




**AGENDA  
BILL  
Item 6.B**

**Geneva Reservoir and SVWTP  
Booster Station Seismic Retrofits  
Alternative Analysis Professional  
Services Agreement Approval**

DATE SUBMITTED:	May 21, 2024	MEETING DATE:	May 29, 2024
TO: BOARD OF COMMISSIONERS	FROM: Greg Nicoll, District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Professional Services Agreement with Wilson Engineering		
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). Finished water is conveyed to the South Shore water distribution system by four pumps that are housed within the SVWTP Booster Station. Storage and system pressure is maintained in the South Shore distribution system by five reservoirs, which includes the Geneva Reservoir, a 500,000 gallon welded steel reservoir. The Geneva Reservoir serves the majority of the Geneva community, which includes approximately 1,136 connections.

In 2016, BHC Consultants performed a seismic vulnerability assessment of the District’s steel reservoirs, including the Geneva Reservoir. The assessment identified two structural deficiencies with the Geneva Reservoir (inadequate uplift resistance of the foundation and insufficient anchorage) that would prohibit the Geneva Reservoir from surviving a significant earthquake.

In 2022, as part of the Sudden Valley Water Treatment Plan Improvements Master Plan, Gray & Osborne Engineers completed a seismic evaluation of the SVWTP Booster Station and identified non-structural improvements that are required to ensure that the building is able to survive a significant earthquake.

As a result of these findings, the District identified the need to complete upgrades to ensure that both structures meet current seismic standards.

In 2022, the District submitted a FEMA Hazard Mitigation Grant application to complete seismic retrofits to the Geneva Reservoir and the SVWTP Booster Station. 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 90% (\$1,820,160), WA-EMD 5% (\$101,120), and Lake Whatcom Water and Sewer District 5% (\$101,120).

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 District issued a request for qualifications (RFQ) for designing and permitting of the project. Two statements of qualifications were received, with Wilson Engineering selected as the most qualified consultant.

As part of the selection process, Wilson Engineering proposed an alternative to replace the Geneva Reservoir with two concrete reservoirs with a combined volume equal to the existing reservoir capacity rather than completing seismic upgrades to the existing reservoir. In light of this new alternative, District staff requested Wilson to provide an initial scope of work to further assess the cost and viability of this option. The attached professional services agreement is for completion of alternative analysis for the two reservoir upgrade alternatives (\$42,244.20 in federal funding and \$2,346.90 in State funding, with a District match of \$2,346.90). A future contract amendment will be prepared to include design and permitting for the selected alternative.

#### **FISCAL IMPACT**

The Water Utility System Reinvestment Fund will finance the grant match of \$2,346.90. 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.

#### **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 professional services agreement with Wilson Engineering.

#### **PROPOSED MOTION**

Recommended motion is:

“I move to authorize the general manager to execute the professional services agreement with Wilson Engineering for alternative analysis for the Geneva Reservoir and SVWTP Booster Station Seismic Retrofits Project as presented.”