

# Water Quality Projects Update



January 30, 2018



# Water Quality Progress

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- **Objective:** Improve and stabilize water quality in the City's water distribution system
  - **Action:** City adopted a holistic approach and has implemented actions to address the following areas:
    - Source
    - Treatment
    - Distribution System
  - **Status:**
    - Significant improvements in the stability/consistency of water quality have been achieved
    - Longer-term CIP projects are currently underway to continue to improve overall water treatment and distribution.
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# Water Quality Progress

Project	Status
Analyzers for finished water monitoring at O.N. Stevens Water Treatment Plant	Complete
Tank Mixer for Flour Bluff Elevated Storage Tank	Complete
Sampling Program for Elevated and Ground Storage Tanks	Complete
Chlorine Dioxide Annual Chemical Costs	Complete
Chlorine Dioxide System Improvements	Complete
Navigation Pump Station Booster Station	Complete
Tank Mixer for Navigation Pump Station	Complete
Pilot Plant for O.N. Stevens Water Treatment Plant	In Progress-To be delivered by February 2018
Granular Activated Carbon Pilot Study	In Progress-To be delivered by Spring 2018



# Pilot Plant System and Testing

## Objective

- Evaluate Changing Water Quality
- Test Alternative Treatment Strategies
- Optimize System Performance



## Status

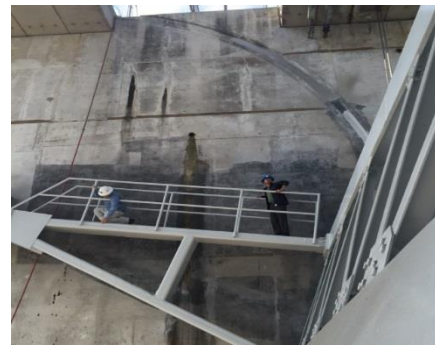
- System Design: **Complete**
- Pilot Construction: **Complete**
- Anticipated Installation: **February 2018**





# Source Water Project

- Choke Canyon Spillway Gates Repair Project





# Treatment Project

## Solids Management

### Objective

- Minimize impact on water quality
- Improve operational flexibility
- Prepare for long term operations

### Status

- In Progress
- Phase-1 completed: August 2017
- Anticipated Completion : Phase-2 by 2018





# Treatment Project

## Objective

### River Raw Water Pump Station

- Increase reliability of water delivery
- Reduce operational cost
- Ultimate design flow 200 MGD.

## Status

- Selection of Engineers: **Complete**
- System Design: **Complete**
- Anticipated Installation: **2018**







# Treatment Project

## Raw Water and Chemical Feed Improvements

### Objective

- Update Chemical Feed Equipment
- Improve Chemical Mixing
- Optimize System Performance

### Status

- Selection of Engineers: Complete
- System Design: 60% Complete
- Anticipated Installation: 2018







# Distribution System Actions

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## ACTIONS TAKEN:

- Dead end main mitigation- 74 in 2017
- Back-up power for Navigation and Staples Pump Stations
- Additional pumps at Staples Pump Station
- Performed chlorine sweeps and valve sweeps and corrected 65 valves found out of position

## IN PROGRESS:

- New analyzers at Staples and Sand Dollar Pump Stations
- Replacing 8" water line across Oso Bay with a 12" line
- Replacing two 36" valves and one 48" valve in the water distribution system



# Distribution System Project

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- Construction of High Service#3 at O.N. Stevens Water Treatment Plant
- Will provide pressure and control of water being pump to the distribution system





# Distribution System Project

- New Elevated Storage Tanks at Holly Road and Rand Morgan





# Distribution System Overview

