



6/2/2022
 To: Mayor and City Council members
 Construction progress update on expanding the JHEC wastewater plant. The early procurement packages approved by Council continue to pay dividends as the project has not experienced significant supply chain issues and is currently slightly ahead of schedule.
 -Trent

JHEC Water Reclamation Facility Expansion (JHWRF)

Is it in Budget?		Is it on Schedule for the Current Phase per the Contract?		Community Benefit
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>This project will provide Citizens of Pearland with an expanded facility (from a 4MGD to a 6MGD) to accommodate continued population and economic growth</i>
Project Phase?				
Construction				

Highlights:

Headworks and yard piping:

- PLW, the Construction Manager At Risk (CMAR) will submit the leak testing plan for Sequential Batch Reactor basins No. 5 & 6 to the Splitter Box by the end of June.
- Poured columns at Headworks in April.
- Began pouring the Headworks walls in May.

Sludge Building:

- The Sludge Building belt filter presses were installed in May.
- The elevated deck was completed in May.
- The hollow core panel roof was installed on the Sludge Building in April.

UV System:

- The new UV gates arrived in mid-May and will be installed within the next two weeks.
- Substantial completion on the UV System, except for the damaged UV gates was achieved in February.
- The new UV System is operational.
 - The contractor will hold a training session in mid-June.

Tertiary Filters (T-Filters)

- Tertiary Filters equipment was delivered at the end of March 2022.
- Startup of the T-Filter equipment began the week of April 25, 2022.
 - Since the start-up, performance issues have been identified relating to the existing components that were not replace in the rehabilitation scope of work.
 - The contractor has recommended replacing the existing valves and overhauling the drive motors. Staff are reviewing this recommendation and will request a proposal for the additional work.
- The contractor began work on the subgrade piping at the new T-Filters.



Ongoing work includes:

- Coordination with CenterPoint Energy to return to the site for the installation of the power poles.
- Complete installation of the generators.
- Locating missing UV cooling fan parts that were missing from the equipment that was delivered to the site in April.
 - Pertinent components of the post aeration blower are back ordered.
- Control Panels for the SBR equipment has not arrived on the site. A new arrival date has not been determined.
- Work began on the Operations Building slab.

The project is continuing to experience minor material/equipment delays. The electrical gear that was scheduled to arrive by May 2022 has not arrived yet. In addition to the electrical gear, the project is facing challenges with ordering and receiving pipe. The contractor has begun substituting HDPE pipe for below ground pipe to mitigate the impact the pipe shortage has on the overall schedule. Most of the long lead equipment and material were procured far enough in advance to mitigate the impact of the supply chain shortages. To date, the project is still running approximately 30 days ahead of schedule.

Budget Info:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
W/S Revenue Bonds				-
W/S Revenue Bonds				-
W/S Revenue Bonds	2021A	37,500,000		37,500,000
W/S Revenue Bonds	TBS 2022	1,100,000		1,100,000
System Revenue - Cash			\$1,465,500	1,465,500
Impact Fee - Debt	2021A	37,500,000		37,500,000
Impact Fee - Cash		1,100,000	1,465,500	2,565,500
Other Funding Sources		462,236		462,236
Total Funding Sources		77,662,236	2,931,000	80,593,236

Expenditures	To Date	Future	Total
PER	462,235		462,235
Land			-
Design	5,717,000		5,717,000
Construction	70,627,372		70,627,372
Construction Management/Inspection	1,670,000		1,670,000
Construction Materials Testing	446,969		446,969
FF&E		500,000	500,000
Total Expenditures	78,923,576	500,000	79,423,576

Project Contingency	1%	1,169,660
Project Balance		(0)



Schedule Info:

	Base Line	Current
Design Start	March-19	April-19
Bid Start	November-20	September-19
Construction Start	January-21	July-21
Construction Completion	December-23	

Upcoming Work Items:

- Installation of the Pulsed Air Mixing system which is scheduled for delivery by the end of June.
- The underground piping is approximately 75% complete.
- Delivery of the Pre-rotation scum pumps by the first week of June.
- Installation of the solids removal equipment.
- Ductbank installation is ongoing. Electrical work has not commenced.
- Continued coordination between staff and the contractor in the performance of the operational program.
 - Staff will meet with the contractor and the electrical sub-contractor to ensure the continuation of operations during the rehabilitation of the existing basins.
 - Staff is providing data and reports to the contractor pertaining to integration concerns during the rehabilitation.

Project Manager: Jennifer Lee

Construction Manager: Ardurra Group

Contractor: PLW Waterworks

Scope: This project consists of a 2 MGD expansion to the existing 4 MGD Sequential Batch Reactor (SBR) water reclamation facility that will increase the treatment capacity to 6 MGD (plus peak) at the John Hargrove Water Reclamation Facility (JHEC WRF) and includes critical infrastructure to be sized for the ultimate capacity of 8 MGD. The expansion project uses the CMAR project delivery method. The project will include new headworks, refurbished and new pumps for the influent lift station, 2-1 MGD basins, blowers, and tertiary treatment along with SCADA upgrades.

Justification: This 2 MGD expansion is based on growth projections for the JHEC WRF service area and additional flows to be diverted to the JHEC WRF from the Longwood Service Area and the future development in the south. In 2016, flows exceeded the TCEQ requirement of 75% which required the start of design and staff requesting TWDB funding. In 2019, several months exceeded the 90% threshold which predicted the need to finalize the design and begin construction.

Previous Memos: 02.21.19, 05.02.19, 10.17.19, 11.14.19, 01.16.20, 07.16.20, 10.01.20, 01.14.21, 02.11.21, 05.13.21, 06.10.21, 10.28.21, 03.24.22



Project Photos:



Preparing to set the Generators



Blowers being installed in Blower Building #2



Construction of Splitter Box



Headworks wall construction



New slab for Operations Building