

# GCSD Sewer Odor Action Plan October 2022



GCSD has been actively addressing sewer odor issues since 2018 and it has been considered in the planning process for every replacement and improvement project.

GCSD is in the process of implementing a number of infrastructure projects beginning in 2021, in addition to taking other mitigative measures to combat and minimize sewer odors.

## INCREASED/IMPROVED MAINTENANCE

Lift Station Cleaning Schedule												
Location	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>LIFT STATIONS:</b>												
LS- 1,2,3,4												
LS- 5,6,7,8												
LS-9,10,11,12												
LS- 13,14,15,16												
Lift Station Preventative Maintenance Check Sheet (PMCS) Checks every Friday												
SEWER MANHOLE VISUAL INSPECTION SCHEDULE												
SEWER LINES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Groveland												
To LS-1												
To LS-2												
To LS-3												
To LS-4												
To LS-5												
To LS-6												
To LS-7												
To LS-8												
To LS-9												
To LS-10												
To LS-11												
To LS-12												
To LS-13												
To LS-14												
To LS-15												
To LS-16												
Bass Pond												
PML Club to LS-5												
Twin Pines to STP												
Tenaya to STP												
LS-16 to STP												
Fox/Malloy Building												
Park to STP												
Creek to STP												

Cleaned and Flushed/Visually Inspected



- ♦ Regular Lift Station Cleaning 3X per Year
- ♦ Contracted for Difficult and Thorough Station Cleaning

## Sewer Cleaning and Vacuum Excavation Truck Ordered



- ◆ Better and faster cleaning with GCSD crews - Ordered truck in 2020, expected delivery December 2022 (supply chain delays)

## Implemented New Technologies



- ◆ Communication, Monitoring and Control Technologies to Optimize System Maintenance and Lift Station Operation

## NEW SYSTEM ODOR CONTROLS



**Completed 2021/22**

**Installed Flowmeters at  
Hub Lift Stations to  
Provide Operational Data  
to Drive Odor Control  
Chemical Dosing**



By March 2023

Installing Odor Control  
Chemical Feed Pilot  
System(s) at main lift  
stations

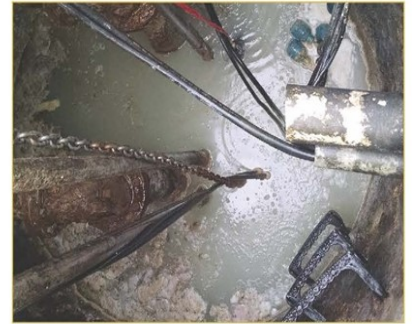
## GreaseZilla

Biological Grease Control For Collection Systems



Figure 1:

Lift station before and 10 days after Aquafix grease treatment



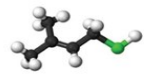
## DAZZeL Sewer Sweetener

Wastewater Odor Neutralizer



Figure 1:

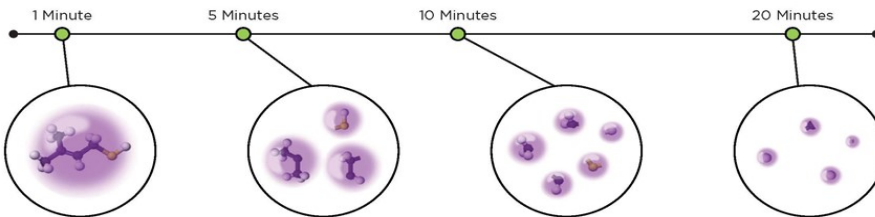
DAZZeL Sewer Sweetener eliminates odor by breaking down molecules



Odor Molecule



DAZZeL Sewer Sweetener



## De-Sulph-A-Nator

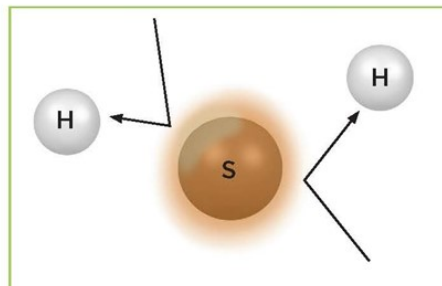
Hydrogen Sulfide Preventative



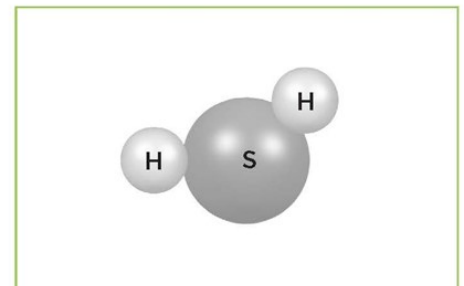
Figure 1:

Sulfur molecule chelated with De-Sulph-A-Nator doesn't bind with hydrogen, doesn't become hydrogen sulfide

Treated



Untreated



## INFRASTRUCTURE PROJECTS

### Lift Station Direct Odor Control

- Pilot Installation May 2022 at four Lift Stations
- Project a success with reduced odor production! - now designing permanent installation for 2023



# SEWER COLLECTION SYSTEM UPGRADES



- ♦ Funded with \$4.4 million state grant and 1.4 million state loan (Construction in progress with completion by December 2023)
- ♦ Replacement or Rehabilitation of 11,500 linear feet of existing sewer main

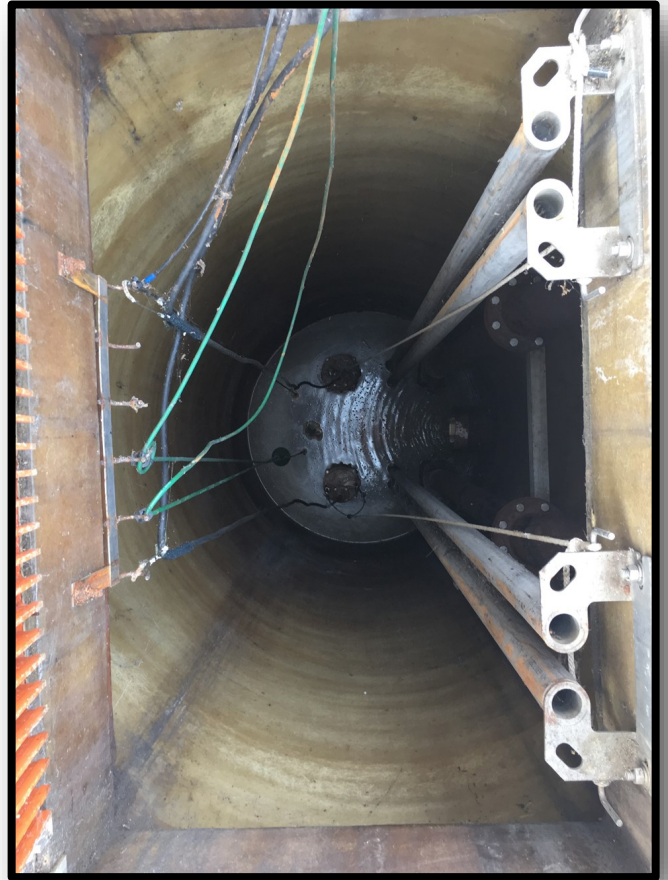


- ♦ Rehabilitation of 46 existing manholes

## Lift Station Rehabilitation



**Existing Condition**



**Rehabilitated**

## Wastewater Treatment Plant Improvements



**Replace old open headworks solid  
removal equipment**



**New enclosed equipment to be  
completed by June 2023**