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March 14, 2023

MEMORANDUM

**TO:** George Sidhu, P.E., General Manager  
**FROM:** Mark Handzlik, P.E., Engineering Manager  
**SUBJECT:** Judy Reservoir Water Treatment Plant Disinfection Study - **Action**

**Requested Action:**

Authorize the General Manager to execute a Professional Services Contract with Carollo Engineers, Inc., in the amount of \$621,867 for engineering services related to Water Treatment Plant Disinfection Study.

**Background:**

In March 1990, Skagit PUD commissioned and placed into service a new multi-media direct filtration water treatment plant (WTP) adjacent to Judy Reservoir. Raw water from the Judy Reservoir impoundment is pumped to the WTP where it is filtered and disinfected to meet current Safe Drinking Water Act requirements.

The WTP treatment capacity was increased in 2008 through the addition of new flocculation basins, new filters, and a new clearwell. The WTP reportedly has a treatment capacity of 24 MGD and a hydraulic capacity of 30 MGD. The maximum day demand in 2022 was 17 MGD.

In April 2020, Carollo Engineers performed a comprehensive assessment of processes, developed a long-term implementation strategy, and prepared a capital improvement program for the WTP. The strategic plan focuses on upgrading and expanding the existing WTP to meet current and future water supply production needs.

The Condition Assessment examined all major treatment processes within the WTP, including the disinfection processes. The assessment evaluated several disinfection strategies and recommended a comprehensive Disinfection Study to further evaluate and select the best disinfection processes to implement at the WTP.

This Disinfection Study project was advertised for consultant selection based on our professional service policy and Washington State regulations. Six consulting firms submitted Statements of Qualifications, which were reviewed and scored by engineering and operations staff. Two firms were selected to prepare proposals and were provided the opportunity to present their proposal during an interview with the PUD's selection team. The two firms were Carollo Engineers and RH2 Engineering.

Following the review of each proposal and the interview, the selection team chose Carollo Engineers to perform the WTP Disinfection Study. The scope of work, project schedule, and fee estimate have been negotiated with PUD staff. The Disinfection Study will further examine disinfection processes, evaluate disinfection alternatives, and provide a recommended disinfection strategy to incorporate into future

WTP upgrade and expansion projects. The Disinfection Study is schedule to last two years.

**Fiscal Impact:**

Funding for this project will come from 2023 Capital Budget line item System Water Plan No. MO20-6, WTP Disinfection Study. This line item allocates \$375,000 toward this project in FY 2023 and another \$375,000 in FY2024. The use of these funds is consistent with their intended purpose.

Enclosures:    1. [Disinfection Study-Fees v1.2](#)  
                  2. [CIP Page 2 Disinfection Study](#)