

# **Exhibit 21 - Wastewater Improvement Plan**

## **PRELIMINARY ENGINEERING REPORT**

### **EVANGELINE PARISH POLICE JURY WARD 1 INDUSTRIAL PARK 100,000 GPD WASTEWATER TREATMENT PLANT**

**JUNE 13, 2011**

**OWNER**

**EVANGELINE PARISH POLICE JURY**



**J. RONALD LANDRENEAU & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
603 COURT STREET  
VILLE PLATTE, LA. 70586  
PHONE 337-363-7035  
FAX 337-363-1287**

# **Exhibit 21 - Wastewater Improvement Plan**

**EVANGELINE PARISH POLICE JURY  
PRELIMINARY ENGINEERING REPORT  
WARD 1 INDUSTRIAL PARK  
100,000 GPD WASTEWATER TREATMENT PLANT**

**June 13, 2011**

## **I. GENERAL:**

The Evangeline Parish Police Jury (EPPJ) has approximately 100 acres available on the first extension to the Ward 1 Industrial Park. The extension has access to the existing water and wastewater facilities. However, the existing wastewater facility is not capable of treating the minimum flow required for site certification. Therefore, the EPPJ will build a new facility capable of treating 100,000 gpd with an effluent discharge of 10/10/2. See Exhibit "A", line diagram of the proposed plant. The project would also include building a new pumping station, and appurtenant piping and fencing.

## **II. PROJECT PLANNING AREA:**

### **A. Location:**

The project is the eastern portion of Evangeline Parish as per the attached map showing the location of the proposed improvements, labeled Exhibit "C".

### **B. Environmental Resources Present:**

The new wastewater treatment plant site shall occupy approximately 1.0 acre of the park extension next to the existing treatment facility. The site is currently in agricultural use.

There are no zoning ordinances on the proposed lands within the project. The proposed project is located in Evangeline Parish. The project is not located in a floodplain area as per the appropriate FIRM. See attached Exhibit "B".

The site contains no wetlands.

The National Register of Historic Places has reviewed the project and there are no listed properties located within the area to be affected by the project. This project shall have no effect on significant cultural resources and the Office of Culture, Recreation and Tourism has no objections to its implementation.

The one-acre well site is not located on or near a historical site, national forest, scenic highway, wilderness area, park, or along any wild or scenic waterways. The proposed site is currently in agricultural use.

The proposed activities of this project will have no significant impact on rare, threatened, or endangered species, or its critical habitats. There are no anticipated impacts on any fish or wildlife.

## **Exhibit 21 - Wastewater Improvement Plan**

This site is adjacent to an existing road right of way, whereas this right of way is being maintained, by standard Right of Way maintenance practices. During construction and installation of the proposed wastewater treatment plant, there will be a temporary impact on vegetation clearing. Once construction is completed, vegetation should re-establish itself and there is no known adverse impact on vegetation.

It is my opinion that this project will have little or no adverse effects on socio-economics. The proposed project will not displace any minority or low-income populations.

It is our opinion that this project is beneficial to human health, by providing safer and more consistent effluent water. It is also our opinion that this project does not pose disproportionately high and adverse human health or environmental effects to minority and low-income populations. This project is not located in a minority or low-income community.

During construction of the project, there may be a localized temporary impact on air pollution due to possibly some dust (depending on weather conditions) and petroleum-powered equipment. However, the impact will be minimal, localized and of short duration. Standard dust mitigation measures will be utilized during the construction phase. Once construction is complete, there is no known adverse impact on air quality. There will be no long-term air emissions.

During construction of the project, there may be a temporary impact on transportation. Traffic may be detoured. However, this factor will be minimal at most since construction is outside of the existing roadway. Once construction is completed, there is no known adverse impact on transportation.

The project facilities will not produce major sources of noise. Noise from construction equipment during construction will be on the same level as farm equipment during planting and harvest seasons. The project will have no long-term impact on noise.

### **C. Growth Areas and Population:**

The area is a rural, agriculture area not projected to have any significant growth based on the 1950 through 2000 census periods, which indicates very little population change (+7% over the past 50 years).

The population of Evangeline Parish during this time period is as follows:

1950 – 31,629  
1960 – 31,639  
1970 – 31,932  
1980 – 33,343  
1990 – 33,274  
2000 – 35,434  
2010 – 33,984

However, there has been a trend, during the last approximately 10 years, for people to move out of the residential areas into the rural areas.

# **Exhibit 21 - Wastewater Improvement Plan**

## **III. Existing Facilities:**

### **A. Location Map:**

See attached Exhibit "C".

### **B. History:**

The EPPJ began operating the Ward 1 Industrial Park approximately in 1975 with two remote potable water wells, one 250,000 gallon elevated water tank, one sewer pump station, one 25,000 gpd wastewater treatment plant, and the associated water distribution and sewer collection systems. The original wastewater treatment plants capacity was 25,000 gpd with an effluent quality of 30/30. The system has been enlarged to 35,000 gpd, and upgraded to an effluent quality of 20/20. In 1978, the system expanded to the northeast of Ville Platte to serve the Tate Cove community.

### **C. Condition of Facilities:**

The existing wastewater treatment plant is in fair condition, as is the pumping station. However, the site size, as well as the layout prevents any major expansion. Therefore the EPPJ would build a new 100,000 gpd plant as stated above.

The EPPJ maintains 3 full time maintenance employees who are certified in both water and sewer. These employees are responsible for 8 more sewer systems in Evangeline Parish.. The system is in compliance with all applicable state standards and the system is in full compliance with the Safe Drinking Water Act.

### **D. Financial Status of any Operating Central Facilities.**

The average sewer bill for the past year was \$967. Total revenue from sewer was \$11,610.

Electrical costs for the last year were \$17,238. Chemical costs for the last year was \$3,200. Manpower was \$10,822. The EPPJ does not have any long-term debt associated with the Ward 1 Industrial Park at this time.

O & M costs will increase approximately \$4000 per month mainly due to increased utility & chemical costs associated with the new wastewater treatment plant.

## **IV. Need for Project:**

### **A. Health and Safety:**

The new 100,000 gpd wastewater treatment plant would ensure an adequate capacity for present and future use. New industries in the park would have adequate sewerage facilities.

# **Exhibit 21 - Wastewater Improvement Plan**

## **B. System O & M:**

The O & M of the existing system appears to be reasonable relative to other systems of similar size and type. The system is operated by the Evangeline Parish Police Jury, which also maintains 8 other systems. The Board meets on a monthly basis at the Evangeline Parish Courthouse.

The electric utility usage of the new wastewater treatment plant will have the greatest impact on the future O & M costs of the system. Disinfection costs will be increased by a factor of 4, but it is still a minor item compared to the electrical cost.

There are no significant problems that appear to be necessary to build this facility.

## **C. Growth:**

This project is for the betterment of the Ward 1 Industrial Park and would allow for future growth within the existing service area.

## **V. Alternatives Considered:**

### **A. Discussions:**

There are no other viable alternatives to study in this situation.

### **B. Design Criteria:**

The Ten State Standards, good engineering practice, and local knowledge will be used in the final design.

### **C. Map:**

Exhibit "B", attached, shows the proposed system location as well as the proposed project.

### **D. Environmental Impacts:**

There are no adverse environmental impacts associated with the project.

### **E. Land Requirements:**

The new wastewater treatment plant will require an approximately 1-acre site. The EPPJ owns the property in fee title at this time. Access to the site shall be from Maxie Rae Road.

### **F. Construction Problems:**

There are no construction problems anticipated at this time.

## Exhibit 21 - Wastewater Improvement Plan

# **Exhibit 21 - Wastewater Improvement Plan**

## **H. Advantages/ Disadvantages:**

The proposed project will provide safe, effluent discharge water for the existing customers, and will meet all the requirements of DHH and DEQ.

## **VI. PROPOSED PROJECT .**

### **A. Project Design:**

#### **1. Waste Water Treatment Plant:**

The new treatment plant shall be located on property they presently own, next to the existing waste water treatment plant.

#### **2. Chemicals:**

The only chemicals anticipated for the wastewater treatment plant is chlorination for disinfection. The existing treatment plant is utilizing chlorination for disinfection.

#### **3. Storage:**

Storage facilities shall not be required.

#### **4. Pumping Stations:**

Sewer from the new collection system shall flow into the main sewer lift station, from which it shall be pumped into the equalization chamber of the new treatment plant.

### **B. Cost Estimate:**

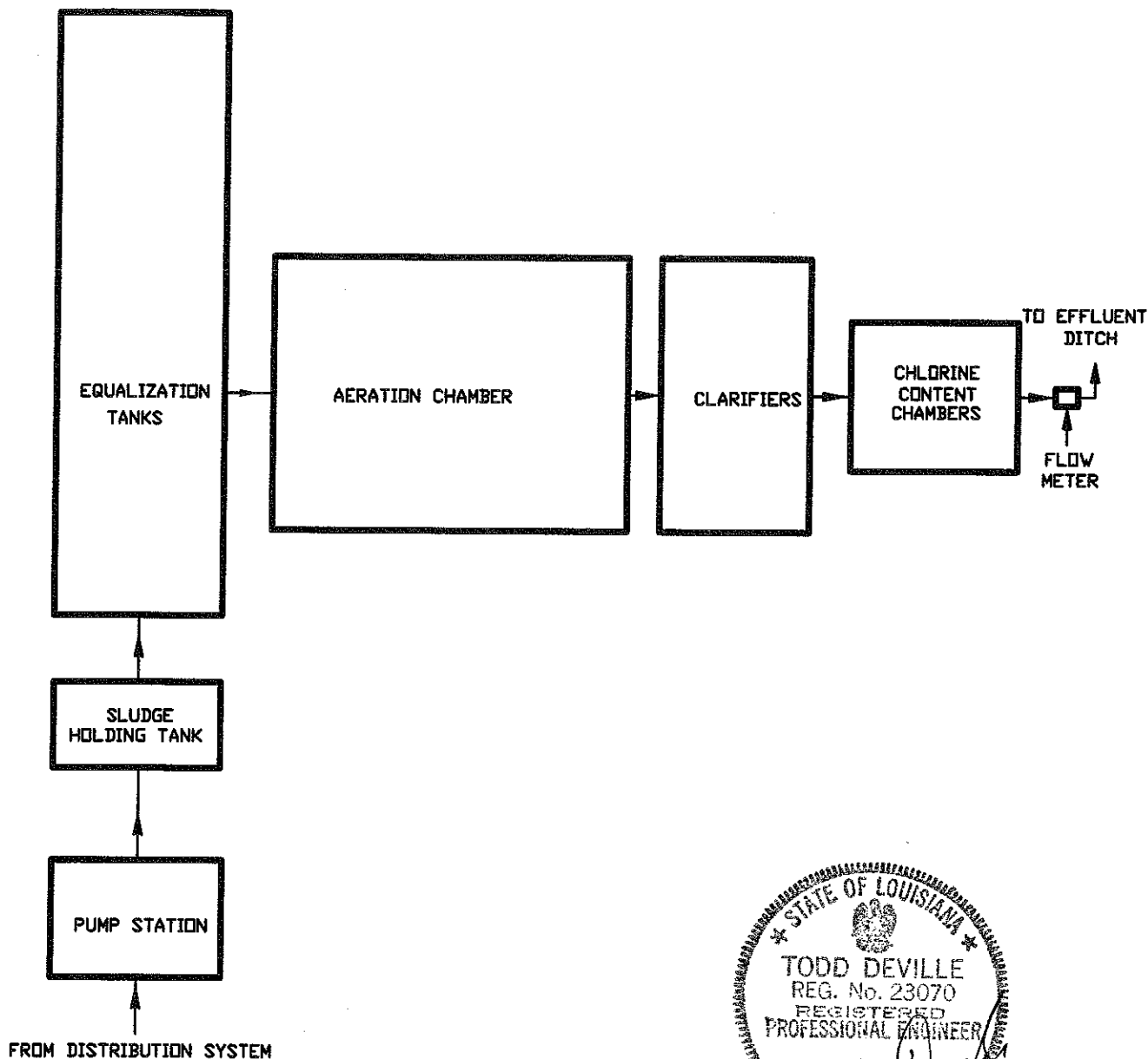
See Section V., G., Cost Estimate, earlier in this document.

## **VII. Conclusions:**

There are no special studies anticipated for this project at this time. It is therefore recommended that the EPPJ build this project as soon as funding is available.

# Exhibit 21 - Wastewater Improvement Plan

EXHIBIT "A"



EVANGELINE PARISH POLICE JURY  
WARD I INDUSTRIAL PARK WASTE WATER  
100,000 gpd TREATMENT PLANT DIAGRAM

**J. RONALD LANDRENEAU  
AND ASSOCIATES, INC.**

CONSULTING ENGINEERS & SURVEYORS  
801 W. MAIN STREET—VILLE PLATTE, LA. 70586  
PHONE (337) 363-7035 FAX (337) 363-1287

DRAWN BY : J. V.  
CHECKED BY : T. D.

DATE : JUNE 13, 2011



## Exhibit 21 - Wastewater Improvement Plan





Google

Eye alt 351 km

29

EXISTING WASTE  
WATER  
TREATMENT  
PLANT

NEW WATER  
TREATMENT  
PLANT

STATE OF LOUISIANA  
TODD DEVILLE  
REG. NO. 23070  
REGISTERED  
PROFESSIONAL ENGINEER

Image © 2011 DigitalGlobe

© 2011 Google

30°42'37.62"N 92°15'37.11"W elev 24m

Image Date 11/23/2009

EXHIBIT "C"