



(D) 3. Annual CIP Status Report

January – December 2024

Transportation & Environment Committee
March 3, 2025

Presenters: *Lori Mitchell P.E., Acting Director, ESD*
Kapil Verma P.E., Deputy Director, ESD CIP
David Ohlson, P.E., Principal Engineer, ESD CIP



Program History

- Plant Master Plan (PMP) adopted in 2013
 - More than 100 capital improvement projects totaling over \$2.1 billion to be implemented at the RWF over 30 years
- Accomplishments
 - 36 projects completed; \$1.1 billion expended to date
 - Numerous awards and recognition
- FY 2025-2029 Adopted CIP - \$544 million for construction

2024 Program Highlight – Multiple Projects Completed

- Six projects completed
 - Blower Improvements
 - Fire Life Safety Upgrades
 - New Headworks Access Road
 - Outfall Channel and Instrumentation Improvements
 - Storm Drain System Improvements
 - Yard Piping Improvements - Phase 2



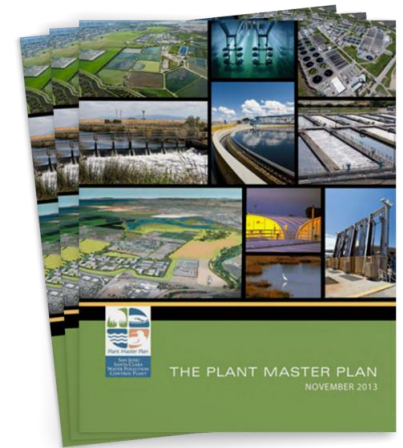
Top photo: 96" raw sewer pipe rehab with carbon fiber reinforced polymer

Bottom left: Completed rehabilitation of Legacy Lagoons Pump Station

Bottom right: 84" pipe rehab with partial-depth concrete crown repair and epoxy coating

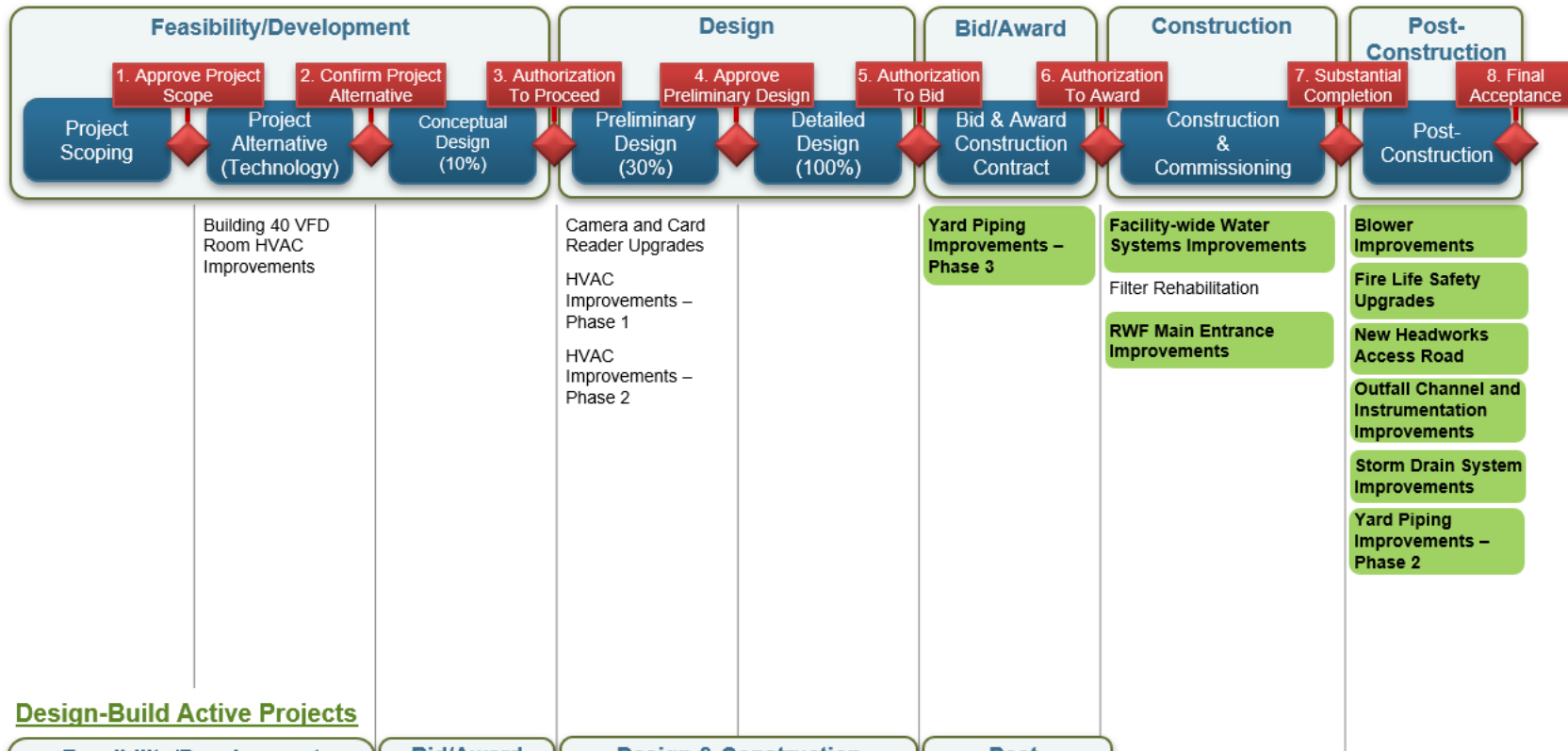
2024 Program Highlight – Plant Master Plan Technical Update

- Significant changes in the 11 years since the PMP was adopted
- The Plant Master Plan Technical Update will:
 - Assess and update recommendations for future improvements
 - Extend the planning horizon to 2050
- Updated plan created with Jacobs will include:
 - Detailed capital improvement recommendations for the next 25 years
 - Updated project descriptions, scopes, costs and schedules
- Plant Master Plan Technical Update is expected spring 2025

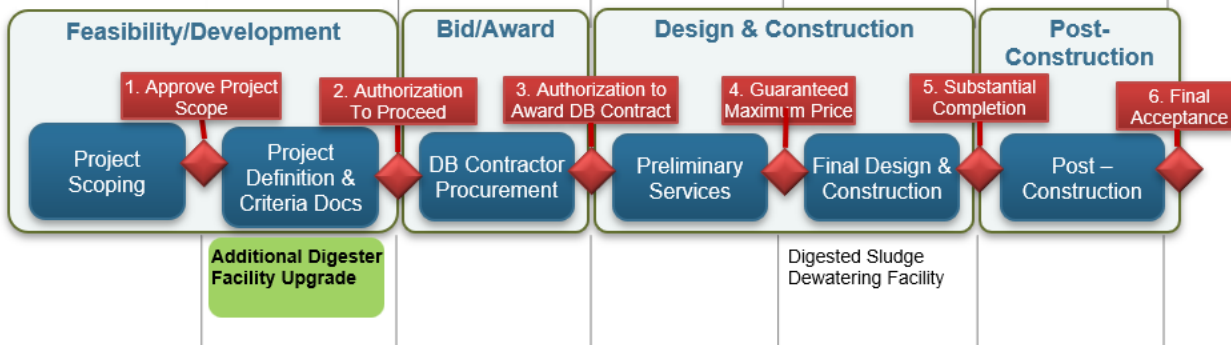


Program at a Glance

Design-Bid-Build Active Projects



Design-Build Active Projects



Two Projects in Feasibility/Development

Project Definition & Criteria

- Additional Digester Facility Upgrade

Project Alternative/ Conceptual Design

- Building 40 VFD Room HVAC Improvements



One of the four mesophilic digesters slated for upgrade as part of the Additional Digester Facility Upgrade project

Four Projects in Design and Bid/Award

Preliminary Design

- Camera and Card Reader Upgrades
- HVAC Improvements Phase 1
- HVAC Improvements Phase 2

Bid & Award Construction Contract

- Yard Piping Improvements - Phase 3



Camera slated for replacement as part of the Camera and Card Reader Upgrades project



Pipe condition assessment for the Yard Piping Improvements - Phase 3 project

- 1 Blower Improvements
- 2 Digested Sludge Dewatering Facility
- 3 Facility-wide Water Systems Improvements
- 4 Filter Rehabilitation
- 5 Fire Life Safety Upgrades
- 6 New Headworks Access Road
- 7 Outfall Channel and Instrumentation Improvements
- 8 RWF Main Entrance Improvements
- 9 Storm Drain System Improvements
- 10 Yard Piping Improvements – Phase 2



Ten Active Construction Projects

Total Base Construction Value: \$294.4m

- 1 Digested Sludge Dewatering Facility
- 2 Facility-wide Water Systems Improvements
- 3 Filter Rehabilitation
- 4 RWF Main Entrance Improvements



**Six
Completed,
Four
Remaining**

Total Base Construction Value of Completed Projects: \$61.2m
Total Base Construction Value of Remaining Projects: \$233.2m



Construction Highlight:

Digested Sludge Dewatering Project

Construction Value: \$131.1m
Expected Beneficial Use: October 2025

Digested Sludge Dewatering Facility



Digested Sludge Dewatering Facility



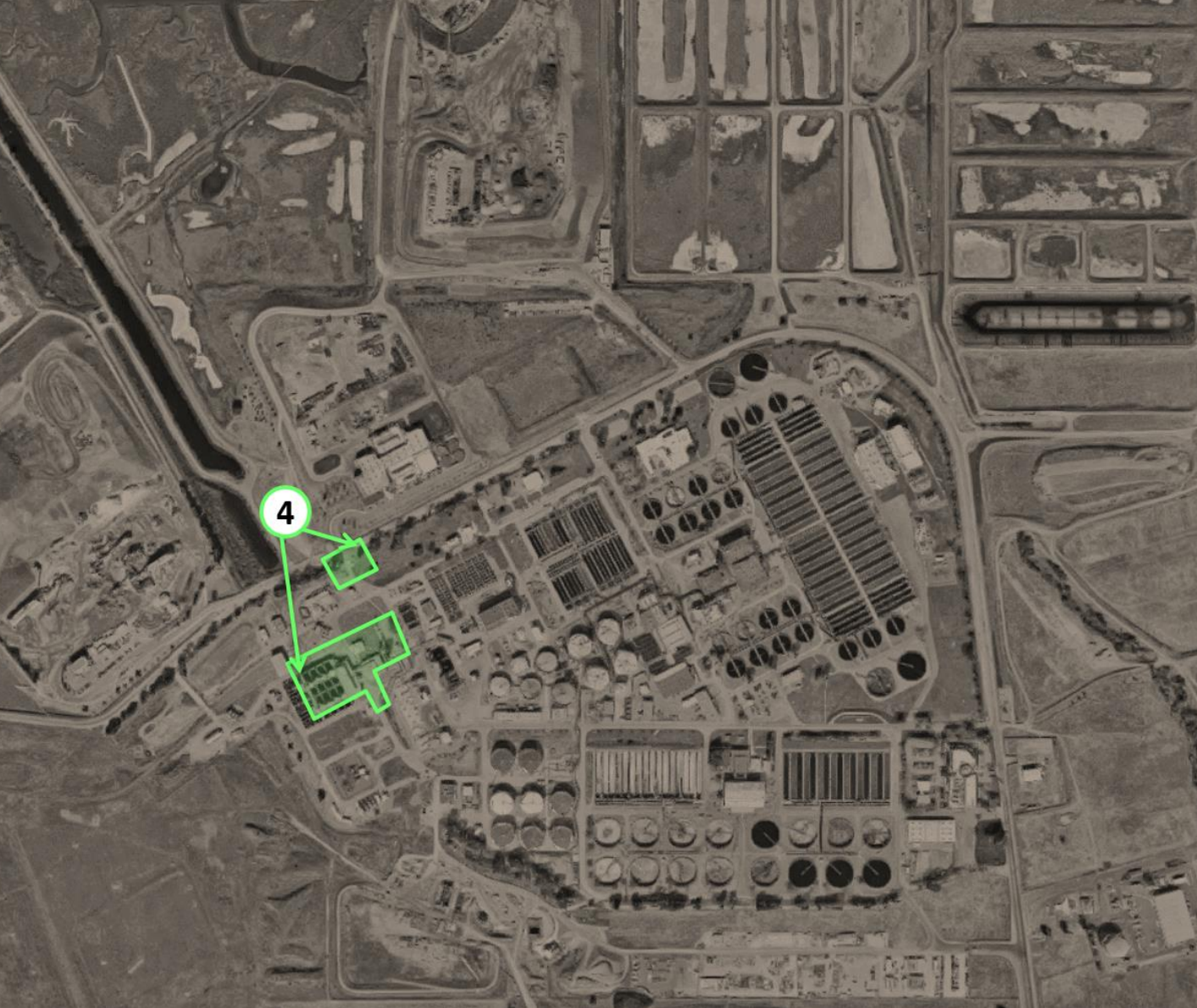
Dewatering Facility Building progress



Centrifuge feed pumps and piping installation



Blend units activate polymer to support dewatering



**Construction
Highlight:**

**Filter
Rehabilitation**

Construction Value: \$33.3m
Estimated Beneficial Use: May 2025

Filter Rehabilitation



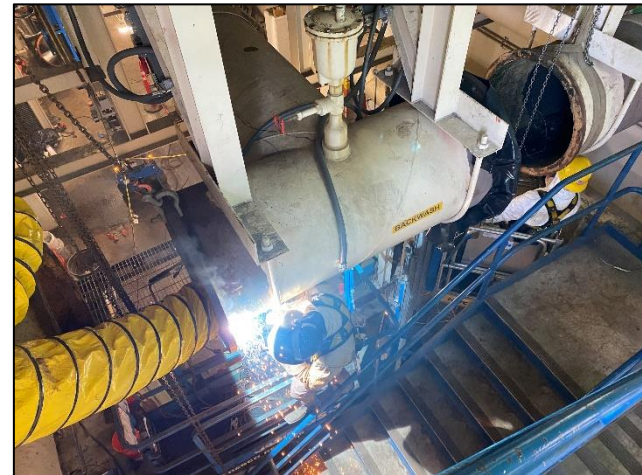
Filter Rehabilitation



Staff performing torque test for power feed into new eyewash station



Serpentine chlorine tank rehabilitation work



Welding on backwash pipe

Expected Activities through December 2025

- Reach Substantial Completion on the Digested Sludge Dewatering Facility and Filter Rehabilitation Projects
- Procure a Design Builder for the Additional Digester Facility Upgrade Project
- Obtain Council approval to award the construction contract for Yard Piping Improvements - Phase 3 and the design-build contract for the Additional Digester Facility Upgrade Project
- Obtain Council approval of the Plant Master Plan Technical Update

