



2020 Water Treatment Plant Projects Update

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Water Treatment Plant Project Overview



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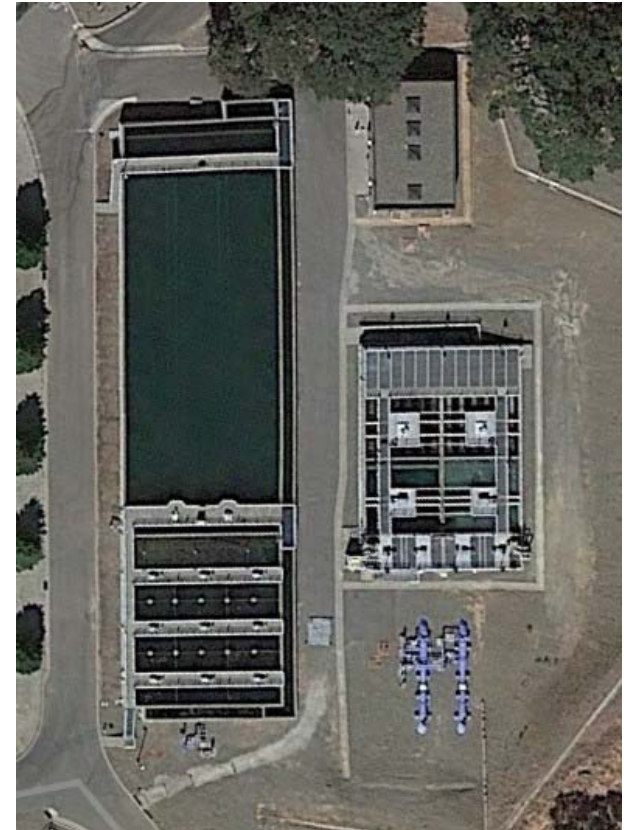
-  WTP PRETREATMENT SYSTEM IMPROVEMENT PROJECT
-  WTP REDUNDANCY & RELIABILITY PROJECT –
POLYMER SYSTEM IMPROVEMENTS
-  FOLSOM PLAN AREA TRANSMISSION PIPELINE AND
PUMP STATION PROJECT
-  WTP RECYCLED WATER PROJECT

WTP Pretreatment System Improvement Project

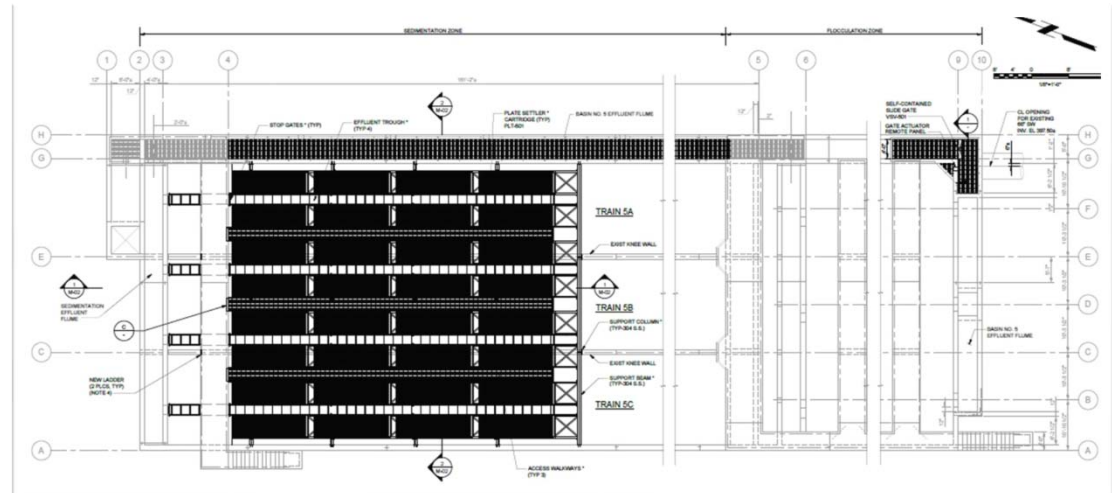


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- Current pretreatment system includes a conventional flocculation/sedimentation basin (Basin No.5) and two Actiflo Basins operating in parallel
- Basin No.5 is designed to handle 15 million gallons a day (mgd)
- Actiflo Basins are rated for 20 mgd
- If any one of the three pretreatment trains is down, the plant cannot meet the rated water treatment plant capacity of 50 mgd



- Inlet pipe modifications to improve flow
- Installation of a new plate settler system allowing an increase in process velocity & flow
- Structural modifications to support the new plate settler system
- Sluice gate modifications to improve flow
- Capacity will increase from 15 mgd to 25 mgd

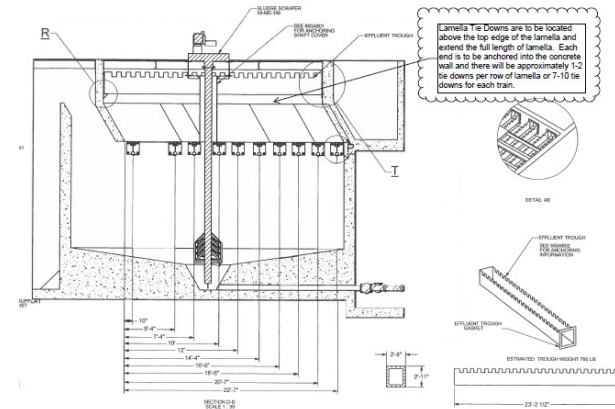
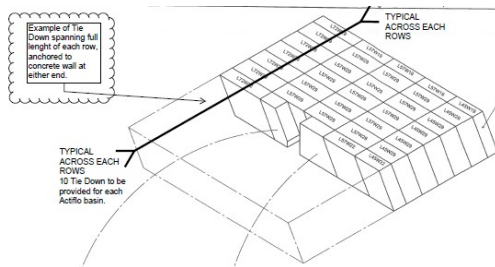


WTP Pretreatment System Improvement Project



Actiflo Work Highlights:

- Addition of tie-downs for existing lamella tube settlers in each Actiflo basin to improve flow and reliability
- Capacity will increase from 20 mgd to 25 mgd for each Actiflo train



WTP Pretreatment System Improvement Project



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Next Steps:

- Execute construction contract agreement with the lowest responsive bidder
- Begin construction on Actiflo improvements this winter until April 30th
- Begin Basin No.5 improvements next winter, starting October 1st, 2020

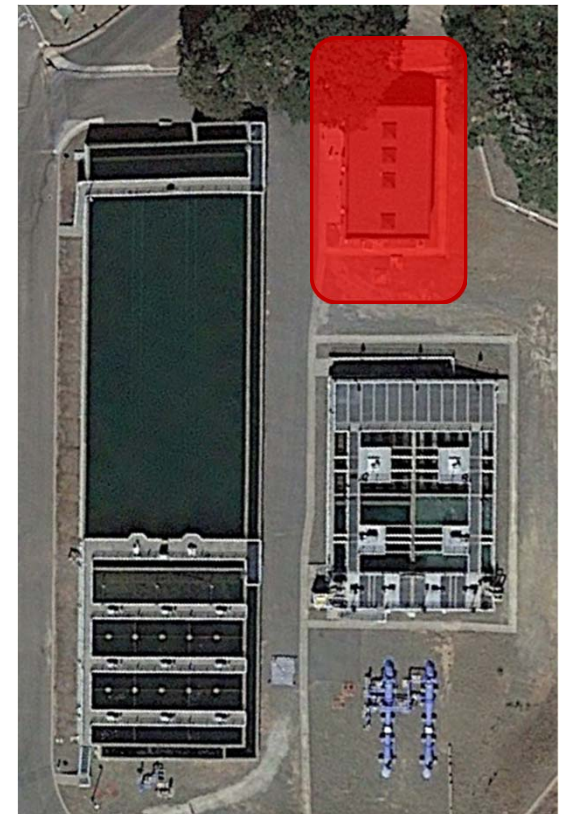


WTP Redundancy & Reliability Project – Polymer System Improvements



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- A Water Treatment Plant Optimization Study was performed in 2016 to address any deficiencies
- The existing polymer system was recommended for upgrade to increase the redundancy & reliability of the polymer feed system since it is considered critical infrastructure
- Existing system had no redundancy which created a single point of failure to the entire pretreatment system
- Improvements will also resize the system to adequately handle future plant pretreatment requirements



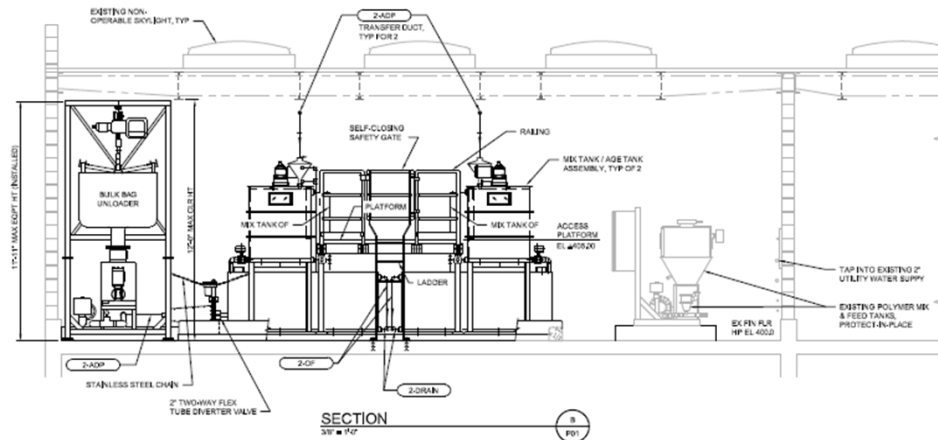
WTP Redundancy & Reliability Project – Polymer System Improvements



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Polymer System Improvements Highlights:

- Installation of new, dry-polymer feed equipment (bulk bag loader)
- Installation of new polymer mixing and aging tanks
- Installation of associated system piping, structural modifications, and electrical and control equipment



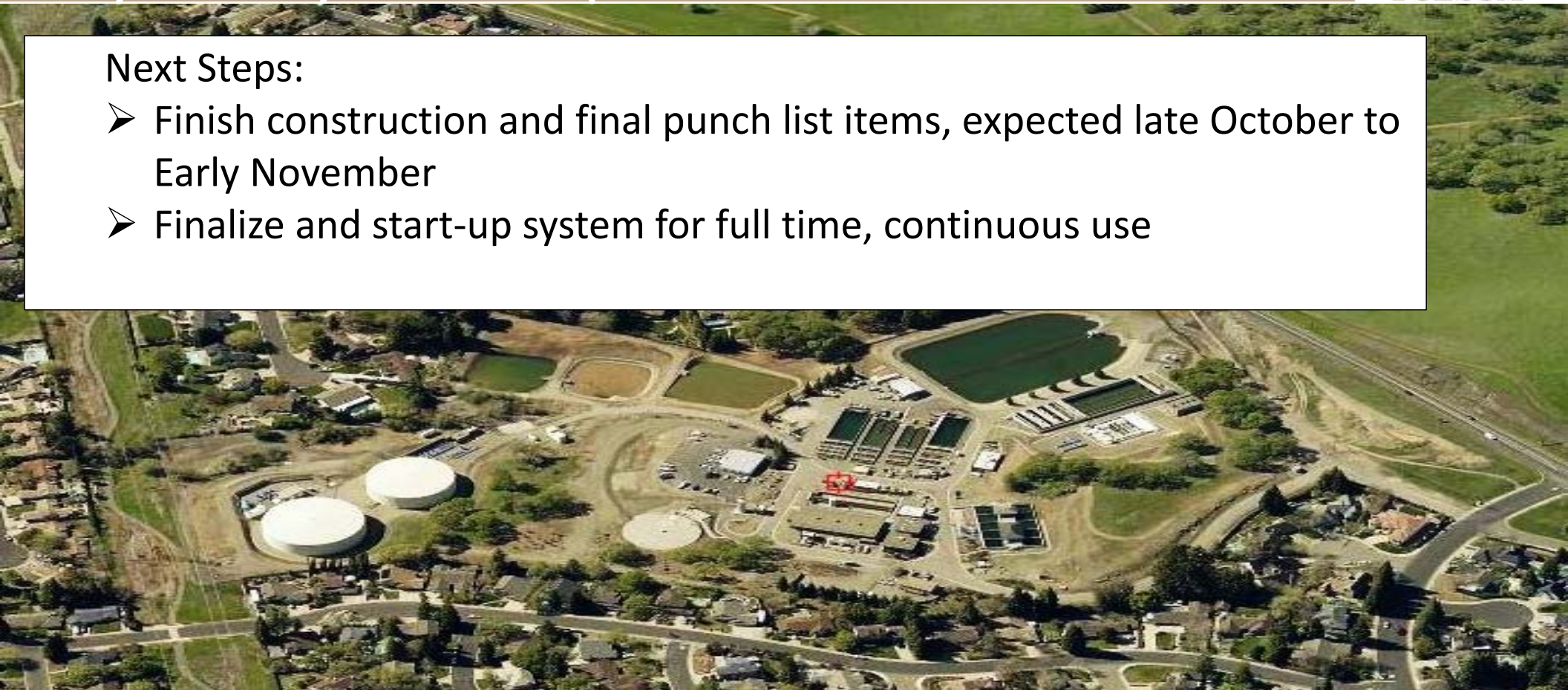
WTP Redundancy & Reliability Project – Polymer System Improvements



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Next Steps:

- Finish construction and final punch list items, expected late October to Early November
- Finalize and start-up system for full time, continuous use

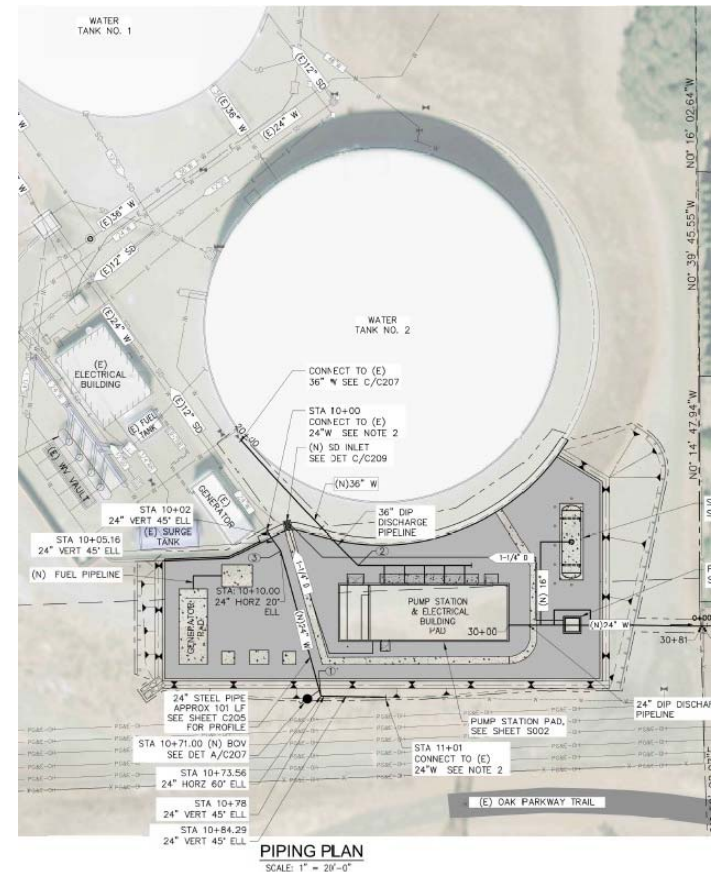


Folsom Plan Area Transmission Pipeline and Pump Station Project



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- A transmission main and booster pump station is required in order to serve the Folsom Plan Area (FPA)
- Design of the pipeline and pump station is currently at the 60% design level
 - Pump Station and Electrical will be enclosed in a building to minimize noise and visual impacts
 - Building placed at the low point behind berm in order to minimize visual impacts



Folsom Plan Area Transmission Pipeline and Pump Station Project



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Next Steps:

- Complete 90% and 100% plans and specifications
- Estimated design completion date: Winter 2020
- Engage the land-owners and contractor to construct the pipeline and booster pump station
- Estimate construction date: Summer 2021 or Spring 2022 (TBD)



WTP Recycled Water Project



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- Currently the City can only backwash 4% of the WTP design capacity due to pump and pipeline restrictions
- The EPA allows water agencies to recycle up to 10% of the WTP design capacity (50 mgd), which is used to backwash filtration units
- Design:
 - Replace/upgrade RBW Pumps to achieve 10% allowable backwash
 - Install a secondary inlet to the recycled water basin to allow cleaning one side of the basin at a time and increase operational flexibility



WTP Recycled Water Project



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Next Steps:

- Develop a scope and fee schedule with the selected design firm and draft 100% plans and specifications.
- Publicly bid the project and begin construction



PROJECT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
WTP PRETREATMENT SYSTEM IMPROVEMENT PROJECT								<div>PRETREATMENT PROJECT CONSTRUCTION IS ONLY ALLOWED FROM OCT. 1ST THROUGH APR. 30TH AND WILL CONTINUE INTO 2022.</div>				
WTP REDUNDANCY & RELIABILITY PROJECT – POLYMER SYSTEM IMPROVEMENTS												
FOLSOM PLAN AREA TRANSMISSION PIPELINE AND PUMP STATION PROJECT							<div>PLANS ARE CURRENTLY AT THE 60% DESIGN LEVEL. THIS IS A DEVELOPER PROJECT AND CONSTRUCTION WILL LIKELY NOT BEGIN UNTIL THE WATER DEMAND IN THE FOLSOM PLAN AREA INCREASES.</div>					
WTP RECYCLED WATER PROJECT												

= CONSTRUCTION
 = DESIGN

NOTE: TYPICAL ALLOWABLE WORKING HOURS FOR CONSTRUCTION PROJECTS AT THE WATER TREATMENT PLANT ARE 7:30 A.M. TO 3:30 P.M.

2020-21 Water Treatment Plant Projects



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Questions?

For project specific questions regarding the Pre-Treatment System Improvement Project or the WTP Redundancy & Reliability Project, please contact:

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916-461-6167

For project specific questions regarding the FPA Transmission Pipeline & Pump Station Project or the WTP Backwash & Recycled Water Project, please contact:

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916-461-6165