



**AGENDA
BILL
Item 7.D**

**Division 7 Reservoir
Replacement Project
Briefing #2**

DATE SUBMITTED:	June 30, 2022	MEETING DATE:	July 13, 2022
TO: BOARD OF COMMISSIONERS	FROM: Bill Hunter, Assist. GM/District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Pre-Application Meeting Information Submitted to Whatcom County		
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 project replaces the existing 1-million gallon welded-steel Division 7 Reservoir that was constructed in 1970 with two reservoirs that meet current seismic design standards and that are sized for full community build-out. The project also implements an earthquake early warning system (ShakeAlert®) to automatically isolate a portion of the stored volume from rapid depletion due to water main breaks following a major earthquake. The project is located on Camp Firwood property near the top of the hill above Swallow Circle in Sudden Valley.

Visit the project website (located here: <https://lwwsd.org/projects/division-7-reservoir-replacement/>) for additional details and information.

County permit applications are in development. A pre-application meeting application will be submitted to Whatcom County by late June / early July. The pre-application meeting is anticipated to be scheduled in July, with the goal of permit application submittal following shortly after.

To date, the District has engaged the following stakeholders:

- Operations and maintenance field staff
- Engineering department staff
- District management team
- Board of Commissioners
- South Whatcom Fire Authority
- District customers are invited to a project informational meeting at the Sudden Valley Barn (8 Barn View Dr, Bellingham, WA 98229) scheduled for Tuesday, July 12, 2022 between 6:30 and 8:30 pm. Properties within 1000-feet of the project site received invitation letters in the mail. The meeting has also been advertised in the

Sudden Valley weekly email newsletter, Sudden Valley website, District website, District Facebook, and Bellingham Herald.

Stakeholder engagement has been done in advance of submitting for Whatcom County permits, which will include a Conditional Use Permit and Variances. The permitting process will involve a formal public hearing in front of the Hearing Examiner.

Wilson Engineering and District staff will provide a project briefing on predesign and tank sizing efforts completed to date, update on project progress, upcoming milestones, comments collected during the July 12 informational meeting, and recommend a reservoir volume size.

FISCAL IMPACT

The project is funded by a Hazard Mitigation Grant that shares costs between FEMA (75%), Washington State Emergency Management Division (12.5%), and the District (12.5%). The current grant funding allocations are:

FEMA	\$1,710,750
Washington State Emergency Management Division	\$285,125
<u>District (local match)</u>	<u>\$285,125</u>
Total	\$2,281,000

** Note that grant funding has been split into two phases. Phase 1 includes \$0.45M for design and permitting, and Phase 2 includes \$1.83M for construction.*

The current total project cost estimate is \$2.4 million, which is \$119,000 (5.2%) over the grant funding plan. According to the Hazard Mitigation Grant Coordinator for this project, there is a process to request additional funding, but it is unknown whether it would be approved. District staff plans to submit a request for additional funding once the project design has been developed for Whatcom County permit submittal. At that point the project scope will be well defined to prepare a refined cost estimate.

APPLICABLE EFFECTIVE UTILITY MANAGEMENT ATTRIBUTE(S)

Infrastructure Strategy and Performance
Community Sustainability

RECOMMENDED BOARD ACTION

Provide direction on whether to proceed with the recommended reservoir volume or identify additional information/alternatives needed for further consideration.

The design consultant, Wilson Engineering LLC, and the District’s General Manager, District Engineer, and Operations and Maintenance Manager recommend a total tank volume size of 475,800 gallons that will provide for full community build-out. The recommendation follows significant coordination with District operations and maintenance staff, treatment plant operator, distribution system testing, developing and testing control logic at the Sudden Valley Water Treatment plant, simulation analyses of treatment plant and reservoir levels using real events such as water main breaks and maximum day demands, as well as coordination with South Whatcom Fire Authority.

The proposed volume is 13.5% (55,416 gallons) larger than the volume determined utilizing guidelines established by Washington State Department of Health's Water System Design Manual, Whatcom County Coordinated Water System Plan, and the District's Comprehensive Water Plan. The proposed volume is at the most efficient unit price point in terms of \$/gallon for the site. Anything larger triggers stormwater management thresholds that add significant costs for detention and treatment facilities. Anything smaller does not take advantage of the relatively low unit price cost of \$/gallon.

PROPOSED MOTION

Recommended motion is:

“I move to proceed with Division 7 Reservoir Replacement project design and permitting that includes two proposed reservoirs totaling 475,800 gallons as presented.”