

Wastewater Master Plan Overview

Council Water Committee

October 13, 2022

Agenda Item No. 3.4

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

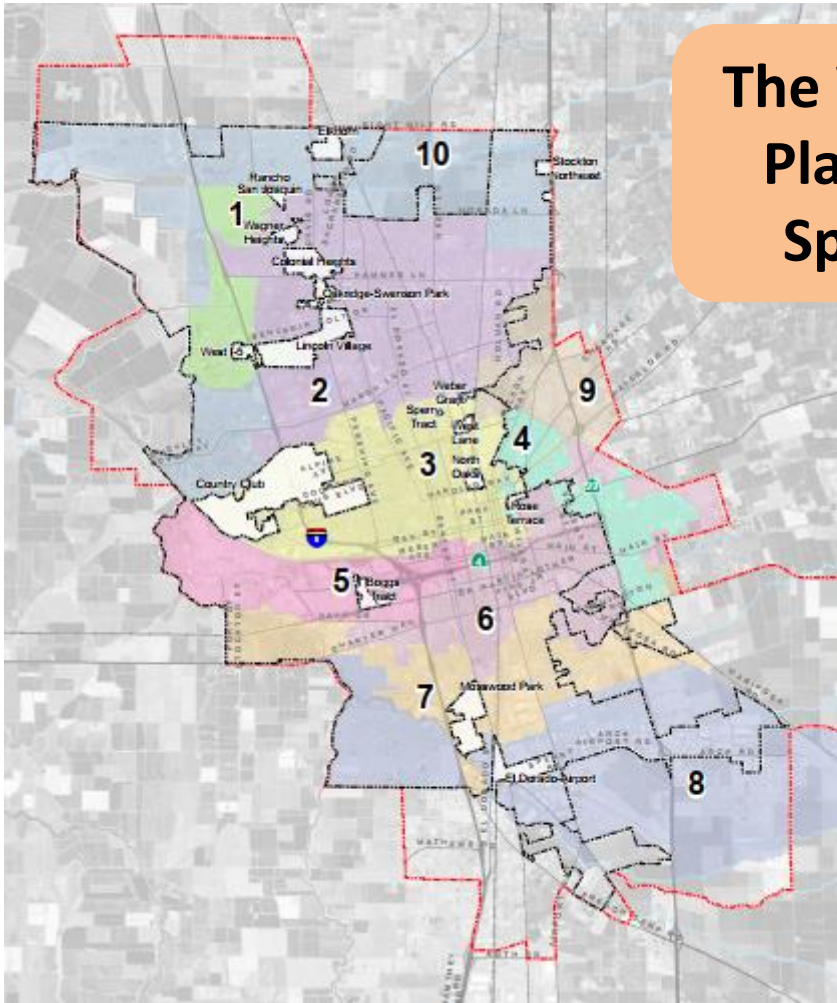
Chapter 5 – Hydraulic Model Development
Chapter 6 – Analysis of Existing Flow Conditions
Chapter 7 – Analysis of Future Flow Conditions

Develop Recommendations and Funding Requirements

Chapter 8 – Recommended Wastewater Collection System Capital Improvement Program

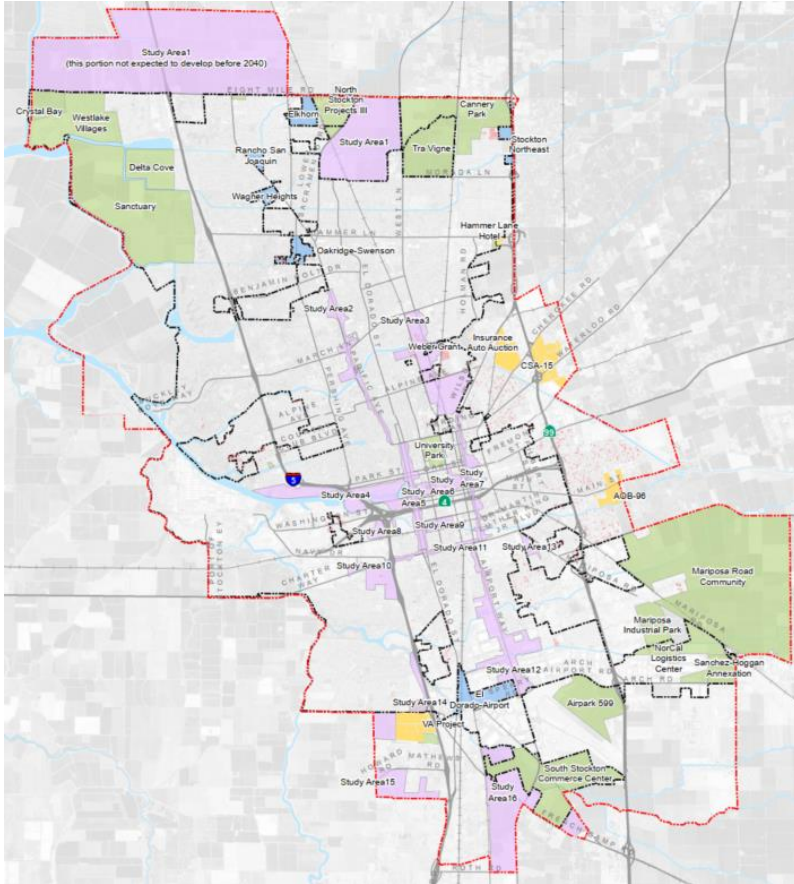
City of Stockton Wastewater Service Area

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

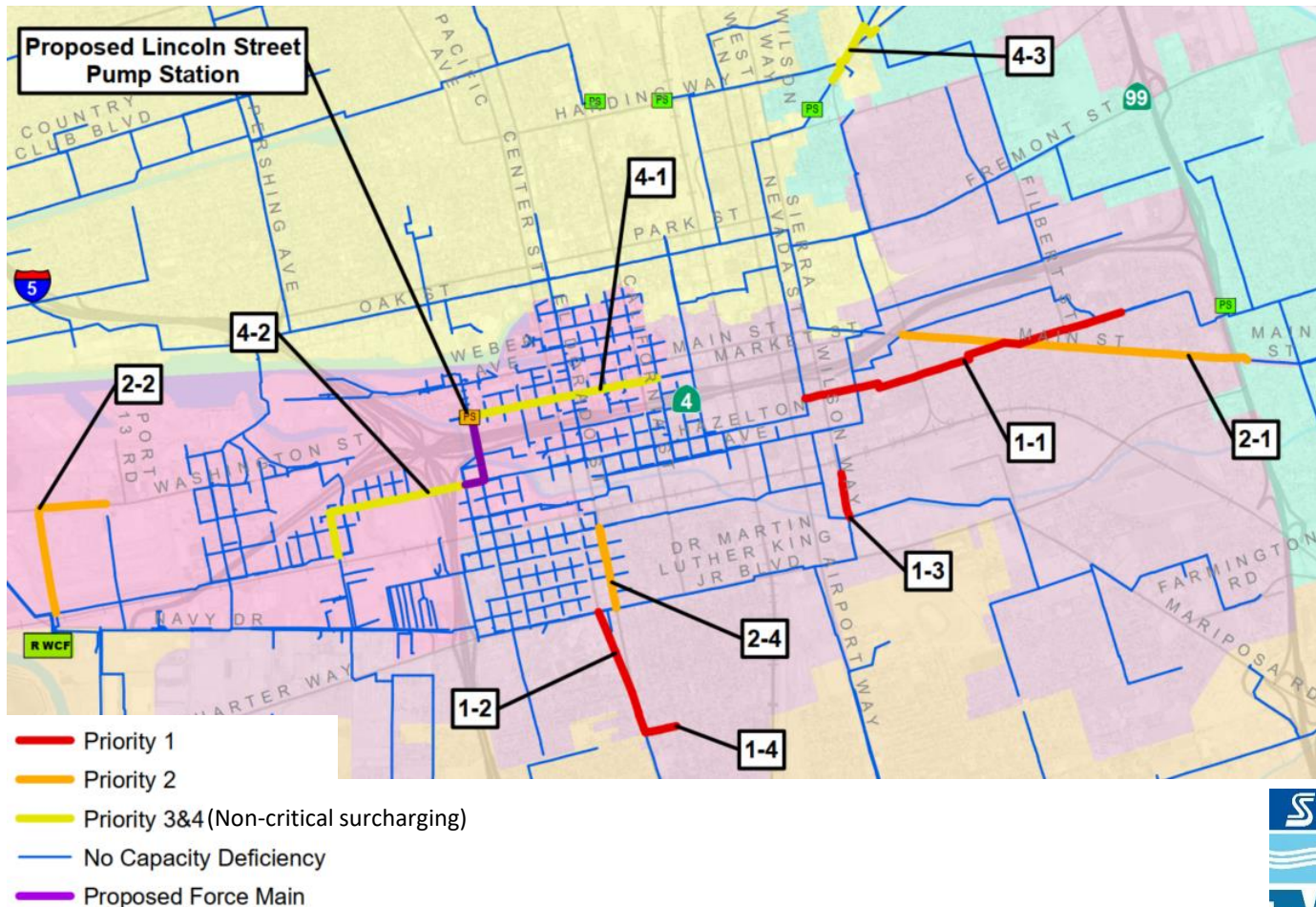
Key Assumptions

- **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

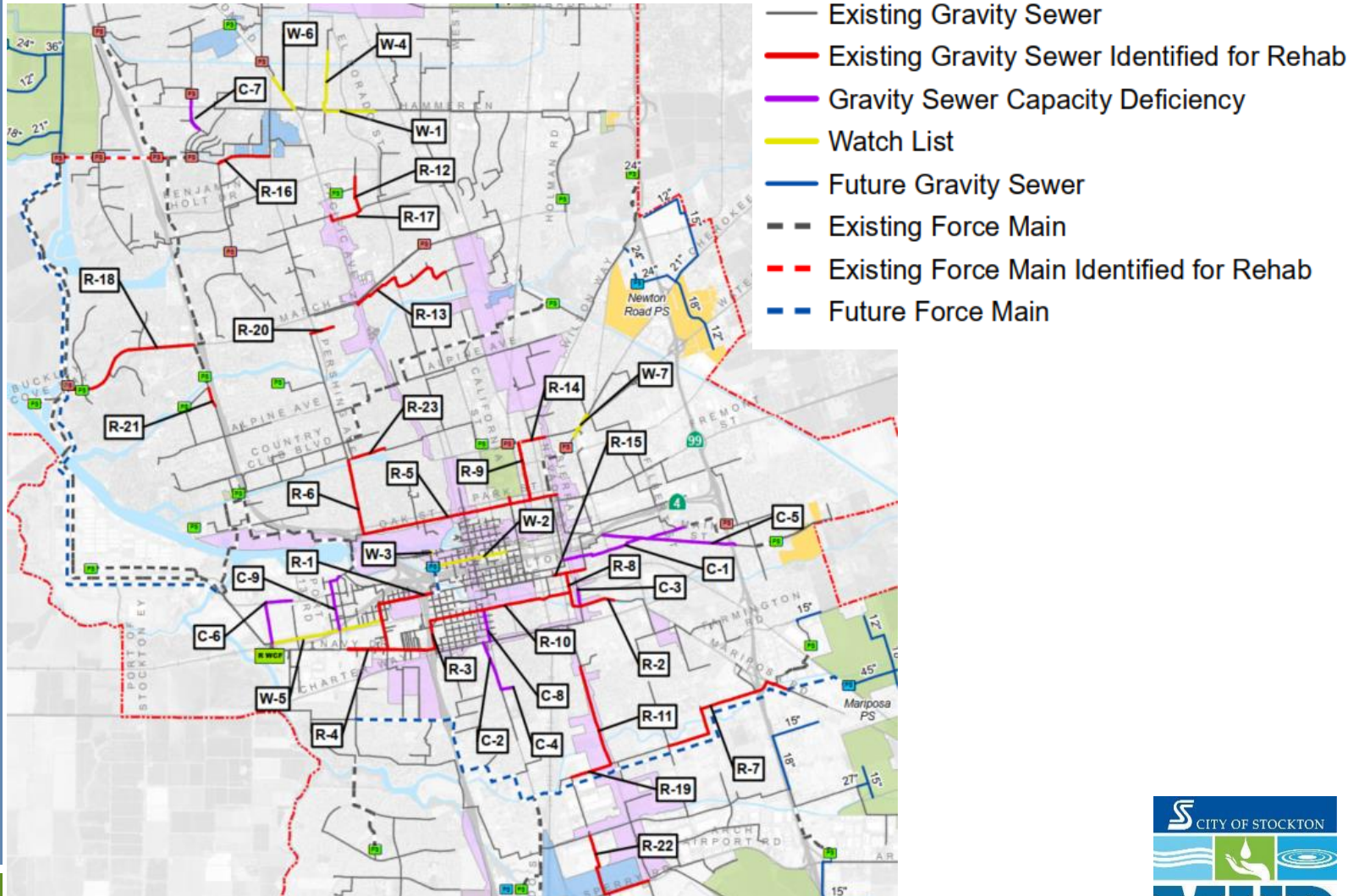
Wastewater Master Plan Conclusions

- 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



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 item to the City Council for consideration and approval