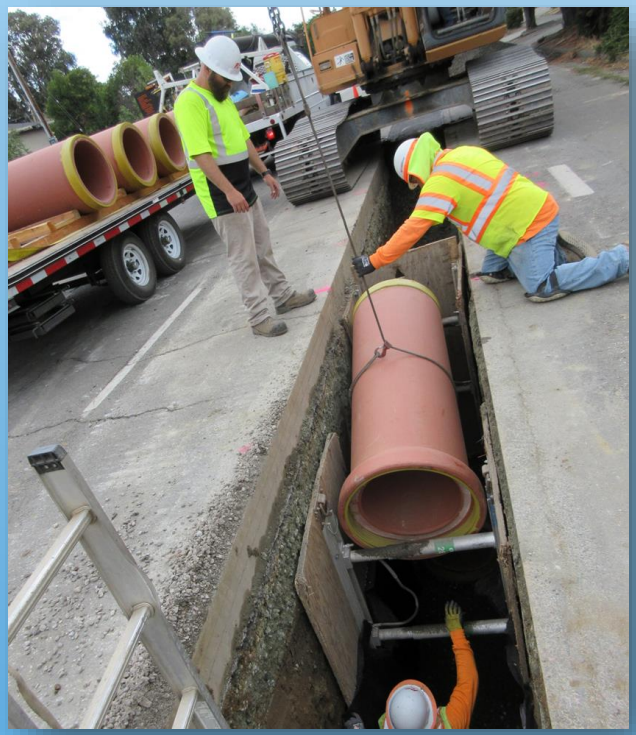
# SANITARY AND STORM SEWER COLLECTION SYSTEM AND GREEN STORMWATER INFRASTRUCTURE STATUS REPORT



Item (D) 3

Presented by: Mathew Nguyen and Norm Mascarinas

**Transportation and Environment Committee** **December 2, 2024**

# INTRODUCTION

## Sanitary Sewer System

- 2,030 miles of pipes
- 14 miles of force mains
- 44,000 manholes
- 198,000 laterals
- 17 pump stations

## Storm Sewer System

- 1,100 miles of pipes
- 4,100 miles of curb & gutter
- 26,000 manholes
- 33,000 storm laterals
- 31 pump stations
- 35,500 inlets
- 1,727 outfalls

# GOALS

Continue to focus on General Plan 2040 capacity demands to support economic development

Increase investment into the systems to address deferred maintenance infrastructure backlogs, lower operational costs, ensure capacity, prevent SSO, and improve system reliability

Comply with Council Policy and regulatory requirements (BayKeeper, MRP3.0)

# FUNDING NEEDS – HIGH LEVEL

**Sanitary Sewer System**

- Currently sufficient to support CIP
- To be adjusted annually to meet priorities

**Storm Sewer System**

- No sustainable funding source
- Measure T supports Charcot stormwater improvement project and GSI projects (River Oaks and GSI Projects) supplemented by Grant

# SANITARY SEWER FUNDING NEEDS

- Fourth Major Interceptor Phase VII ($50M)
- Phase III Model-Identified Capacity Improvement Projects ($122M)
- Pump Station Rehabilitation (approx. $10M)
- Odor Control/Soil Bed Filter Rehabilitation (approx. $50M)
- Interceptor Improvements (TBD)

# STORM SEWER FUNDING NEEDS

Regulatory
(Near term: $115M,
Long term: TBD)

Capacity
Improvement
Projects ($818M)

Storm Pump Station
Rehabilitation
(TBD)

Outfall
Rehabilitation/Repair
(TBD)

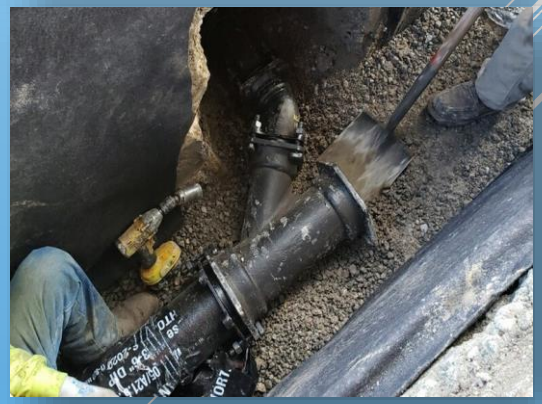
# PROJECT HIGHLIGHTS
# SANITARY SEWER
# FISCAL YEAR 2023-2024

# FOURTH MAJOR INTERCEPTOR PHASE VII

- Project will be delivered in two phases:
  - Rehabilitate approximately 5,500 LF of existing 60" Brick Sewer with Cured-In-Place Pipe Liner
  - Install approximately 5,000 LF of new 66" PVC Lined Reinforced Concrete Pipe.
- Cost is approximately $50M for both phases

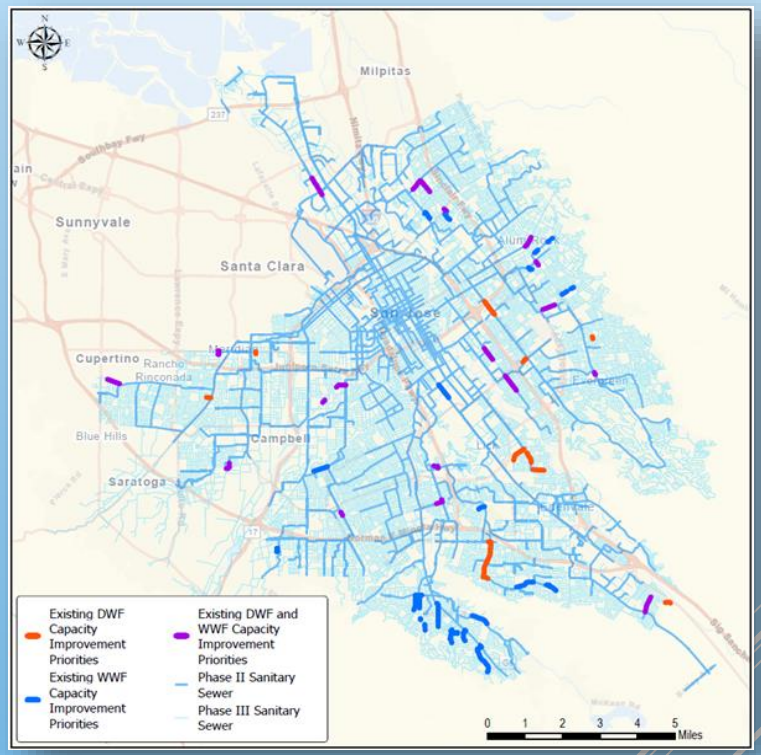
# CONDITION ASSESSMENT / CAST IRON REPLACEMENT PROJECTS

- Cleaned and video inspected 406 miles of SS pipelines (including 95 miles by DOT)
- Completed 6.4 miles of sewer rehabilitation for the Exfiltration Abatement program
- Removed & replaced 2.2 miles of cast iron pipe
- Anticipated to complete all removal and replacement of cast iron pipe by 2025



# SANITARY SEWER MASTER PLANNING

- **Capacity Improvement Projects Status**
  - 48 Capacity projects completed
  - Continued work on six capacity improvement projects
  - Awarded three capacity improvement projects
- **Citywide Sanitary Sewer System Modeling**
  - Phase III model recently identified 76 additional improvement projects ($122M)
- **Ongoing Model Refinement**
  - Update and recalibrate the model with flow monitoring data to confirm projects
  - Consultant support to re-analyze stormwater intrusion and groundwater infiltration impacts in the model



# PROJECT HIGHLIGHTS
# STORM SEWER
# FISCAL YEAR 2023-2024

# RIVER OAKS STORMWATER CAPTURE PROJECT

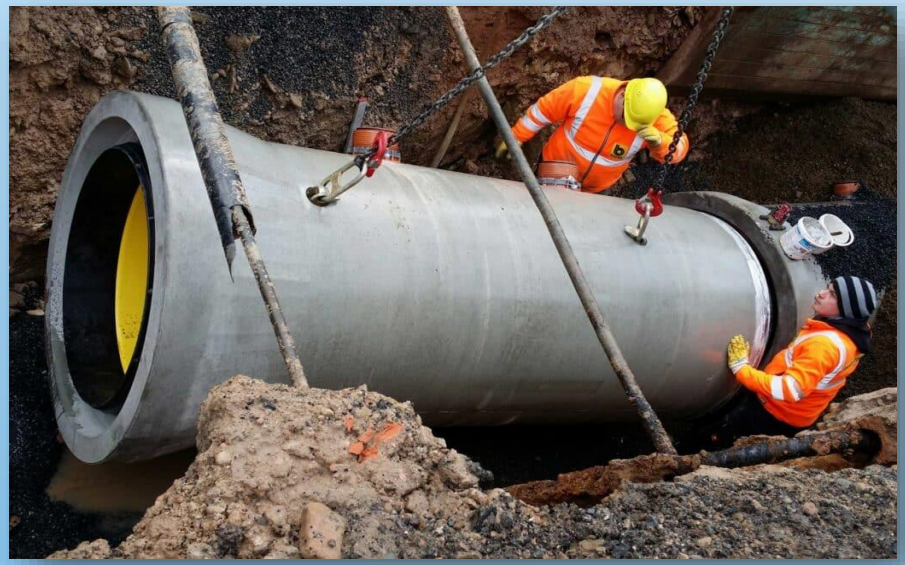
- $12.5M in total cost with funding from Measure T and State Grant
- Retrofit existing pump station and detention basin to clean stormwater
- Construction start: September 2023
- Beneficial Use: December 2024


# KELLEY REGIONAL STORMWATER CAPTURE PROJECT

- $3.0M in total cost with funding from Measure T and State Grant
- New facility adjacent to Kelley Park
- Currently in design with completion scheduled for May 2025
- Bid project in Summer of 2025
- Construction starts in Winter 2025


*Kelley Regional Stormwater Capture Project*

# CHARCOT AREA STORM DRAIN IMPROVEMENT

- Measure T funding of $25M
- Project addresses low ground elevations, high creek water levels and insufficient system capacity
- Rerouting stormwater to existing Rincon II Pump Station
- Executed Contract: August 2024
- Construction Start: December 2024
- Beneficial Use: Fall 2025

**Transportation and Environment Committee**

# LARGE TRASH CAPTURE PHASE VII

*Large Trash Capture Installation*
*Quimby Location February 2024*

Regional Stormwater Permit mandated trash load reduction

- **Phase VII** – Construction
  - 6 locations ($9M)
  - Leverage Caltrans funding
  - Poly Carbonate Biphenyls (PCB)

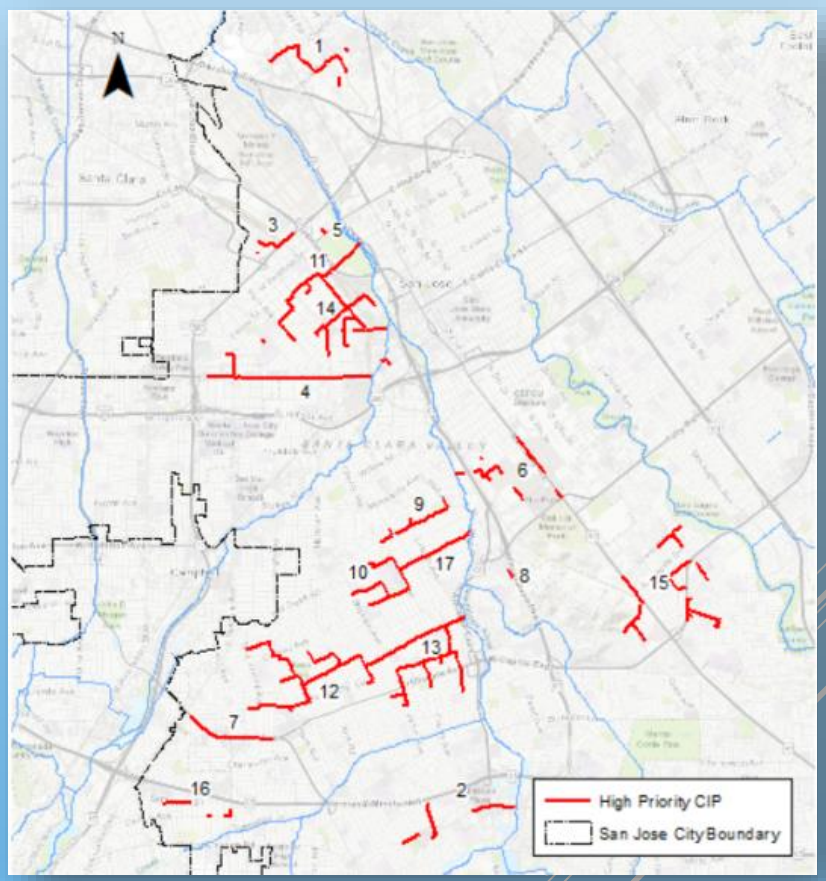
# SMALL TRASH CAPTURE DEVICE INSTALLATION PHASE I PROJECT

- $3.1M in total cost with funding reallocated from existing Storm Sewer Capital Funds
- Devices locate in high trash generating areas throughout the City
- Design completed in May 2024
- Advertised for bid in June 2024, Re-bid in Sept 2024
- Construction begins in December 2024


*Small Trash Capture Device*

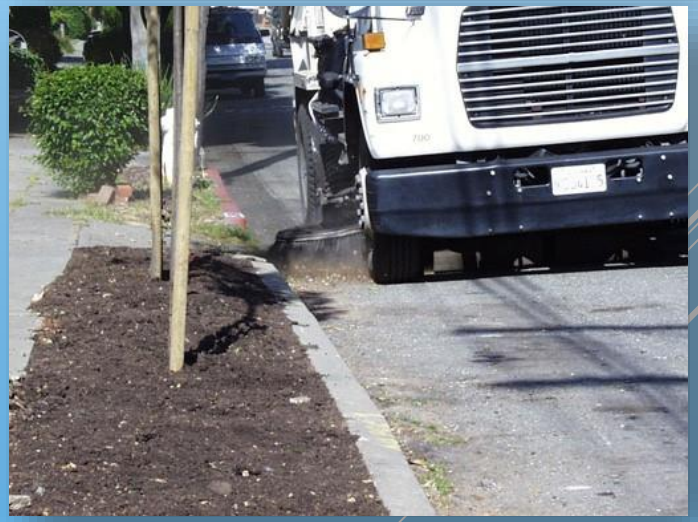
# STORM DRAIN MASTER PLANNING

- **Citywide SD System Modeling**
  - Refined model identified 17 high priority projects ($818M)
- **Continued Model Refinement**
  - Use more accurate land use and hydraulic information
  - Near-term goal:
    Expand to all-main and re-delineate sub-watersheds for high priority project systems to further assess and optimize recommended improvements



# 2023-24 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
- Incident Management



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