



December 11, 2020

Re: FY 20/21 PCE Remediation CIP Improvements

All,

The following is a brief description of recommended CIP improvements that have been identified from the previous year's PCE Remediation improvements projects (Mill St Improvements; Kietzke, High, & Morrill PCE Improvements (KH&M)). Also see attached budget information for detailed cost breakdown.

Kietzke Lane Treatment Facility Improvements

- 1.1 Gooseneck Replacement – The pump to waste gooseneck at the Kietzke is 10" diameter steel. As part of the KH&M project it was determined that the pump to waste discharge main could be increased to 12" diameter to reduce the head in the PTA tower. The KH&M project replaced the 10" main from the PTA to the gooseneck. The gooseneck was not replaced due to time constraints. During startup, the new pump to waste configuration worked well but was slowly gaining depth in the PTA sump. To allow longer duration pump to waste cycles it is necessary to replace the 10" gooseneck with a 12" gooseneck and duck bill check valve.
- 1.2 Drop Inlet Splash Guard – The drop inlet has three separate discharge pipes from the treatment plant and the well. The discharge from these pipes causes excessive splashing and results in dousing the adjacent transformer with water, eroding the soil in the area, and potentially undermining the transformer pad. It is recommended to install some type of splash guard to contain the bulk of water in the drop inlet. At Morrill site a stainless steel Unistrut frame with HDPE panels was installed and was effective at keeping water contained.
- 1.3 Air Duct Bellows Replacement – The flexible duct connection from the air handler duct to the PTA tower has corroded through allowing air to escape from the treatment process. This needs to be replaced.
- 1.4 Install Flap Gate on PTA Discharge – The flap gate is critical in keeping out pests, (birds, rodents, insects, etc.) when not in use.

Morrill Street Treatment Facility Improvements

- 2.1 Chlorine Storage Increase & Injection Modifications – It was required to remove chlorine injection from High St well to prevent chlorinated water from reaching the river during pump to waste cycles under the new treatment requirements and modifications on the KH&M project. This concept was not determined during design and as a result the single 280 gallon chlorine storage tank at Morrill WTP needed to be filled twice as often to compensate for the High St well demand. This portion of the project will add a second storage tank, make modifications to the tank's suction & discharge manifolds, and make any necessary injection modifications.

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- 2.2 Repair PTA Drains – There are two small PTA drain valves that are stuck closed and need to be replaced. The valves are close to 5 feet deep and will require a contractor to complete the work.
- 2.3 Replace PTW Flap Gate – The existing 12” flap gate on the discharge of the gravity portion of the pump to waste line at the river is comprised of a round 12” diameter piece of sheet metal secured with a rudimentary hinge. It is recommended to replace this with a restrained cast iron flap gate specifically designed for this application. No excavation is expected for this replacement.
- 2.4 Install Flap Gate on PTA Discharge – The flap gate is critical in keeping out pests, (birds, rodents, insects, etc.) when not in use.