



MEMORANDUM

TO: Councilmember Megan Dunn, Council Chair, District 2
Councilmember Nate Nehring, Council Vice-Chair, District 1
Councilmember Strom Peterson, District 3
Councilmember Jared Mead, District 4
Councilmember Sam Low, District 5

VIA: Darren Groth, Acting Director
Planning and Development Services

FROM: Terri Strandberg, Principal Planner

SUBJECT: Cross Valley Water District 2025 Wellhead Protection Plan

DATE: July 9, 2026

This memo serves as a cover for the attached County Council Motion (Exhibit A) which, if adopted, would approve the Cross Valley Water District's (the District) 2025 Wellhead Protection Plan (WHPP), as an amendment to the District's 2022 Water System Plan approved by the County Council in 2023 (Motion No. 23-244). The WHPP is a required element to be included in Group A water system plans when groundwater or springs are used as water supply sources (WAC 246-290-135(3)(b)). The District's WHPP is based on hydrogeological analysis used to map locations of wellhead protection zones around each of the District's water supply wells. The WHPP also contains recommendations for protection of these zones, including coordination with the county on new development activities when proposed within these zones.

A. CROSS VALLEY WATER DISTRICT

Cross Valley Water District originated as the Cross Valley Water Association, which incorporated in 1964. It is now a public water district with a service area of nearly 40 square miles in south Snohomish County. The district serves urban, transitional, and rural designated lands. The district currently serves an approximate population of 22,273 people and 8,439 employees.

Cross Valley's corporate boundary extends from the City of Snohomish and Skipley Road in the north, to the King/Snohomish County line in the south, and from the Snohomish and Snoqualmie Rivers in the east, to 51st Avenue SE and Lowell Larimer Road in the west.

The current service area includes small portions within City of Snohomish city limits and Potential Annexation Area (PAA) within the City's designated UGA boundary. The district serves industrial developments in the southern portion of the service area, suburban residential development near SR 522 and SR 9, and rural residential and suburban agricultural near the center of the district. This includes water service to the Maltby Urban Growth Area.

The primary source of water supply to the southern portion of the district is from 11 groundwater wells. Water from the wells is augmented by water purchased through the Clearview Water Supply Agency

(CWSA) and directly from the City of Everett. The district has a customer base of approximately 7,000 connections, or approximately, 9,000 Equivalent Residential Units (ERUs).

The district's corporate boundary is slightly smaller than its established Retail Water Service Area, and annexations to the corporate boundary are anticipated in the future. Adjustments to the service area will be limited to small mutually agreed upon exchanges with neighboring purveyors along the outside boundaries. Land uses are not expected to change significantly, although infill development is expected within the Maltby UGA. It is estimated that by the year of 2040, the service area will accommodate approximately 28,799 people and over 10,417 employees.

B. WELLHEAD PROTECTION ZONES

Wellhead protection zones are the surface and subsurface zones surrounding a drinking water well or wellfield that supplies a public water system. It defines the critical capture area where contaminants are likely to move through the groundwater and eventually reach the well. These protection areas are typically divided into segmented zones based on the time of travel it takes for groundwater to reach the wellhead:

- **Sanitary Control Area (Inner Zone):** The immediate area directly around the wellhead (often a 100-foot radius) designed to prevent immediate contamination.
- **6-Month / 50-Day Zone:** The closest capture zone representing high-risk areas where pollutants can reach the well very quickly.
- **1-Year Zone:** Represents the area where groundwater is expected to reach the well within one year.
- **5-Year to 10-Year Zones:** Outer capture zones used by local municipalities and state agencies for long-term land management and zoning.
- **Buffer zone:** This sits just beyond the 10-year time of travel boundary and generally includes the entire zone of contribution and adjacent critical groundwater recharge areas to prevent long-term, non-point source contamination.

Preventing contamination is drastically cheaper than treating polluted water supplies. Local governments and the EPA use these zones to regulate land use, restrict the storage of hazardous materials (such as oil or industrial chemicals), and enforce best management practices.

The Washington State Growth Management Act (GMA) requires protection of critical aquifer recharge areas, which includes wellhead protection zones and sole source aquifers (WAC 365-190-100). The District contains a sole source aquifer, the Cross Valley Aquifer (designated by the EPA on May 18, 1987, Federal Register Vol. 52, No. 95) which is used as the supply source for some of the District's wells.

Snohomish County has adopted regulations protecting wellhead protection zones and sole source aquifers in chapter 30.62C SCC, and maintains maps showing the locations of the 10-year travel zones associated with groundwater wells used as supply sources for public water systems, and the boundaries of the sole source aquifers. Chapter 30.62C contains land use restrictions, special conditions and notice requirements for the protection of these critical aquifer recharge areas.

There are at least two types of models used to identify and map wellhead protection zones. The Washington State Department of Health (DOH) applies a basic formula to identify a calculated fixed radius with the well located in the center of a circular zone. The size of the circle is a function of the well pumping rate, aquifer thickness and travel time representing a simple groundwater flow model. More complex models are used by hydrogeologic engineering consultants to identify precise wellhead protection zone boundaries that employ geologic data, water level mapping, aquifer pumping data, well logs from Washington State Department of Ecology, and advanced 2D and 3D computer models to

simulate groundwater flow and contaminant transport. The District's WHPP employs this more complex modeling technique to identify their wellhead protection zones. When the more complex models have been used, the County incorporates these more precise delineations of the wellhead protection zones into our GIS mapping in place of the circular zones estimated by the state DOH.

To protect the quality of the water supply relied upon by Cross Valley Water District's customers, the WHPP recommends coordination with the County consistent with current requirements in chapter 30.62C SCC for:

- Designation and mapping of wellhead protection zones and sole source aquifers; and
- Notifications to Group A water systems as required by SCC 30.62C.

In addition, the WHPP recommends enhanced coordination between the County and CVWS early in the permit review process regarding:

- Notice to CVWD of on-site septic system projects below the 3,500 gpd threshold (i.e. private small on-site septic systems) relative to the WHPP and the sole source aquifer locations, and shared awareness between CVWS and the County planning and health departments about the benefits of using large on-site septic systems (LOSS) versus the smaller systems¹;
- Use of Underground Injection Control (UIC) wells that automatically meet the nonendangerment standard in WAC 173-218-100²; and
- Hydrogeologic reports – opportunities for CVWD to request that hydrogeologic reports be prepared, what to include in the analysis, and options for CVWS to provide comments.

These enhanced provisions were reportedly developed in conversations with representatives from Snohomish County Planning and Development Services and Snohomish County Health Department, and could likely be implemented based on existing code language and administrative rules and processes.

C. RELATIONSHIP TO COUNTY COMPREHENSIVE PLANS

The 2022 Water System Plan has already been found to be consistent with the County's comprehensive plan (Motion No 23-244), specifically as required under WAC 246-290-108:

- The system service areas are consistent with the adopted land use and zoning within the applicable service areas;
- The six-year growth projection used to forecast service demand is consistent with the adopted county population growth projections;
- Service area policies for new service connections are consistent with the county's adopted local plan and adopted development regulations; and
- Other relevant elements related to service provision are addressed in the Water System Plan, as applicable. The 2022 Water System Plan is consistent with the county's Capital Facility Plan.

¹ In the WHPP, CVWD reports that LOSS are regulated, monitored and maintained more stringently, reliably and professionally than are the small private systems resulting in better protection for groundwater overall.

² It should be noted that the County is unlikely to know about some of these "nonendangerment" UIC projects since permits are not required – i.e., water disposal from sump pumps in basements; and some UICs are also considered to be Low Impact Development (LID) techniques (i.e., infiltration trench w/ perf pipe) requiring that the WHPP and sole source aquifer locations be considered as part of feasibility analysis for use of LID.

As an amendment to the 2022 Water System Plan, this WHPP is consistent with GMA requirements to designate and protect aquifer recharge areas (RCW 36.70A.030 and WAC 365-190-100) and with the County's critical aquifer recharge area regulations in chapter 30.62C SCC. The WHPP is also consistent with policy NE 3.C.3 in the County's comprehensive plan:

NE 3.C.3 The county shall adopt and maintain standards addressing groundwater protection based on the best available information for aquifer location, sensitivity to and potential for contamination, and designation as a critical aquifer recharge area;

D. REVIEW BY COUNTY ENGINEER

RCW 57.16.010 requires approval of water system plans and amendments by the County Engineer. The Snohomish County Engineer submitted a letter of approval on April 9, 2026.

F. STAFF FINDINGS AND RECOMMENDATION

The Department of Planning and Development Services finds the WHPP to be consistent with the planning criteria of RCW 57.02.040:

- 1) The proposed action is consistent with the county comprehensive plan.
- 2) There is no separate state-approved basin-wide system plan for this area.
- 3) There is no separate county general plan for water and wastewater systems covering the Cross Valley Water and Wastewater District's service area.

The County Engineer has approved the Plan. Therefore, the Planning and Development Services Department recommends approval of the *Cross Valley Water District 2025 Wellhead Protection Plan as an amendment to the District's 2022 Water System Plan*.

G. PROCESS AND TIMING FOR REVIEW

This WHPP is an amendment to the District's water system plan prepared under RCW 57.16.010. Amendments to water system plans must be submitted to the county legislative authority for review and approval pursuant to RCW 57.16.010 and WAC 246-290-100.

The WHPP was formally submitted to the County Council on June 8, 2026. Consistent with state statute, Council action must occur no later than September 6, 2026, unless a public hearing is held. When a public hearing is held, final action must be taken within 30 days of the hearing when the hearing is held within 90 days of plan submission. However, extensions of these deadlines are possible if the Council and District mutually agree, or if the Council makes a finding that there is insufficient time to review the WHPP.

Attachments: Exhibit A – County Council Motion 26-_____
Exhibit B – Cross Valley Water District- 2025 Wellhead Protection Plan
Exhibit C – Approval Letter
Exhibit D – Schedule for *Cross Valley Water District 2025 Wellhead Protection Plan*

cc: Mike McCrary, Executive Director
Darren Groth, Acting Director, PDS
Samantha Wangsgard, Acting Long Range Planning Manager, PDS
Deborah Bell, Council Legislative Analyst