

Storm Sewer and Sanitary Sewer Annual Reports



Presented by:

- *Mathew Nguyen*

February 6, 2023

1

Introduction

Storm Sewer System

- 1,100 miles of pipes
- 4,500 miles of curb & gutter
- 26,000 manholes
- 33,000 laterals
- 35,500 inlets
- 1,712 outfalls
- 31 pump stations



Sanitary Sewer System

- 2,030 miles of pipes
- 10 miles of force mains
- 39,469 manholes
- 202,000 laterals
- 17 pump stations



Storm Sewer Key Initiatives

■ Storm Water Quality

- Stormwater Permit Reissuance
- Trash Load Reduction
- Green Stormwater Infrastructure
 - ✓ River Oaks Stormwater Capture
 - ✓ City Lands South of Phelan

■ Master Planning

- Capacity Assessment
- 22 High Priority Projects - \$215M

■ Improvements/Rehabilitations

- Charcot Area Capacity Improvements
- Outfall Rehab/Improvement Program
- Large Trash Capture Phase VII
- SCADA upgrades for storm pump stations



River Oaks Stormwater Capture Project

River Oaks Stormwater Capture Project

- \$12.5M in Total cost with funding from Measure T and State Grant
- Retrofit existing pump station and detention basin to clean stormwater.
- Design is 90% complete
- Construction start: 2023
- Beneficial Use: Spring 2024



River Oaks Stormwater Capture Project

City Lands South of Phelan Project

- \$22.6M in Total cost with funding from Measure T and State Grant
- New facility adjacent to horse stables and Yerba Buena Highschool
- Concept is complete with Design starting in 2023
- Construction start: 2025
- Beneficial Use: Spring 2026



City Lands South of Phelan Project

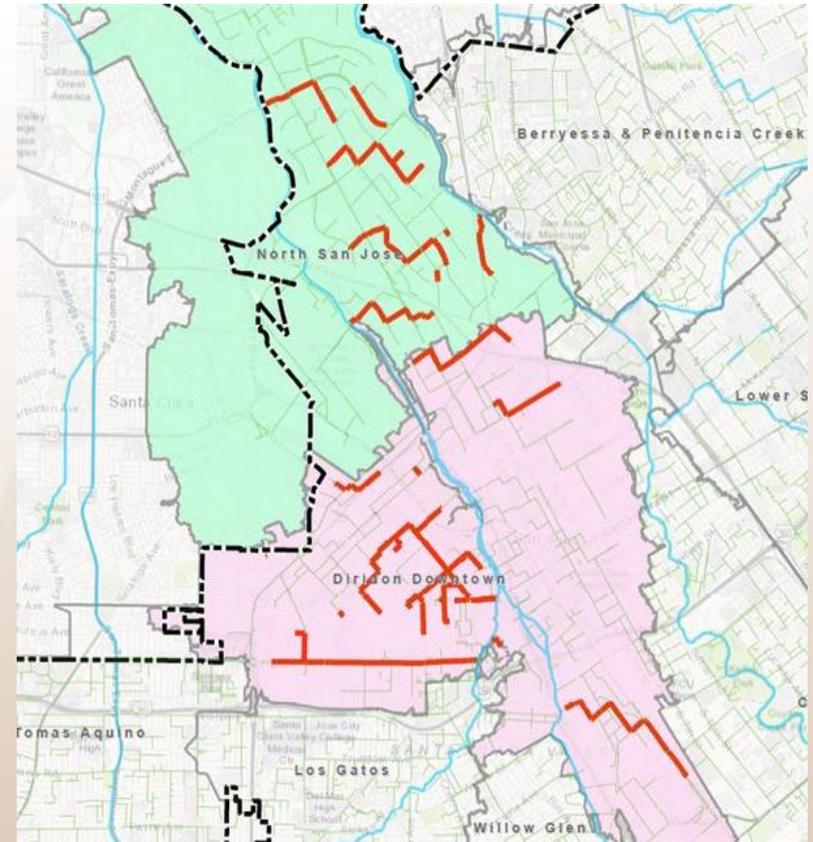
Storm Drain Master Planning

■ Citywide SD System Modeling

- ✓ Initial results identified 22 high priority projects (\$215M)

■ Refine Hydraulic Model

- ✓ Refining model using more accurate land use and hydraulic information
- ✓ Refining boundary condition with post 2017 updated Valley Water riverine model
- ✓ Refining and identifying project alternatives for North San Jose (\$55M), Diridon Area (\$115M), Ross Creek (\$4M), Willow Glen (\$150M) and Coyote Creek (\$55M)

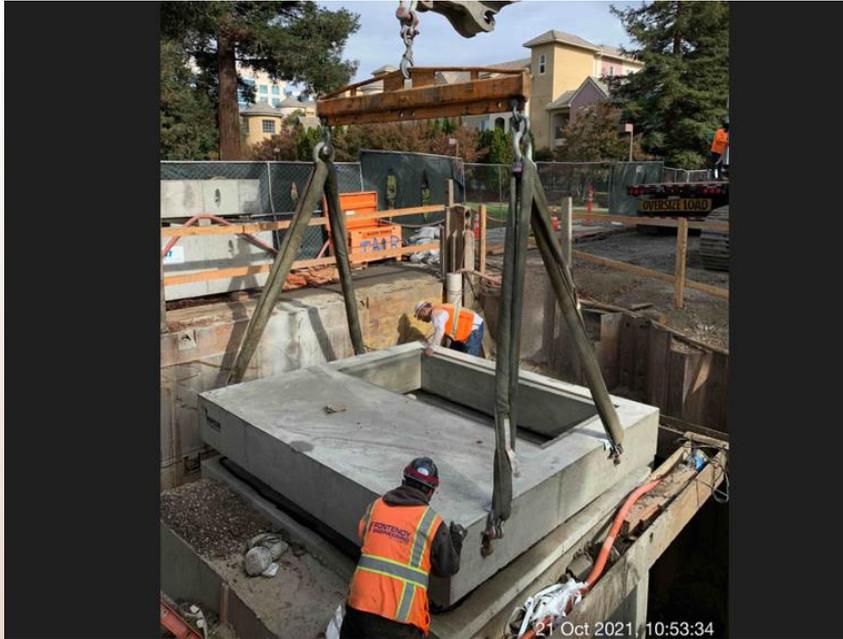


Charcot Area System Improvement



- Measure T funding of \$35M
- Low ground, high creek water level and insufficient system capacity
- Rerouting stormwater to existing Rincon II PS
- Design Completion: 2024
- Construction: 2024 to 2025
- Beneficial Use: Spring 2025

Large Trash Capture



Large Trash Capture Installation

- Regional Stormwater Permit mandated trash load reduction
- Phases I - VI completed
 - ✓ 32 Large Trash Capture (LTC) devices installed to date
- Phase VII – Construction started
 - 6 locations (\$7M to \$9M)
 - Leverage Caltrans funding
- Poly Carbonate Biphenyls (PCB)
- LTC Phase VIII – Scoping started

2021-22 Winter Storm Season Preparation

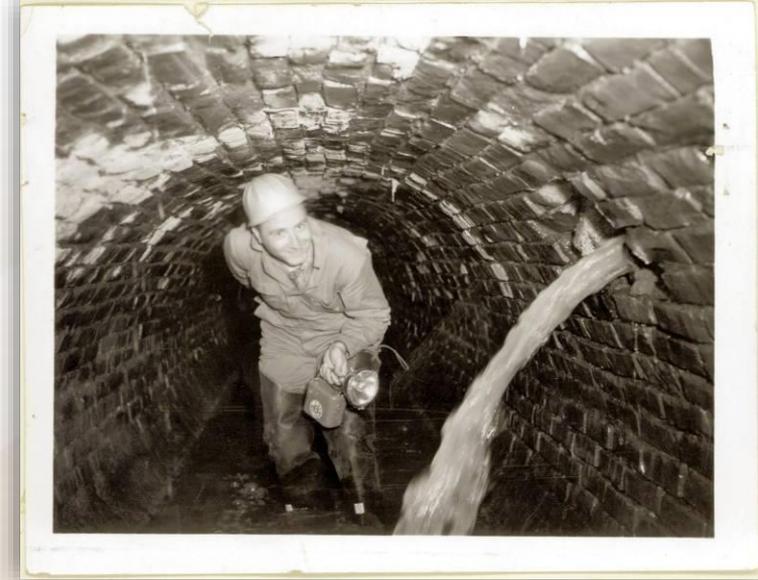
- Coordination with Valley Water
- Pump Station Maintenance
- Charcot Temporary Pumps
- Storm Inlet Cleaning
- Debris Basin Cleaning
- Portable and Temporary Pumping
- Storm Monitoring and Incident Management



Rincon I Storm Pump Station

Sanitary Sewer Key Initiatives

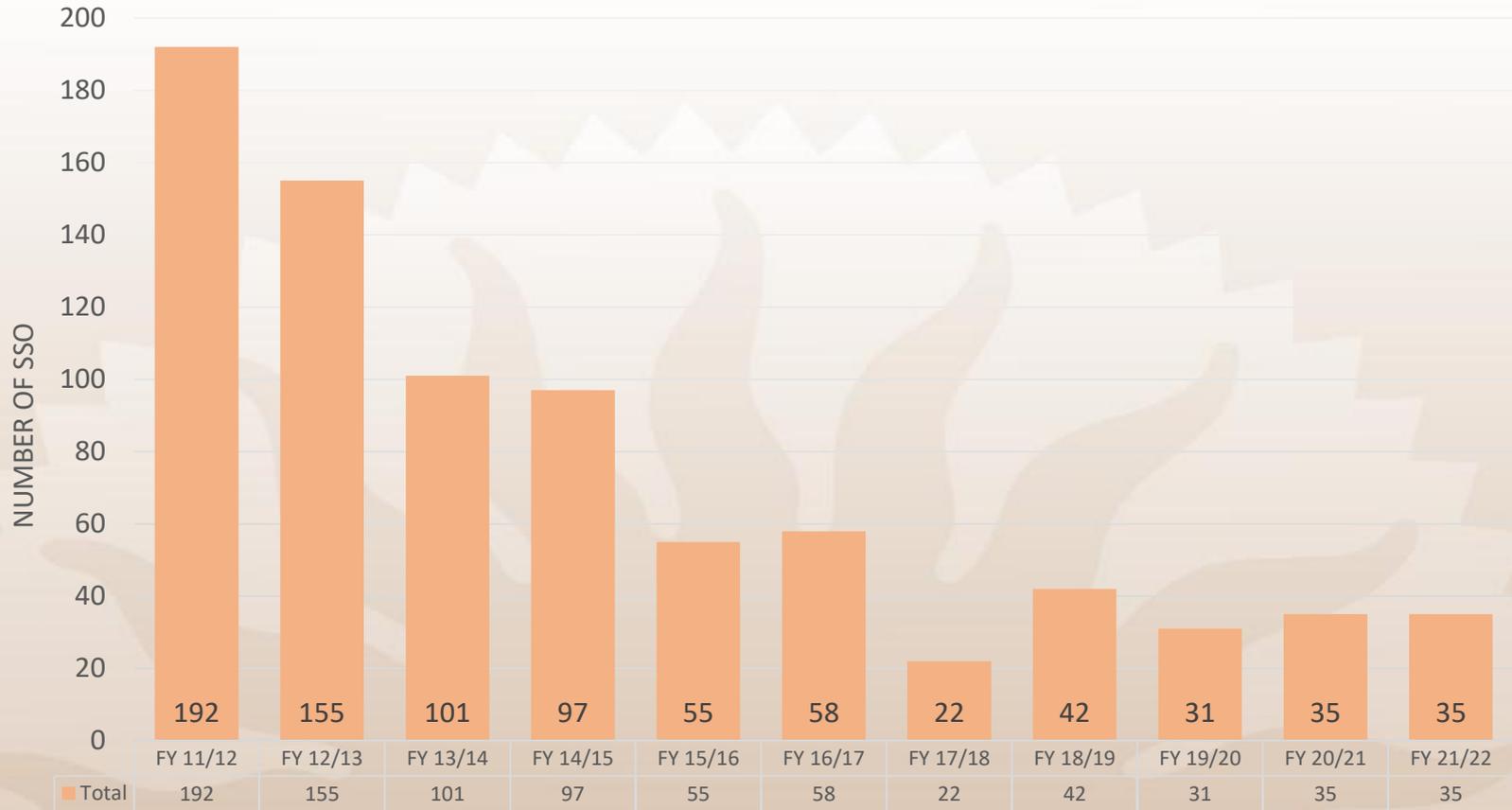
- **Capacity Master Planning**
 - Support General Plan 2040
 - Neighborhood service reliability
 - Watershed Protection / Regulatory Compliance
- **Condition Assessment**
 - Interceptor Assessment Program
 - Risk Based Approach
 - Decrease Sanitary Sewer Overflows (SSO)
- **System Capacity Improvement & Rehabilitations**
 - Capacity and Improvements
 - SCADA upgrades and Pump station Rehab



60-inch Brick Sewer

Sanitary Sewer Overflow Data

SANITARY SEWER OVERFLOW



Goals

- ✓ Continue to focus on GP 2040 capacity demands to support economic development
- ✓ Increased investment into the systems to address deferred maintenance infrastructure backlogs (DMIB)
- ✓ Prioritized Capital Improvement Programs to:
 - Lower operational costs
 - Ensure capacity / Prevent SSO & Flooding
 - Improve system reliability

Recommendation

Accept the Storm Sewer and Sanitary Sewer Annual Reports highlighting investments, activities and capital improvements to the City's storm sewer and sanitary sewer collection systems for Fiscal Year 2021-2022

Mathew Nguyen

February 6, 2023

13

Goals

- ✓ Incorporate equity in Capital project delivery
- ✓ Pursue additional funding for storm capital program and Green storm water infrastructure (GSI)
- ✓ Improve Communication and Coordination with other City Departments:
 - ◆ Identify GSI project locations
 - ◆ Funding opportunities
 - ◆ Define Roles and responsibilities