

# Wastewater Master Plan Overview

Water Advisory Group

October 5, 2022

Agenda Item No. 4.4

# Presentation Topics

- Wastewater Master Plan Purpose and Coordination with Other Plans
- Wastewater Master Plan Components
- City of Stockton Wastewater Service Area
- Future Land Use and Growth Assumptions
- Key Assumptions
- Wastewater Master Plan Conclusions
- Example Recommendations
- Next Steps

# Wastewater Master Plan Purpose and Coordination with Other Plans

**RWCF Improvements**  
2011 Capital Improvement and Energy Management Plan and 2019 Modifications Project Design Report define treatment plant projects



**Wastewater Rate Study**  
Adopted in 2019  
Conclusions verified in Appendix H of the Master Plan

**Collection System Asset Management Plan**  
2018 study identified condition-based pipeline rehabilitation needs



**Wastewater Master Plan**  
Last Wastewater Master Plan completed in 2008  
Evaluates existing and future wastewater system requirements  
Develops list of Capital Improvement Projects (CIPs)



**Public Facilities Fee Nexus Study**  
Will be evaluating/updating connection fees

# Wastewater Master Plan Components

## **Understand Existing Conditions**

Chapter 1 – Introduction  
Chapter 2 – Existing Wastewater Collection System  
Chapter 3 – Existing Wastewater Flows

## **Set Criteria and Standards**

Chapter 4 – Collection System Planning, Design and Performance Criteria

## **Incorporate Growth Projections and Conduct Capacity Evaluations**

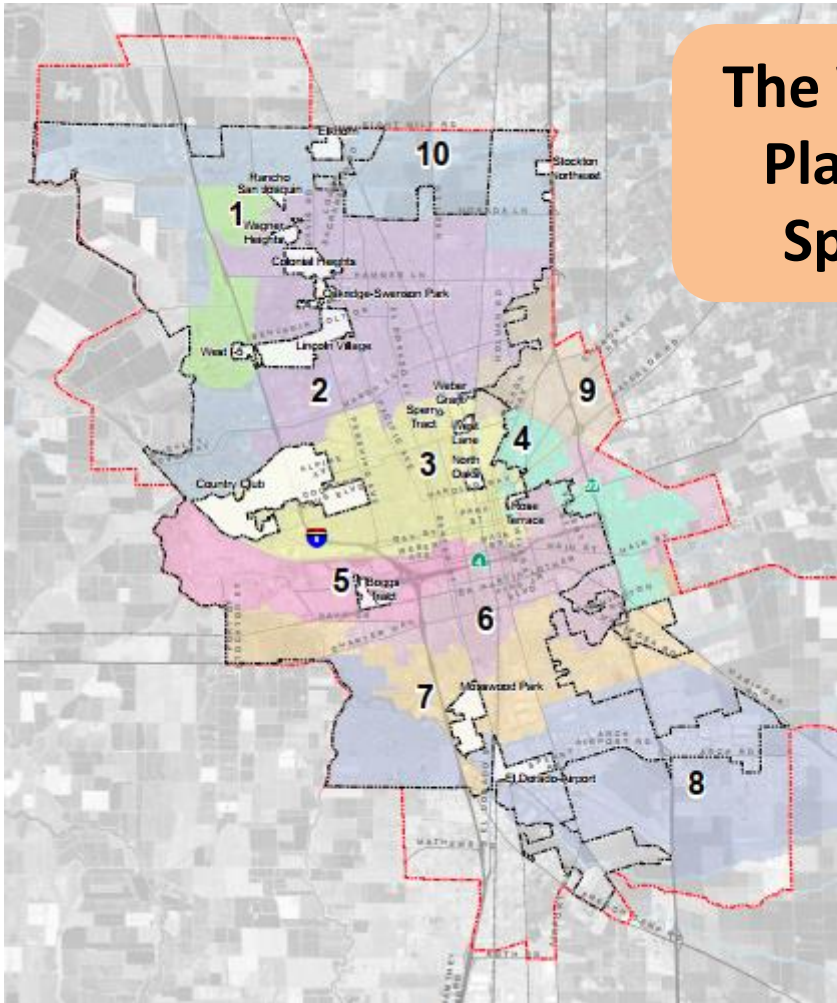
Chapter 5 – Hydraulic Model Development  
Chapter 6 – Analysis of Existing Flow Conditions  
Chapter 7 – Analysis of Future Flow Conditions

## **Develop Recommendations and Funding Requirements**

Chapter 8 – Recommended Wastewater Collection System Capital Improvement Program

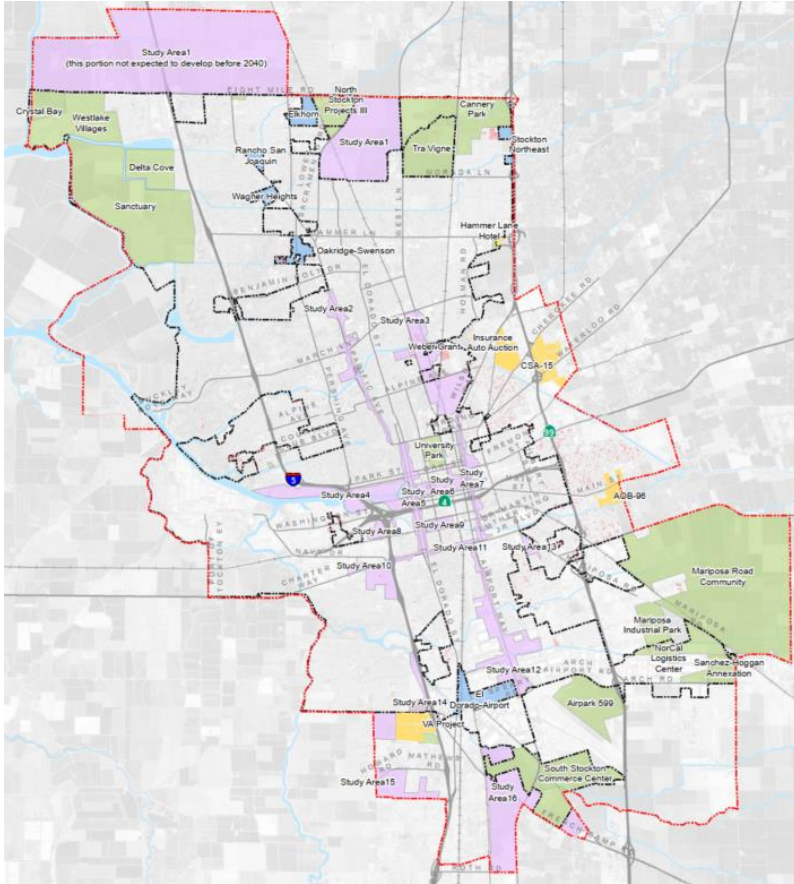
# City of Stockton Wastewater Service Area

**The Wastewater Master Plan evaluates entire Sphere of Influence**



- Existing collection system is defined by 10 areas or “Systems”
- Some unincorporated islands are not currently served

# Future Land Use and Growth Assumptions



- **Future Study Areas and Planned Development** in the wastewater service area reviewed by and confirmed with the City Community Development Department (CDD)
- **Future (2040)** needs based on anticipated growth within the Future Study Areas, Planned Developments and other areas
- **Buildout** needs based on anticipated growth as defined by full implementation of the adopted Envision Stockton 2040 General Plan

# Key Assumptions

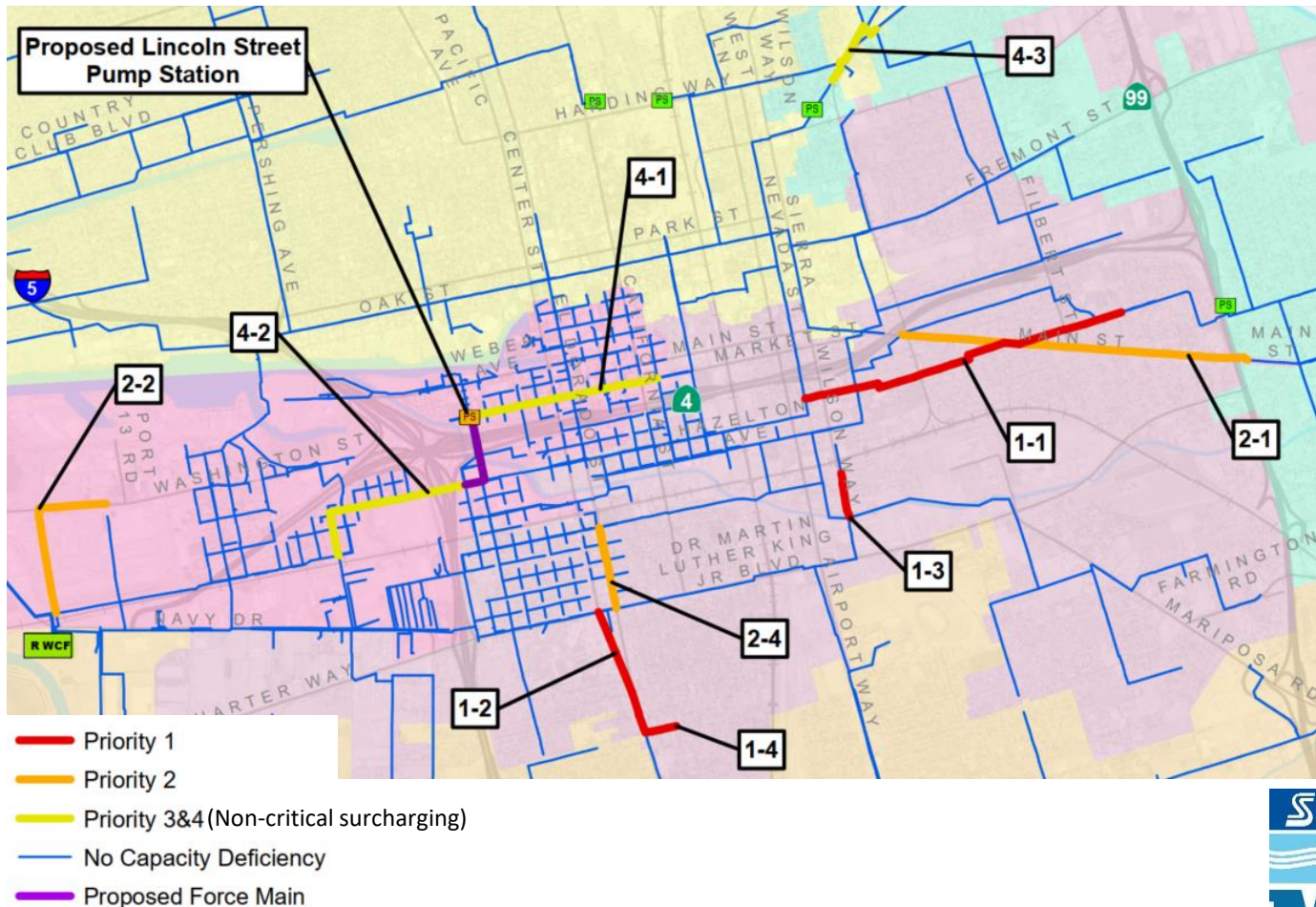
- **Wastewater System Hydraulic Model:** Updated and calibrated to accurately simulate actual system conditions
- **Facility Capacity Evaluations:** Evaluations for lift stations, force mains and gravity mains based on industry standards for collection system sizing and operations

# Wastewater Master Plan Conclusions

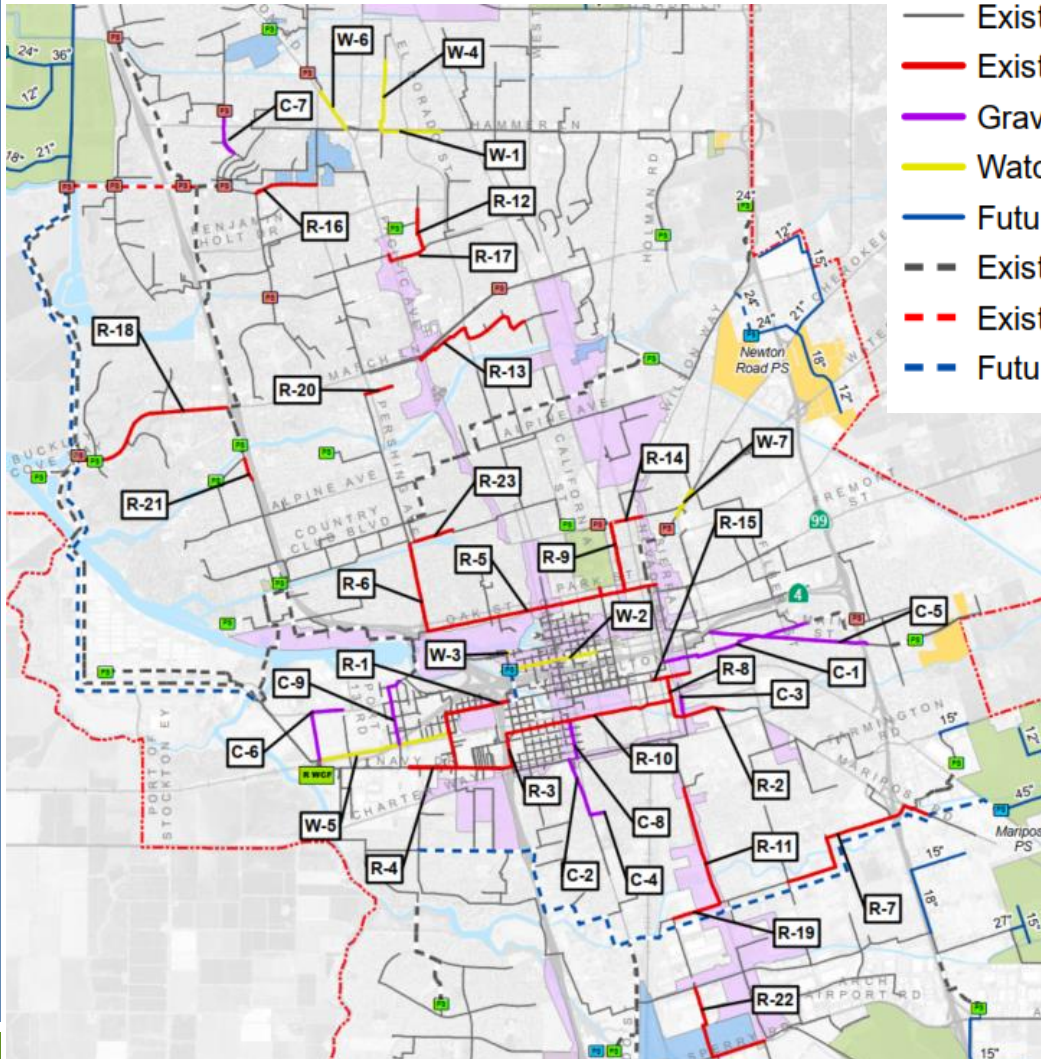
- Modeling indicates some existing system capacity deficiencies in gravity mains and lift stations
- Ongoing Rehabilitation & Replacement (R&R) program is needed to improve system operations and reliability
- System improvements and R&R program through 2024 are funded under the current 2019-2024 Rate Study. Funding for future work will be considered in subsequent rate studies.
- Improvements within specific future development areas are not included in the CIP
- Ongoing monitoring and pump station condition assessment are needed to further define some system improvements



# Recommendations in Downtown Area for Existing Conditions



# WWMP CIP Projects



- Existing Gravity Sewer
- Existing Gravity Sewer Identified for Rehab
- Gravity Sewer Capacity Deficiency
- Watch List
- Future Gravity Sewer
- Existing Force Main
- Existing Force Main Identified for Rehab
- Future Force Main

# Next Steps

- Wastewater Master Plan Review and Adoption
  - October 5: Water Advisory Group
  - October 13: Council Water Committee
  - October 18: City Council Adoption

# Recommendation

Forward Discussion Item to the Council Water Committee for consideration and approval