

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

Meeting Date:
March 17, 2026

Agenda Item Number: M-3

Action Required:
No

Department: Capital Projects
Sponsor: Steve Suggs

Subject:
Monroe County SLR - Twin Lakes Stormwater Conflicts with KLWTD Utilities

Summary of Discussion:

A report outlining recent and ongoing conflicts with KLWTD utilities as a result of Monroe County Twin Lakes Stormwater Drainage Improvements Project.

Reviewed / Approved

Financial Impact

Attachments

Operations: _____
Administration: _____
Finance: _____
District Counsel: _____
District Clerk: _____
Engineering: _____

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

1. Twin Lakes Stormwater Conflicts with KLWTD Utilities Report

Approved By:  Date: 3-12-26
General Manager

To: KLWTD Board of Commissioners

From: Richard Lindsay

Date: 03/11/2026

RE: **Monroe County SLR – Twin Lakes Stormwater Conflicts with KLWTD Utilities**

The purpose of this memorandum is to outline a utility conflict identified on Crane Street between Monroe County’s proposed injection well piping and the Key Largo Wastewater Treatment District’s (KLWTD) existing vacuum main.

On March 9, 2026, the District became aware of a direct crossing conflict while the contractor was installing a 24-inch ductile iron stormwater pipe associated with the County’s injection well system. The installation occurred at the location of an existing KLWTD vacuum main.

Rudy Perez notified Apex of the issue on March 10, 2026, and provided a photograph from the field following installation of the stormwater pipe. The photograph (see below) shows the District’s vacuum main suspended with a ratchet strap and appearing to be deflected at the crossing location. The County, contractor, and project engineers were notified that this configuration is not an acceptable solution for the District’s infrastructure. At the time of this memorandum, no response has been received from those parties regarding corrective action.



Following discovery of the conflict, it is our understanding that additional joints were installed by District staff approximately 25 feet upstream and downstream of the crossing to relieve pressure exerted on the vacuum main.

A review of KLWTD record drawings and the HDR/WSP Twin Lakes construction plan set was subsequently performed to understand the cause of the conflict. The KLWTD record drawings, prepared and certified in 2011 by Weiler Engineering to meet the design intent by Wade Trim based on information provided by the Contractor to Weiler Engineering, indicate the vacuum



main invert at approximately -2.65' NGVD (-4.21' NAVD). The Twin Lakes construction plan set shows the vacuum main at an invert of -4.1' NAVD and the proposed 24-inch stormwater pipe at approximately -7.4' NAVD, which would have provided adequate vertical separation.

However, contractor GPS measurements taken during installation indicate the actual vacuum main invert was deeper than shown in the plans. Measurements recorded on March 9, 2026 identified the vacuum main invert at approximately -5.32' NAVD prior and -5.15' NAVD following the installation of the stormwater piping. The stormwater force main invert was found at -7.01' NAVD and the top of pipe at -4.92' NAVD. After installation of the additional joints intended to relieve pipe stress, the vacuum main invert at the crossing location was measured at approximately -4.42' NAVD.

Based on these findings, it appears the conflict occurred due to discrepancies between the available record drawings and the actual field elevation of the existing vacuum main. At the conflict location the discrepancy was found to be 1.11'. While the installation of additional joints has temporarily relieved the immediate stress on the pipe, the current configuration does not represent a suitable long-term condition for the District's infrastructure.

To permanently resolve the conflict and restore proper operating conditions, Apex recommends installation of a standard 12-inch vacuum main lift at the crossing location to raise the vacuum main over the stormwater pipe before dropping back down to reconnect to the existing main. This modification would alleviate the stress currently experienced by the pipe and restore proper slope conditions through the conflict area. We estimate the scope of work to resolve this conflict to be the installation of 125 linear feet bearing a cost of anywhere between \$20,000-\$27,500 (\$160-\$220 per linear foot) based on most recent cost estimates for similar work. This cost could be reduced if KLWTD staff perform the installation. It has been indicated that Rudy Perez and District staff would be willing and capable of performing the work described above, provided coordination with the County contractor can be arranged for excavation and dewatering of the trench.

In addition to the Crane Street conflict described above, a second previously identified utility conflict between Monroe County's proposed stormwater infrastructure and the District's existing vacuum sewer system is currently being discussed.

This conflict occurs where a proposed 15-inch stormwater lateral, connecting an inlet drainage structure to the project's main stormwater trunk line, crosses an existing KLWTD vacuum main (see below). Similar to the previously described conflict, this location represents a direct crossing conflict between the proposed stormwater piping and the District's vacuum system.



KLWTD record drawings indicate that an 18-inch lift is installed north of the crossing location which would place the vacuum main approximately 10 inches above the proposed 15-inch stormwater piping, providing adequate vertical separation between the utilities. However, a spot excavation performed in the field revealed that the vacuum main is approximately 18-inches lower than depicted on the record drawings, resulting in a direct conflict with the proposed stormwater lateral.

Initial coordination with the County’s project engineers, HDR/WSP, indicated that installation of a stormwater conflict structure at this location may not have been feasible. Based on that understanding, Apex proceeded with development of preliminary design concepts for a vacuum main reroute to resolve the conflict. Two reroute alternatives were considered, involving approximately 150 linear feet or 300 linear feet of relocated vacuum main, depending on the verified location and elevation of the existing pipe upstream and downstream of the crossing.

Subsequent coordination with HDR/WSP indicated that installation of a conflict structure at this location may be feasible. Apex has advised that installation of a conflict structure would be the District’s preferred resolution, provided it is designed and constructed in accordance with the same specifications and requirements used for previously installed conflict structures within the system. For reference, a similar utility conflict encountered earlier in the project was resolved through installation of a conflict structure constructed by the contractor as part of the County’s project at a cost of \$32,290.00.

On February 25, 2026, following discussion of cost responsibility, Judith Clarke from Monroe County sent:

“This email will serve as written notice in accordance with Florida Statute 337.403 that Key Largo Wastewater Treatment District’s (KLWTD) 6 inch sanitary sewer line that is located on/under Shaw Drive, specifically at approximately Sta. 14+36 rt. has been found to be unreasonably interfering with the improvement of Shaw Drive as part of the Twin



Lakes Flood Mitigation Project. As such, in accordance with 337.403 F.S., KLWTD as the utility owner must, as soon as possible but within 30 days, initiate the work necessary to alleviate the interference at its own expense.

The 6-inch sanitary line is at an elevation that conflicts with the County's 15-inch stormwater pipe that connects two structures, S-4 and S-5; the conflict was discovered on or about October 22, 2025 and relocation has been discussed with KLWTD staff on several occasions. Apparently, the actual elevation of the sanitary line does not match the as-built information that was provided to the county's consultant.

Please make arrangements to relocate the KLWTD 6-inch line so that it is not in conflict with the county's improvements as soon as possible but no later than within 30 days. KLWTD staff should coordinate with Monroe County's CEI as needed to access the site."

This email indicates KLWTD must begin resolution of this conflict by March 27, 2026.

Apex will continue coordinating with KLWTD, Monroe County, the project engineers, and the contractor to determine an appropriate path forward to implement a permanent resolution.