

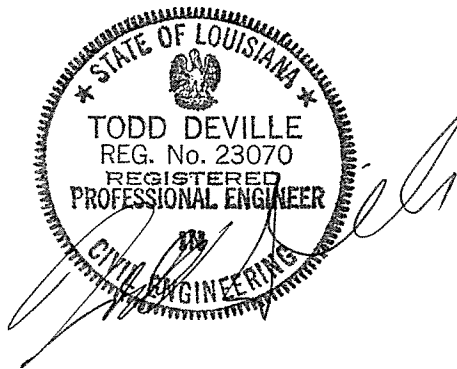
PRELIMINARY ENGINEERING REPORT

**EVANGELINE PARISH POLICE JURY
WARD 1 INDUSTRIAL PARK
100,000 GPD PUMPING STATION & FORCE MAIN**

December 2011

OWNER

EVANGELINE PARISH POLICE JURY



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December 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 pumping station capable of pumping 100,000 gpd to the City of Ville Platte's Waste Water Treatment Plant, which has the capability to properly treat this additional amount of sewer. See Exhibit "A", showing location of the new pumping station and the force main. The force main will be 6" PVC, C-900, pressure pipe. The pumping station will pump the sewer into the City of Ville Platte's sanitary sewer collection system, located within the corporate limits. The project would also include appurtenant piping, fencing, electrical, etc.

II. PROJECT PLANNING AREA:

A. Location:

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

B. Environmental Resources Present:

The new wastewater pumping station shall occupy an area approximately 20 feet by 20 feet, located at the northeastern corner of the park extension. 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 "A".

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 pumping station 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 wastewater pumping station 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.

The pumping station 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 pumping station, 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 the construction of the pumping station is outside of the existing roadway. The force main construction will be inside the existing street rights of way and will have little impact on transportation, as the force main will be located at the rear of the rights of way. 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.

Project Schedule to build the new pumping station and force main would be as follows:

Design	2 months
Bid Phase	2 months
Construction	6 months
Total Time	10 months

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.

III. Existing Facilities:

A. Location Map:

See attached Exhibit “B”.

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.

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 pumping station as stated above, which shall pump the sewer into the City of Ville Platte’s Waste Water Treatment Plant. The City of Ville Platte’s Waste Water Treatment Plant is a 2.0 mgd plant which is currently loaded at 1.4 mgd, thus having ample capacity to treat this additional wastewater.

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, as well as the Ward I Industrial Park Water System. Both the water and wastewater systems are in compliance with all applicable state standards and they are 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/ year. 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 \$400 per month mainly due to increased utility costs associated with the electrical usage for the new pumps. The City of Ville Platte will also charge a fee for treatment which has not been agreed upon yet. The City and the Jury are in negotiations as we speak. However, it is apparent that they will reach an agreement which is in the budget of the Evangeline Parish Police Jury.

IV. Need for Project:

A. Health and Safety:

The new 100,000 gpd pumping station and force main to the City of Ville Platte Sewer System will ensure an adequate capacity for present and future use of the new addition to the Industrial Park. New industries in the park would have adequate sewerage facilities.

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 wastewater treatment systems, which include pumping stations. The Board meets on a monthly basis at the Evangeline Parish Courthouse.

The electric utility usage of the new pumping station will have the greatest impact on the future O & M costs of the system.

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 and project.

D. Environmental Impacts:

There are no adverse environmental impacts associated with the project.

E. Land Requirements:

The new pumping station will require an approximately 20 feet by 20 feet site. The EPPJ owns the property in fee title at this time. Access shall be from Maxie Rae Road.

F. Construction Problems:

There are no construction problems anticipated at this time.

G. Cost Estimate:

1. Construction, Engineering & Legal:

Construction:

Pump Station @ Lump Sum-----	\$100,00.00
18,000 Linear Feet 6" Force Main @ \$18/ft-----	\$324,00.00
Contingencies @ 10%-----	\$42,400.00
<u>Total Construction-----</u>	<u>\$466,400.00</u>

Engineering Services:

a. Study and Report Phase @ 1.35%-----	\$6,300.00
b. Basic Services @ 9.5%-----	\$44,310.00
c. Resident Project Inspection Fee: Construction: 180 Calendar Days Construction = 128.6 Construction Days @ 8 Hours/Day @ \$60.00/ Hour-----	\$61,730.00
d. Environmental Report-----	\$3,500.00
e. Survey and/or Stakeout:-----	\$6,000.00
f. Direct Costs:-----	\$4,000.00

Total Engineering Services-----\$125,840.00

Subtotal-----\$592,240.00

Legal @ 3% of Loan (Assume 75% Grant, 25% Loan)-----\$4,440.00

TOTAL PROJECT COST-----\$596,680.00

2. Non-Construction and Other Projects:

None are planned at this time.

3. Annual Operation and Maintenance:

The system will continue to utilize the same personnel that are running the existing system. The only additional O & M anticipated is additional electrical consumption.

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. 100,000 gpd Waste Water Pumping Station & 6" Force Main:

The new pumping station shall be located on property presently owned by the Evangeline Parish Police Jury, which will be at the northwest corner of the 100 acre addition to the Ward I Industrial Park.

2. Chemicals:

The need for chemicals is not anticipated for the wastewater pumping station. Therefore, if any is needed in the future, the costs shall be minimum.

3. Storage:

Storage facilities shall not be required.

4. Force Mains:

Sewer from the new pumping station shall flow, by way of the 6" force main, into the headworks of the City of Ville Platte Wastewater Treatment Plant, from which it shall be treated prior to being discharged into an unnamed canal which empties into Bayou Joe Marcel.

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.