East Lagoon Wastewater Pump Station
Project Narrative

Total Project Cost Estimate: $2,726,200
Total Funds Needed to Complete Project: $1,000,000

The East Lagoon Wastewater Treatment Facility is an obsolete sewer facility in need of immediate replacement and rehabilitation. This wastewater pump station serves all of the sewer and wastewater needs for approximately 3,500 individuals, Winston County Medical Center and long-term health facilities, four (4) K-12 educational campuses, Taylor Group of Companies, Kloeckner Metals, and several small businesses within the Stringer Industrial Park. The specific institutional/commercial/industrial critical customers are:

- Taylor Machine Works/Main Manufacturing Facility – 700 employees
- Kloeckner Metals Main Facility – 65 employees
- Winston County Medical Facility – 300 employees
- Winston County Medical Nursing Home – 120 residents & 20 bed for the acute care
- Winston Academy – 335 students
- Louisville High School – 475 students
- Louisville/Winston Career Technical Center – 325 students
- Fair Elementary – K-4 – 2nd grade – 365 students
- Louisville Elementary – 3rd – 5th grade – 365 students
- Stringer Industrial Park – Kloeckner Metals Office/Customer Air/Southern Conveyors – 25 employees

The Mississippi Department of Environmental Quality (MDEQ), in an inspection report dated December 18, 2014, indicated this pump station is obsolete and should be abandoned and replaced. Presently, Louisville Utilities has brought in a by-pass pump which is used frequently due to the malfunctioning of the existing station. Significant disruption in essential services occurs when this pump station is not operational, as the existing pump station is approximately (26') deep and does not have an emergency generator.

The project need for Louisville is assistance to totally replace this pump station and acquire an emergency generator. The City of Louisville has filed this request three times in the last decade, 2009, 2014 and 2017, but has not been fortunate to receive any financial relief. The City of Louisville has secured $1,226,200 through the Water Pollution Control Revolving Loan Fund (WPCRLF) via Louisville Utilities for approximately 45% of the needed funds. The Appalachian Regional Commission (ARC) has contributed $500,000 toward the project, which accounts for 18% of the total cost. The outstanding $1,000,000 (37% of the total project cost) is needed to complete funding for the rehabilitation project with most of the engineering design phase completed.

Wilson Webb
General Manager

Jay McLendon
Office Manager

Carol Rigdon
Accountant
April 20, 2021

The Honorable Trent Kelly  
First Congressional District of Mississippi  
2243 Rayburn House Office Building  
Washington, DC 20515  

Dear Congressman Kelly,

May this letter serve as avid support for Louisville Utilities to replace our city’s east lagoon wastewater pump station. The City of Louisville is in dire need for this multi-million dollar public facility upgrade which is identified to not only be a public health risk but could have detrimental impacts on local healthcare, education, economics, and our residents.

The City of Louisville continues to manage, maintain, and invest in our infrastructure, however in many situations we are merely dependent upon the support from our federal, state, and financing opportunities to complete projects. In 2014 our city was devastated by an EF4 tornado and additionally the Mississippi Department of Environmental Quality (MDEQ) deemed the existing pump station serving our east lagoon as obsolete. While planning capital outlay for such a project we have aggressively provided the necessary services with temporary and patch-work efforts to continue meeting the needs of our community. We are presently positioned with our local match monies, however to finance the remaining portion of this capital project would negatively impact our ability to meet our ongoing needs to manage, maintain, and sustain our utility services.

The City of Louisville understands the significance of replacing this obsolete pump station, and the overall impact it will have on public health, economic development, and our local residents. Our city is in full support of this infrastructure project and respectfully request support to take on this capital project. We also understand the synergies of governmental entities working together to serve our citizens and for this we are extremely grateful. Thank you for your consideration and support to this important endeavor for Louisville, Mississippi.

Respectfully Submitted,

Will Hill  
Mayor, City of Louisville
April 20, 2021

The Honorable Trent Kelly  
First Congressional District of Mississippi  
2243 Rayburn House Office Building  
Washington, DC 20515

Dear Congressman Kelly,

As the Chairman of the Board for the Taylor Group of Companies, I am writing this letter in support of the City of Louisville’s East Lagoon Wastewater Pump Station project. Funding for this project would allow the City of Louisville and Louisville Utilities to enhance the wastewater services to the hospital, long-term healthcare facilities, educational campuses, housing subdivisions, and businesses by replacing the obsolete pump station.

The East Lagoon Wastewater Pump Station serves the eastern side of the City of Louisville, which impacts the Stringer Industrial Park, Winston Medical Center and its healthcare footprint, four (4) K-12 campuses, and hundreds of residents. The upgrade in water and sewer infrastructure would be a catalyst in progressing health and wellness, prioritizing education and safety, and attracting and retaining business and industry within Louisville. Additional development and construction opportunities would strain the antiquated system thus creating a dire situation for Louisville and Winston County.

Therefore, I would encourage you to consider any funding mechanism or financial resources for replacing the East Lagoon Wastewater Pump Station, as it would be a constructive approach to leveraging public funds to potentially address economic and community development needs. Our organization would greatly appreciate your positive endorsement for this project, as it would strengthen our infrastructure and be an economic driver for future development activities in Winston County.

Sincerely,

William A. “Lex” Taylor III  
Chairman/CEO
April 16, 2021

The Honorable Trent Kelly
First Congressional District of Mississippi
2243 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Kelly,

As the Executive Director of the Winston Partnership, our organization strongly supports the East Lagoon Wastewater Pump Station project for the City of Louisville. This project is critical to our economic development retention and recruitment efforts as it serves all of the wastewater needs for the Stringer Industrial Park, Taylor Machine Works Main Campus, Kloeckner Metals, Winston County Medical Center, four (4) K-12 educational facilities and campuses, and residents within the City of Louisville.

A new East Lagoon Wastewater Pump Station is essential to maintaining the current infrastructure as it supports our existing manufacturing facilities, healthcare campuses and retail businesses in Louisville. The financial impact of a significant disruption to these essential services would be severe, and it would adversely affect the businesses who employ over 1,500 individuals and the 1,200 students who attend school at these educational locations. Delaying this project any further would be disastrous to the business community and our rural community.

Another component to this project is the ability to recruit business to the Stringer Industrial Park. Strong infrastructure, especially wastewater services, is key to attracting business opportunities to further grow our community through job creation and capital investment. Additional improvements to the wastewater services would strengthen the reliability of the service to new and expanding businesses within the park, while enhancing our ability to properly promote sites and buildings within this industrial park for new investment.

An underlying advantage to installing the new East Lagoon Pump Station is the impact this project will have on our workforce development housing situation. Modern enhancements to the existing infrastructure create an opportunity to construct housing developments and neighborhoods, which play a significant role in our talent attraction and workforce action plan. Housing units are being developed in the areas within Louisville served by the antiquated system, which is creating an urgent need for the implementation of this project.

The Winston Partnership understands the significance of replacing this obsolete pump station, and the overall impact it will have on our economic development efforts and the local residents. Our organization is in full support of this infrastructure project, as it will strengthen our ability to recruit and retain business opportunities in Louisville.

Sincerely,

Glen C. Haab
Executive Director
July 13, 2015

Mr. Wilson Webb, Public Works Director
City of Louisville
PO Box 849
Louisville, MS 39339

Dear Mr. Webb:

Re: Inspection Report, Water NPDES/SSO
Louisville POTW, East
Winston County
NPDES Permit No. MS0025640

Enclosed is a copy of the CEI NPDES/SSO inspection reports completed as a result of this office’s inspection at Louisville POTW, East on December 18, 2014. The reports should be used by you as a guide for complying with requirements and limitations stated in your permit.

If you have any questions concerning this matter, please contact me at (601) 961-5591.

Sincerely,

Jim Harvey
Municipal and Private Facilities Branch
Environmental Compliance and Enforcement Division
Site Name: Louisville POTW, East

Permit Number(s): Water - NPDES Permit No. MS0025640

Physical Address
Langley Road
Louisville, MS 39339
Winston County

Mailing Address
PO Box 849
Louisville, Mississippi 39339

Evaluation Type: Compliance Evaluation Inspection - NPDES

Date of Evaluation: 12/18/2014

Facility Type: Minor Municipal

Inspection Participants: Mr. Wilson Webb, Louisville Public Works Director, Jim Harvey, MDEQ

Purpose of Inspection
The City of Louisville holds NPDES Permit MS0025640 for their East lagoon; an inspection was conducted on December 18, 2014 in order to determine the level of the facility's compliance with the conditions set forth in the NPDES Permit.

Permit Status
The Louisville East POTW NPDES Permit MS0025640 was issued on May 2, 2013, and will expire on April 30, 2018. The Permit was issued with Phased Limits; the Phase II Limits have a reduction in Total Ammonia Nitrogen and BOD. Section T-15 of the NPDES Permit outlines the Schedule of Compliance with the Phased Limits. The Permit was current and in good standing at the time of the inspection.

Facility Description
The Louisville East POTW facility is an aerated lagoon facility with sand filters followed by gas chlorination and de-chlorination. A baffle curtain is used at the southeast edge of the single lagoon cell prior to the discharge points into the sand filters. Each of the two sand filters has two influent points to allow dispersion of the influent. Discharge from the sand filter flows to the chlorine contact chamber for disinfection via chlorine gas. The effluent is also de-chlorinated using sulfur dioxide gas prior to discharge to the receiving stream.

Inspection Summary
I contacted and met with Mr. Webb at the Louisville Public Works Department on December 18, 2014. After reviewing the scope and purpose of the inspection with Mr.
Webb, we reviewed the POTW monitoring records for 2013. The City of Louisville had experienced an EF4 tornado event on April 28, 2014. They suffered building damage as well as infrastructure damage. The Louisville East POTW facility did not sustain any direct damage to the facility, however the collection system did.

The City of Louisville uses Enviro-Lab of Starkville as the Contract Lab for sample analyses; the facility has quarterly sampling performed. A review of the records indicated 4 analyses were performed in 2013, and the Chain of Custody documents were on file as well as a copy of the Operators Log. No discrepancies were noted after reviewing the 2013 Records.

Mr. Webb and I then drove to the POTW facility, located on Leighton Road (listed as Langley Road on NPDES Permit). The facility has added a chlorine contact chamber since the previous inspection (1/14/10), however the influent lift station is obsolete. The electrical control panel parts are no longer available and needs replacement.

The facility was not discharging at the time of the inspection, although one of the two sand filters was in the ‘Fill’ phase. The sand filter inlet valves are manually controlled as needed. Flow from the sand filters discharges to the chlorine contact chamber for dosing, and the flow is recorded at the new gas house. I was able to access the receiving stream at the time of the inspection; no sewage sludge or solids were noted around the discharge into Town Creek.

**Conclusions**

The Louisville East POTW facility appeared to be operating properly at the time of the inspection and the Records for the facility appeared to be complete. The main lift station at the facility to the lagoon is obsolete. The lift station has the pumps/motors in an underground enclosed area (drywell). The lift station electrical panel components are also obsolete, having had many varied repairs made over the years. Mr. Webb noted that the lift station was on the list for replacement/upgrade in the City’s projects list.

The sand filters appeared to be well maintained and clean at the time of the inspection. No flow was noted discharging to the receiving stream during the inspection, allowing for clear inspection of the discharge point. Some dark patches were noted in the stream, however these appeared to be an algal/moss type growth in the stream bed and were not solids from the POTW.

After reviewing the POTW operation with Mr. Webb, I concluded the POTW inspection and reviewed the collections system/SSO questionnaire with him. I requested that the questionnaire be completed and returned within two weeks.

**Signature:**

Date: 7/3/15
Louisville East POTW facility aerial

Louisville East POTW; influent lift station, 'Can Tex' design
Louisville East POTW; lift station dry well ~8' depth

Louisville East POTW; main lagoon lift station control panel
Louisville East POTW; main lagoon lift station control panel w/clocks as timers

Louisville East POTW; sand filter in 'fill' part of cycle
Louisville East POTW; chlorine gas cylinders in gas house

Louisville East POTW; Hach chlorine test kit
Louisville East POTW; chlorine contact chamber, no discharge

Louisville East POTW; discharge point to receiving stream
Mississippi Department of Environmental Quality
Office of Pollution Control
Water Compliance Inspection Report

Site Name: Louisville POTW, East
Permit Number(s): Water - NPDES Permit No. MS0025640

Physical Address
Langley Road
Louisville, MS 39339
Winston County

Mailing Address
PO Box 849
Louisville, Mississippi 39339

Evaluation Type: Compliance Evaluation Inspection – NPDES/SSO
Date of Evaluation: 12/18/2014
Facility Type: Minor Municipal
Inspection Participants: Mr. Wilson Webb, Louisville Public Works Director, Jim Harvey, MDEQ

Purpose of Inspection
The City of Louisville holds NPDES Permit MS0025640 for their East lagoon; an inspection was conducted on December 18, 2014 in order to determine the level of the facility’s compliance with the conditions of the permit with regard to the collection system and SSO’s.

Collection System Description
The Louisville East system has approximately 35 miles of gravity sewer line, 1.9 miles of force main with 11 lift stations- including the main lift station at the lagoon. All lift stations have 2 pumps in service, however none have onsite auxiliary power at this time. The East POTW serves approximately 3200 residents via 1165 residential connections and 295 commercial/industrial connections. While there are no satellite systems on this collection system, some residents outside the city limits are on the system. The majority of the system was placed in service between 1940 and 1967.

Most of the lift stations associated with this system are located in residential neighborhoods, and have an alarm light on the electrical cabinet. None of the Louisville East system uses SCADA monitoring. While most of the stations are visible and viewed by utility personnel during the course of daily activity, the residents are also aware of the light/alarm significance and will notify the PWD in the event of a problem. The Louisville PWD has instituted Grease and Root control programs as well as an O&M program. The Louisville PWD maintains records of cleaning logs, work orders, training, complaints and CCTV video. A file review noted 7 bypass reports submitted to MDEQ for the 2009-2013 time period.
Performance Indicators

Based on data submitted by the city, the average vs. peak flow to the POTW varied by 20% or less for the 2009-2012 time period. The difference in average vs. peak flow for the 2013 monitoring period was 4%, indicating results from the I/I reduction efforts.

The General Manager, Mr. Wilson Webb, is notified of all bypass events via the community and/or the PWD staff. The standard procedure calls for notification of MDEQ, and a bypass report is sent. Faxed bypass reports are kept on file in the Louisville PWD office; copies of the bypass reports were provided during the inspection.

Conclusions

The Louisville East POTW collection system does appear to have limited occasional malfunctions in the system, however the PWD appeared to be making continued efforts to ensure compliance with the conditions set forth in the NPDES Permit. The facility has plans and specifications in place to replace the lift station at the lagoon with one like the station at the Louisville South POTW.

At the conclusion of the inspection, the following actions are recommended:

1) Replacement of the Louisville East main lagoon lift station.

2) The addition of an alternate power source as required by the NPDES Permit (Section T-28).

3) Examination of each lift station within the collection system for flow data (flow rate, run time) to determine location(s) of I/I.

4) Fencing and/or security measures should be taken at the lift stations that are not currently secure.

5) Research implementation of a SCADA monitoring system for the lift stations

Signature: ___________________________ Date: 4/13/15
Louisville East; lift station at lagoon, Can Tex design

Louisville East; lift station at lagoon control panel
Louisville East; Johnson Street lift station, not secured/fenced

Louisville East; N. Miller Avenue lift station