

# *Storm Sewer and Sanitary Sewer Annual Reports*



*Presented by:*

- *Mathew Nguyen*

*December 6, 2021*

*Transportation and Environment Committee*

# 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
  - ✓ Feasibility Analysis of New Sites

## ■ Master Planning

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

## ■ Improvements/Rehabilitations

- Charcot Area Capacity Improvements
- Outfall Rehab/Improvement Program
- LTC VII
- Basic Repair and Rehabilitation



*River Oaks Stormwater Capture Project*

## Transportation and Environment Committee

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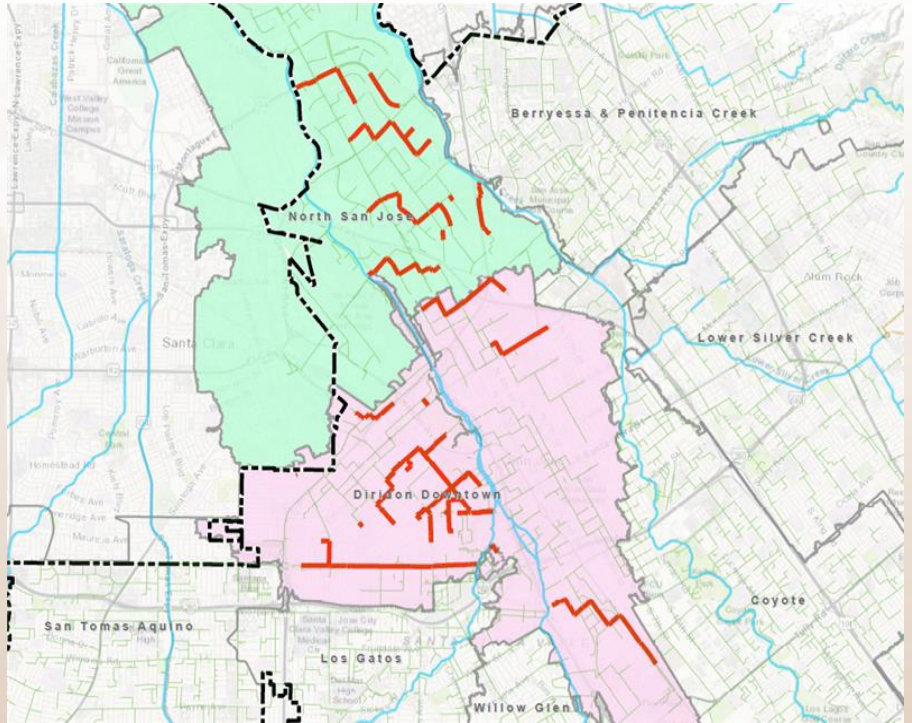
# Storm Drain Master Planning

## ■ Citywide SD System Modeling

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

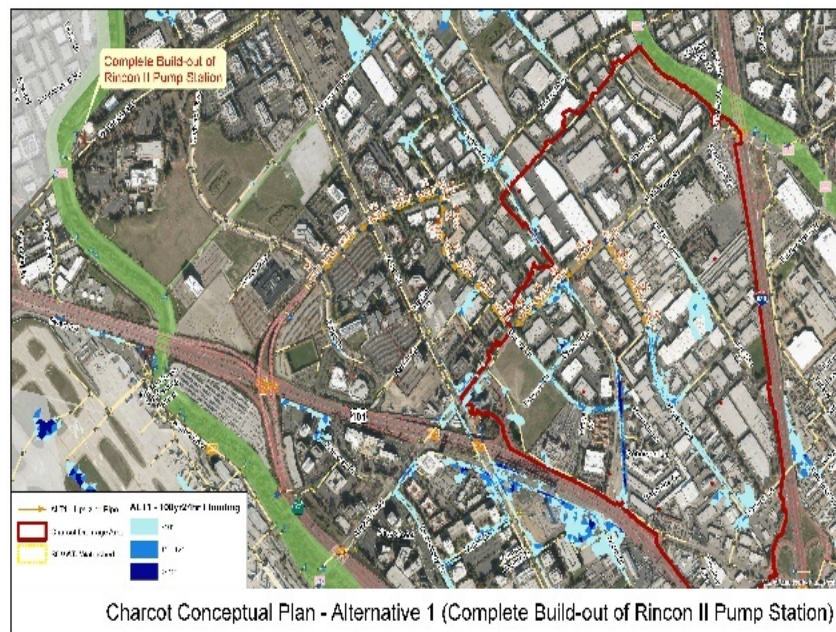
## ■ Modeling refine

- ✓ 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 (\$78M), Diridon Area (\$55M), and Willow Glen and Lower Silver Creek (\$ TBD)



# 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: 2023
- Construction: 2023 to 2024
- Beneficial Use: Winter 2024



# Large Trash Capture

- Regional Stormwater Permit mandated trash load reduction
- Phases I - VI completed
  - ✓ 32 large trash capture devices installed to date
  - ✓ Retrofits a few LTC to support O&M activities
- Phase VII – Design started
  - 6 locations (\$7M to \$9M)
  - Leverage Caltrans funding



*Large Trash Capture Installation*

# 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



*Temporary Pumping at Charcot near Coyote Creek*

# Sanitary Sewer Key Initiatives

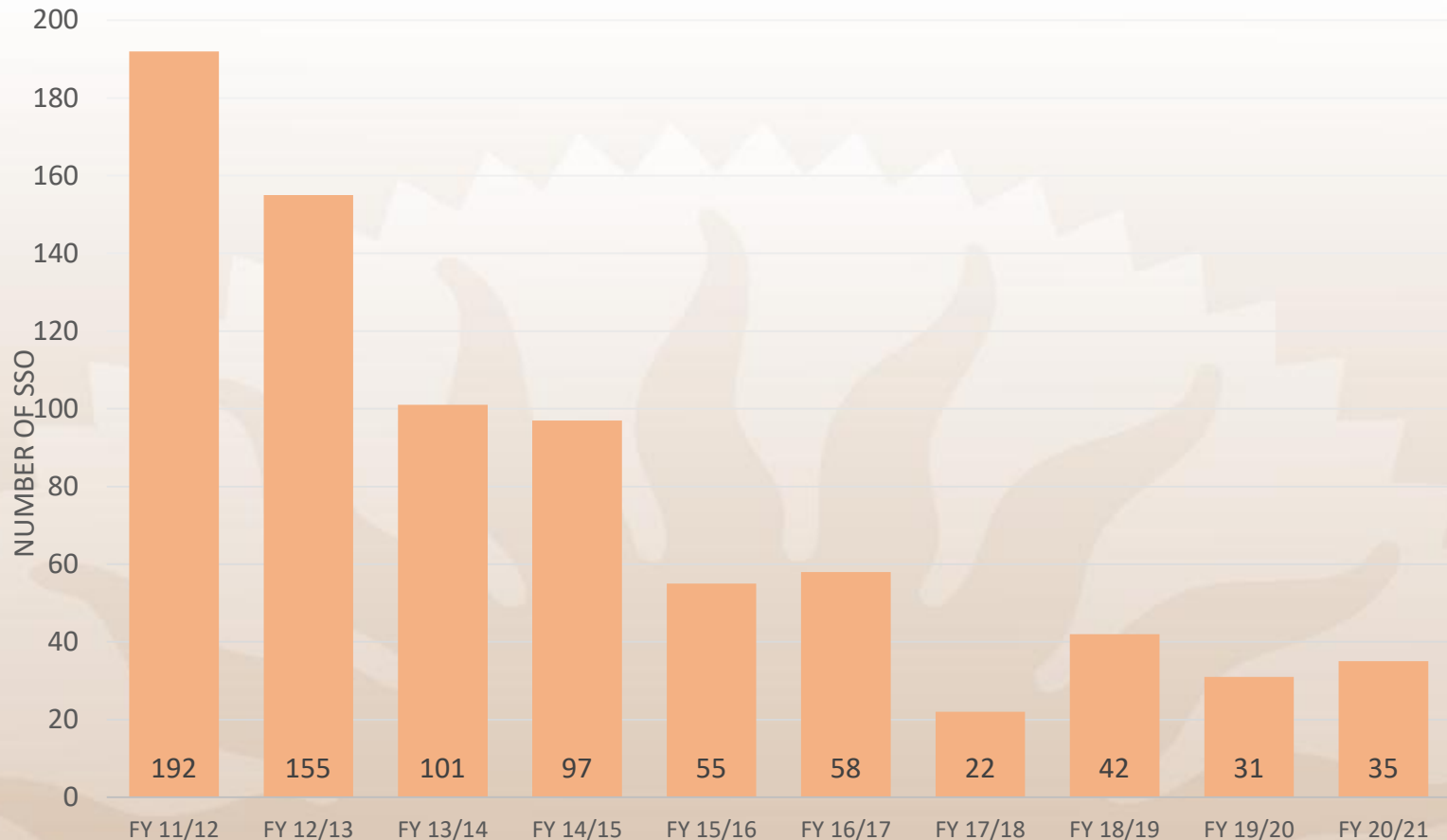
- Capacity Master Planning
  - Decrease SSO's
  - Support General Plan 2040
  - Watershed Protection / Regulatory Compliance
- Condition Assessment
  - Decrease SSO's
  - Risk Based Approach
  - Video Inspection: 100% complete - 1,705 miles of small diameter piping (10-in or smaller)
- System Improvement & Rehabilitations
  - Decrease SSO's
  - Neighborhood Sewer Focus
  - Capacity Improvements



*60-inch Brick Sewer*

# Sanitary Sewer Overflow Data

## SANITARY SEWER OVERFLOW



# Goals

- ✓ Focus on GP 2040 capacity demands to support economic development
- ✓ Increased investment into the systems to address infrastructure backlogs
- ✓ Prioritized Capital Improvement Programs to:
  - Lower operational costs
  - Ensure capacity / Prevent spills
  - 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 2020-2021

*Mathew Nguyen*

*December 6, 2021*