

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

Meeting Date:  
December 17, 2024

Agenda Item Number: M-1

Action Required:  
No

Department:  
Capital Projects

Sponsor:  
Ed Castle

Subject:  
**Capital Projects Report - November 2024**

Summary:  
Mr. Castle will present the Capital Projects monthly report.

**Reviewed / Approved**

**Financial Impact**

**Attachments**

Operations: \_\_\_\_\_  
Administration: \_\_\_\_\_  
Finance: \_\_\_\_\_  
District Counsel: \_\_\_\_\_  
District Clerk: \_\_\_\_\_  
Engineering: \_\_\_\_\_

\$  
  
Funding Source:  
N/A  
  
Budgeted:  
N/A

1. Monthly Report

Approved By:   
General Manager

Date: 12/11/2024

# Key Largo Wastewater Treatment District Capital Projects Report

Including updates through November 2024

## 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)
<b>Vacuum Stations Modifications</b>	\$ 3,155,800.00	\$3,270,999.76	\$270,000.00	\$3,540,999.76
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$256,452.50	\$2,450,704.90	\$833,842.36	76%

- 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.
- WEC prepared I&C checklist for the startup of the emergency vacuum trailer and reviewed with all parties.
- Reynolds and AirVac conducted start up for stations A, D, I, G, and J/K during this period, programming for Station E was completed 11/13 and start up will be conducted the first week in December.
- Reynolds completed the stainless-steel odor control header pipe modifications at Vac Station D, A and I during the period.
- Reynolds, WEC staff and KLWTD staff attended the construction progress meeting on November 14<sup>th</sup> the meeting slated for November 28<sup>th</sup> was cancelled due to the Holiday.

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	\$7,575,677.00	\$9,581,965.61	\$780,000.00	\$10,361,965.61
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$779,360.00	\$7,558,883.34	\$2,023,722.27	80%

- Work was completed in Basins A, B, D, G, H, F and I
- Current Status:
  - Basin A: **293** installed (Basin complete)
  - Basin B: **383** installed (Basin complete)
  - Basin C: **48** installed (Basin in progress)
  - Basin D: **240** installed (Basin complete)
  - Basin E: **199** installed (Basin in progress)
  - Basin F: **339** installed (Basin complete)
  - Basin G: **231** installed (Basin complete)
  - Basin H: **45** installed (Basin complete)
  - Basin I: **225** installed (Basin complete)
  - Basin J/K: **437** installed (Basin in progress)
  - Total project installed: **2,440** out of **2,984**
  - **Sensor installation is approx. 81 % complete (Note: This is only sensors and does not include other aspects of the project)**
- Construction progress meeting was held on November 12<sup>th</sup>. The biweekly meeting slated for November 26<sup>th</sup> was cancelled due to the Holiday.
- During November, Flovac and IVC continued work in Basin E0.
- Valve rebuilds continued – 796 rebuilds completed. Continuing to target approx. 10-15 per day.
- Crews continued to walkthrough punchlist items for Basin JK during November.
- Crews have worked through punch list items for final completion of Basin I. Final Completion paperwork was issued.

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	\$ 3,043,820.00	\$3,332,095.76	\$385,000.00	\$3,717,095.76
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$370,306.25	\$2,613,259.36	\$733,530.15	80%

- The Effluent Filtration Upgrades project was awarded to Reynolds Construction in the amount of \$3,043,820.00 on May 15, 2023.
- The filter platform railings have been installed on all edges besides the north facing edge of the platform. Preliminary installation of the stairs from the existing access platform to the new elevated deck has been completed.
- Pipe supports were installed throughout the period.
- Excavation for the footers of the access walkway/stairs was completed and design of walkway continued throughout November.
- Coating of piping materials continued throughout November and was tested by WEC inspector.
- Hydrostatic testing of pipe passed during this period.
- Startup of the filter began on 10/22 with Evoqua staff conducting a start-up inspection.
- Aqua Aerobic began integrating the new disk filter into existing SCADA system in this period and will continue throughout the coming month.
- Evoqua/Xylem removed and examined the spray bars, confirming that the issue at Marathon was due to insufficient thread depth, which is not present at Key Largo. While the adapters at Key Largo have the proper thread depth, Evoqua/Xylem will add additional chamfering to address potential concerns with sharp edges or burrs before reinstalling the sprayer arm assemblies.
- Reynolds, WEC staff and KLWTD staff attended the construction progress meeting on November 14th. The meeting slated for November 28th was cancelled due to the Holiday.

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Keys Holdings LLC Pump Station Replacement	\$ 375,555.75	\$375,555.75	\$28,000.00	\$403,555.75
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$25,802.50	\$338,321.81	\$39,431.44	90%

- The District piggybacked on a Marathon bid and awarded the Keys Holdings LLC project to Tropical Underground Contracting, LLC in the amount of \$375,555.75.
- The construction of this project was completed by October 2<sup>nd</sup>.
- Punch-list walkthrough occurred on October 2<sup>nd</sup> and substantial completion was issued.
- Final completion is awaiting the as-built survey from the contractor, then the project can be closed out.

Project	Original Contract Amount	Current Contract Amount (Including Direct Purchases, change orders and Amendments)	Engineering And Other Cost (Anticipated)	Total Project Cost (Anticipated)
Grinder Pump Lateral Kits Replacement Project	\$346,065.33	\$346,065.33	\$130,000.00	\$476,065.33
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$105,485.00	\$39,520.00	\$331,060.33	30%

- The Grinder Pump Lateral Kits Replacement Project was awarded to Page Excavation in the amount of \$346,065.33. The Agreement was executed on the 1<sup>st</sup> of July 2024. The Notice to Proceed was executed on the 12<sup>th</sup> of July 2024.
- CO #1 was approved for the ODP of the Stainless-Steel Lateral Kits for the project in September.
- Construction started for this project on 10/01/2024.
- Throughout the period the contractor installed 20 lateral kits and valve boxes for a total of 79 out of 145 valves and boxes.
- Currently working in C-905 on restorations and will be continuing onto properties on U.S. 1 in this coming month.
- Page Excavation, WEC staff and KLWTD staff attended the construction progress meetings on November 7<sup>th</sup> & 21<sup>st</sup>.

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	TBD	TBD	\$485,000.00	\$4,359,916.00
	Engineering Paid to Date	Construction Paid to Date	Balance to Complete (Anticipated)	Percentage Complete
	\$279,457.30	N/A	N/A	6%

- The Power Conditioning project went out to bid on 10/8.
- The pre-bid meeting was held on 10/28.
- Addendum 1 was uploaded on Monday, 11/4.
- Addendum 2 was uploaded on Thursday, 11/21.
- Addendum 3 was uploaded on Wednesday, 11/27.
- The bids are due on 12/19 by 10:00 a.m.
- RFP Ranking Meeting is tentatively scheduled for Dec. 30<sup>th</sup> at 10am.

## Upcoming Construction Projects

Project	Estimated Total Cost	Status
<p style="text-align: center;"><b>Upgrades of Odor Control at All Vacuum Stations and Upgrade of the Generators at Vac A and Vac D.</b></p>	<p style="text-align: center;">\$1,200,000 (Anticipated)</p>	<p>Weiler Engineering has been directed to proceed with this project in phases, with Vacuum Stations A and D being the first phase. The design of the odor control upgrades, including structural components and site plans continues. Preliminary plan sets have been created for Vacuum Stations A, D, E, G, I, and J/K. The District has requested an expansion of the easement area. The Archdiocese requested monetary compensation for the expanded easement area and approval to transfer assessment waivers to others, presumably for sale of the waivers. District Counsel has determined that the District has no procedures to allow transfer of the assessment waivers. The District was awaiting reply from Archdiocese about the proposed terms for the additional easement area, which was described in a letter from KLWTD sent in August. The construction plans and tech specs were finalized throughout the period and the project was posted for bid on December 9<sup>th</sup>, 2024.</p>
<p style="text-align: center;"><b>Direct Potable Reuse Demonstration Project</b></p>	<p style="text-align: center;">\$1,504,301.25 (Anticipated)</p>	<p>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.</p>
<p style="text-align: center;"><b>EQ Tank and Headworks Project</b></p>	<p style="text-align: center;">\$4,500,000 (Anticipated)</p>	<p>The EQ Tank and Headworks Project involves the installation of a 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.</p>



<p><b>Blower Room Modifications Project</b></p>	<p>\$250,000 (Anticipated)</p>	<p>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 in order to access blower #4. These modifications will allow for more efficient service of the blowers. This project is currently in the preliminary design phase.</p>
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**Figure 1. Emergency Vacuum Trailer Connections for VPS Project during Start-Up.**



**Figure 2 and 3. Emergency Vacuum Trailer Connections for VPS Project During Start-Up.**



**Figure 4. Install Conduit and Detection Tape in Trench for Collection System Monitoring Project.**



**Figure 5 and 6. Installation of Conduit & Flovac Pedestal and Site Restoration for Collection System Monitoring Project.**



**Figure 7. Filter on Platform and Lights Installed.**



**Figure 8. Interior Disk Filters.**



**Figure 9. New Booster Pump #4 Installed.**



**Figure 10 and 11. New SS Sewer Lateral Valve Assembly and Valve Box Installed.**