



Patterson Pass Water Treatment Plant Upgrades and Ozonation Project

February 16, 2022 - Zone 7 Board of Directors Meeting

Presented by Mona Olmsted, Associate Engineer, Zone 7 Water Agency

Construction Progress Report

Project Overview

Project Objectives

- Increase plant capacity from 12 to 24 MGD
- Increase treated water storage capacity an additional 5 MG
- Replace or upgrade many major plant components that are reaching the end of their useful life
- Improve treated water quality and plant reliability with the addition of ozone treatment

Cost

- Approximately \$110 million for planning, design, and construction

Funding Sources

- Funded by water rates, new connection fees, and bonds (\$19 million)

In Service Date: Spring 2022



Project Supports Multiple Strategic Plan Initiatives



Water Reliability

Initiative 3

Continue to effectively implement infrastructure projects in the Water System CIP



Ozone Treatment

Initiative 4

Implement Ozone








Water Quality

Initiative 5

Meet or surpass all drinking water health and safety requirements

Project Status

Overall project status is **YELLOW**.

Schedule		<ul style="list-style-type: none"> • Project is approximately 90% complete • Ozone production anticipated in April 2022 • Project completion anticipated in June 2022
Budget		<ul style="list-style-type: none"> • Project budget is under control at 86% spent overall • Negotiated and executed change orders total \$3.5M to date (4.7% of original construction contract amount)
Issues		<ul style="list-style-type: none"> • Project issues are under control
Decisions		<ul style="list-style-type: none"> • No decisions are requested at this time
Risks		<ul style="list-style-type: none"> • COVID-19 related cost impacts unknown at this time

Sitework

- On-going piping installation for chemicals, treated water, source water, and ozonated water



Inlet Piping & Ozonation Water Piping – 2/10/22



Inlet Piping & Ozonated Water Piping – 2/2/22

LOX & CO2 Storage Area, Ozone Generation Building

- Conducted pre-punchlist walk last month
- Ozone equipment supplier, Suez, performing on-site testing



First Liquid Oxygen Delivery – 2/10/22



General View of Ozone Generation Building (with Lighting) – 1/19/22

Ozone Contactor Structure

- Completed installation and testing of diffusers
- Pre-punchlist walk upcoming



General View of Ozone Contactor Gallery – 12/1/21



Installing Diffuser Piping Manifolds – 12/15/21



Testing Diffusers for Leaks – 12/28/21

Modifications to Existing Clarifiers

- Construction of new inlet piping, outlet piping, and overflow structures for Clarifiers 1 and 2 is in progress



Clarifier 1 Inlet Piping – 2/10/22



Clarifier 1 Overflow Structure Installation – 2/1/22

Filter Structure

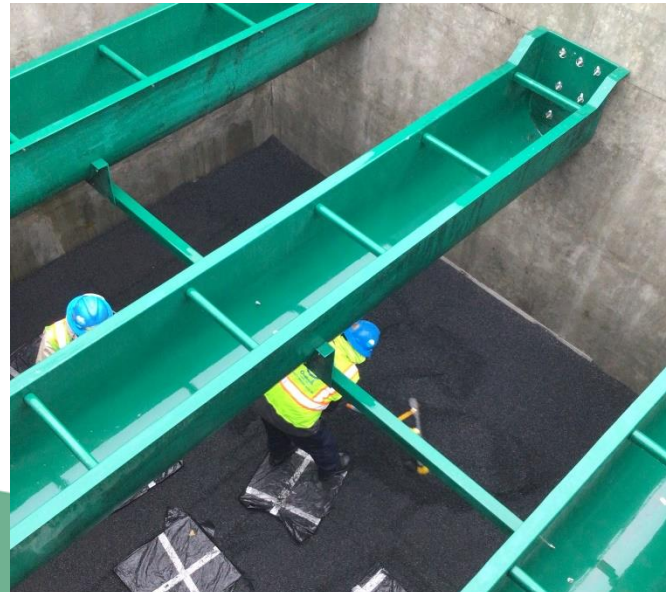
- Finished testing underdrains and loading and washing new filter media
- Painting pipe and installing instrument racks in filter pipe gallery
- Testing remaining piping and pumps
- Conducted pre-punchlist walk last month



General View of Pipe Gallery – 12/29/21



Installing Sand Filter Media – 12/15/21



Installing Anthracite Media – 12/27/21



Backwashing – 12/7/21

Treated Water Pump Station & 5 MG Clearwell

- Startup and testing activities in progress
- Startup delayed to install additional support and blind flange on 5 MG Clearwell inlet pipe



General View of 5 MG Clearwell – 2/10/22



General View of Treated Water Pump Station – 1/27/22



General View of Treated Water Pump Station Electrical Room – 1/27/22



Interior of 5 MG Clearwell – 1/12/22

Questions?



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AGENCY**