

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

Meeting Date:
July 21, 2020

Agenda Item Number: J-1

Agenda Item Type:
Information / Presentation

Agenda Item Scope:
Review / Discussion

Recommended Action:
Action

Department:
Engineering

Sponsor:
Ed Castle

Subject:
Cleanout Cap Modifications

Summary of Discussion:

District staff has reported finding District cleanouts with the caps removed. The caps were apparently removed by unknown persons, apparently to drain standing water after rainfall events. This can cause higher flows at the WWTP. While not causing any treatment issues, the additional flow increases the electricity costs at the plant. In addition, the FDEP rules prohibit the deliberate introduction of stormwater into sanitary sewer systems. Staff is recommending the lowest cost option of posting non-tampering stickers on the cleanouts that have been found open. Other options examined include locking caps on the cleanouts and locking lids on the cleanout boxes. +

Reviewed / Approved

Financial Impact

Attachments

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

\$ 250.00
Expense
Funding Source:
Rate Revenue
Budgeted:
N/A

WEC Memo summarizing options for addressing cleanout tampering

Approved By: 
General Manager

Date: 7/17/2020

MEMORANDUM

To: KLWTD Board of Commissioners
From: Steve Suggs, PE
Date: July 16, 2020
Re: KLWTD Cleanout Anti-Tampering Devices

It has come to the attention of KLWTD staff that several cleanouts in the wastewater system appear to have been opened during rain events to drain streets and yards. This introducing of rainwater into the KLWTD collection system is in violation of KLWTD rules and can be called as “Tampering” in some cases. The introduction of this rain or ground water has a negative impact on the WWTP process and can cause thousands of gallons in increased flow. Currently KLWTD rules allow for enforcement action if an individual is found to have tampered with the system. However, the variability of the rain events and locations where they happen make it difficult to determine who may be at fault.

For this reason KLWTD staff has looked into several options to dissuade an individual from using the collection system as a yard or street drain. The solution may be in a combination of these options.

Option 1: Sticker

The first option considered is a warning sticker that can be placed on the cleanout or within the cleanout box. The sticker would say something to the effect of “*Tampering with KLWTD infrastructure is a violation of KLWTD rules and will be punished by the fullest extent of the law.*” Custom water resistant stickers would cost approximately \$0.25 each if ordered in bulk of 500 or more.

Option 2: Lockable Camlock

The second option considered is replacing the cleanout cap with a lockable camlock fitting. These are commonly used on fill ports for gas or chemicals. This will require some work to retrofit the fitting onto the cleanout. This type of modification will make accessing the cleanout very difficult for non KLWTD staff as it will have a lock and key. It is likely the pipe would be broken in the process of removing the camlock without the key. An image of a camlock cap can be seen below.



The cost of a stainless steel camlock male and female 6" fitting is approximately \$600.00. It is recommended that the camlocks only be put on known problem areas, not the entire collection system.

Option 3: Lockable Valve Boxes

The 3rd option is to install a new valve box around the cleanout that has a lockable lid. This would likely be the most costly as it may require restoration in the areas where they are installed. Furthermore, if a meter box is installed off the road it can always be dug up with a little effort. The anticipated cost for a lockable meter box would likely vary depending on restoration needed from \$600-\$1700.

Recommendation

It is recommended that the sticker option be pursued as it is a relatively cheap method of warning an individual prior to tampering occurring. If there continues to be an issue in the area the lockable camlock fitting will likely be the next best choice at deterring tampering. Lastly a combination of all three would be the best deterrent. However, this is only recommended on repeat offenders for which option 1 & 2 did not work and the individual is not caught in the act.