

Stormwater Master Plan Overview







Finalized January 2023

Council Water Committee

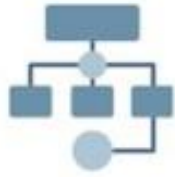
April 10, 2025

Agenda Item No. 25-0436

Stormwater Master Plan Purpose

 Total Area	65 square miles
 Impervious Coverage	51%
 Elevation Range	-10 to 50 feet
 Mapped Stormwater Pipes	620 miles
 Stormwater Pump Stations	77
 10-yr, 24-hr Storm Volume	1.4 billion gallons

- Identify and evaluate flooding concerns
- Develop CIP projects to alleviate flooding
- Support future development

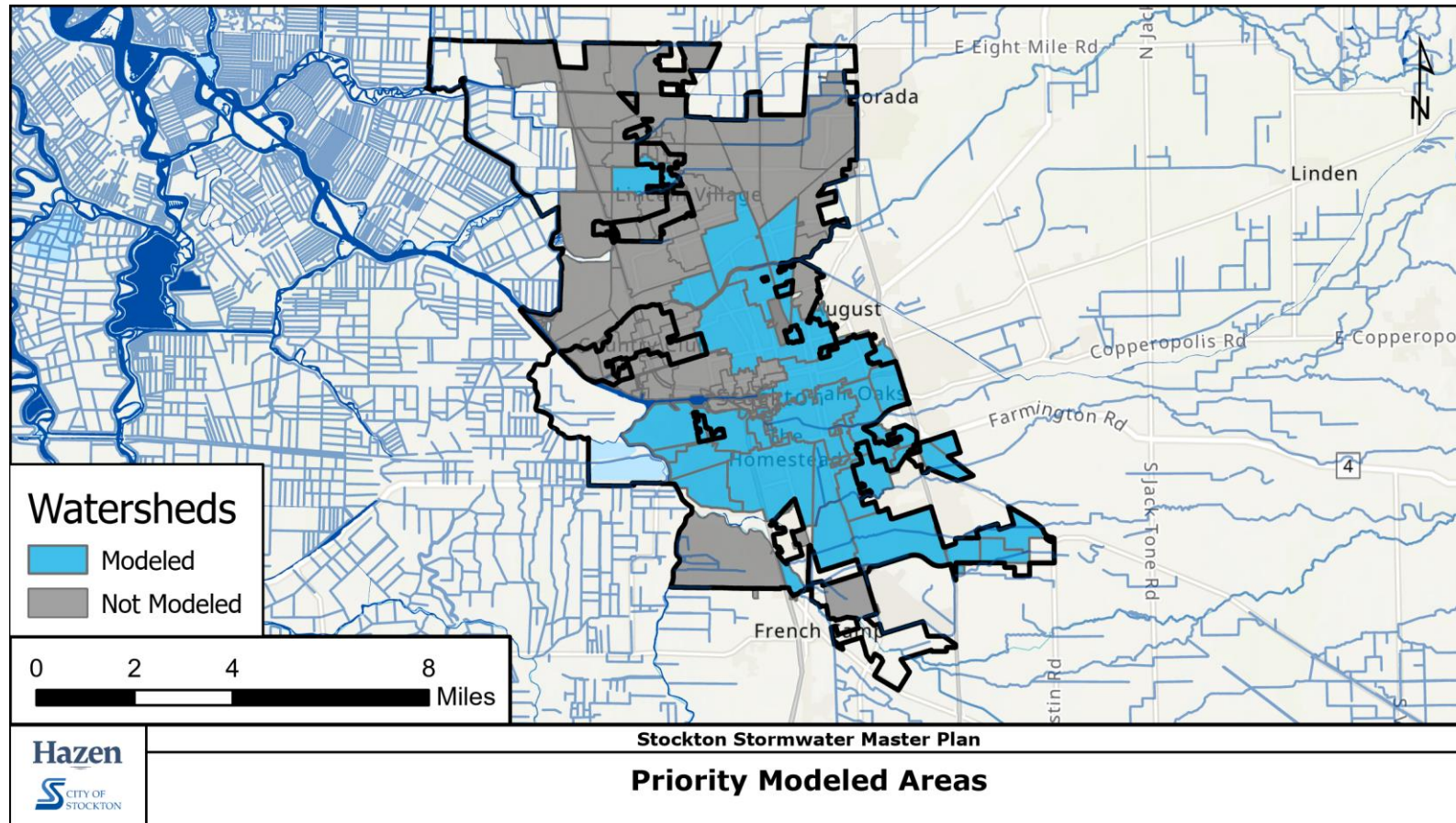


Project Approach – Main Steps



Focus Areas and Priorities

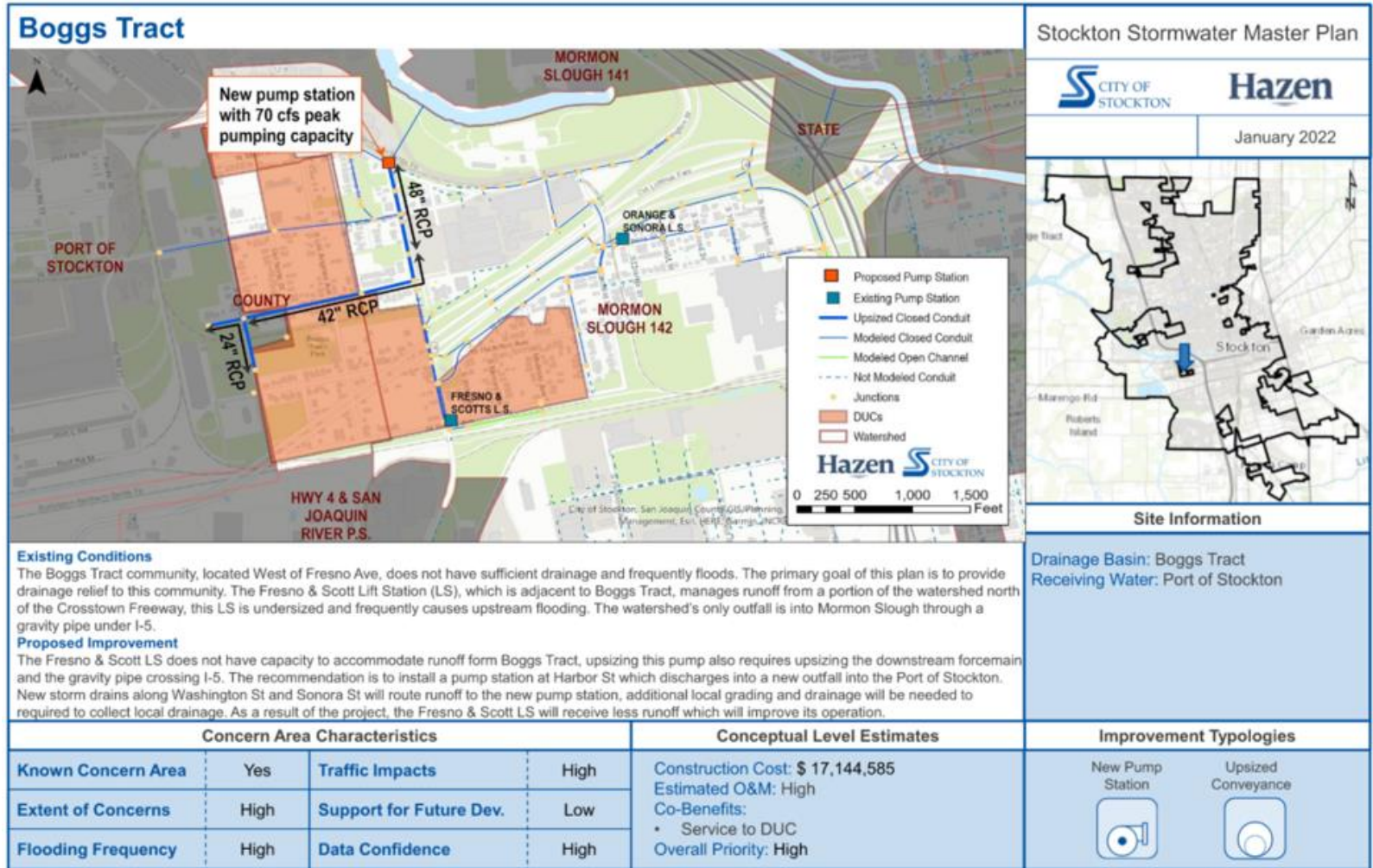
- Focus on analysis of City's stormwater infrastructure and 10-yr, 24-hr design storm event



Key Findings

- Existing flooding concerns are distributed throughout the City
- New development often creates or exacerbates flooding concerns
- 12 improvement concepts developed with costs ranging from \$5-75M
- Improvements focused on larger flooding issues but could be augmented by smaller-scale projects

Sample Proposed Improvement



Conceptual Design – Not for Construction

Proposed Improvement Summary

* Denoted projects are alternatives and would not both be constructed

Project	Cost	Priority
Boggs Tract	\$17,144,585	High
Bonnie Brook	\$11,547,232	High
Hwy 4 and San Joaquin	\$24,902,729	High
Walker Turnpike Alt 1 *	\$46,204,468	High
Walker Turnpike Alt 2 + Eighth St and San Joaquin *	\$75,142,267	High
Bianchi and Calaveras	\$30,682,180	Medium
Duck Creek	\$12,061,203	Medium
Legion Park and Smith Canal	\$50,864,178	Medium
Deep Water	\$10,229,853	Low
Little Johns	\$4,552,126	Low
Mormon Slough	\$27,524,026	Low
Sutter and Calaveras River	\$13,710,877	Low
West Lane and Calaveras River	\$6,517,147	Low

Financial Analysis Summary

- Expenditures expected to increase at a rate higher than revenues for operational costs alone
- Multiple funding mechanisms would be necessary to support ongoing operations and any future capital investments
- Implementation of a reliable and predictable revenue stream is recommended for long-term operation expenditures and capital costs

Conclusions

- Stormwater needs are substantial
- Addressing stormwater needs will require a new approach and funding mechanisms
- Collaboration with stakeholders needed to consider downstream impacts and discharge limitations
- Developed model expected to serve as a valuable tool for future projects and development decisions