



STATE OF WASHINGTON
 DEPARTMENT OF HEALTH
 SOUTHWEST DRINKING WATER REGIONAL OPERATIONS
 111 Israel Road Southeast • PO Box 47823 • Olympia, Washington 98504-7823
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December 4, 2023 Richard Anderson Lakeland Village Water Post Office Box 108 Allyn, Washington 98524	Lakeland Village Water ID #45090 Sanitary Survey Report	
	County:	Mason
	System Type:	Community
	Operating Permit Color:	Green
	Surveyor:	Scott Torpie
	Inspection Date:	November 28, 2023

Thank you for allowing me to meet with Steve Anderson and Luke Anderson to conduct a survey of this water system. Sanitary surveys are the Office of Drinking Water’s (ODW) way to inspect public water systems through a field visit. ODW is also able to offer technical assistance to help utilities improve their system operations and ensure that public health is protected.

This report documents the findings of this survey. Significant Deficiencies and Findings are assigned a due date. If you are not able to complete the work by the assigned date, you MUST submit a Corrective Action Plan describing how and when the work will be completed. Failure to respond by the date below will result in further compliance actions in accordance with WAC 246-290-050.

As you correct the items, send DOH documentation that demonstrates the items have been completed as directed. Include the system name, ID number, item #, and the date the deficiencies were corrected. You can send them to Denise Miles by e-mail at denise.miles@doh.wa.gov or by mail at PO Box 47823, Olympia, Washington 98504-7823.

SIGNIFICANT DEFICIENCIES* - ADDRESS BY JANUARY 31, 2024

1. The air gap between the end of the pump control valve discharge from Well 5 and the high-water mark in the receiving pond is insufficient. Increase the air gap between the end of the tideflex valve by 12 inches and secure the discharge piping. Create an air gap between the air release valve and the valve discharge drainpipe at Well 5. See photos.

OBSERVATIONS - Your water system does not meet the following regulatory requirements.

2. Well #3 and Well #5 do not have a well vent. A well must have a casing vent constructed to maintain atmospheric pressure inside the well by allowing air to enter and exit as the water level in the well changes (WAC 246-290-200 and -415). Install a casing vent with a screened, downward facing opening. The screen must be noncorrodible 24-mesh, and the down-turned opening should be at least 18 inches above the floor. Please see [Simple Fixes for Wellhead Openings \(331-232\)](#).
3. WAC 246-290-200 requires the application of good engineering criteria in the construction of public water systems. If the pressure tanks are necessary to support the high-pressure zone booster pumps, the Department of Labor and Industries (L&I) and DOH agree that an adequately sized ASME Section VIII pressure relief valve (PRV) must be installed in the water piping adjacent to each pressure tank. When installing a PRV, be sure there is no isolation valve between the PRV and the pressure tank. See [DOH Publication 331-429](#).

RECOMMENDATIONS

4. We recommend you flush the distribution system once per year and locate and exercise distribution system valves and hydrants once every year or two.
5. See the recommendations for the water system plan update in Section 9 of this report.
6. We recommend you contract with a local contractor for routine, periodic maintenance of your hydraulic valves (“Cla-Valves”). GC Systems in Puyallup is one such contractor.

SYSTEM INFORMATION

This system is a privately owned Group A Community water system approved for 975 connections (primarily residential). The system currently has 881 active connections, serving a population of over 2,000 residents and non-residents. Lakeland Village is a privately owned utility, and its rates are regulated by the Washington Utilities and Transportation Commission (UTC).

The water system’s facilities include five active groundwater wells, two reservoirs, three booster stations (all located in one building), and the distribution system. No treatment is applied to the sources.

SECTION 1: SOURCE

This system has four year-round wells, one seasonal well, and one emergency well. The wells are controlled by water level in the reservoirs. Well #2, Well #3, and Well #4 directly fill the Upper Reservoir. Well #5 and Well #6 directly fill the High Reservoir.

Source ID #	Name:	Description:	Ecology Tag #	Listed on WFI	
				Yes	No
02	Well #2	Groundwater Well-Seasonal	AFK552	<input checked="" type="checkbox"/>	<input type="checkbox"/>
03	Well #3	Groundwater Well-Permanent	AFK553	<input checked="" type="checkbox"/>	<input type="checkbox"/>
04	Well #4	Groundwater Well-Permanent	AHA980	<input checked="" type="checkbox"/>	<input type="checkbox"/>
05	Well #5	Groundwater Well-Permanent	AFK551	<input checked="" type="checkbox"/>	<input type="checkbox"/>
06	Well #6	Groundwater Well-Permanent	AKM942	<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELLHEAD	Source ID #02		Source ID #03		Source ID #04		Source ID #05		Source ID #06	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
*Well cap sealed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Openings sealed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Vent screened	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A		<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Terminates 6” above grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Protected from flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source meter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pressure gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CHEMICAL	
Sample Point	Description
1	Well #2 Wellhead
2	Well #3 Wellhead
3	Well #4 Wellhead
4	Well #5 Wellhead
5	Well #6 Wellhead

CHEMICAL	Sample Point 1		Sample Point 2		Sample Point 3		Sample Point 4		Sample Point 5	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Monitoring adequate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ODW WQ data reviewed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample collection sites correct	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
System has prior: <ul style="list-style-type: none"> <input type="checkbox"/> Nitrate results above 5 mg/L <input type="checkbox"/> Nitrite results above 0.5 mg/L <input type="checkbox"/> Primary MCL <input type="checkbox"/> Secondary MCL exceedance(s) <input type="checkbox"/> Organic detections <input type="checkbox"/> Other 										

COLIFORM	Yes	No
Monitoring adequate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Monitoring plan adequate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Monitoring plan followed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
# of violations since last survey	None	

LEAD & COPPER	Yes	No
Monitoring adequate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Results below action level	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SECTION 9: SYSTEM MANAGEMENT AND OPERATIONS

The last Water System Plan (WSP) was approved in April 1999 for 975 equivalent residential units (ERU). These connections were approved based on an assumption of 300,000 gallons of storage. With the removal of the 60,000-gallon storage reservoir, the number of connections the system can serve may be less than what was previously approved. This will be re-evaluated through the current water system planning process.

Water system plan.

(1) The purpose of this section is to establish a uniform process for purveyors to:

(a) Demonstrate system capacity as defined in WAC 246-290-010;

(b) Demonstrate how the system will address present and future needs in a manner consistent with other relevant plans and local, state, and federal laws, including applicable land use plans;

(c) Establish eligibility for funding under chapter 246-296 WAC.

(2) Purveyors of the following categories of community public water systems shall submit a water system plan for review and approval by the department:

(a) Systems serving one thousand or more service connections;

(b) Systems required to develop water system plans under the Public Water System Coordination Act of 1977, chapter 70A.100 RCW;

(c) Any system experiencing problems related to system capacity, as determined by the department;

(d) All new systems;

(e) Any system proposing to:

(i) Increase or otherwise modify the service area identified in a previously approved planning document; or

(ii) Increase the geographical area where direct service is provided if a planning or engineering document has not been previously approved; or

(iii) Install additions, extensions, or changes to existing source, storage, or transmission facilities and increase the approved number of service connections.

(f) Any system proposing to use the document submittal exception process in WAC 246-290-125;

or

(g) Any system operating under or proposing to operate under an unspecified number of service connections.

(3) The purveyor shall work with the department to establish the relative priority and level of detail for each element of the water system plan. The priority and level of detail must be related to size, complexity, water supply characteristics, forecasted demand characteristics, past performance, planning history, and use of the water system. Project reports may be combined with a water system plan.

(4) The purveyor shall, at a minimum, address the following elements in the water system plan:

(a) Description of the water system, including:

(i) Ownership and management, including the current names, addresses, and telephone numbers of the owners, operators, and emergency contact persons for the system;

(ii) System history and background;

(iii) Related plans, such as coordinated water system plans, abbreviated coordinated water system plans, local land use plans, groundwater management plans, and basin plans;

(iv) Service area maps, including retail service area and future service area, if applicable, and areas where wholesale water is provided to other public water systems. Municipal water suppliers shall identify the area that will expand their water rights' place of use if the requirements under WAC 246-290-107 have been met;

(v) Service area characteristics, agreements, and policies;

(vi) Satellite management, if applicable.

(b) Basic planning data, including:

(i) Current population, service connections, water use, and equivalent residential units; and

(ii) Sufficient water production and consumption data to identify trends including the following elements:

(A) Monthly and annual production totals for each source, including water purchased from another public water system;

(B) Annual usage totals for each customer class as determined by the purveyor;

(C) Annual usage totals for water supplied to other public water systems; and

(D) For systems serving one thousand or more total connections, a description of the seasonal variations in consumption patterns of each customer class defined by the purveyor.

(iii) Designated land use, zoning, population, and water demand within the water system's service area for the plan approval period, and at least a twenty-year planning period.

(c) Demand forecasts, developed under WAC **246-290-221**, for the plan approval period, and at least a twenty-year planning period. These must show future use with and without savings expected from the system's water use efficiency program.

(d) For systems serving one thousand or more total connections, a demand forecast for the plan approval period and at least a twenty-year planning period that projects demand if the measures deemed cost-effective per WAC **246-290-810** were implemented.

(e) System analysis, including:

(i) System design standards;

(ii) Water quality analysis;

(iii) Inventory and analysis of water system facilities; and

(iv) Summary of system deficiencies.

(f) Water resource analysis for the plan approval period and at least a twenty-year planning period, including:

(i) A water use efficiency program. Municipal water suppliers must meet the requirements in WAC **246-290-810**;

(ii) Source of supply analysis, which includes:

(A) An evaluation of water supply alternatives if additional water rights will be pursued within twenty years; and

(B) A narrative description of the system's water supply characteristics and the foreseeable effect from current and future use on the water quantity and quality of any body of water from which its water is diverted or withdrawn based on existing data and studies;

(iii) A water shortage response plan as a component of the reliability and emergency response requirements under WAC **246-290-420**;

(iv) Water right self-assessment;

(v) Water supply reliability analysis;

(vi) Interties; and

(vii) For systems serving one thousand or more total connections, an evaluation of opportunities for the use of reclaimed water, where they exist, as defined in RCW **90.46.120**.

(g) Source water protection program under WAC **246-290-135**.

(h) Operation and maintenance program under WAC **246-290-415** and **246-290-654(5)**, as applicable.

(i) Improvement program, including a capital improvement schedule that identifies all capital improvements scheduled within the plan approval period and any major projects or other capital improvements planned within at least a twenty-year planning period.

(j) Financial program, including demonstration of financial viability by providing:

(i) A summary of past income and expenses;

(ii) A balanced operational budget for the plan approval period;

(iii) A plan for collecting the revenue necessary to maintain cash flow stability and to fund the capital improvement program and emergency improvements; and

(iv) An evaluation that has considered:

(A) The affordability of water rates; and

(B) The feasibility of adopting and implementing a rate structure that encourages water demand efficiency.

(k) Other documents, such as:

(i) Documentation of SEPA compliance;

(ii) Agreements; and

(iii) Comments from each local government with jurisdiction and adjacent utilities.

(5) Purveyors intending to implement the project report and construction document submittal exceptions authorized under WAC **246-290-125** must include:

(a) Standard construction specifications for distribution mains; and/or

(b) Design and construction standards for distribution-related projects, including:

(i) Description of project report and construction document internal review procedures, including engineering design review and construction completion reporting requirements;

(ii) Construction-related policies and requirements for external parties, including consumers and developers;

(iii) Performance and sizing criteria; and

(iv) General reference to construction materials and methods.

(6) Purveyors shall submit reports identifying the progress in developing their water system plans if required by the department.

(7) Purveyors shall transmit water system plans to adjacent utilities and each local government with jurisdiction, to assess consistency with ongoing and adopted planning efforts.

(8) Prior to department approval of a water system plan or a water system plan update, the purveyor shall:

(a) Hold an informational meeting for the water system consumers and notify consumers in a way that is appropriate to the size of the water system; and

(b) Obtain approval of the water system plan from the purveyor's governing body or elected governing board.

(9) Department approval of a water system plan is effective for ten years from the date of written approval unless:

(a) The purveyor requests and receives a plan approval period of less than ten years; or

(b) The department requests an updated plan.

(10) The purveyor shall update the water system plan and obtain department approval at or before the expiration of the current plan approval if the system meets any of the conditions of subsection (2) of this section.

(11) Water system plan amendments. A purveyor may submit an amendment to its current approved water system plan for department approval at any time during the plan approval period. Project reports may be included in a water system plan amendment to meet the requirements under WAC **246-290-110**(3). Department approval of a water system plan amendment does not alter the current plan approval period in accordance with subsection (9) of this section and does not satisfy the requirement of subsection (2) of this section to update the water system plan.

[Statutory Authority: RCW **43.20.050**, **70A.125.080**, and **70A.130.010**. WSR 21-23-097, § 246-290-100, filed 11/17/21, effective 1/1/22. Statutory Authority: RCW **43.20.050** and **70.119A.080**. WSR 17-01-062, § 246-290-100, filed 12/14/16, effective 1/14/17; WSR 10-20-068, § 246-290-100, filed 9/29/10, effective 11/1/10. Statutory Authority: RCW **70.119A.180** and **43.20.050**. WSR 08-03-061, § 246-290-100, filed 1/14/08, effective 2/14/08. Statutory Authority: RCW **70.119A.180**. WSR 07-02-025B, § 246-290-100, filed 12/22/06, effective 1/22/07. Statutory Authority: RCW **43.20.050** (2) and (3) and **70.119A.080**. WSR 03-08-037, § 246-290-100, filed 3/27/03, effective 4/27/03. Statutory Authority: RCW **43.02.050** [43.20.050]. WSR 99-07-021, § 246-290-100, filed 3/9/99, effective 4/9/99. Statutory Authority: RCW **43.20.050**. WSR 94-14-001, § 246-290-100, filed 6/22/94, effective 7/23/94; WSR 93-08-011 (Order 352B), § 246-290-100, filed 3/25/93, effective 4/25/93; WSR 91-02-051 (Order 124B), recodified as § 246-290-100, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW **34.04.045**. WSR 88-05-057 (Order 307), § 248-54-065, filed 2/17/88. Statutory Authority: RCW **43.20.050**. WSR 83-19-002 (Order 266), § 248-54-065, filed 9/8/83.]