

Infrastructure Improvements

CLCWA Projects in Taylor Lake Village

January 9, 2019



**Lockwood, Andrews
& Newnam, Inc.**
A LEO A DALY COMPANY

Agenda



- Background
- Past Improvements
- Future Improvements
- Questions



Clear Lake City Water Authority



Serving Clear Lake Area since 1963.
Water, Sanitary, and Storm Sewer

+1M

Over a million linear feet of sanitary sewer.

+6k

Over 6,000 sanitary sewer manholes.

+800k

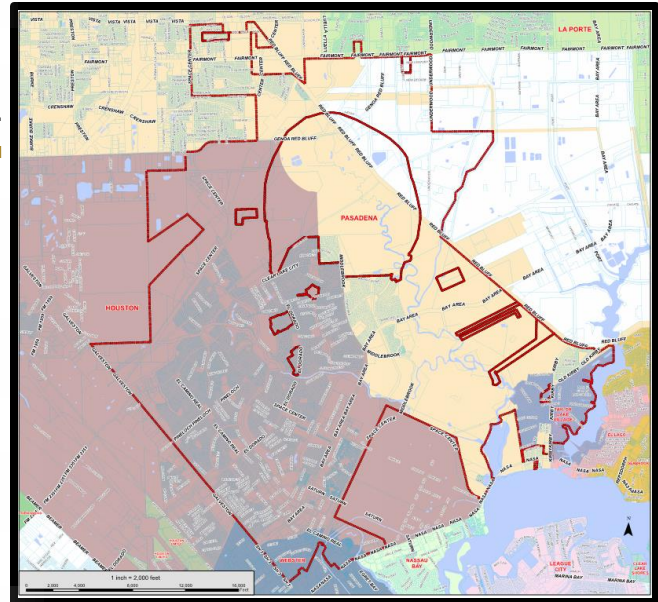
Over 800,000 linear feet of storm sewer.

+7.5k

Over 7,500 storm sewer manholes.

+1.2M

Over 1.2M linear feet of water line.

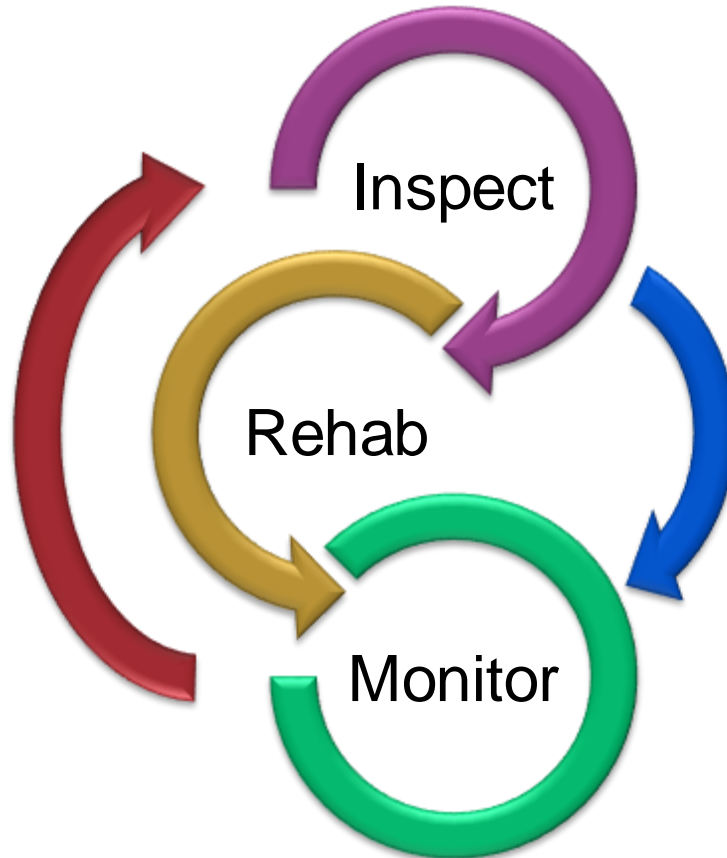


Taylor Lake Village

~10% of system in Taylor Lake Village.

- > Age of System
- > Low lying areas
- > Proximity to large bodies of water
- > Tidal Influence
- > Infiltration





Sanitary Sewer

CLCWA's
Responsibility

Homeowner's
Responsibility

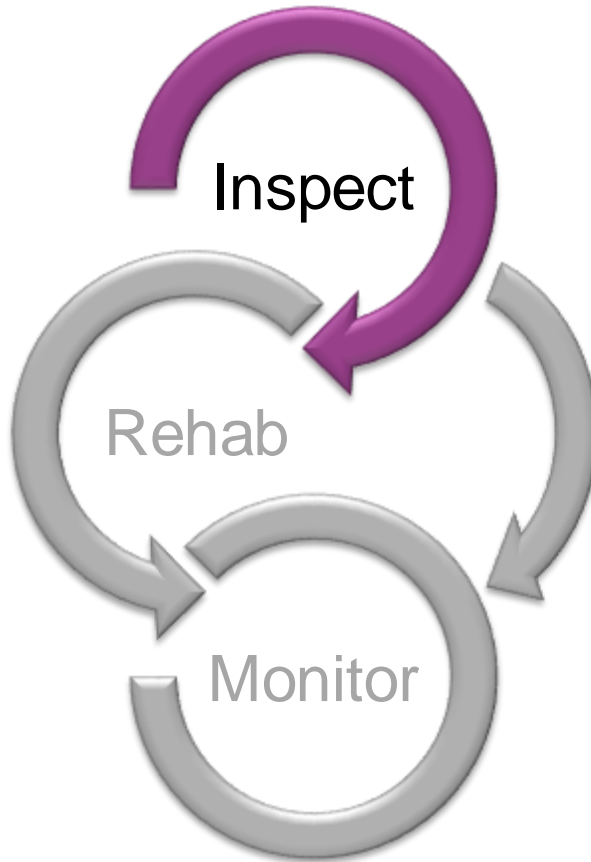
Property Line/ROW
Line/Easement Line

Public
Sewer
Main

Private Sewer Line

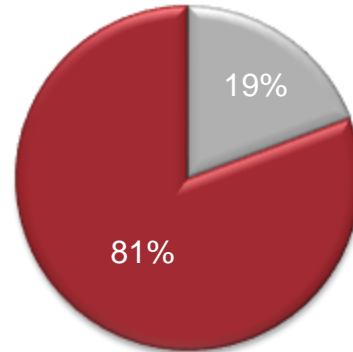
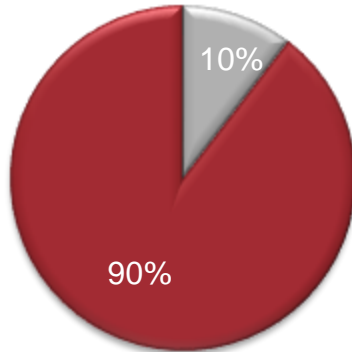
Sewer Connection



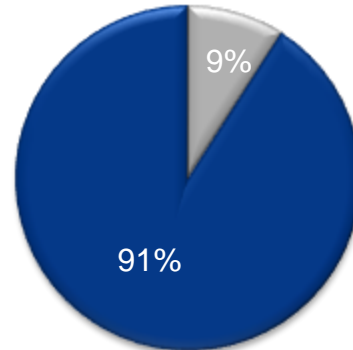
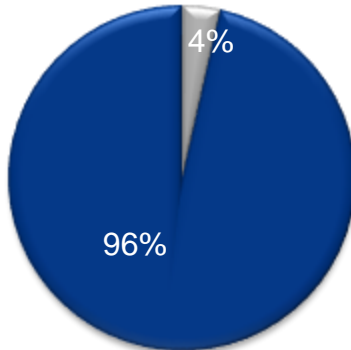


Percentage of Sanitary Sewer Inspected

CLCWA



TLV



Lines

Manholes

+0096.4ft↑

CLF3049

CLF3051

TC-037

TC-036

115.8F

187.0 FT.

DUN TC 029 -> 025 18 18

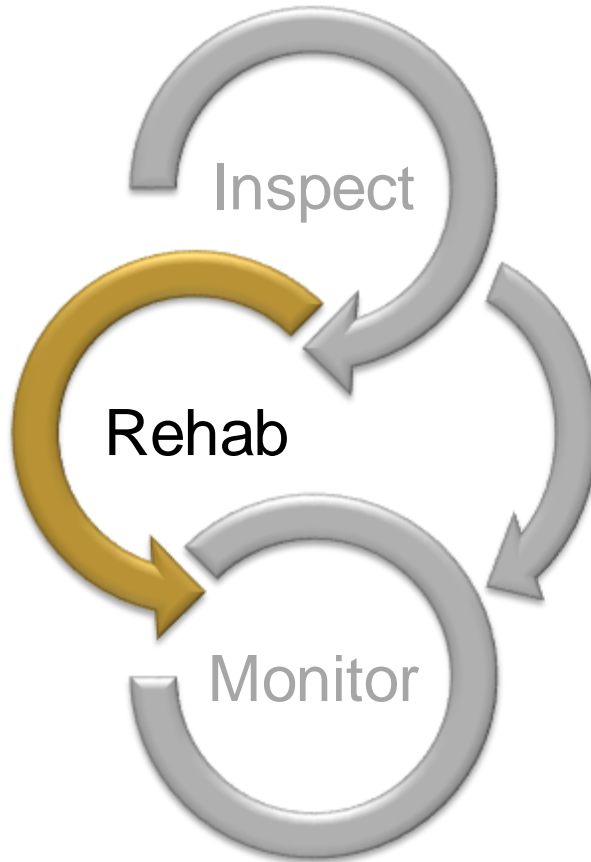


187.0 FT.

DUN TC 029 ->

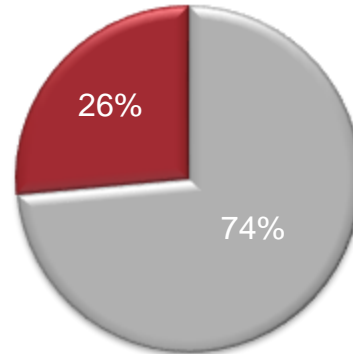
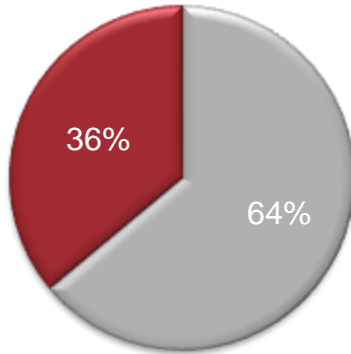




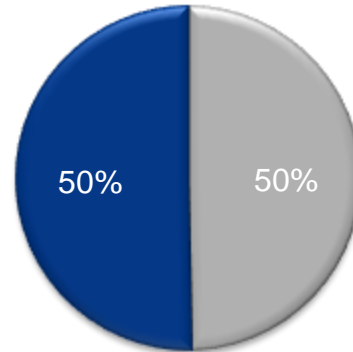
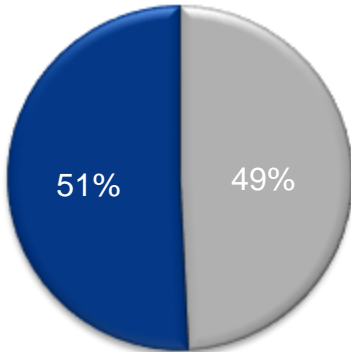


Percentage of Sanitary Sewer Rehabilitated

CLCWA



TLV



Lines

Manholes













Sanitary Sewer System Improvements - 2019

Television Inspection

- Sanitary Sewer Phase 78 Television Inspection

Rehabilitation

- Sanitary Sewer Phase 76 Manhole Rehabilitation
- Sanitary Sewer Phase 80 Rehabilitation
- Shorewood Drive Sanitary Sewer Realignment

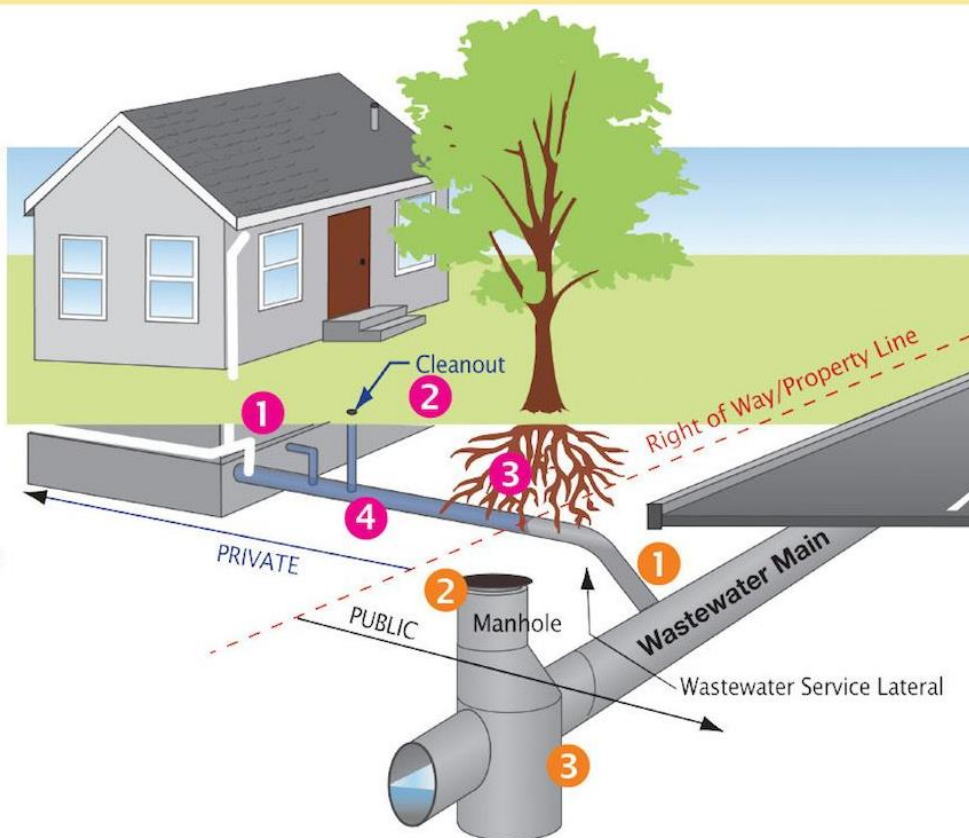
Common areas where inflow and infiltration occur

On Private Property:

1. Improper foundation or roof drain connections
2. Uncapped cleanout
3. Root intrusion
4. Breaks or open joints in service lateral

In Public System:

1. Breaks or open joints in lateral or main pipes
2. Faulty manhole covers
3. Open joints or cracks in service chamber



Future Lift Station 4 Service Area Improvements

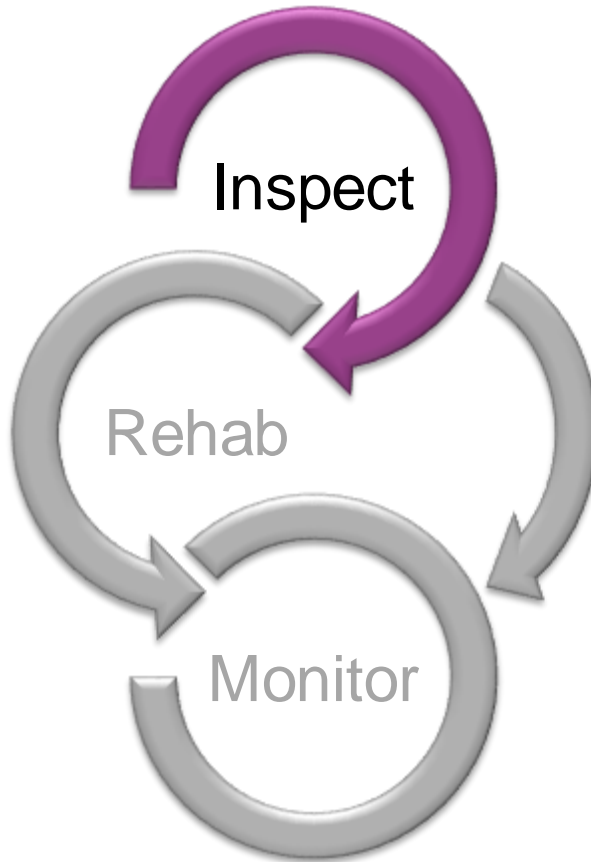
Flood Mitigation

- Lift Station 4
- Lift Station 16
- Lift Station 17
- Lift Station 18
- Lift Station 22

Wet Weather Investigation

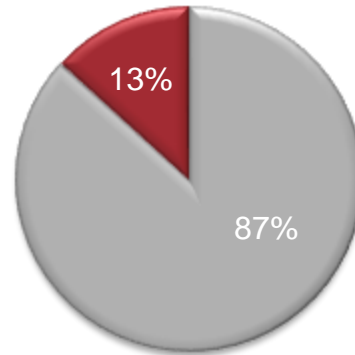
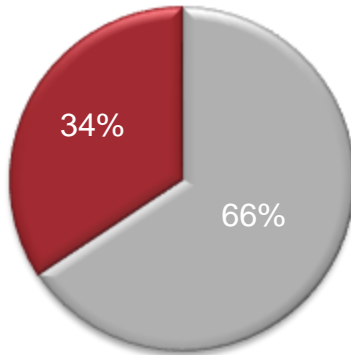
- Lift Station 4 Flow Monitor Installation
- Lift Station 4 Service Area Preliminary Engineering Report

Storm Sewer

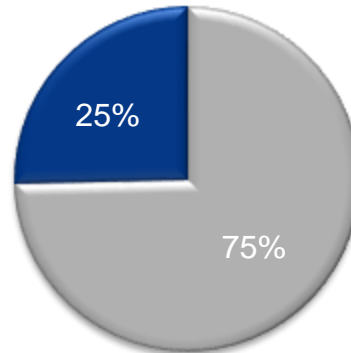
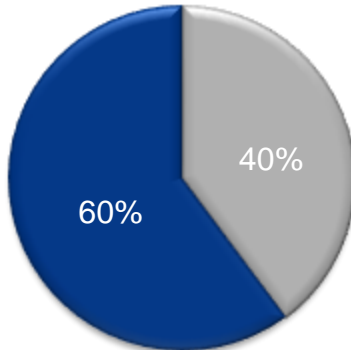


Percentage of Storm Sewer Inspected

CLCWA



TLV



Lines

Manholes



2015 09 09



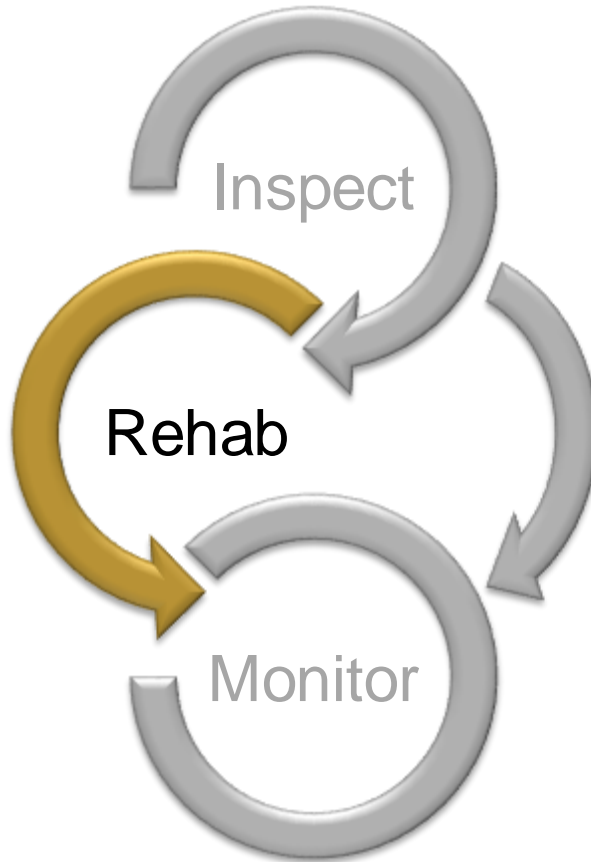
2015 09 09



2015 12 09

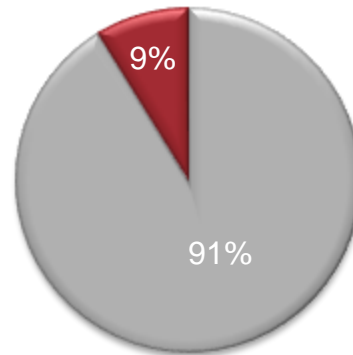
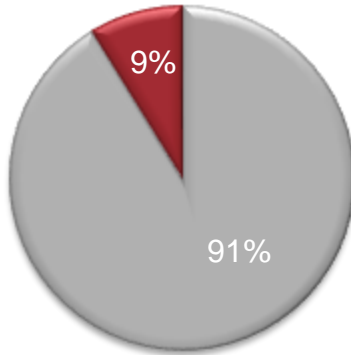


2015 12 09

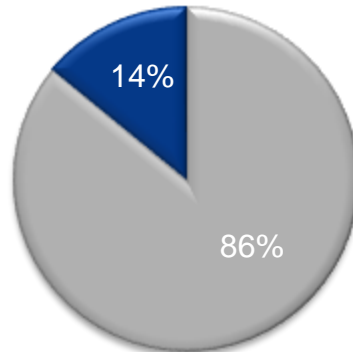
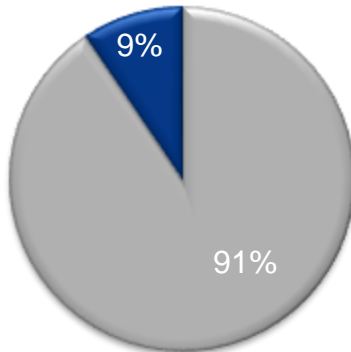


Percentage of Storm Sewer Rehabilitated

CLCWA



TLV



Lines

Manholes















Future Storm Sewer Improvements

Rehabilitation

- Storm Sewer Phase 36 Rehabilitation

Storm Sewer Phase 36 Rehab

→ Current Status:

- Awarded to AR Turnkey Construction with 170 days
- Executing Contracts

→ Scope:

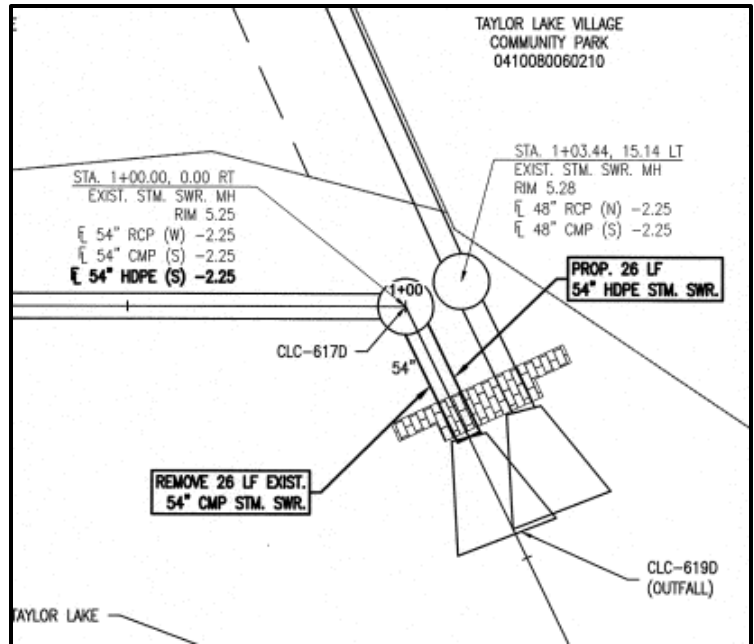
- 13 Lines

→ Expected Start:

- February
- TLV Priority

→ Expected Completion:

- August



Questions

