Key Largo Wastewater Treatment District
Board of Commissioners Meeting
Agenda Item Summary

Meeting Date:

August 5, 2025

Agenda Item Number: M-1

Action Required:

No

Department:

Capital Projects

Sponsor:

Ed Castle

Subject:

Capital Projects Report - June 2025

Summary of Discussion:

Mr. Castle will present the Capital Projects monthly report.

Reviewed / Approved		Financial Impact	Attachments
Operations:	_____	$	1. Monthly Report
Administration:	_____		
Finance:	_____	Funding Source:	
District Counsel:	_____	N/A	
District Clerk:	_____	Budgeted:	
Engineering:	_____	N/A	

Approved By: _____ **Date:** 7-31-25

General Manager

Key Largo Wastewater Treatment District Capital Projects Report

Including updates through June 2025

Current Capital Projects

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Vacuum Stations Modifications (LPA0136)	$ 3,155,800.00	$3,288,332.81	$347,000.00	$3,635,332.81
	Engineering Paid to Date	**Construction Paid to Date**	**Balance to Completed (Anticipated)**	**Percentage Complete**
	$346,385.00	$2,478,994.07	$809,953.74	95%

- The VPS modifications project was awarded to Reynolds Construction in the amount of $3,155,800.00. The Agreement and the Notice to Proceed were both executed on May 18, 2023.
- Modified SOP documents and Exhibits for the operation of the vacuum trailer at each vacuum station have been reviewed and adjusted based on the comments received from Benson and Reynolds.
- Meeting to occur with AirVac in the coming month to review operational documents and provide proposal for programming pressure transmitter into control panel.
    - Pressure transmitter device to be delivered in the coming month and installed by District staff with Pedro Falcon to wire signal and power wiring into trailer control panel.
- Substantial completion was issued on 5/20 and Reynolds received a formal punch list of items to be completed to close out the project. The construction crew and project manager worked on completing this list through June.
    - Including: relocating butterfly valves on the vacuum lines to more accessible locations, coating touch ups, pipe supports, grating, supplying O&M manuals, as-builts, etc.
- Final completion walkthrough was completed on 6/16 and all items have been fixed to the satisfaction of the engineer for project closeout.
- Reynolds and WEC worked together throughout the period to get the documentation together for project closeout in the next month.
- Reynolds, Benson, WEC staff and KLWTD staff attended the construction progress meetings on June 13th and June 26th.

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Collection System Monitoring (LPA0424)	$7,575,677.00	$9,581,964.94	$960,000.00	$10,541,964.94
	Engineering Paid to Date	**Construction Paid to Date**	**Balance to Complete (Anticipated)**	**Percentage Complete**
	$956,631.25	$7,882,378.44	$1,702,955.25	84%

- Work was completed in Basins A, B, D, G, H, F, I and JK
- Current Status:
  - Basin A: **316** installed (Basin complete)
  - Basin B: **376** installed (Basin complete)
  - Basin C: **113** installed (Basin installation in progress)
  - Basin D: **232** installed (Basin complete)
  - Basin E: **308** installed (Install complete Basin restoration in progress)
  - Basin F: **338** installed (Basin complete)
  - Basin G: **221** installed (Basin complete)
  - Basin H: **27** installed (Basin complete)
  - Basin I: **227** installed (Basin complete)
  - Basin J/K: **443** installed (Basin Complete)
  - Total project installed: **2,601** out of **2,899**
  - **Sensor installation is approx. 90 % complete (Note: This is only sensors and does not include other aspects of the project)**
- Flovac and IVC continued working in Basin C (C-3 and C-4). Crews installed conduit and monitoring equipment, and rebuilt valves were installed.
- Valve rebuilds continued – 1,318 rebuilds completed.
- On June 12th there was a discussion with KLWTD, WEC, and FloVac staff on the addition of tapping the force main in (30) locations to install pressure sensors (in contract via CO 6). It was discussed that KLWTD would like to do a trial run of the sensors in areas that will not require the addition of holes in the mains. WEC and FloVac have been working together throughout the period to determine 5-7 initial locations and areas of high concern or easy installation.
- A construction progress meeting was held on June 17th and was attended by KLWTD, WEC, Flovac and Island Villa staff.

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Effluent Filtration Upgrades (LPA0243)	$ 3,043,820.00	$3,343,823.76	$445,000.00	$3,778,823.76
	Engineering Paid to Date	**Construction Paid to Date**	**Balance to Complete (Anticipated)**	**Percentage Complete**
	$438,286.25	$2,882,800.16	$467,737.35	88%

- The Effluent Filtration Upgrades project was awarded to Reynolds Construction in the amount of $3,043,820.00 on May 15, 2023.
- The catwalk was completed in June with the exception a few miscellaneous metal railings.
- It was determined that the filter had some manufacturer's defects and/or chemical reactions have occurred at multiple places on the filter, predominately on the welds, prompting the filter to be removed from the project site (5/29) and transported to Evoqua's facility in Thomasville, GA where it would undergo thorough inspection, testing, and necessary repairs.
- Evoqua's engineering team performed hydrostatic leak testing, and a 3rd party inspector performed Positive Material Identification (PMI) on the stainless-steel filter tank components, conducted dye penetrant testing, and visual inspections on all interior welds.
- WEC staff attended the CWI testing on June 30-July 2nd and witnessed the tail end of the hydrostatic testing, PMI results, and dye penetration testing in the Evoqua factory, documented locations of failure, and discussed corrective actions with Evoqua project manager.
- Results are pending from the water samples collected at the WWTP. Evoqua is to provide a final inspection report documenting all test results and corrective actions to the District by July 23rd.
- Reynolds, Benson, WEC staff and KLWTD staff attended the construction progress meetings on June 13th and June 26th.

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Power Conditioning and Electrical Upgrades at the WWTP (LPA0426)	$2,670,450.00	$3,083,983.07	$485,000.00	$3,568,983.07
	Engineering Paid to Date	**Construction Paid to Date**	**Balance to Complete (Anticipated)**	**Percentage Complete**
	$378,857.30	$388,593.51	$2,801,532.26	22%

- The Power Conditioning and Electrical Upgrades at the WWTP was awarded to Pedro Falcon in the amount of $2,670,450.00 on January 29th, 2025.
- The A/C Mini Split was mounted in the ATS room and the necessary fuses have arrived on site and been installed in the unit allowing the A/C to be in operation.
- About 50% of all conduits have been run and wire will be pulled in the next phase of the project to allow for continued operation.
- Completed trenching for site lighting and poles have been installed.
- The 3000A ATS has been approved and is expected to be delivered 6/15/26 after the projected lead time expected by the manufacturers.
- SPDs have arrived on site and will be installed in approximately a month after most of the conduits have been run.
- Pedro Falcon worked to finalize the design of the SureVolt in this period and will be providing WEC an updated sketch of the dimensions for review.
- Pedro Falcon is to provide and install (6) disconnects, (1) at each vacuum station; a modification needed for the safe operation of the vacuum trailer.
    - The disconnects are expected to arrive on site in early July, and the crew will be starting the work at the vacuum stations in the coming period.
- Pedro Falcon, KLWTD and WEC staff attended the construction progress meetings on June 11th and June 25th.

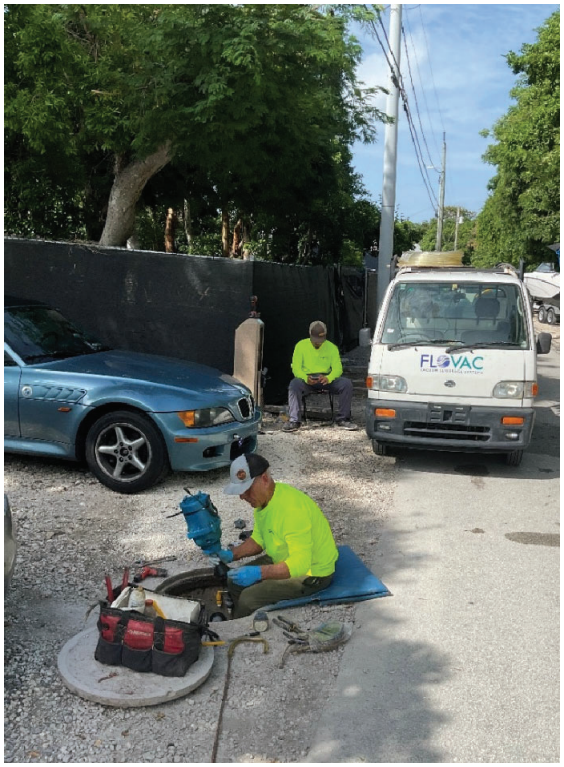
Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Vacuum Stations Odor Control	$4,009,141.26	$4,009,141.26	$400,000.00	$4,409,141.26
	Engineering Paid to Date	**Construction Paid to Date**	**Balance to Complete (Anticipated)**	**Percentage Complete**
	$164,618.75	$292,745.66	$3,951,776.85	10%

- The full Odor Control project was awarded to Belle Construction, LLC in the amount of $4,009,141.26 on March 28th, 2025.
- Belle Construction submitted submittals for WEC review including Generator, Fuel Tank and Enclosure, Rebar, and Coatings throughout June.
- Belle Construction cleared the vegetation and placed the new fence line at Vacuum Station A in June.
- As of June, the existing Odor Control systems have been relocated at Vacuum Stations E, G, I, & JK and routed through only the smaller tank, with no fan. Odor Control effectiveness remains the same.
- The fuel tank at both Vacuum Station A and D has been replaced with a 500-gal temporary tank which has been wired into the existing generators while construction of the new generator slabs commences. Belle Construction had completed the required FDEP closure paperwork for the fuel tank at Vacuum Stations A and D.
- The concrete slab modifications at Vacuum Stations G and I were poured on Wednesday, June 4th, and Friday, June 13th respectively. Belle plans to coat the slabs in the next period.
- The auger piles at Vacuum Station D were poured on Tuesday, June 24th. Belle plans to pour the Odor Control slab on grade in the next period.
- Belle Construction, KLWTD, and WEC staff attended a progress meeting on June 5th.

Upcoming Construction Projects

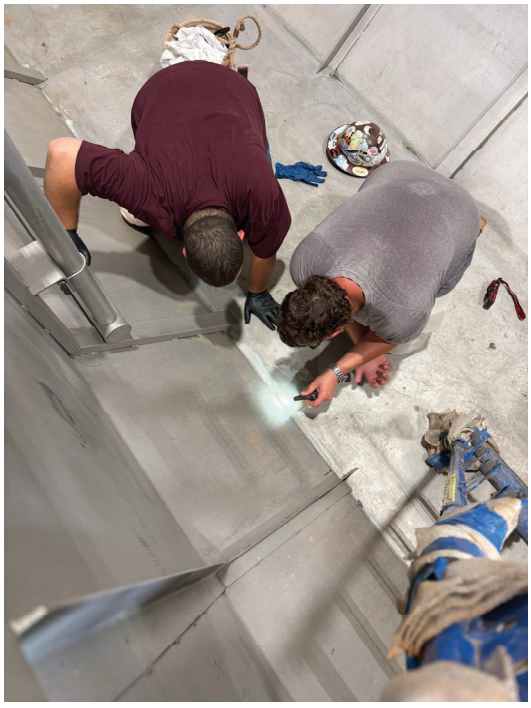
Project	Estimated Total Cost	Status
Direct Potable Reuse Demonstration Project	$1,504,301.25 (Anticipated)	The district has budgeted funds for a demonstration project to produce potable water from the WWTP's treated effluent. 2021 Florida legislation established Direct Potable Reuse (DPR) as a preferred effluent disposal method and provides for DPR projects to be eligible for grant funding, treating WWTP effluent as an Alternative Water Supply. The District has applied for a planning grant for this project and has requested grant funding to be allocated for the design, permitting, and construction of the DPR demonstration project. Initial estimates indicate that the volume of water produced in the DPR demonstration project would be in the range of 150,000 to 250,000 GPD.
EQ Tank and Headworks Project	$4,500,000 (Anticipated)	The EQ Tank and Headworks Project involves the installation of new headworks as an upgrade to the current headworks at the KLWTD WWTP. This project also involves the installation of an influent EQ tank to regulate flow. This project is currently in the design phase with preliminary site plans and structural drawings for the EQ tank. Shop drawings have been received from Hydrodyne, and a center flow screen has been selected for the headworks screening, which will reduce the footprint of the headworks space and has a higher catch rate and efficiency than the existing headworks. Due to a lack of a decision by Islamorada on the NPK booster station design, the District is moving forward with completing design, with incorporation of an additive alternate scope of work should Islamorada decide to keep the current booster pump design. Permitting efforts are underway with FDEP.
Blower Room Modifications Project	$250,000 (Anticipated)	The KLWTD staff has requested the addition of an access door behind blower #4 to better service the blower. Currently, the other blowers must be removed to access blower #4. These modifications will allow for more efficient service of the blowers. This project is currently in the preliminary design phase.


Figures 1 & 2. Collection System Monitoring IVC Concrete Installing Conduit in Trench



Figures 3 & 4. Collection System Monitoring FloVac Installing Hose Lines and Swapping Valves


Figures 5 & 6. FloVac Checking Pit is Online After Pulling Hose Lines through Conduit




Figures 7 & 8. Filtration Upgrades CWI Dye Penetration Testing

Figures 9 & 10. Filtration Upgrades CWI Dye Penetration Testing

Figure 11 & 12. Conduit Run at Disk Filter Platform & Underneath SBR Tank #3

Figures 13 & 14. New Odor Control slabs at Vacuum Stations G and I