power since October 3, 2005.
3. No damage to facility was caused by Hurricane Rita.

A Hurricane Impact Damage Audit was found in the file stating that the treatment plant has returned to pre-hurricane operational status.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement action administered against this facility:

LDEQ Issuance:

Consolidated Compliance Order & Notice of Potential Penalty
Enforcement Tracking No. WE-CN-02-0282
Date Issued – January 25, 2004
Findings of Fact:

1. The Respondent owns and/or operates a publicly owned wastewater treatment facility located at 185 West Third Street in Lake Arthur, Jefferson Davis Parish, Louisiana. The Respondent was issued NPDES Permit LA0020133 which became effective November 20, 1990, and expired on November 19, 2005. The Respondent submitted a timely permit renewal application and NPDES Permit LA0020133 was administratively continued. The Respondent was issued LWDPS Permit WP1350 which became effective January 26, 1996, and which expired January 25, 2001. In accordance with the assumption of the NPDES program by the state, NPDES permit LA0020133 became LPDES permit LA0020133 on or about August 27, 1996. The Respondent submitted an updated renewal application for LPDES permit LA0020133 on October 9, 2000, and was issued LPDES permit LA0020133 which became effective January 1, 2002, and expires December 31, 2006. Under the terms and

conditions of LPDES permit LA0020133 the Respondent is authorized to discharge treated sanitary wastewater to an unnamed canal, thence to Lake Arthur, both waters of the state.

2. An inspection on September 14, 2000, revealed that the Respondent failed to properly operate and maintain its facility. Specifically, the sewage treatment plant had large amounts of biosolids and debris present in the clarifier, just prior to the outfall.
3. Inspections on September 14, 2000, and September 5, 2002, and a subsequent file review on December 17, 2003, revealed effluent violations for the monitoring periods from January 1999 through March 2003, as reported by the Respondent to the Department on DMRs. There were six TSS violations, four BOD_5 violations, and six fecal coliform violations reported on the DMRs.
4. An inspection on July 31, 2001, revealed the following:
   A. There were excessive amounts of solids and debris throughout the treatment system.
   B. Floating solids and debris were present in the clarifier and in the area of the UV disinfection system prior to the outfall.
   C. Respondent was not operating with an appropriate flow measurement device. The arm of the sonic flow meter was stabilized with a wooden block which is a source of variability in the accuracy of the flow-measuring device. The flow measurement was off by 24.9%.
5. A file review on December 17, 2003, revealed the Respondent submitted incomplete and/or inaccurate DMRs. Specifically, the Respondent was not noting the correct number of loading exceedances on DMRs.

Order:

1. To immediately take any and all steps necessary to meet and maintain compliance with LPDES permit LA0020133 and Water Quality Regulations.
2. To submit to the Enforcement Division a written report that includes a detailed description of the circumstances surrounding the cited violations and actions taken or to be taken to achieve compliance with the Compliance Order.

C) DMR Review

A review of the discharge monitoring reports for the period beginning July 2004 through June 2006 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
Fecal Coliform, Monthly Avg.	001	September 2005	200 col./100 ml	TNTC
Fecal Coliform, Weekly Avg.	001	September 2005	400 col./100 ml	TNTC
TSS, Monthly Avg.	001	October 2005	93.8 lbs/day	125.14 lbs/day
TSS, Monthly Avg.	001	January 2006	15 mg/l	19 mg/l
TSS, Weekly Avg.	001	January 2006	23 mg/l	38 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve

compliance with water quality standards. 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 design capacity of 0.75 MGD.

Effluent loadings are calculated using the following example:

$CBOD_5$: 8.34 lb/gal x 0.75 MGD x 10 mg/l = 63 lb/day

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.50 and 1.00 MGD.

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
$CBOD_5$	1/week	3 Hr. Composite
Total Suspended Solids	1/week	3 Hr. Composite
Ammonia-Nitrogen	1/week	3 Hr. Composite
Dissolved Oxygen	1/week	Grab
Fecal Coliform Bacteria	1/week	Grab
pH	1/week	Grab

In order to allow the permittee time to upgrade the facility to meet limitations imposed by a TMDL, **INTERIM LIMITS** are proposed for this facility.

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	On or before May 3, 2008

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.

Where the percent project completion reported is less than would be required to assure completion of necessary upgrades by the required date, the report of progress shall also include and explanation for this delay and proposed remedial actions.

No later than 14 days following a date for a specific action (as opposed to a report of progress), the permittee shall submit a written notice of compliance or noncompliance.

If the Town of Lake Arthur is unable to comply with the above issued Schedule of Compliance, the town shall submit an alternative compliance schedule, for consideration by this Office, within the Draft permit public notice period.

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue 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.

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, Town of Lake Arthur, Town of Lake Arthur Wastewater Treatment Facility, June 7, 2006.