Wastewater Treatment Division

Capital Projects Update

Presented to the Metropolitan Water Pollution Abatement Advisory Committee

August 22, 2018
Presentation Overview

1. Georgetown Wet Weather Treatment Station
2. Sunset/Heathfield Pump Station Upgrade
3. North Mercer/Enatai Interceptor Upgrade
4. South Treatment Plant Raw Sewage Pump Medium Voltage Switchgear
5. West Point Mixed Liquor Channel Air Blowers
6. West Point Treatment Plant Primary Sedimentation Roof
Georgetown Wet Weather Treatment Station

**Objective:** Control Brandon and South Michigan Street Outfalls within EPA and DOE Consent Decree requirements

**Scope:** 66 MGD Peak Flow CSO Treatment and Conveyance Facility

**Status:** 4 separate construction contracts underway

**Schedule:** Substantial Completion early 2022

**Total Project Cost:** $241 Million
Georgetown Wet Weather Treatment Station

Recent outreach:

- Active communication with Georgetown community
- Construction jobs HS Student Site Walk
- Public Art Plan with 4Culture
Georgetown Wet Weather Treatment Station
Sunset/Heathfield Pump Station Upgrade

**Objective:** Accommodate existing and future flows, improve operational flexibility and maximize reliability

**Scope:** Upgrade pump stations, conveyance pipe and shared force main to 26 MGD firm, 30 MGD peak

**Status:** Horizontal Directional Drilling complete, open cut ongoing, mechanical and electrical equipment replacements ongoing

**Schedule:** Substantial Completion early 2020

**Total Project Cost:** $75 Million
Sunset/Heathfield Pump Station Upgrade
Objective:
Accommodate existing and future flows, improve operational flexibility and maximize reliability

Scope:
Increase capacity to 10.5 MGD by upgrading equipment, replacing Force Mains and gravity pipe, installing new gravity pipe and rehabilitating existing pipe
North Mercer/Enatai Interceptor Upgrade
North Mercer/Enatai Interceptor Upgrade

Timeline: Construction 2020 - 2023

Total Project Cost: $116 Million
South Treatment Plant Raw Sewage Pump Medium Voltage Switchgear

**Need:** Existing switchgear in service since 1964, beyond estimated useful life

**Scope:** Replace switchgear and transformers and install new control and monitoring systems

**Status:** 90% Design

**Schedule:** 2019 Construction

**Total Project Cost:** $8 Million
South Treatment Plant Raw Sewage Pump Medium Voltage Switchgear

New power monitoring feature will provide power data and allow maintenance staff to diagnose and correct emerging issues.
West Point Secondary Mixed Liquor Blower Replacements

**Objective:** Save 800,000-1,000,000 Kilowatt-hours (kWh) annually ~ $48,000 - $60,000 in energy costs

**Scope:** Replace two existing blowers with modulating high speed turbo blowers

**Status:** 30% Baseline Design.

**Schedule:** Construction in 2020

**Total Project Cost:** $ 4 Million
West Point Secondary Mixed Liquor Blower Replacements

King County Strategic Climate Action Plan - Project is a major contributor to WTD’s goal of reducing energy use 7% by 2020
West Point Treatment Plant
Primary Sedimentation Roof


Scope:
- Remove Z beams, girders and columns
- Upgrade tank walls
- Construct partial roof deck
- Replace odor control ductwork

Status: 30% Baseline Design

Schedule: Construction 2021-2022

Total Project Cost: $37 Million
West Point Treatment Plant
Primary Sedimentation Roof

One Z beam weighs 5.5 tons

558 beams in total will be removed
Questions/Contact

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