




**AGENDA
BILL
Item 6.C**

**Sudden Valley Water Treatment
Plant Chlorine Contact Basin
Replacement Project Hazard
Mitigation Grant Agreement
No. D24-048-Revised Approval**

DATE SUBMITTED:	May 1, 2024	MEETING DATE:	May 8, 2024
TO: BOARD OF COMMISSIONERS	FROM: Greg Nicoll, District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Hazard Mitigation Grant Agreement No. D24-048-Revised		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

The District provides potable water to its South Shore water system, which includes the Sudden Valley and Geneva communities, wholly by water treated at its Sudden Valley Water Treatment Plant (SVWTP). The SVWTP is a rapid-rate, direct filtration plant with a rated capacity of 2.0 million gallons per day (mgd) that was constructed as part of the Sudden Valley development in the early 1970s. An essential component of the SVWTP system is the 225,000-gallon, 40-foot diameter, 24-foot high welded-steel chlorine contact basin (CCB) that was constructed in 1994. The CCB is outfitted with internal baffling that provides filtered water the necessary chlorine contact time, as regulated by the Washington State Department of Health (DOH), for adequate disinfection under current operating flow rates prior to conveyance to the public via the District’s water distribution system.

In 2016, BHC Consultants performed a seismic vulnerability assessment of the District’s steel reservoirs, including the CCB. The assessment identified two structural deficiencies with the CCB (inadequate uplift resistance of the foundation and lack of piping flexibility) that would prohibit the CCB from surviving a significant earthquake. Subsequent assessments of the CCB’s treatment capacity were performed by Gray & Osborne Engineers in 2017 and 2020, which recommended construction of a new CCB that can provide sufficient chlorine contact time for full design flow (2.0 mgd). In addition, a 2020 assessment of the interior and exterior CCB coatings by Evergreen Coating Engineers revealed that the coatings are nearing the ends of their useful service lives.

As a result, the District identified the need to replace the existing CCB with a new CCB that meets current seismic standards and that is sized to accommodate full design flow of the SVWTP.

In 2022, the District submitted a FEMA Hazard Mitigation Grant application to replace the existing CCB with a new 307,000-gallon, 44-foot diameter, 27-foot high welded-steel tank CCB. The grant application was developed in conjunction with Washington State Emergency Management Division (WA-EMD) of the Washington State Military Department and the Federal Emergency Management Agency (FEMA) as a hazard mitigation project. The cost sharing is as follows: FEMA 75% (\$1,472,250), WA-EMD 12.5% (\$245,375), and Lake Whatcom Water and Sewer District 12.5% (\$245,375).

The project has been split into two phases: Phase 1 – Design/Permitting; and Phase 2 – Construction. The goal is to approve an initial Hazard Mitigation Grant agreement for Phase 1 and a professional services agreement with an engineering consultant to enable completion of design/permitting in 2025. Phase 2 targets construction during the summer of 2026.

The attached agreement provides for receipt of Phase 1 funding, which is administered through WA-EMD (\$220,955.25 in federal funding and \$36,825.87 in State funding, with a District match of \$36,825.88).

FISCAL IMPACT

The Water Utility System Reinvestment Fund will finance the grant match of \$36,825.88. However, as the fate of the HMG application was unknown at the time of development of the 2023-24 budget, this expenditure is not defined in the approved biennial budget and will be addressed in an upcoming budget amendment.

APPLICABLE EFFECTIVE UTILITY MANAGEMENT ATTRIBUTE(S)

Product Quality
Infrastructure Strategy and Performance
Community Sustainability

RECOMMENDED BOARD ACTION

Staff recommends that the Board authorize the General Manager to execute the Hazard Mitigation Grant Agreement with the Washington Military Department.

PROPOSED MOTION

Recommended motion is:

“I move to authorize the general manager to execute the Hazard Mitigation Grant Agreement No. D24-048-Revised with the Washington State Military Department to enable receipt of federal and state funds supporting Phase 1 of the Sudden Valley Water Treatment Plant Chlorine Contact Basin Replacement Project as presented.”