



Lake Whatcom Water & Sewer District

Board Meeting Access Information

Meeting	6:30 pm - 2nd Wed of each month
Schedule	8:00 am - Last Wed of each month

Meeting Access

Meetings are held in person at our Administrative offices at 1220 Lakeway Drive in Bellingham. If you prefer to attend remotely, access information is below.

Join the meeting from your computer, tablet smartphone:

<https://meet.goto.com/lwwsd/boardmeeting>

You can also dial in using your phone.

Call: [+1 \(224\) 501-3412](tel:+12245013412) **Access Code:** 596-307-141

*Press *6 to mute/unmute your microphone*

New to GoToMeeting? Get the app now and be ready when the meeting starts:

<https://meet.goto.com/install>

Attending a Meeting

Lake Whatcom Water & Sewer District's regular Board meetings take place on the second Wednesday of each month at 6:30 pm and the last Wednesday of each month at 8:00 am.

Meetings are open to the public per the Open Public Meetings Act.

All meetings are hybrid, available in person or online. If you wish to observe a meeting, but do not plan to actively participate, you may attend anonymously. Turn off your mic & camera, and change your display name to "Observation Only."

Public Comment Periods

Public comment periods are built in to the agenda, one near the beginning of the meeting and one near the end.

Commissioners will listen, but will not respond or engage in dialogue during the comment period. Direct questions or requests are noted by staff for follow-up.

For the sake of time, and to leave plenty of time for scheduled agenda items, public comments are limited to 3 minutes per person and 45 minutes per comment period.

Comments may be submitted at any time through mail, email, our online contact form, or by phone.

For more information about communicating with the Board of Commissioners, [please visit our website!](#)



Questions?

If you have questions about attending an upcoming meeting, please contact Administrative Assistant Rachael Hope at rachael.hope@lwwsd.org or 360-734-9224.



LAKE WHATCOM WATER AND SEWER DISTRICT

1220 Lakeway Drive
Bellingham, WA 98229

REGULAR MEETING OF THE BOARD OF COMMISSIONERS

AGENDA

May 14, 2025


6:30 p.m. – Regular Session

1. CALL TO ORDER
2. ROLL CALL
3. PUBLIC COMMENT OPPORTUNITY
At this time, members of the public may address the Board of Commissioners. Please state your name and address prior to making comments, and limit your comments to three minutes. For the sake of time, each public comment period will be limited to 45 minutes.
4. ADDITIONS, DELETIONS, OR CHANGES TO THE AGENDA
5. CONSENT AGENDA
6. SPECIFIC ITEMS OF BUSINESS
 - A. Resolution No. 901—Revision to Administrative Code Section 2.17.2—Use of District Credit Cards for Travel Expenses and Purchases
 - B. Division 22-1 Reservoir Replacement Project Design Professional Services Agreement Approval
 - C. Strategic Asset Management Plan Adoption
7. OTHER BUSINESS
8. STAFF REPORTS
 - A. General Manager
9. PUBLIC COMMENT OPPORTUNITY
10. ADJOURNMENT



**AGENDA
BILL
Item 5**

Consent Agenda

DATE SUBMITTED:	May 8, 2025	MEETING DATE:	May 14, 2025
TO: BOARD OF COMMISSIONERS	FROM: Rachael Hope		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. See below		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/OTHER <input type="checkbox"/>

**** TO BE UPDATED 05.14.2025****

BACKGROUND / EXPLANATION OF IMPACT

- Payroll for Pay Period #10 (4.26.2025 through 05.09.2025) total to be added
- Benefits for Pay Period #10 total to be added
- Accounts Payable Vouchers total to be added

FISCAL IMPACT

Fiscal impact is as indicated in the payroll/benefits/accounts payable quantities defined above. All costs are within the Board-approved 2025-2026 Budget.

RECOMMENDED BOARD ACTION

Staff recommends the Board approve the Consent Agenda.

PROPOSED MOTION


A recommended motion is:

“I move to approve the Consent Agenda as presented.”



**AGENDA
BILL
Item 6.A**

**Resolution No. 901 – Updating
Administrative Code Section
2.17.2, Use of District Credit
Cards for Travel Expense & Purchases**

DATE SUBMITTED:	May 7, 2025	MEETING DATE:	May 14, 2025
TO: BOARD OF COMMISSIONERS	FROM: Jennifer Signs, Finance Manager		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Draft Resolution 901		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="checked" type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

It is the practice of the Lake Whatcom Water and Sewer District (District) to periodically review its policies to ensure that best practices and standards are consistently followed. A recent review of the Credit Card Use Policy defined in Section 2.17.2 of the District Administrative Code was conducted to enhance internal controls, improve documentation and oversight, and ensure compliance with State statutes and recommendations of the Washington State Auditor's Office. Resolution No. 901 (attached) provides District staff and legal counsel's recommended revisions to the District's Credit Card Use Policy.

FISCAL IMPACT

No fiscal impact is anticipated.

APPLICABLE EFFECTIVE UTILITY MANAGEMENT ATTRIBUTE(S)

Financial Viability & Enterprise Resiliency

RECOMMENDED BOARD ACTION

Staff recommends that the Board adopt Resolution No. 901 as presented.

PROPOSED MOTION

A recommended motion is:

"I move to adopt Resolution No. 901 as presented."

**LAKE WHATCOM WATER AND SEWER DISTRICT
RESOLUTION NO. 901**

A Resolution of the Board of Commissioners
Updating Administrative Code Section 2.17.2,
Use of District Credit Cards for Travel Expenses and Purchases

WHEREAS, the Lake Whatcom Water and Sewer District (“District”) is a special purpose district located in Washington State authorized under Title 57 Revised Code of Washington (RCW); and

WHEREAS, RCW 42.24.115 states that “any municipal corporation or political subdivision may provide for the issuance of charge cards to officers and employees for the purpose of covering expenses incident to authorized travel;” and

WHEREAS, RCW 43.09.2855 states that “local governments, including...special purpose districts...are authorized to use credit cards for official government purchases and acquisitions;” and

WHEREAS, the Board of Commissioners have previously adopted resolutions creating and updating District policy related to the use of District credit cards, the current revision of which is codified as Section 2.17.2 of the District Administrative Code, and

WHEREAS, the Board of Commissioners desires to revise its policy relative to the use of District credit cards; and

WHEREAS, the District Board of Commissioners has reviewed Title 2, Fiscal Management Policies, of the District Administrative Code and determined it appropriate to revise Administrative Code Section 2.17.2, Use of District Credit Cards for Travel Expenses and Purchases, as reflected in Exhibit A attached hereto for reference purposes only, which identifies specific amendments to Section 2.17.2 with deletions in strikethrough and additions underlined; and

WHEREAS, the foregoing recitals are a material part of this Resolution;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Lake Whatcom Water and Sewer District, Whatcom County, Washington as follows:

Section 1. Section 2.17.2 of Title 2 of the District Administrative Code is repealed and replaced with Section 2.17.2 of Title 2 of the Administrative Code, as attached hereto as Exhibit B.

Section 2. Any resolutions or parts of resolutions in conflict herewith are hereby repealed insofar as they conflict with the provisions of this Resolution.

Section 3. If any section, subsection, sentence, clause or phrase of this Resolution is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution. The Board of Commissioners hereby declare that it would have passed this Resolution and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases has been declared invalid or unconstitutional, and if, for any reason, this Resolution should be declared invalid or unconstitutional, then the original resolution or resolutions shall be in full force and effect.

Section 4. This Resolution shall be effective immediately.

ADOPTED by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a regular meeting thereof, on the 14th day of May, 2025.

Todd Citron, President, Board of Commissioners

Attest:

Rachael Hope, Recording Secretary

Approved as to form:

Robert Carmichael, Attorney for the District

EXHIBIT A

2.17.2 Use of District Credit and Fuel Cards for Travel Expenses and Purchases

2.17.2.1 Policy

~~District employees and commissioners may purchase goods and services for District use, and may pay travel expenses related to District business, using a District credit card, subject to the following conditions:~~

- ~~1. The District recognizes that the use of credit cards is a customary and economical business practice to improve cash management, reduce costs, and increase efficiency.~~
- ~~2. It is the policy of the District to manage and control the use of credit cards for official District purchases and acquisitions as outlined in RCW 42.24.115 and RCW 43.09.2855.~~
- ~~3. This policy applies to the use of all credit cards by District employees and officials conducting official District business.~~
- ~~4. "Credit Card" as used herein shall mean all purchase cards, including credit, debit, fuel, and prepaid cards.~~

2.17.2.2 Guidelines

1. The credit limit for each card shall be \$5,000.00
2. The credit card may be used for the purchase of items or travel expenses approved in the current District fiscal year budget, and for no other purpose.
- ~~3. All credit card purchases shall comply with purchasing policies defined in Title 2 Section 16, Purchasing Policy.~~
- ~~4. A receipt must be obtained for each credit card transaction and must include an itemization of purchases, the date of the transaction, and the last four (4) digits of the credit card number used to make the purchase. All receipts must be submitted to the employee's manager within 21 days of the transaction, in accordance with RCW 42.24.115.~~
- ~~3. Cash advances on any District credit card are prohibited.~~
- ~~4. The purchase of alcoholic beverages on any District credit card is prohibited.~~
5. For ~~travel~~ credit card expenses related to travel, all purchases shall align with the District's Travel Expense Policy; ~~an itemized travel expense voucher shall be submitted to the District within thirty (30) days of expenses incurred pursuant to RCW 42.24.115.~~
6. There shall be six credit cards disbursed as follows: ~~A credit card user agreement shall be kept on file for each employee specifically identified below, and any other District employee to whom a card may be disbursed:~~

- a. General Manager
- b. Finance Manager/Treasurer
- c. District Engineer/Engineering Manager
- d. Operations & Maintenance Manager
- e. Two (2) credit cards for staff and commissioners will be dispersed by the Finance Manager/Treasurer for authorized short-term use only. These two cards shall be promptly returned within two (2) business days and remain in the possession of the Finance Manager/Treasurer when not in use. ~~{Resolution Nos. 850, 861}~~

7. Fuel Cards

- a. Fuel cards may be assigned to a specific vehicle, official, or member and will be used exclusively for that vehicle, official, or member to conduct official District business.
- b. District fuel cards are to be used for the purchase of fuel and vehicle-related items, such as motor oil, windshield washer fluid and car washes, for District-owned vehicles and equipment only.
- c. Receipts for such fuel and vehicle-related purchases are to be submitted for monthly reconciliation. Mileage and vehicle number shall be noted on receipts prior to submittal.

8. Credit card custodians and other assigned individuals will sign a "Credit Card User Agreement" with the District before they are eligible to receive and/or use a credit card.

2.17.2.3 Prohibited and Improper Purchases

1. The following purchases are strictly prohibited when using a District credit card: cash advances; alcoholic beverages; money orders and traveler's checks; donations to causes or organizations; and any personal or otherwise improper purchases that are not directly related to official District business.

The District is not responsible for payment of any charges resulting from the improper use of a District credit card by an official or employee. Pursuant to RCW 42.24.115, if, for any reason, disallowed charges are not repaid by the official or employee before the credit card billing is due and payable, the District shall have prior lien against and a right to withhold any and all funds payable or to become payable to the official or employee up to an amount of the disallowed charges and interest at the same rate as charged by the company that issued the credit card. Any official or employee who has been issued a credit card shall not use the card if any disallowed charges are outstanding and shall surrender the card upon demand of the Finance Manager/Treasurer

2. Misuse of a District credit card may result in disciplinary action, up to and including termination of employment, or legal action, civil and/or criminal.
3. Failure to provide detailed documentation as required by this policy may result in the revocation of cardholder privileges and/or the user being responsible for undocumented charges made on the credit card in their possession.

2.17.2.4 Policy Administration

1. The Finance Manager/Treasurer shall administer and oversee compliance with this policy.
2. The Finance Manager/Treasurer shall certify charges are proper and supported by itemized receipts for voucher processing in accordance with Title 2 Section 5, Authority to Approve Certain Vouchers.
3. The Finance Manager/Treasurer shall conduct a periodic inventory of the District credit cards at least annually to evaluate whether credit card limits are appropriate and in need of adjustment, considering actual charges. If a card has minimal or no actual activity, the Finance Manager/Treasurer should consider whether the card should be cancelled.
4. Credit cards shall be returned to the Finance Manager/Treasurer immediately upon ending employment with the District. Credit cards in an employee or officer's name shall be promptly cancelled by the Finance Manager/Treasurer. The Finance Manager/Treasurer will monitor card activity to ensure no improper purchases were made preceding or following a cardholding employee's departure from the District. [Resolution Nos. 850, 861, 901]

EXHIBIT B

2.17.2 Use of District Credit and Fuel Cards for Travel Expenses and Purchases

2.17.2.1 Policy

1. The District recognizes that the use of credit cards is a customary and economical business practice to improve cash management, reduce costs, and increase efficiency.
2. It is the policy of the District to manage and control the use of credit cards for official District purchases and acquisitions as outlined in RCW 42.24.115 and RCW 43.09.2855.
3. This policy applies to the use of all credit cards by District employees and officials conducting official District business.
4. "Credit Card" as used herein shall mean all purchase cards, including credit, debit, fuel, and prepaid cards.

2.17.2.2 Guidelines

1. The credit limit for each card shall be \$5,000.00
2. The credit card may be used for the purchase of items or travel expenses approved in the current District fiscal year budget, and for no other purpose.
3. All credit card purchases shall comply with purchasing policies defined in Title 2 Section 16, Purchasing Policy.
4. A receipt must be obtained for each credit card transaction and must include an itemization of purchases, the date of the transaction, and the last four (4) digits of the credit card number used to make the purchase. All receipts must be submitted to the employee's manager within 21 days of the transaction, in accordance with RCW 42.24.115.
5. For credit card expenses related to travel, all purchases shall align with the District's Travel Expense Policy.
6. There shall be six credit cards disbursed as follows:
 - a. General Manager
 - b. Finance Manager/Treasurer
 - c. District Engineer/Engineering Manager
 - d. Operations & Maintenance Manager
 - e. Two (2) credit cards for staff and commissioners will be dispersed by the Finance Manager/Treasurer for authorized short-term use only. These two cards shall be promptly returned within two (2) business days and remain in the possession of the Finance Manager/Treasurer when not in use.

7. Fuel Cards
 - a. Fuel cards may be assigned to a specific vehicle, official, or member and will be used exclusively for that vehicle, official, or member to conduct official District business.
 - b. District fuel cards are to be used for the purchase of fuel and vehicle-related items, such as motor oil, windshield washer fluid and car washes, for District-owned vehicles and equipment only.
 - c. Receipts for such fuel and vehicle-related purchases are to be submitted for monthly reconciliation. Mileage and vehicle number shall be noted on receipts prior to submittal.
8. Credit card custodians and other assigned individuals will sign a "Credit Card User Agreement" with the District before they are eligible to receive and/or use a credit card.

2.17.2.3 Prohibited and Improper Purchases

1. The following purchases are strictly prohibited when using a District credit card: cash advances; alcoholic beverages; money orders and traveler's checks; donations to causes or organizations; and any personal or otherwise improper purchases that are not directly related to official District business.

The District is not responsible for payment of any charges resulting from the improper use of a District credit card by an official or employee. Pursuant to RCW 42.24.115, if, for any reason, disallowed charges are not repaid by the official or employee before the credit card billing is due and payable, the District shall have prior lien against and a right to withhold any and all funds payable or to become payable to the official or employee up to an amount of the disallowed charges and interest at the same rate as charged by the company that issued the credit card. Any official or employee who has been issued a credit card shall not use the card if any disallowed charges are outstanding and shall surrender the card upon demand of the Finance Manager/Treasurer

2. Misuse of a District credit card may result in disciplinary action, up to and including termination of employment, or legal action, civil and/or criminal.
3. Failure to provide detailed documentation as required by this policy may result in the revocation of cardholder privileges and/or the user being responsible for undocumented charges made on the credit card in their possession.

2.17.2.4 Policy Administration

1. The Finance Manager/Treasurer shall administer and oversee compliance with this policy.
2. The Finance Manager/Treasurer shall certify charges are proper and supported by itemized receipts for voucher processing in accordance with Title 2 Section 5, Authority to Approve Certain Vouchers.
3. The Finance Manager/Treasurer shall conduct a periodic inventory of the District credit cards at least annually to evaluate whether credit card limits are appropriate and in need of adjustment, considering actual charges. If a card has minimal or no actual

activity, the Finance Manager/Treasurer should consider whether the card should be cancelled.


4. Credit cards shall be returned to the Finance Manager/Treasurer immediately upon ending employment with the District. Credit cards in an employee or officer's name shall be promptly cancelled by the Finance Manager/Treasurer. The Finance Manager/Treasurer will monitor card activity to ensure no improper purchases were made preceding or following a cardholding employee's departure from the District. [Resolution Nos. 850, 861, 901]

DRAFT



**AGENDA
BILL
Item 6.B**

**Division 22-1 Reservoir
Replacement Project
Professional Services
Agreement Approval**

DATE SUBMITTED:	May 7, 2025	MEETING DATE:	May 14, 2025
TO: BOARD OF COMMISSIONERS	FROM: Greg Nicoll, District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Professional Services Agreement with Gray & Osborne Engineers		
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 Division 22-1 reservoir, a 514,000-gallon welded steel reservoir, is one of three reservoirs that receives treated water from the Sudden Valley Water Treatment Plant and distributes that treated water to the rest of the South Shore system from these reservoirs. As a result, the operability and integrity of this reservoir is critical to the operation of the South Shore system.

The Division 22-1 reservoir was originally constructed in 1971 and has not been renovated or recoated since its original construction. In 2016, BHC Consultants completed a seismic vulnerability assessment that identified seismic deficiencies that would make it unlikely that the reservoir could withstand a significant seismic event. In addition, a coating assessment completed in 2022 by Evergreen Coating Engineers determined that a significant portion of the coating system has failed and extensive corrosion of the structure has compromised the structural integrity of the roof of the reservoir.

Due to the seismic and structural deficiencies and failed coating system, the District applied for and was awarded a Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant (HMG) in 2024 to fund replacement of the reservoir with a new reservoir meeting seismic design standards. This grant includes a 75% grant contribution from FEMA and a 12.5% grant contribution from Washington State Emergency Management Division (WA-EMD) of the Washington State Military Department, who also administers the grant on behalf of FEMA. The Board took action at the regularly scheduled March 12, 2025 Board meeting to accept this grant.

District staff subsequently advertised a request for qualifications (RFQ) for professional services to design, permit and assist with construction administration of

the project. The District received a total of three statements of qualifications from engineering firms and selected Gray & Osborne as the most qualified team.

The project and associated grant funding has been split into two phases: Phase 1 – Design/Permitting; and Phase 2 – Construction. The attached professional services agreement is limited to services required to complete Phase 1 - Design/Permitting. Tasks to complete this phase of work include preparation of a Project Report, survey, geotechnical evaluation, permitting, 60% and 90% draft plans and specifications, and final plans and specifications for bidding. This contract will be amended to include construction administration services following project bidding and construction contractor selection.

FISCAL IMPACT

The total contract amount for this professional services agreement, which includes Phase 1 – Design/Permitting, is \$269,600, which is well within the FEMA HMG grant amount of \$462,400 for Phase 1. The cost sharing for Phase 1 is as follows: FEMA 75% (\$346,800), WA-EMD 12.5% (\$57,800), and Lake Whatcom Water and Sewer District 12.5% (\$57,800). Following completion of design, the grant and this PSA will be amended to include Phase 2 - Construction.

The Water Utility System Reinvestment Fund will finance the District's grant match of \$57,800. However, because the Hazard Mitigation Grant had not been awarded at the time of development of the 2025-26 Budget, this expenditure is not defined in the approved biennial budget and will be addressed in a future 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 professional services agreement with Gray & Osborne Engineers.

PROPOSED MOTION

Recommended motion is:

“I move to authorize the General Manager to execute the professional services agreement with Gray & Osborne Engineers for design and permitting for the Division 22-1 Reservoir Replacement Project as presented.”

**PROFESSIONAL SERVICES AGREEMENT
FOR
DIVISION 22-1 RESERVOIR REPLACEMENT**

THIS AGREEMENT, made and entered into by and between Lake Whatcom Water and Sewer District, Whatcom County, Washington, hereinafter referred to as "District", and Gray & Osborne, Inc. ("Consultant"), a corporation with a place of business at 1130 Rainier Avenue South, Suite #300, Seattle, WA 98144, collectively referred to as "Parties", shall be effective upon the authorized signatures of both Parties to this Agreement ("Effective Date").

WHEREAS, the District, a special purpose municipal corporation, provides water and sewer service to its constituents; and

WHEREAS, the District desires to retain the Consultant to perform certain professional services necessary to perform the **Division 22-1 Reservoir Replacement** ("Project"); and

WHEREAS, the District procured the professional services as required by RCW 39.80; and

WHEREAS, the Consultant represents it has available and offers to provide qualified personnel and facilities necessary to accomplish such services required for the Project within the required time.

The Parties enter into this Agreement. The term Agreement and Contract shall be used interchangeably and refer to this Agreement.

SECTION 1: PERIOD OF PERFORMANCE

- 1.1. All required work and services specified in the terms and conditions of this Agreement for the Project per Exhibit A, Scope of Work, shall be completed on **December 31, 2026** unless extended or terminated earlier by the District pursuant to the terms and conditions of this Agreement. The District reserves the right to let the Agreement expire and to select another consultant to perform the additional study and/or phases.
- 1.2. Time is a material consideration in the performance by the Consultant under this Agreement. The Consultant shall complete its work and services within the Project schedule, including any established milestones and task completion dates, and the Period of Performance, set forth in the Scope of Work. The completion dates for tasks may be modified by a written directive; however, the Period of Performance for the Agreement may only be modified through an amendment. No completion dates shall be extended because of any unwarranted delays attributable to the Consultant. Completion dates may be extended in the event of a delay caused by the District which results in a delay in the performance of an affected task, or because of unavoidable delay caused by any governmental action or other conditions beyond the control of the Consultant, which could not be reasonably anticipated and which results in a delay in the performance of an affected task.
- 1.3. Time Extensions. The Total Price, Period of Performance and task budgets shall not be increased because of any unwarranted delays or costs attributable to the Consultant. In the event of a delay not attributable to the Consultant which (1) delay could not be reasonably anticipated and (2) results in an increase in costs to perform the work, the

District may, through the execution of an amendment, increase the Total Price, Period of Performance and/or task budget.

SECTION 2: ADMINISTRATION AND SUPERVISION

- 2.1. District. An employee of the District, hereinafter called the "Project Manager," who shall be designated in writing by the General Manager, shall perform day-to-day management of this contract. The General Manager or their designee will issue notices to proceed, approve all requests for payment, authorize termination or modification of tasks, and approve in writing changes to the task budgets. The Project Manager will be responsible for determining when the Consultant has satisfactorily performed all work and for ensuring that the Consultant complies with all provisions of this Agreement.
- 2.2. Consultant. The Consultant represents that it has, or will obtain, all personnel necessary to perform the services required under this Agreement and that such personnel shall be qualified, experienced and licensed as may be necessary or required by laws and regulations to perform such services. All services required under this Agreement shall be performed by the Consultant, its employees, or by subconsultants whose selection has been authorized by the District; provided, that the District's authorization shall not relieve the Consultant or its subconsultants from any duties or obligations under this Agreement or at law to perform in a satisfactory and competent manner. All contractual duties, requirements and obligations that the Consultant owes to the District shall also be owed to the District by the Consultant's subconsultants retained to perform the work pursuant to this Agreement. The term "Consultant" shall refer to **Gray & Osborne, Inc.** and all of its subconsultants.
 - A. Authorized Subconsultants. The Contract shall identify in the Scope of Work, Exhibit A, the subconsultants who are authorized to perform work under this Contract.
 - B. Process for Adding or Removing Subconsultants. If during the term of this Contract, the Consultant wishes to add or remove a subconsultant, the Consultant shall provide the General Manager with a written request identifying the proposed change. The written request shall include the following information:
 1. Identity of the subconsultant and the work to be performed;
 2. Resumes and documentation outlining the subconsultant's experience;
 3. If the subconsultant is to perform work of the consultant or another subconsultant already identified in Exhibit A, an explanation of why the work is going to be transferred to a new subconsultant.
 - C. District Approval of Subconsultants. The District has sole discretion in approving or rejecting proposed subconsultants. Each subcontract shall be available for review and the cost summary subject to review by the Project Manager prior to the subconsultant proceeding with the work. Before any subconsultant not already identified in the Contract can perform any work under this Contract, the District shall provide written authorization to the Consultant.
 - D. Substitution of Personnel. The Consultant recognizes and agrees that if a change is made substituting or changing assigned key personnel, the Consultant shall be responsible for any and all costs associated with "Transfer of Knowledge and Information". The Transfer of Knowledge and Information shall be defined to

include the labor hours spent reviewing project documentation, participating in meetings with Project personnel, and participating in site visits to familiarize oneself with the Project and project location(s). The District shall not pay for any time spent for the "Transfer of Knowledge and Information".

1. The Consultant shall provide sufficient advance notice of any intention to remove or reassign key personnel. The Consultant shall not remove or reassign the key personnel assigned to this Project without written consent from the District. Exhibit E, Key Personnel, is a listing of key individuals for this work. Notice for the substitution of individuals and positions identified as Key Personnel shall include the following:
 - a. An explanation of the reason for the reassignment or removal;
 - b. The name of the person proposed to replace the individual; and
 - c. Identification of the experience and qualifications of the individual proposed.
2. For individuals who are not identified as "Key Personnel" in Exhibit E, the Consultant shall provide documentation supporting the labor rate for the substituted personnel prior to submitting an invoice and the labor rate shall not exceed 110 percent of the originally assigned personnel's labor rate.
3. District Request Removal Personnel. The Consultant shall remove from the Project any personnel or subconsultant if, after the matter has been thoroughly considered by the District and the Consultant, the District considers such removal necessary and in the best interests of the Project and so advises the Consultant in writing. In this case, the District will compensate the consultant for Transfer of Knowledge costs associated with the removal of any personnel or subconsultant.

SECTION 3: SCOPE OF WORK

- 3.1. The District hereby retains the Consultant upon the terms and conditions contained herein to perform certain work and services on the Project. The work and services for the Project to be performed by the Consultant are set forth in Exhibit A, Scope of Work, attached hereto, and incorporated herein by this reference. The general Project Schedule is also set forth in Exhibit A, attached hereto and incorporated herein by reference.
- 3.2. The District shall make available to the Consultant, without cost, copies of as-built plans, drawings, survey notes, studies, soil reports, maintenance and performance records, and other relevant data, and property descriptions of various District facilities related to the Project, which are readily available, and on file at the District. These documents are available solely as additional Information to the Consultant and do not relieve the Consultant of its duties and obligations under this Agreement nor constitute any representation or warranty by the District as to conditions or other matters related to the Project.
- 3.3. It shall be the responsibility of the Consultant to gather and become familiar with all site information including existing improvements specific to each assigned Task Order.

SECTION 4: CHANGES IN WORK

- 4.1. Any direction from the District to perform work that results in an increase or decrease in scope, changes to the Total Price or Period of Performance, or changes impacting the Scope and Budget for the project shall be made only by an amendment prior to the work being performed.
- 4.2. In the event the Consultant identifies something that may impact the scope of work, Project Schedule and/or cost, Consultant shall inform the Project Manager within five (5) business days of the event and possible impacts to scope, schedule and cost. If appropriate, the parties shall execute an amendment.
- 4.3. The District may, at any time, by written amendment direct the Consultant to make additions within the general scope of the services or work to be performed under this Agreement, delete portions of the Project, or revise portions of the work. Any changes within the general scope of work, which result in an increase or decrease in time of performance or cost, shall only be made by amendment.

SECTION 5: RESPONSIBILITY OF THE CONSULTANT

5.1. Standard of Care

- A. The Consultant shall be responsible for the professional quality, technical adequacy and accuracy, timely completion and coordination of all plans, designs, drawings, specifications, reports and other services prepared or performed pursuant to this Agreement. The Consultant shall perform its work to conform to generally accepted professional standards applicable to the types of services and work provided hereunder. The Consultant shall be responsible for the professional standards, performance and actions of all persons and firms performing work pursuant to this Agreement. The Consultant shall, without additional compensation, correct or revise any errors, omissions or specific breaches of a contractual obligation in such plans, designs, drawings, specifications, reports and other services.
- B. The District's approval of plans, drawings, designs, specifications, reports and other products of the professional services rendered hereunder shall not in any way relieve the Consultant of responsibility for the technical adequacy or accuracy thereof. Neither the District's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.
- C. The Consultant shall be knowledgeable and familiar with the District's Construction General Conditions and any District provided Division 0 (which includes General and Supplemental conditions and Bidding Provisions) and Division 1 (General Construction Requirements). Any technical specifications drafted by the Consultant shall be consistent with these Divisions and such technical specifications should not create any ambiguity or conflict with these Divisions.

- D. Consistent with generally accepted professional standards, the Consultant shall promptly bring to the District's attention any concerns that the Consultant has regarding the design, or any finding, conclusions, or final decisions made by the District. The Consultant shall, at the District's request, provide the District with a written evaluation of its concerns, along with proposed solutions to any identified problems.

5.2. Maintenance of Project Documentation

- A. Upon written request by the Project Manager, the Consultant shall provide the District with access to all documents and correspondence, including e-mail communications, memoranda, and all other written materials prepared or used in performance of work on this Project.
- B. The Consultant is cautioned that information and documentation submitted to the District may become a public record in accordance with the Revised Code of Washington and may not be exempt from disclosure under the Washington State Public Records Act.
- C. The Consultant acknowledges that unauthorized disclosure of information or documentation concerning this Project may cause substantial economic loss or harm to the District. Except as otherwise required by Court Order or subpoena, the Consultant shall not without prior written authorization by the General Manager allow the release, dissemination, distribution, sharing, or otherwise publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to this Agreement.

SECTION 6: PRODUCTS

- 6.1. In the performance of this Agreement, the Consultant shall, to the extent practicable, design and draft specifications that provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods and processes.
- 6.2. The Consultant shall not, in the performance of work under this Agreement, produce a design or specification which would require the use of structures, machines, products, materials, construction methods, equipment, or processes which the Consultant knows to be available only from a single source, unless the Consultant has provided a written justification for the use of a single source in writing and the District concurs.
- 6.3. The Consultant shall not, in the performance of work under this Agreement, produce a design or specification which would be restrictive or written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing, or to provide for necessary interchangeability of parts and equipment. The Consultant shall report to the District any single source or restrictive design or specification giving the reason(s) why, in the Consultant's professional judgment, it is necessary to restrict the design or a particular specification. The Consultant shall substantiate in writing, and to the District's satisfaction, the basis for the single source or restrictive design or specification.

- 6.4. When one or more brand names or trade names of comparable quality or utility are listed, the words "or approved equal" shall follow the brand name(s) and the salient characteristics shall be identified.

SECTION 7: COMMENCEMENT AND MONTHLY REPORTS

- 7.1. Notice to Proceed. After execution of this Agreement by the District and the Consultant, the District will issue a written notice to proceed on the Project or specific tasks thereof. Such notices to proceed will be provided for specific tasks identified as necessary to produce specified work products and shall set forth the date of commencement of the work, a description of the work to be performed, the schedule for the work authorized, and the budgets for such tasks. Upon receipt of a notice to proceed, the Consultant shall promptly commence work.
- 7.2. Monthly Reports. Unless otherwise stated in the Scope of Work, not later than the 10th day of each calendar month during the performance of the Project, the Consultant shall submit to the Project Manager, a monthly report, in a format approved by the Project Manager, sufficient to show the activities completed and the Project progress as measured against the Project Schedule and Exhibit B, Project Budget. At a minimum the monthly report shall identify work completed, costs incurred, budget status (budget vs. estimated balance to complete), amendments, project schedule, any variance between planned vs. actual project performance, all issues that may result in completion of any task beyond the established schedule or task budget, and all issues that may result in an increase in Total Price.

SECTION 8: COMPENSATION

- 8.1. Subject to the provisions set forth in this Agreement, the District will pay the Consultant for authorized and satisfactorily completed work and services rendered under this Agreement. No more than monthly progress payments shall be full compensation for work performed and services rendered, for all supervision, labor, supplies, materials, equipment or use thereof, taxes, and for all other necessary incidentals, but in no case shall the total progress payment exceed the Total Price as defined herein. The amount to be paid to the Consultant shall be computed as hereinafter set forth; provided, that such payment shall not exceed a maximum amount of **TWO-HUNDRED SIXTY-NINE THOUSAND SIX-HUNDRED DOLLARS (\$269,600)** ("Total Price"). In the event the Consultant incurs costs in excess of the Total Price, the Consultant shall pay such excess from its own funds and the District shall not be required to pay any part of such excess and the Consultant shall have no claim against the District on account thereof.
- 8.2. Compensation for work and services shall be based on Labor Costs (fully burdened billing rates that include wages and salaries, benefits, overhead and profit), and Other Direct Costs.
- A. Labor Costs. Direct Labor Costs shall be the total number of allowable hours worked on each Task Order by each individual multiplied by the Billing Rates identified in Exhibit B.

1. Billing Rates are "fully loaded," which includes salaries, overhead, and profit.

2. The District shall only pay the Billing Rate and shall not pay any premium associated with overtime.
 3. The parties agree to the Billing Rates as set forth in Exhibit B. Billing Rates may be subject to reasonable adjustments, but only in accordance with paragraph 8.4 below.
- B. Other Direct Costs. Other Direct Costs ("ODC") are those costs identified within Exhibit D or any Task Order-specific scope of work which can be specifically identified with the Contract objectives, are required for performance of the Contract, are approved in advance in writing by the Project Manager, and are actually incurred.
- 8.3. Unallowable Costs. The District shall not pay for any costs or direct charges associated with or relating to the following activities:
- A. Any resubmission, changes to or adjustments in the invoices, and fixing improper invoices and the preparation and submission of monthly invoices if this cost is not included in the Consultant's overhead.
 - B. Preparation of, discussion and/or negotiation of a request for adjustments in any Billing Rate and/or Labor Escalation percentage; and
 - C. Changing or reassigning personnel or subconsultants, including but not limited to preparing requests concerning Transfer of Knowledge for Key Personnel. Exception, the District will pay for costs associated with the change or reassignment resulting from a written request from the District requesting the specific personnel or subconsultant change.
 - D. Preparation of any documentation related to, discussion of, or negotiation of equitable adjustment, disputes, claims or Section 16, Disputes and Remedies.
 - E. Meals, except when in Travel Status outside of Whatcom and Skagit counties.
- 8.4. Limitations on Changes to Labor Rates.
- A. The Consultant agrees that all Billing Rates identified in this Agreement shall be effective for the entire Contract duration, including all amendments; provided however, Billing Rates may be increased at the sole discretion of the District on an annual basis.
 - B. Billing Rate increases must be based on actual and verifiable increases in labor costs.
 - C. Should the Consultant seek an adjustment in Billing Rate(s) or ODC, Consultant must notify the District in writing of its request to modify the existing rate. Consultant shall submit only one request per year that must include all individual rate increase requests. This request shall include the amount of the increase for each rate in addition to the new rate.

- 8.5. Approval of Increases by District; Adjustments in Billing Rates, and the amount of any rate increase require the approval of the General Manager. The Consultant shall provide additional information as requested by the District. The District shall review the Consultant's request for a rate increase and respond in writing to the request within sixty (60) calendar days of receipt of such request.
- 8.6. Effective Period. Any change to the Billing Rates shall not be effective until the date the General Manager approves, in writing, the increase. Rates shall not be retroactive. Only services performed after the date the General Manager approves the rate increase shall be billed at the new Billing Rate. The written approval is considered a part of the Contract documents and shall be incorporated into the Contract in the next amendment.
- 8.7. Invoice Process. The Consultant shall submit to the Project Manager an invoice for payment for work completed to the end of the previous month associated with active Project Task Orders. Such invoices shall be for work performed subsequent to that work covered by all previously submitted invoices and shall be computed pursuant to the rates and limitations set forth hereinabove.
- A. Invoices shall detail the work by task, hours and employee name and level for which payment is being requested; include copies of all invoices from authorized subconsultants for which payment is being requested; and shall itemize, and include copies of, receipts and invoices for the Other Direct Costs.
 - B. At no time shall the total cumulative amounts paid for Project work exceed the total which would be due upon the completion of all Project work multiplied by the percentage of the required work satisfactorily completed, as determined by the District.
 - C. In the event of a disputed invoice, the District shall pay the undisputed amounts and withhold from payment the disputed portion of the invoice.
- 8.8. Prompt Payment of Subconsultants. Within ten (10) business calendar days of receipt of a progress payment from the District that includes dollars for work performed by subconsultants, Consultant shall pay such subconsultants out of such amounts as are paid by the District, for all work satisfactorily completed by the subconsultant.
- 8.9. Final Payment. Final payment of any Task Order balance earned by and payment to the Consultant for Project work will be made within sixty (60) calendar days after all of the following:
- A. Satisfactory completion of all work required by this Agreement;
 - B. Receipt by the District of the plans, studies, surveys, photographs, maps, calculations, notes, reports and all other documents and/or deliverables which are required to be prepared and submitted by the Consultant under this Agreement;
 - C. Delivery of all equipment/materials purchased specifically for the Project where the District has reimbursed the Consultant for such costs;

- D. Receipt by the District of a fully executed final statement of amounts invoiced by and paid to each subconsultant under this Agreement; and,
- E. Execution and delivery by the Consultant of a release of all claims against the District arising under or by virtue of this Agreement, other than such claims, if any, as may be specifically exempted by the Consultant from the operation of the release in stated amounts to be set forth therein.
- F. No payment, whether monthly or final, to the Consultant for any Project work shall constitute a waiver or release by the District of any claims, right or remedy it may have against the Consultant under this Agreement or by law; nor shall such payment constitute a waiver, remission or discharge by the District of any failure or fault of the Consultant to satisfactorily perform the Project work as required under this Agreement.

SECTION 9: TERMINATION OF AGREEMENT

9.1. Termination for Default

- A. The District may terminate this Agreement, in whole or in part, in writing if the Consultant substantially fails to fulfill any or all of its material obligations under this Agreement through no fault of the District.
- B. If the District terminates all or part of this Contract for default, the District shall determine the amount of work satisfactorily performed to the date of termination and the amount owing to the Consultant using the criteria set forth below; provided, that (a) no amount shall be allowed for anticipated profit on unperformed services or other work and (b) any payment due to the Consultant at the time of termination may be adjusted to the extent of any additional costs the District incurs because of the Consultant's default. In such event, the District shall consider the actual costs incurred by the Consultant in performing the Project work to the date of termination, the amount of work originally required which was satisfactorily completed to the date of termination, whether that work is in a form or of a type which is usable and suitable to the District at the date of termination, the cost to the District of completing the work itself or of employing another firm to complete it and the inconvenience and time which may be required to do so, and other factors which affect the value to the District of the Project work performed to the date of termination. Under no circumstances shall payments made under this provision exceed the total price set forth in active Task Orders executed under this Agreement. This provision shall not preclude the District from filing claims and/or commencing litigation to secure compensation for damages incurred beyond that covered by withheld payments.
- C. Upon receipt of a termination notice the Consultant shall at no additional cost to the District:
 - 1. Promptly discontinue all services affected (unless the notice directs otherwise);
 - 2. Terminate all subcontracts to the extent they relate to the work terminated; and

3. No later than thirty (30) calendar days after receipt of termination, promptly deliver or otherwise make available to the District all data, drawings, electronic drawing files, specifications, calculations, reports, estimates, summaries, Official Project Documentation and other Project documentation, such other information and materials as the Consultant or subconsultants may have accumulated in performing this Agreement, whether completed or in progress and all equipment/materials purchased specifically for the Project where the District has paid the Consultant for such items.

D. Termination for Convenience.

1. The District may terminate this Agreement, in whole or in part, for the convenience of the District. The District shall terminate by delivery to the Consultant a Notice of Termination specifying the extent of the termination and the effective date.
2. If the District terminates this Contract for convenience, the District shall pay the Consultant only for the following items:
 - a. An amount for Labor Costs and Indirect Costs in accordance with the Contract and Exhibit B for services satisfactorily performed to the date of termination;
 - b. Actual and reasonable Other Direct Costs, as allowed under Exhibit D, incurred before the termination; and
 - c. Actual and Reasonable termination settlement costs the Consultant reasonably incurs relating to commitments which had become firm before the termination, unless the District determines to assume said commitments. Reasonable termination settlement costs include settlement costs for subconsultants and actual reasonable accounting and clerical costs related to preparing a termination settlement proposal.
3. Upon receipt of a termination notice the Consultant shall at no additional cost to the District:
 - a. Promptly discontinue all services affected (unless the notice directs otherwise);
 - b. Terminate all subcontracts to the extent they relate to the work terminated;
 - c. No later than thirty (30) calendar days after receipt of termination, promptly deliver or otherwise make available to the District all data, drawings, specifications, calculations, reports, estimates, summaries, Official Project Documentation, other Project documentation, and such other information and materials as the Consultant may have accumulated in performing this Agreement, whether completed or in progress and all equipment/materials purchased specifically for the Project where the District has reimbursed the Consultant for such costs;

- d. Take any action necessary, or that the District may direct, for the protection and preservation of property related to this Agreement that is in the possession of the Consultant and in which the District has or may acquire an interest.

SECTION 10: OWNERSHIP AND USE OF DOCUMENTS

- 10.1. Reports, studies, drawings, specifications, calculations or other information developed under the terms of this Agreement shall become the property of the District after full payment to Consultant for their preparation. Any reuse of drawings/plans, specifications and/or calculations for another project without written verification or adaptation by Consultant will be at the District's sole risk and without liability or legal exposure to Consultant. District shall defend, indemnify and hold Consultant harmless from all claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting therefor. The District further acknowledges that it may receive certain materials from Consultant by way of electronic file and agrees that should it modify such materials in connection with their subsequent use, that Consultant shall bear no responsibility for the contents thereof.

SECTION 11: THIRD-PARTY CLAIMS AND DISPUTES

- 11.1. At the District's request, Consultant will assist the District in review and evaluation claims and disputes, preparing information for the District's legal counsel, providing services as witness in litigation or arbitration to which the District is a party and providing other services in connection with actual or potential claims or disputes arising out of the work, regardless of whether or not consultant is named in such legal action. The parties shall cooperate to agree on the compensation for such services. If Consultant is determined to be responsible for the claim, dispute or litigation due to its negligence or breach of the contract herein, it shall remit back to the District the amounts paid under this section to the extent of such negligence or breach.

SECTION 12: AUDIT AND ACCESS TO RECORDS

- 12.1. The Consultant, including its subconsultants, shall maintain books, records, documents, and other evidence directly pertinent to performance of the work under this Agreement in accordance with generally accepted accounting principles and practices consistently applied. The District, or any of its duly authorized representatives, shall, for the purpose of audit and examination, have access to and be permitted to inspect such books, records, documents, and other evidence for inspection, audit and copying for a period of six years after completion of the Project. The District shall also have access to such books, overhead data, records and documents during the performance of Project work if deemed necessary by the District to verify work performed and Invoices, to assist in negotiations for amendments to the Agreement or modifications to tasks, and to resolve claims and disputes.
- 12.2. Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit agency(ies).

SECTION 13: LEGAL RELATIONS

- 13.1. The Consultant shall comply, and shall ensure its subconsultants comply, with all the terms of this Agreement and the District resolutions and federal, state and local laws, regulations and ordinances applicable to the work and services to be performed under this Agreement.
- 13.2. In performing work and services hereunder, the Consultant and its subconsultants, employees, agents and representatives shall be acting as independent contractors and shall not be deemed or construed to be employees or agents of the District in any manner whatsoever. The Consultant shall not hold itself out as, nor claim to be, an officer or employee of the District by reason hereof and will not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the District. The Consultant shall be solely responsible for any claims/costs and/or losses arising from the Consultant's failure to pay wages, compensation, benefits or taxes and/or pay for services, supplies and/or materials provided by Consultant employees, agents and representatives, including subconsultants, and will protect, defend, indemnify and hold the District harmless there from.
- 13.3. To the maximum extent permitted by law, the Consultant agrees to indemnify and save harmless the District, its officers, agents and employees, from and against any and all suits, claims, actions, losses, costs, reasonable attorney fees and expenses, penalties, judgments, settlements and damages of whatsoever kind or nature arising out of, in connection with, or incident to errors or omissions in the performance of contractual obligations, and/or the negligent performance of work or services provided by or on behalf of the Consultant, except to the extent caused by the negligence of the District. The Consultant's indemnity obligation includes an obligation to (a) satisfy any judgment or other final decision of a court or other tribunal; (b) pay any reasonable settlement negotiated by the District with respect to claims that are within the scope of the indemnity obligation; and (c) pay all claims against the District by an employee or former employee of the Consultant or its subconsultants, and for this purpose, by mutual negotiation, the Consultant expressly waives, as respects the District only, all Immunity and limitation on liability under any industrial insurance act, including Title 51 RCW, other worker's compensation act, disability benefit act, or other employee benefit act of any jurisdiction which would otherwise be applicable in the case of such claim, The Consultant further agrees to defend all claims against the District and its officers, agents, and employees which, if proven, could result in liability of the District, its officers, agents, or employees for loss or damage caused by any such errors, omissions, or negligent work or services performed by the Consultant. The Consultant's obligation to defend shall include timely payment of all reasonable attorney fees, costs and expenses incurred in the defense of such claims. In the event of litigation between the parties to enforce the rights under this paragraph, reasonable attorney fees and expenses shall be allowed to the prevailing party.
- 13.4. The District's rights and remedies in this Agreement are in addition to any other rights and remedies provided by law.
- 13.5. The indemnification, protection, defense and save harmless obligations contained herein shall survive the expiration, abandonment or termination of this Agreement.

SECTION 14: INSURANCE

- 14.1. Prior to execution of the Agreement, the Consultant shall file with the District certificates of insurance and endorsements from the insurer(s) certifying to the coverage of all insurance required herein. All evidences of insurance must be certified by a properly authorized officer, agent, general agent or qualified representative of the insurer(s) and shall certify the name of the insured, the type and amount of insurance, the location and operations to which the insurance applies, the expiration date, and provides that the District receives notice at least thirty (30) calendar days prior to the effective date of any policy limit or cancellation of required coverages. The Consultant shall notify the District at least thirty (30) calendar days prior to the effective date of any cancellation or reduction in coverage in the policy. Documentation of coverage shall be provided on each insurance renewal date. The Consultant shall, upon demand of The District, make available to The District at Consultant's local office in The District all such policies of insurance and the receipts of payment of premiums thereon. Failure to provide such policies of insurance within a time acceptable to The District shall entitle The District to suspend or terminate the Consultant's work hereunder, Suspension or termination of this Agreement shall not relieve the Consultant from its insurance obligation hereunder.
- 14.2. The Consultant shall obtain and maintain at a minimum the limits of insurance set forth below. By requiring such minimum insurance, the District shall not be deemed or construed to have assessed the risks that may be applicable to the Consultant under this Agreement. The Consultant shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.
- 14.3. Each insurance policy shall be written on an "occurrence" form; excepting that insurance for professional liability, errors and omissions when required, is acceptable on a "claims made" form.
- 14.4. If coverage is approved and purchased on a "claims made" basis, the Consultant shall continue coverage either through (1) policy renewals for not less than seven years from the date of completion of the work which is the subject of this Agreement or (2) the purchase of an extended discovery period for not less than seven years from the date of completion of the work which is the subject of this Agreement, if such extended coverage is available.
- 14.5. If, in order to meet the requirements of this Section, the Consultant must rely on the insurance to be provided by one or more subconsultant, then such subconsultant(s) shall be required to meet all of the requirements herein applicable to the insurance they are providing, and shall include District and Consultant as additional insureds on all liability policies except Professional Liability/Errors & Omissions and Workers Compensation. The District will not make any payments on work performed by subconsultants until all insurance documentation from such subconsultants have been received and accepted by the District.
- 14.6. Consultant hereby grants to District a waiver of any right to subrogation which any insurer of said Consultant may acquire against the District by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the District has received waiver of subrogation endorsement from the insurer.
- 14.7. The Consultant shall maintain limits no less than, for:

- A. General Liability. \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage, and for those policies with aggregate limits, a \$1,000,000 aggregate limit. Coverage shall be at least as broad as Insurance Services Office form number (CG 00 01) covering COMMERCIAL GENERAL LIABILITY.
 - B. Professional Liability Errors and Omissions. \$2,000,000 per claim and in the aggregate.
 - C. Automobile Liability. \$1,000,000 combined single limit per accident for bodily injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number (CA 00 01) covering BUSINESS AUTO COVERAGE, symbol 1 "any auto"; or the combination of symbols 2, 8, and 9.
 - D. Workers' Compensation. Statutory requirements of the State of residency. Coverage shall be at least as broad as Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, as well as any similar coverage required for this work by applicable Federal or "other States" State Law.
 - E. Employer's Liability or "Stop Gap". Coverage shall be at least as broad as the protection provided by the Workers Compensation policy Part 2 (Employers Liability) or, in states with monopolistic state funds, the protection provided by the "Stop Gap" endorsement to the general liability policy.
- 14.8. Any deductibles or self-insured retentions must be declared to, and approved by, the District. The deductible and/or self-insured retention of the policies shall not limit or apply to the Consultant's liability to the District and shall be the sole responsibility of the Consultant.
- 14.9. The insurance policies required in this Agreement are to contain, or be endorsed to contain the following provisions:
- A. Liability Policies except Professional Liability & Errors and Omissions and Workers Compensation:
 - 1. The District, its officers, officials, employees and agents are to be covered as additional insured as respects liability arising out of activities performed by or on behalf of the Consultant in connection with this Agreement. Such additional insured status shall include Products-Completed Operations.
 - 2. To the extent of the Consultant's negligence, the Consultant's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees and agents. Any insurance and/or self-insurance maintained by the District, its officers, officials, employees or agents shall not contribute with the Consultant's insurance or benefit the Consultant in any way.

3. The Consultant's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.
 4. When Consultant's scope of work involves a vessel on or around water the policy shall include Jones Act coverage.
- 14.10. If at any time of the foregoing policies shall fail to meet the minimum standards above, the Consultant shall, upon notice to that effect from the District, promptly obtain a new policy, and shall submit the same to the District, with the appropriate certificates and endorsements, for approval.

SECTION 15: DISPUTES AND REMEDIES

- 15.1. Choice of Law. This Agreement and all provisions hereof shall be interpreted in accordance with the laws of the State of Washington in effect on the Effective Date.
- 15.2. General Manager Review. All claims, counter-claims, disputes and other matters in question between the District and the Consultant arising out of or relating to this Agreement or the breach of it shall be referred to the General Manager or a designee for determination, together with all facts, data, contentions and so forth which relate thereto. The General Manager shall make a determination within thirty (30) calendar days of such referral.
- 15.3. Mediation and Arbitration. The parties will first attempt to mediate any dispute arising under or in connection with this Agreement, in accordance with the provisions of the Washington Uniform Mediation Act, Ch. 7.07 RCW. In the event such mediation is unsuccessful, any such dispute will be settled by arbitration as set forth in this Section 15.3. No legal right of action may arise out of any such dispute until arbitration has been completed. Each party, however, will have full access to the courts to compel compliance with these arbitration provisions, to enforce an arbitration award or to seek injunctive relief, whether or not arbitration is available or under way. The arbitration will take place as follows:
- A. Notice. The party demanding arbitration must give the other parties a written notice. The written notice must contain, in addition to the demand for arbitration, a clear statement of the issue or issues to be resolved by arbitration, an appropriate reference to the provision of the Agreement which is involved, the relief the party requests through arbitration, and the name and address of the arbitrator requested by the demanding party.
 - B. Response. The party receiving the notice of the demand for arbitration must provide a written response to the demand within fifteen (15) days following receipt of the notice. The response must contain a clear statement of the respondent's position concerning the issue or issues in dispute and the name and address of the arbitrator it selects as the arbitrator to hear the dispute. If the parties fail to agree upon an arbitrator within five (5) days following the time allowed for this response to the demand for arbitration, the demanding party may apply to the presiding department of the Superior Court for Whatcom County, Washington to designate the arbitrator.

- C. Arbitration. The arbitrator will meet in Bellingham, Washington, within twenty (20) days after the selection of the arbitrator and will allow each party an opportunity to submit oral and written evidence and argument concerning the issue in dispute. The arbitrator may resolve only the question or questions submitted to arbitration and must include as part of his consideration a full review of the Agreement and all material incorporated in the Agreement by reference.
 - D. Decision. The decision of the arbitrator will be final and will bind the parties.
 - E. Consent to Change. By consent of all parties to any dispute under this Agreement, the method of selection of an arbitrator or arbitrators, or even the arbitrator(s) selected, may be changed at any time.
 - F. Payment of Costs. Subject to the provisions of Section 13.3, in any arbitration, each party will pay its own costs, witness fees and attorneys' fees. The fees charged by the arbitrator and the costs of the proceeding shall be borne equally.
 - G. State Law. Except to the extent inconsistent with the terms of this Agreement, the terms and provisions of Chapter 7.04A RCW are incorporated in and made a part of this Agreement.
- 15.4. Exhaustion of Administrative Remedies. Referral to and determination by the General Manager or a designee and mediation and arbitration shall be a condition precedent to the commencement of a civil action to adjudicate such dispute.
- 15.5. Jurisdiction & Venue. Subject to these provisions herein, the Superior Court of Whatcom County, Washington, shall have exclusive jurisdiction and venue over any legal action arising under this Agreement and the laws of the state of Washington shall apply.

SECTION 16: NOTICE

- 16.1. Any notice required to be given under the terms of this Agreement shall be in writing and directed to the party at the address set forth below. Notice shall be considered issued and effective upon receipt thereof by the addressee-party.

Gray & Osborne, Inc.
Attn: Keith Stewart, P.E.
1130 Rainier Avenue South, Suite #300
Seattle, WA 98144
Phone: 206.284.0860

Lake Whatcom Water and Sewer District
Attn: Justin Clary, General Manager
1220 Lakeway Drive
Bellingham, WA 98229
Phone: 360.734.9224

SECTION 17: ENTIRETY, AMENDMENT AND EXECUTION OF AGREEMENT

- 17.1. This Agreement merges and supersedes all prior negotiations, representations and agreements between the Parties relating to the subject matter hereof and constitutes the entire agreement between the Parties.
- 17.2. The Contract documents included in the Agreement are identified below. Any inconsistency or conflict between the Contract documents shall be resolved by giving precedence in the following descending order of importance:

- A. Professional Services Agreement for **Division 22-1 Reservoir Replacement**, as modified by the latest amendment;
- B. Exhibit A, Scope of Work, as modified by the latest amendment;
- C. Exhibit B, Project Budget;
- D. Exhibit C, Insurance;
- E. Exhibit D, Allowable Other Direct Costs; and
- F. Exhibit E, Key Personnel List

17.3. This Agreement shall be executed in two (2) counterpart copies, any of which shall be considered for all purposes as the original.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective authorized officers or representatives as of the day and year written below.

Gray & Osborne, Inc.

By: _____
Mike Johnson, President

Dated: _____

Lake Whatcom Water and Sewer District

By: _____
Justin Clary, General Manager

Dated: _____

Approved as to Form

By: _____
Robert Carmichael
Attorney for Lake Whatcom Water and Sewer District

Dated: _____

EXHIBIT A

SCOPE OF WORK

LAKE WHATCOM WATER AND SEWER DISTRICT DIVISION 22-1 WATER RESERVOIR REPLACEMENT PROJECT ENGINEERING SERVICES

PROJECT UNDERSTANDING

The Lake Whatcom Water and Sewer District (District) owns and maintains a public water and sewer system that serves residential and commercial customers in Whatcom County, Washington. Their Washington State Department of Health (DOH) Water System ID number is #95910.

On April 28, 2025, the District selected Gray & Osborne (G&O) to provide design and construction management engineering services for a new welded steel water storage reservoir at their existing Division 22 reservoir site. The existing Division 22-1 reservoir is a 500,000-gallon welded steel tank adjacent to the District's recently (2017) installed Division 22-2 reservoir. The Division 22-1 reservoir is in need of significant upgrades to the coating system and was found to be seismically deficient for several current, critical design parameters. The District recently analyzed their alternatives and decided that full and complete replacement of the reservoir provided the best overall value.

At this point in time, the District would like to proceed with engineering design for the replacement reservoir in 2025-2026, and construction of the new reservoir in 2026-2027.

In general, the Scope of Services to be provided for the project include the following work items.

1. Project Report to identify critical design parameters for the proposed replacement reservoir. This Report will meet the requirements of WAC 246-290-110 for Washington State Department of Health Project Report.
2. Completion of building code review and supplemental geotechnical analysis to confirm seismic parameters for new structures.
3. Design of a replacement water reservoir.
4. Bid services during the public bidding process.
5. Construction management services.

For budgeting and scheduling purposes, the District has elected to divide the project into two separate phases: Design and Construction Management. While the general outline of tasks previously listed includes both phases, the following Scope of Work only includes work for the design phase of the project. A separate Scope of Work will be developed for construction administration services at the completion of the design phase.

Gray & Osborne is pleased to provide the following Scope of Work for the design phase of this project.

SCOPE OF WORK

Task 1 – Project Management

Services shall include overall project management and oversight of the project by the Project Manager.

Work will include the following:

- A. Provide overall project management and oversight of the work;
- B. Procure sufficient staff resources to dedicate to the project;
- C. Manage and control project budget and schedule;
- D. Manage and provide monthly progress reports and invoices; and
- E. Coordinate the project with the District.

Deliverables:

- Monthly progress reports and invoices (.pdf).

Task 2 – Geotechnical Investigation

Services shall include geotechnical efforts by our geotechnical sub-consultant, PanGEO Inc. of Seattle, Washington. Their work will provide analysis and recommendations for foundation design necessary to design the replacement reservoir.

Work will include the following:

- A. Site reconnaissance visit;
- B. Review of existing geotechnical documentation, including, but not limited to, materials generated during design of the Division 22-2 tank;

- C. Completion of a geotechnical engineering analysis and summary report; and
- D. Post report analysis and consultation, as needed.

Deliverables:

- Final geotechnical engineering analysis and summary report (.pdf).

Assumptions:

1. Site reconnaissance will be completed by up to 2 geotechnical engineers. Gray & Osborne will not attend geotechnical site reconnaissance visit.
2. Subgrade exploration (borings, test pits, etc.) are specifically excluded from this Scope of Work.
3. Soil sample collection and analysis is specifically excluded from this Scope of Work.
4. District will provide Record Drawings for the existing Division 22-1 reservoir, if available.
5. G&O will provide review and comment on the Draft Geotechnical Report within 14 calendar days of receipt from PanGEO.
6. Draft Geotechnical Report review comments will be incorporated into the Final Geotechnical Report. The Final Report shall be made available within 14 calendar days after submission of Draft review comments.

Task 3 – Project Report

Services shall include preparation of a Project Report (Report) that will meet the requirements of Washington Administrative Code (WAC) 296-240-110 for an Engineering Report. The report will be submitted to the Washington State Department of Health (DOH) for their review, comment, and approval in conjunction with the 90 percent Plans, Specifications, and Cost Estimate.

In general, the Report will provide the following information.

- A. Project introduction;
- B. Project background and description of existing facilities;
- C. Identification and description of proposed alternative;

- D. Verification and modelling of distribution system with only Division 22-2 tank in service to verify system pressure and fire-flows;
- E. Reservoir design criteria, description of reservoir components, summary of construction activities, and summary of startup and testing activities; and
- F. Project cost estimate.

Services will also include collection of existing tank coating samples for RCRA-8 metal analysis. Both interior coating and exterior coating samples will be analyzed. The results of this testing will be included in the Report.

Deliverables:

- Draft Predesign Report (.pdf).
- Final Predesign Report (.pdf).

Assumptions:

1. District will provide review and comment for the Draft Report within 21 calendar days of receipt.
2. DOH engineers will provide review and comment for the Report within 90 calendar days of receipt.
3. District will either: (1) provide their water model for use by G&O; or (2) will coordinate with their preferred modelling entity for integration of design parameters provided by G&O. If this option is selected, the District will then provide modelling results and/or figures as needed to complete the Report. Data must be provided in standard format (.xlsx, .csv, .pdf, etc.), and information for figures must be compatible with GIS mapping software.
 - a. If the latter option is selected by the District, a separate engineering services contract with that entity may be required.

Task 4 – Project Design

Services shall include the preparation of plans, technical specifications, contract documents, and cost estimates for construction of a new welded steel reservoir. The contract documents will be prepared in a format suitable for public bidding, including plans, specifications in CSI format, and cost estimates with District review at the 60 percent and 90 percent design level.

Reservoir design will be based on the District's previous analysis and desire for a new welded steel reservoir. Design for the reservoir includes the following assumptions:

- A. Reservoir will have a working volume between 550,000 – 650,000 gallons.
- B. Reservoir will be an above-grade, welded steel reservoir with a diameter of approximately 50 feet.
- C. The new reservoir will be located in the same location as the existing Division 22-1 reservoir.
- D. Potable water piping will be designed to connect the new reservoir to existing inlet and outlet site piping. New potable water inlet and outlet piping will include sampling accommodations. Stormwater piping will be designed to connect to the existing stormwater drain system installed for the Division 22-2 reservoir project.
- E. System control and monitoring will use District or industry standard instrumentation (ultrasonic level sensor, submersible pressure sensor, floats, etc.) and these devices will be designed to be integrated into the District's existing Supervisory Control and Data Acquisition (SCADA) system.
- F. Design will include all associated sitework, site piping, grading, and electrical modifications as required to construct, operate, access, and maintain the new reservoir.

Gray & Osborne will assist the District with the acquisition of permits necessary to complete the project. This will include completion of forms required for permit application, correspondence with the permitting agency, attendance at meetings with the permitting authority, and providing plans and specifications for permitting agency review, comment, and approval. Revised documents will be provided as required to address agency comments.

Deliverables

- 60 percent design submittal including Plans, Technical Specifications, and Cost Estimate (.pdf)
- 90 percent design submittal including Plans, Technical Specifications, and Cost Estimate (.pdf)
- 100 percent design submittal including Plans, Technical Specifications, and Cost Estimate (.pdf)
- Plans and Technical Specifications as required for review and acquisition of the required permits.
 - For this Scope of Work, we have assumed up to 2 project submittals will be required (1 initial submittal and 1 resubmittal) for project approval.
- Materials required for permit documentation.

Assumptions

1. G&O will meet with District staff at project onset to discuss District goals and objectives and to perform a site visit with District staff to identify site issues.
2. G&O will attend up to two additional site visits during the course of design. These meetings will include a G&O Project Manager and Project Engineer, and will be to review design parameters, verify field conditions, and coordinate with District staff.
3. G&O will attend up to four project meetings during the course of design. These meetings are assumed to take place virtually and do not include a site visit.
4. Up to one additional site visit for a Field Survey crew may be provided; however, the existing basemap from the Division 22-2 reservoir project will be utilized to the maximum extent possible.
5. G&O will combine our 16-Chapter CSI Technical Specifications with the District's current general conditions, contract, legal, and proposal documents.
6. G&O will use our standard title block and CAD standards for all drawing files.

7. G&O will provide review and comment for the full and complete bid package prior to project advertisement.
8. Anticipated permit documents include the following items: Conditional Use Permit, Height Variance Application, Whatcom County Land Disturbance and Clearing Permit, Stormwater Permit, and State Environmental Policy Act (SEPA) Checklist.
 - a. G&O will attend up to four meetings (1 hour each) with county officials to discuss the project and any comments/revisions necessary. These meetings are assumed to take place virtually.
9. Washington State Department of Health project approval will be required.
 - a. G&O will provide Plans, Specifications, and the Cost Estimate to DOH at the 90 percent design level for their review and comment.
 - b. G&O will then submit final, signed construction documents to DOH prior to project award.
10. All permit and regulatory agency review fees will be paid by the District.
11. The project building permit will be a deferred submittal until reservoir drawings and design calculations are provided by the vendor. The Contractor will be responsible for final building permit acquisition.
12. District will create, facilitate, and complete any and all sign postage for the project.
13. Height variance may be required for proposed reservoir.
14. Stormwater permit may be required for the proposed reservoir.

Task 5 – Bid and Award Assistance/Support

This task will include bid assistance/support as required and will include the following:

- A. Coordinate bid sequencing with District staff;
- B. Provide bidding documents to District staff;
- C. Answer bidder questions, as necessary;
- D. Prepare contract addenda, as necessary;

- E. Attend pre-bid meeting at District office and project location;
- F. Review Contractor qualifications, review Supplemental Bidder Criteria, and prepare Mandatory Bidder Responsibility Checklist; and
- G. Prepare Recommendation to Award Letter.

Deliverables:

- Addenda, if required (.pdf)
- Mandatory Bidder Responsibility Checklist (.pdf)
- Recommendation to Award Letter (.pdf)

Assumptions:

1. District staff will submit all documents and pay all fees required for advertisement of the project.
2. District staff will coordinate and facilitate bid opening activities.
3. District staff will prepare final bid tabulation and provide to G&O.

Task 6 – Quality Assurance/Quality Control

This task will include up to three, in-house, quality assurance/quality control (QA/QC) meetings at G&O's office in Seattle during the course of the project. The meetings will include senior project staff, selected design team members, and District staff (as desired). After QA/QC meetings are held, we will ensure incorporation of relevant recommendations into the project documents prior to submittal to the District.

QA/QC meetings will take place at the following levels:

- A. Completion of 60 percent design
 1. Plans, Specifications, and Cost Estimate
- B. Completion of 90 percent design
 1. Plans, Specifications, and Cost Estimate

- C. Completion of 100 percent design
 - 1. Plans, Specifications, and Cost Estimate
- D. Ensure incorporation of relevant recommendations and suggestions into bid/construction documents resulting from QA/QC reviews.

This task also includes work by a coatings specialist, Lance Stevens, P.E., with Evergreen Coating Engineers Inc. Lance will provide review and comment on the Plans, Specifications, and Cost Estimate for the project at the 60% and 90% deliverable milestones.

G&O will also provide review and comment on the final, combined, contract bid package prior to advertisement to ensure consistency and accuracy.

Deliverables

- 15. None

Assumptions

- 1. None

PROJECT SCHEDULE

Gray & Osborne proposes to complete the work listed above according to the following schedule.

Notice to Proceed (NTP).....	May 2025
Complete Geotechnical Investigation	June 2025
Complete 60 Percent Project Design	September 2025
<i>District Comments Returned</i>	<i>September 2025</i>
Complete 90 Percent Project Design	November 2025
<i>District Comments Returned</i>	<i>December 2025</i>
<i>DOH Comments Returned</i>	<i>February 2026</i>
Complete 100 Percent Project Design	March 2026
Project Advertisement.....	March 2026
Project Award	April 2026
Project Construction.....	June 2026– October 2027

Adjustments to the schedule above may be required based on document review times and/or availability of District staff. The District will be notified immediately if any deviations from the schedule above are required.

PROJECT BUDGET

Based on the Scope of Work described above, the proposed fee for design services is \$269,600 as shown in the attached Exhibit B.

EXHIBIT B

ENGINEERING SERVICES SCOPE AND ESTIMATED COST

LAKE WHATCOM WATER AND SEWER DISTRICT - DIVISION 22-1 WATER RESERVOIR REPLACEMENT ENGINEERING SERVICES

Tasks	Principal Hours	Project Manager Hours	Structural Engineer Hours	Electrical Engineer Hours	Engineer-In-Training Hours	AutoCAD Technician Hours	Professional Land Surveyor Hours	Field Survey (2 person) Hours
1 Project Management		16						
2 Geotechnical Investigation		2	2					
3 Project Report	2	30	4	2	64	40		
4 Project Design								
60 percent design	8	36	16	32	96	172	6	10
90 percent design	12	48	24	64	136	180		
100 percent design	2	24	24	48	80	140	2	
5 Bid and Award Assistance/Support		8	2	2	8	8		
6 Quality Assurance/Quality Control	16	16	8	4	16			
Hour Estimate:	40	180	80	152	400	540	8	10
Fully Burdened Billing Rate Range:*	\$165 to \$265	\$148 to \$265	\$125 to \$232	\$125 to \$232	\$105 to \$180	\$65 to \$180	\$125 to \$208	\$200 to \$315
Estimated Fully Burdened Billing Rate:*	\$250	\$215	\$200	\$230	\$140	\$160	\$200	\$300
Fully Burdened Labor Cost:	\$10,000	\$38,700	\$16,000	\$34,960	\$56,000	\$86,400	\$1,600	\$3,000

Total Fully Burdened Labor Cost: \$ 246,660

Direct Non-Salary Cost:

 Mileage & Expenses (Mileage @ current IRS rate) \$ 711

 RCRA-8 Sample Testing \$ 1,000

Subconsultant:

 PanGEO, Inc. \$ 8,959

 Evergreen Coating Engineers, LLC \$ 10,340

 Subconsultant Overhead (10%) \$ 1,930

TOTAL ESTIMATED COST: \$ 269,600

* Actual labor cost will be based on each employee's actual rate. Estimated rates are for determining total estimated cost only. Fully burdened billing rates include direct salary cost, overhead, and profit.

EXHIBIT C

INSURANCE

**Lake Whatcom Water and Sewer District
Division 22-1 Reservoir Replacement**

[To be provided during contract execution]

EXHIBIT D

ALLOWABLE OTHER DIRECT COSTS Lake Whatcom Water and Sewer District Division 22-1 Reservoir Replacement

Gray & Osborne proposes no Other Direct Costs.

EXHIBIT E

KEY PERSONNEL LIST Lake Whatcom Water and Sewer District Division 22-1 Reservoir Replacement

Key Personnel List

Keith Stewart, P.E. – Principal-In-Charge

Russ Porter, P.E. – Project Manager

Keith Goss, P.E. – Project Engineer (Water / Civil)

Alex Quinn, P.E. – Project Engineer (Structural)

Jason Newquist – Project Engineer (Electrical)

Stacey Clear, P.E., P.M.P. – Project Engineer (Stormwater)

Rick Bond, P.L.S. – Survey

Phil Marshall – CAD Technician


Mark Nagel – CAD Technician

Mike Johnson, P.E. – Quality Assurance / Quality Control



**AGENDA
BILL
Item 6.C**

**Strategic Asset
Management Plan
Adoption**

DATE SUBMITTED:	May 7, 2025	MEETING DATE:	May 14, 2025
TO: BOARD OF COMMISSIONERS	FROM: Greg Nicoll, P.E., District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. FINAL Strategic Asset Management Plan		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

As presented during the regularly scheduled board meeting on February 26, 2025, District staff has begun developing a formal Asset Management Program to provide a framework and procedures to assess risks and opportunities associated with each of the District's assets and reduce the likelihood of overlooking assets until replacement or substantial rehabilitation is urgently required.

Over the past ten years, the District has developed a relatively complete GIS-based inventory of assets and has integrated use of the District's enterprise asset management software (OpenGov Cartegraph) into maintenance planning and documentation. However, the District does not currently have a fully integrated asset management system to track and document asset condition and risk exposure, and to prioritize rehabilitation and replacement of aging assets. In 2025, District staff created an Asset Management Team to guide further development and implementation of the Asset Management Program. This team is comprised of members of all divisions of the District to ensure District-wide buy-in and integration of the program into daily operations.

The first step in development of the Asset Management Program is to outline and document the goals and objectives of the program through development of a Strategic Asset Management Plan (SAMP). The SAMP provides a high-level overview of the District's asset management strategies, priorities and objectives, level of service goals and risk management policies. The SAMP also provides a high-level inventory of District assets and the current state of those assets. Because District-wide acceptance and integration of the Asset Management Program is critical to its success, adoption of the SAMP by the Board is necessary to establish this program as a District priority and objective.

FISCAL IMPACT

The District Asset Management Program is being developed internally by District staff and no expenses beyond current staffing is anticipated. Once fully implemented, the program will better inform asset management decisions and support the development of more detailed long range capital improvement plans.

APPLICABLE EFFECTIVE UTILITY MANAGEMENT ATTRIBUTE(S)

Product Quality
Enterprise Resiliency
Infrastructure Strategy and Performance
Operational Optimization
Financial Viability
Community Sustainability
Stakeholder Understanding & Support

RECOMMENDED BOARD ACTION

Staff recommend adoption of the Strategic Asset Management Plan.

PROPOSED MOTION

A recommended motion is:

“I move to adopt the Strategic Asset Management Plan as presented.”

STRATEGIC ASSET MANAGEMENT PLAN

LAKE WHATCOM WATER & SEWER DISTRICT

Updated: 2025



Adopted **May 14, 2025** (pending Board approval)

LAKE WHATCOM WATER & SEWER DISTRICT

1220 LAKEWAY DRIVE

BELLINGHAM, WASHINGTON 98229

[Page intentionally blank]

Table of Contents

1	Asset Management Program Background	3
1.1	Purpose	3
1.2	Objectives.....	4
1.3	Program Document Updates	4
1.4	The Asset Management Team	4
1.5	District Mission Statement.....	5
1.6	Community Location	6
1.7	Related Documents.....	6
2	Current State of the Assets	7
2.1	Service Area.....	7
2.2	Water System	7
2.3	Sewer System	9
2.4	Human Health & Environmental Regulation.....	10
2.5	Geographic Information System Mapping	11
2.6	Historical Investments.....	11
2.6.1	Water System	11
2.6.2	Sewer System	11
2.7	System Value	11
3	Level of Service	12
3.1	Stakeholders.....	12
3.2	Level of Service Goals.....	13
4	Risk Management	13
4.1	Risk Analysis	13
4.2	Risk Management	13
4.3	Planning, Managing, Funding.....	14
4.4	Resilient Infrastructure	14
5	Maintenance Programs.....	15
6	Capital Improvement Plan	16
7	Finance	16
7.1	Rate Analysis	16
7.2	Funding Strategy	18
8	Monitoring and Reporting	18

8.1 Asset Management Report	18
8.2 Maintaining the Asset Management Program.....	18
9 Quality Assurance and Quality Control (QA/QC)	19
Appendix A: Asset Management Software	20
Appendix B: Asset Inventory	22
Appendix C: Risk Management Strategies	33
Appendix D: Capital Improvement Plan.....	35

1 Asset Management Program Background

1.1 Purpose

In support of the Lake Whatcom Water and Sewer District's (District) objective of continual improvement, in 2024, District staff and the Board of Commissioners completed an Effective Utility Management (EUM) self-assessment. This assessment evaluated the District's performance and priorities with regard to the core attributes of water and sewer utilities and identified operational optimization and infrastructure strategy and performance as primary areas of focus. Development and implementation of an assessment program is key to success in these attributes.

The District owns and operates water treatment and distribution and sewage collection facilities serving a majority of the Lake Whatcom watershed, including the Geneva Urban Growth Area (UGA), Eagleridge and Agate Heights neighborhoods and Sudden Valley Limited Area of More Intense Rural Development (LAMIRD). Facilities include:

Sewer Collection System

- 26 sewer lift stations
- 87 miles of sewer collection and conveyance pipes
- 2,250 sewer manholes
- 38 air release valves

Water Distribution System

- 523 fire hydrants
- 105 pressure reducing valves
- 2 water treatment plants
- 6 water booster stations
- 8 water reservoirs
- 70 miles of water transmission and distribution pipes

Each asset requires on-going maintenance to ensure continuous service and periodic replacement once the asset reaches the end of its useful life. Planning for maintenance is critical to address operational issues and to perform timely preventative maintenance to maximize the useful life of the asset. Each asset will inevitably reach the end of its useful life when the asset can no longer operate reliably, or continued repair and maintenance of the assets is no longer cost effective.

Funding for capital improvements to rehabilitate or replace District assets is limited to a portion of the revenue generated by rates charged for water and sewer services and general facility charges associated with new connections to the systems. This funding is occasionally supplemented by grant funds awarded to the District and borrowed funds as needed. Because the District has limited and generally fixed revenue to fund capital projects and grant and loan funding typically takes multiple years to be awarded, capital projects must be planned well in advance.

In the absence of a fully developed asset management program, the District is unable to fully assess all risks and opportunities associated with each of the assets and there is a risk that assets will be overlooked until replacement or substantial rehabilitation is urgently required. Due to the District's limited revenue, substantial capital outlays that have not been planned for have the potential to put a

significant strain on District funds and could necessitate interim temporary repairs to keep the asset in service until funds can be secured to complete the long-term improvements that are needed.

For approximately 10 years, the District has worked to implement a fully integrated asset management program. The Cartegraph software, a GIS-based asset management program, is the heart of the program, as currently implemented. The Cartegraph program includes a nearly complete inventory of District-owned major and fixed assets along with overall condition indices for some of those assets. However, the completeness and accuracy of the information is inconsistent among the assets. In addition, Cartegraph is not being regularly used to inform maintenance or capital improvement plans and a system to export the data from Cartegraph into a comprehensive District-wide plan has not been determined. To date, asset management information is piecemeal, and a unified program is needed to connect the information and utilize that information to make decisions regarding capital improvements and maintenance priorities. This Asset Management Program is intended to unify the information and fill gaps in the program.

“Take the right action, with the right asset, at the right time.”

1.2 Objectives

Identification of specific objectives is critical to ensuring that the asset management program becomes a useful system that serves the needs of the District and to ensure District-wide buy in to the program. The District has identified the following objectives for this program:

- A clear asset management program that is well understood and accepted by District staff.
- A comprehensive and accurate inventory of major District assets.
- A well-defined and well understood condition evaluation program to regularly monitor and document the condition of District assets.
- A clearly defined risk evaluation scoring system to align prioritization of maintenance, rehabilitation and replacement with District priorities.
- A short and long range capital improvement program that is informed by probability and consequence of failure.
- Well-timed maintenance, repair and replacement projects that maximize the useful life of assets while minimizing failure and emergency actions.

1.3 Program Document Updates

This Strategic Asset Management Plan as well as all supporting documents, including the Targeted Asset Management Plans, are living documents that are intended to be updated and revised over time to align with current District objectives, challenges and conditions. This document is also a repository of information regarding District assets and this information will change over time, necessitating periodic updates to the Strategic Asset Management Plan and all related documents. The current Asset Management Team has determined that, to balance data accuracy with workload management, these documents should be updated every five years.

1.4 The Asset Management Team

The District Asset Management Team is a multidisciplinary group that includes representatives from all four divisions of the District: Operations, Engineering, Finance and Executive. The team includes:

TABLE 1: CORE STAFF

Staff	Responsibilities
District Engineer	Lead development and implementation of asset management program
Operations & Maintenance Manager	Lead implementation of on-going condition evaluation and preventative maintenance
Finance Manager	Review and evaluate financial implications of proposed repair, rehabilitation and replacement projects.
Construction Engineer	Assist District Engineer with implementation of asset management program and evaluating replacement values
Engineering Technician	Build and maintain asset inventory and populate and update District asset management software (Cartegraph)
ADVISORY STAFF	
Staff	Responsibilities
General Manager	Participate as needed to ensure that the program implementation and execution aligns with District goals and objectives.

1.5 District Mission Statement

The District's mission is *to provide the best possible water and sewer services to District customers in a safe and cost-efficient manner, and in a way that contributes to protecting Lake Whatcom's water quality.* The mission is achieved through continual pursuit of the following principles:

1. Provide safe and reliable drinking water and sewage collection to District customers, including sufficient capacity to meet fire flow requirements.
2. Establish connection charges and utility rates necessary to maintain the District's financial viability.
3. Protect the natural resources within the Lake Whatcom watershed through cooperative efforts with other community and governmental organizations.
4. Be recognized as an outstanding public utility that is considerate of the operational and service expectations of all customers.
5. Have an organizational environment that fosters employee recruitment and retention, promotes teamwork and a safe work environment, and allows all people to achieve their full potential.
6. Provide sewer and water service to those portions of the District as may reasonably be served.
7. Foster productive partnerships with other community and governmental organizations that enhances delivery and protects the natural resources within the Lake Whatcom Watershed.

1.6 Community Location

The District is a special purpose district authorized under [Title 57 Revised Code of Washington](#) (RCW). Originally formed in 1968 as Whatcom County Water District No. 10, the District provides water service to approximately 4,000 connections and sewer service to approximately 4,400 connections (a population base of approximately 11,000 customers) in an 18-square mile area encompassing Lake Whatcom. The District is operated by 18 full-time professionals, governed by a five-member board of commissioners elected from within the District, and has an annual budget of approximately \$10.5 million.

The entire District is located within the watershed of Lake Whatcom, which is the drinking water source for a majority of the District as well as the entire City of Bellingham, a city of approximately 96,000 residents. Due to the proximity of the District facilities to a critical drinking water source, reliable operation of District assets is uniquely critical, requiring a higher level of planning and maintenance than typical utilities.

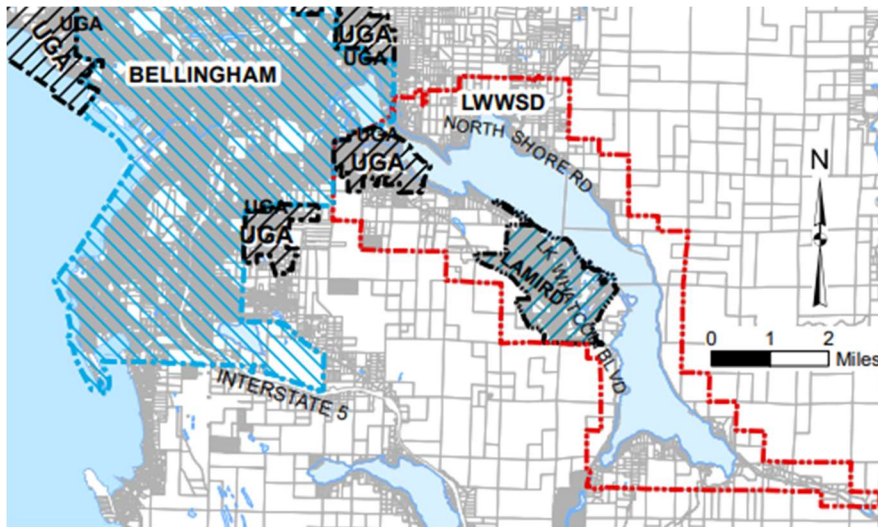
1.7 Related Documents

In an effort to plan for maintenance, rehabilitation and replacement of District assets, the District has completed numerous focused investigations, reports, memoranda, and other planning documents.

- Water System Comprehensive Plan, Wilson Engineering, June 2018.
- Comprehensive Sewer Plan Update, Wilson Engineering, June 2020.
- Sudden Valley Water Treatment Plant Alternatives Analysis, Gray & Osborne, Inc., September 2022.
- Geneva, Division 22-1 and Division 30 Reservoirs Rehabilitation Plan, LWWSD, August 2024.
- Water & Sewer Utility Rate Study, FCS Group, February 2022.
- General Facilities Charge (GFC) Update, FCS Group, December 2022.

2 Current State of the Assets

2.1 Service Area



2.2 Water System

The District water system includes approximately 70 miles of water transmission and distribution mains, eight reservoirs, six booster stations and two water treatment plants. This system is divided into two primary regions with 5 retail service areas:

NORTH SHORE REGION

- Eagleridge
- Agate Heights
- Johnson Well

SOUTH SHORE REGION

- Sudden Valley
- Geneva

These service areas are further described herein:

North Shore Region



- **Eagleridge** - The Eagleridge retail service area was constructed in 1989 by developer extension and includes 70 service connections. Water for this service area is purchased from the City of Bellingham and provided via an intertie with the City's system located in Northshore Road. A booster station located near the intertie provides additional domestic water pressure to the system as well as providing additional flow and pressure during high flow events. The horizontal assets (pipes, manholes, hydrants, etc.) throughout this service area are generally around 35 years old, in generally good condition and within the expected useful lives of these assets. The booster pump station is also approximately 35 years old and nearing the end of its useful life.

- **Agate Heights** - The Agate Heights retail service area was constructed by a developer extension that was initiated in 1990, put into service in 2001 and expanded in 2008. The system serves 31 residential service connections as well as the Lake Whatcom Residential Treatment Center (LWRTC). Water is provided to this service area by one 10-inch well. A second 6-inch well is retained as a backup in the event it is needed. Two wells formerly associated with the LWRTC, with associated water rights, are currently inactive and the District is actively working to transfer water rights from those wells to the active 10-inch well. Once those water rights are transferred, the LWRTC wells will be decommissioned. Water is conveyed from the 10-inch well to the adjacent Agate Heights Water Treatment Plant for chlorination and treatment for manganese removal. The service area is served by two water reservoirs and one booster pump station. All of the horizontal assets in this service area are approximately 25 years old and within the expected useful life. However, some of the vertical assets (e.g. booster pump stations, etc.) will likely be nearing the end of their useful lives within the next ten years. The Agate Heights WTP was renovated in 2021.
- **Johnson Well** – The Johnson well, which is the District’s only Class B water system, serves two residential service connections adjacent to the Agate Heights service area. There are very few assets within this service area. The two pumps that pump water from the well to the distribution system are nearing the end of their anticipated useful life.

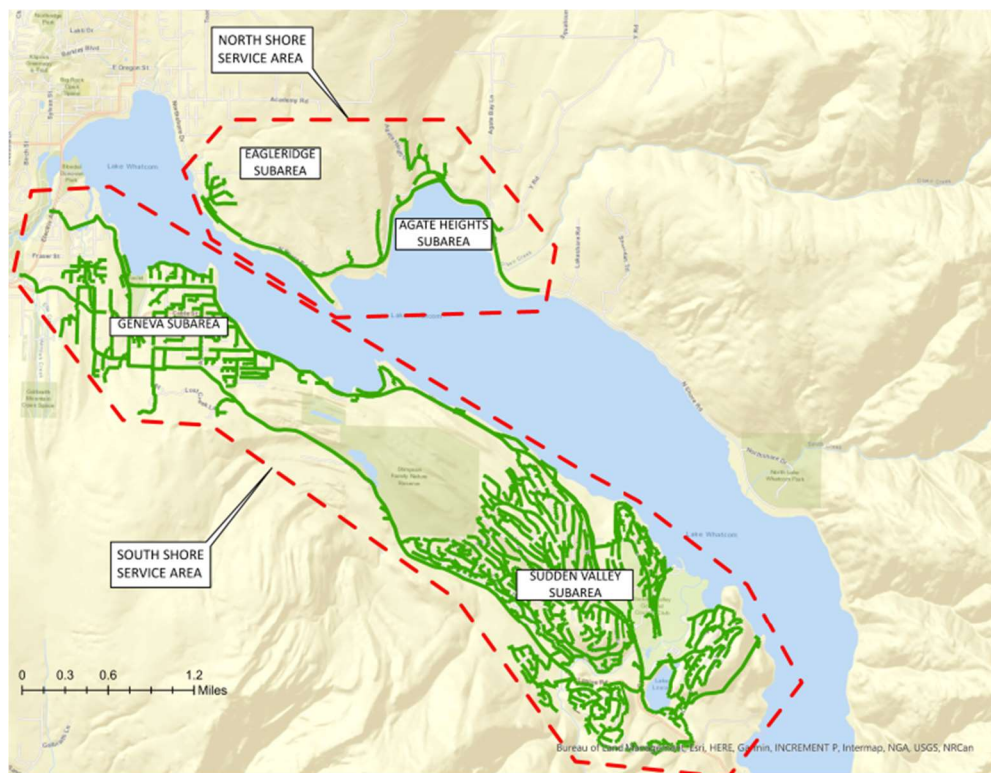
South Shore Region

- **Sudden Valley** – The water system in the Sudden Valley service area was constructed by the original developer of the Sudden Valley residential development in the early 1970s and serves approximately 2,500 service connections. This subarea includes one water treatment plant, water transmission and distribution mains, four reservoirs and one booster station. Raw water is pumped from Lake Whatcom to the Sudden Valley Water Treatment Plant by two raw water pumps. Treatment includes flocculation, direct filtration and disinfection by chlorination. Chlorine contact time is provided by a 225,000 gallon chlorine contact basin. Treated water is pumped from the water treatment plant by four transmission pumps to the Division 7 and Division 22 reservoirs and water is conveyed to the rest of the South Shore system from these reservoirs. Most of the assets in this service area are upwards of 50 years old. It is anticipated that most horizontal assets have significant remaining useful life but there are some horizontal assets, such as fire hydrants, that are nearing the end of useful life. Many of the vertical assets, such as reservoirs and booster stations, are at or beyond their anticipated useful life and are in need of rehabilitation or replacement in the immediate future.
- **Geneva** - The Geneva retail service area includes approximately 1,100 service connections located within the Geneva urban growth area adjacent to the City of Bellingham as well as some of the lakeshore properties along the south shore of Lake Whatcom. Treated water is provided to this sub-area by the Sudden Valley Water Treatment Plant via the Division 22 reservoirs. Geneva includes distribution and transmission mains, one reservoir and three booster pump

stations. There is also an intertie with the City of Bellingham's water distribution system, which includes a PRV station housed inside of a small building, to provide emergency backup water supply to the system. Because this area has developed and expanded over time, unlike the other regions of the District that are planned developments, the age of assets in this service area vary, with most assets being constructed in the 1970s and 1980s. It is anticipated that most horizontal assets have significant remaining useful life but there are some horizontal assets, such as fire hydrants, that are nearing the end of useful life. Some of the vertical assets, such as the Geneva reservoir that serves this service area, are at or beyond their anticipated useful life and are in need of rehabilitation or replacement in the immediate future.

2.3 Sewer System

The District sewer system includes approximately 87 miles of sewer collection and transmission mains and 26 lift stations. The District does not operate a wastewater treatment facility and all sewage from the District is conveyed to the City of Bellingham's sewer collection system. The sewage is ultimately conveyed to the City's Post Point Wastewater Treatment Plant for treatment and discharge to Bellingham Bay.



The sewer system is comprised of two separate systems, the North Shore and South Shore systems:

- **North Shore** – The North Shore system serves both the Eagleridge and Agate Heights developments as well as a number of sewer-only customers along North Shore Drive. The system includes three lift stations and discharges to the City of Bellingham's collection system on North Shore Road near the entrance to the Eagleridge development. Most of the assets within the North Shore system are between 25 and 50 years old and have remaining useful life.

Two of the three lift stations were renovated in 2022, and the third lift station is planned for renovation in 2027.

- **South Shore** – The South Shore system serves the Geneva and Sudden Valley areas. The system includes 23 lift stations and all sewage is conveyed to the City of Bellingham’s sewer collection system via two sewage interceptors that connect to the City’s system in the Geneva neighborhood. Most of this collection system was constructed in the 1970s and many of the lift stations have been renovated in the past 20 years. Most of the pipes and manholes in the system are less than 50 years old and are expected to have substantial remaining useful life.

2.4 Human Health & Environmental Regulation

The District is a special purpose district authorized to provide sewer and water service within District boundaries under [Title 57 Revised Code of Washington](#) (RCW). The District operates under the following regulations, agreements and guidelines:

- Chapter 246-290 WAC: Group A Public Water Supplies – This chapter regulates operation and management of Group A water supplies in the State of Washington. The District operates three Group A Water Supplies: South Shore Service Area (ID# 959101), Eagleridge Service Area (ID# 081181) and Agate Heights Service Area (ID# 52957B).
- Chapter 246-291 WAC: Group B Public Water Supplies – This chapter regulates operation and management of Group B water supplies in the State of Washington. The District operates one Group B Water Supply: Johnson Well Service Area (ID# 047808)
- Revised Code of Washington (RCW) Title 57 – Title 57 regulates the management and operation of water and sewer districts in the State of Washington.
- Interlocal Agreement for Sewer Service between City of Bellingham and Lake Whatcom Water and Sewer District – This agreement outlines the conditions for the City to receive and treat sewage from the District, including:
 - Rates to be charged to the District for sewage received and treated by the City
 - Contributions by the District for necessary upgrades to the City’s Post Point Wastewater Treatment Plant
 - Composition and quality of sewage discharged to the City’s collection system.
- Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads, Washington State Department of Ecology, November 2014 – This document provides limits for total phosphorus and bacteria entering Lake Whatcom. Although the District does not treat sewage or discharge to Lake Whatcom, this TMDL makes reliable operation of the sewer collection system to prevent any discharge to the lake very critical and increases the consequence of failure for collection system components in close proximity to the lake.

- Whatcom County Code Chapter 20.51 – Lake Whatcom Watershed Overlay District – This code limits ground disturbing work within the watershed, which includes the entirety of the District, to a four month period annually between June 1 and September 30. The purpose of this regulation is to protect water quality in the lake by minimizing potential sources of turbid and/or nutrient-laden stormwater discharge to the lake. The District must carefully schedule all ground disturbing work and capital improvements projects to ensure that ground disturbance is limited to this window.

2.5 Geographic Information System Mapping

The District maintains a geographic information system (GIS) that includes an inventory of nearly all District assets, excluding mobile and small-and-attractive assets such as vehicles, equipment and computers. District staff updates the information included in the GIS system following completion of capital projects and asset replacement by District Operations.

2.6 Historical Investments

2.6.1 Water System

Much of the water treatment and distribution assets were originally installed between the 1970s and 1990s. Most of the original water system assets remain in service without substantial renovation except as follows:

- Approximately 12,200 linear feet of asbestos cement water pipe in the Geneva neighborhood was replaced with new ductile iron water pipe between 2013 and 2015.
- One reservoir, Division 22-2 reservoir, was constructed in 2017
- At the time of the writing of this plan, one original reservoir, Division 7 reservoir, is currently being replaced with two new concrete reservoirs.
- District Operations has replaced approximately 75% of the pressure reducing valves in the system at least once.

2.6.2 Sewer System

Similar to the water system, the majority of the sewer collection system assets were originally installed between the 1970s and 1990s. Virtually all of the originally installed gravity sewer collection pipes, manholes and force mains remain in service. Over the past 25 years, the District has rehabilitated 21 of the 26 lift stations in the system.

2.7 System Value

The District system, which is comprised of a water system, sewer system and shared system assets, includes approximately 5,700 individually identified assets that include, but are not limited to, vehicles, equipment, buildings, manholes, pipes, lift stations, booster stations, reservoirs, pipes, valves, and hydrants. As part of the rate study completed for the District in 2022, District staff completed estimates of the replacement value of each of the components. Replacement cost was based on previous similar projects completed in the recent past, published unit prices and cost estimates completed as part of system planning efforts. Costs were then escalated to 2024 dollars. The estimated value of the District systems are included in the table below:

TABLE 2: ASSET INVENTORY

System	# of Assets	Total Asset Value
Water	1,077	\$84,000,000
Sewer	4,551	\$225,000,000
Shared	69	\$7,000,000
TOTAL	5,697	\$316,000,000

3 Level of Service

3.1 Stakeholders

Stakeholders are people and entities served by the District. This includes both customers as well as people and entities affected by District operations. Due to the District's location within the watershed of Lake Whatcom, which serves as the water source for more than 100,000 people, the District's stakeholders extend beyond the District boundaries. District stakeholders include:

- District customers – the District provides water and sewer service to approximately 11,000 residents within the District boundaries. Those customers rely on the District to provide safe and reliable water and sewer service.
- District Staff and Board of Commissioners – District staff operates at the direction of the Board of Commissioners and serves to construct, operate, maintain, and plan for rehabilitation and replacement of District infrastructure. Staff work with District leadership and commissioners to ensure a safe and healthy working environment.
- Development Community – The District regularly issues water and sewer permits that are frequently obtained and complied with by construction contractors. The District also supports development through field locating of District utilities in advance of ground disturbing work.
- City of Bellingham – Both the residents and the City staff and officials rely on the District to ensure that the City's drinking water source, Lake Whatcom, is protected from releases of sewage that may reach the lake and impact the quality of water provided to residents served by the City of Bellingham's water system. In addition, the City accepts, treats and disposes of all sewage generated by the District and maintains two interties between the City and District water systems. The District purchases all water provided to the Eagleridge development from the City.
- Sudden Valley Community Association – The Sudden Valley development, which comprises over half of the service connections in the District, is managed by the Sudden Valley Community Association (SVCA). Many of the District's utilities in the Sudden Valley service area are located within SVCA property and rights-of-way and SVCA owns and operates buildings, recreational facilities, stormwater and transportation infrastructure, and other development amenities throughout the District that impact and are impacted by District operations and infrastructure.
- Whatcom County – Many of the District's utilities are located within Whatcom County rights-of-way and the County owns and operates stormwater and transportation infrastructure throughout the District that impact and are impacted by District operations and infrastructure. Whatcom County is also the primary permitting authority for District construction projects.

- Regulatory Agencies – The Washington State Department of Health and Washington State Department of Ecology regulate construction and operation of the District water and sewer systems, respectively.

3.2 Level of Service Goals

The goal of asset management is to achieve level of service targets at an acceptable level of risk. Level of service is guided by the District’s core principles described within the mission statement above and is further defined by several Key Performance Indicators described in the table below:

TABLE 3: LEVEL OF SERVICE GOALS

Goal	Performance Targets
Protect public health and the environment	Reduce or eliminate overflows from the sewer and provide a continuous supply of potable water to District customers.
Maintain system security	Reduce or eliminate disruption of service, system contamination and damage to District assets due to security breaches.
Maintain excellent customer service	Respond to customer requests within 48 hours
Maintain utility rates that improve sustainability of the system	Manage District assets to fund repair, renovation and replacement with cash resources.
Improve preventative maintenance	Timely completion of all assessments and preventative maintenance
Improve planning for and timely completion of asset renovation to maximize the useful life of assets	Reduce or eliminate emergency repairs and reduced asset life through scheduled planning and monitoring.
Ensure the effective and reliable collection and conveyance of sewage through routine inspection and preventative maintenance of sewer infrastructure	Reduce or eliminate sewer overflows and reduce infiltration and inflow into the system.

4 Risk Management

4.1 Risk Analysis

Risk is a function of the probability of failure, how likely an asset is to fail based on age and condition; consequence of failure, the impact of a failure on District assets and stakeholders; and, redundancy, the number of redundant assets able to serve in place of the failed asset. For District assets, this risk is represented by a numerical value known as Business Risk Exposure as further described in Appendix C of this plan.

4.2 Risk Management

The District’s Risk Management strategy is further described in Appendix C of this plan and the Whatcom County Natural Hazards Mitigation Plan (updated 2021).

4.3 Planning, Managing, Funding

The District has established a rate structure to maximize cash funding for capital improvement projects. Because of this strategy, advanced planning for capital improvement projects is critical to ensure that sufficient funding is earmarked for capital projects, the cost of which may exceed the District's one-year capital budget.

4.4 Resilient Infrastructure

Resilience refers to the ability of water and sewer utilities to withstand and quickly recover from natural and human-made disasters. The District is susceptible to numerous potential disasters including, but not limited to:

- Earthquake – the District is located within the zone of impact from the Cascadia Subduction Zone which presents an elevated risk of damage and system disruption due to earthquakes.
- Extreme rainfall and flooding – During the fall and winter, Western Washington periodically experience heavy rain events that result in substantially higher than normal stormwater flows that impact District assets as a result of flooding and excessive sewage flows due to infiltration and inflow into the collection system.
- High Wind Events – The majority of the District is heavily forested and high wind events can bring down trees on above-grade power lines and District assets, which can disrupt power service to District assets and potentially damage above grade assets.
- Vandalism – District assets are susceptible to vandalism which could result in damage to assets and potential service interruptions.

In light of these known hazards, the District has recently completed or is in the process of completing the following evaluations and capital improvements to improve the resiliency of the District assets:

- Reservoir Seismic Vulnerability Assessment Technical Report, BHC Engineers, 2016: BHC completed a seismic vulnerability assessment of the District's five welded steel water storage reservoirs to assess their ability to survive a design level earthquake and provided recommendations for improvements to increase the resiliency of the structures.
- Division 7 Reservoir Replacement, Wilson Engineering, 2023: Based on the results of the Seismic Vulnerability Assessment, the District applied for and was awarded a FEMA Hazard Mitigation Grant to replace the reservoir with two new concrete reservoirs designed to meet seismic standards. This project is in construction at the time of writing of this plan and the new tanks are scheduled to be in service by late 2025.
- Sudden Valley WTP Chlorine Contact Basin Replacement, Gray & Osborne, Inc., 2025: Based on the results of the Seismic Vulnerability Assessment, the District applied for and was awarded a FEMA Hazard Mitigation Grant to replace the chlorine contact basin (CCB) with a new CCB designed to meet seismic standards. This project is in design at the time of writing of this plan and the new basin scheduled to be in service by late 2026.
- Geneva Reservoir and Sudden Valley WTP Pump House Seismic Improvements, Wilson Engineering, 2025: Based on the results of the Seismic Vulnerability Assessment and a separate seismic evaluation of the Pump House building, the District applied for and was awarded a FEMA

Hazard Mitigation Grant to complete seismic improvements to the two structures. This project is in design at the time of writing this plan and the improvements are scheduled to be complete by late 2026.

- *Division 22-1 Reservoir Replacement, Consultant TBD, 2025*: Based on the results of the Seismic Vulnerability Assessment, the District applied for and was awarded a FEMA Hazard Mitigation Grant to replace the existing Division 22-1 reservoir with a new reservoir designed to meet current seismic design criteria. The District is currently selecting an engineering consultant to provide design and construction administration services for the new reservoir. Construction is anticipated to be completed by the end of 2027.
- *Beaver Creek Sewer Pipe Crossing Cured-in Place Pipe Improvements, 2024*: In response to a flooding event that exposed sewer pipes that run beneath Beaver Creek, the District undertook a project to reinforce the pipes by installing cured-in-place pipe inside of the existing pipes.
- *Facility Security Assessment, BHC Consultants, 2024*: BHC completed an assessment of District assets, including administrative buildings, sewer lift stations, water treatment plants, water booster stations and reservoirs to identify security vulnerabilities and provide recommendations for improvements. The District is currently preparing a plan for implementation of the recommended improvements over the next 5 to 10 years.
- *Whatcom County Natural Hazards Mitigation Plan, 2021*: Whatcom County prepared this hazard mitigation plan in collaboration with the various agencies within Whatcom County, including the District. This document identifies and evaluates natural hazards

The District continually evaluates the resiliency of District assets and incorporates resiliency improvements into capital projects whenever feasible. The District also prioritizes resiliency improvements for critical assets particularly susceptible to natural or human-caused disasters, including:

- Water treatment plants
- Water booster stations
- Water reservoirs
- Sewer lift stations
- Administrative buildings

5 Maintenance Programs

The District Operations and Maintenance Division is responsible for managing and executing the asset maintenance program, which includes operation, preventative maintenance, and repair of all District assets. All operation and maintenance tasks are scheduled, assigned and tracked using Cartegraph. However, presently, the results of preventative maintenance and inspection tasks do not, for the most part, inform the current condition or remaining useful life of the District assets. In addition, repair tasks do not inform the probability of failure or the remaining useful life of the asset.

Preventative maintenance of each asset category is further described in the respective TAMP. Activities that affect the useful life and probably of failure of the asset include rating adjustments that influence the overall Business Risk Exposure calculations. For instance, rebuilding a PRV, including replacement of

all internal parts, will extend the life of the PRV. When the PRV is rebuilt and the activity is recorded in Cartegraph, the useful life will be extended and the probably of failure will be reduced accordingly.

6 Capital Improvement Plan

The District Board approves a biennial budget every two years, which authorizes the district-wide operating and capital budget. This budget includes the two-year Capital Improvement Plan (CIP) as well as the six-year CIP, which projects all capital improvements planned for the next six years. Capital improvement projects are currently identified and prioritized based on multiple criteria, including:

- Age and condition of existing assets
- Need or desire for operational improvements
- Modernization of aging assets
- Increasing maintenance costs required to keep the assets in service.
- Lack of availability of replacement components or discontinuation of service by the manufacturer of system components.

Projects are also scheduled and phased as needed based on funding availability.

The 2025-2030 Capital Improvement Plan included in the 2025-2026 District Budget is included in Appendix E of this plan.

7 Finance

7.1 Rate Analysis

It has been the practice of the District to conduct comprehensive rate studies every five years to set rates for the next six years with analysis of how the District is performing mid-way through the cycle. The main goal of a rate study is to develop a funding plan (revenue requirement) for the District's water and sewer utilities in a given period of time. The revenue requirement identifies the total revenue needed to fully fund the water and sewer utilities on a stand-alone basis, considering operating and maintenance expenditures, debt service obligations, fiscal policy achievement, and the capital project needs of each utility. The revenue requirement methodology evaluates the sufficiency of the utility's revenues against its financial obligation in the context of two tests. The first being the cash flow test. The cash flow test determines whether the utility's annual revenues are sufficient to cover the known cash requirements and the second being the coverage test. The coverage test evaluates the utility's ability to meet applicable bond coverage requirements which are discussed later in this section.

The basic framework for evaluating utility revenue needs to include sound fiscal policies. The District strives to implement and maintain sound fiscal policies to ensure adequate revenues and reserves to operate the system in the best way possible. With that, the District has set policy to maintain 90 days of total annual operating expenditures in the water utility and 60 days in the sewer utility. Further, the District funds both a Water Contingency Reserve and a Sewer Contingency Reserve to provide a source of emergency funding for unexpected asset failures or other unanticipated capital needs. Both contingencies are funded at 1% of fixed assets (non-depreciated replacement cost of construction). The District does not have complete records on the original cost of fixed assets, so this policy is based on an

estimated replacement cost. Further, the most recent rate study assumptions included the following applicable factors:

- General inflation costs assumed at 2.5% per year;
- Construction cost inflation assumed at 3% per year;
- Labor and benefit inflation assumed at 2.5% and 5% respectively;
- Investment interest assumed at 0.25% per year;
- Customer growth to be steady at 0.25% per year;
- Debt financing as follows:
 - Water utility to borrow funds at a 20 year term, 3.5% interest, 1% issuance costs, and a minimum debt service coverage requirement of 1.25.
 - Sewer utility share of City of Bellingham Post Point Wastewater Treatment Plant Resource Recovery project of approximately \$10 million and an estimated 2.5% true interest cost.
- Washington state excise tax assumed to be 5.029% throughout the 20-year study period;
- State B&O tax assumed to be 1.75% throughout the 20-year study period; and
- District's share of any upgrades to the City of Bellingham's Post Point WWTP to address the recent State-issued Puget Sound Nutrient Removal General Permit is not included in the study.

Revenue is largely comprised of charges received from water and sewer customers. Bi-monthly service charges are collected by the District to provide resources to plan, manage, design, construct, maintain, and upgrade the District's systems. When possible, the District will pursue outside funding sources which may include grants, earmarks, or loans. The main goal in reviewing rate models is to develop funding strategies that will support the District's needs for the 20-years and beyond.

The District largely pursues a "pay-as-you-go" model for funding capital projects and tries to issue as little debt as possible. In the past, District borrowing has included a mixture of low-cost State loans and revenue bonds. To the degree sufficient capital funds are not available from reserve balances, rate funded capital or general facilities charges, then the District will forecast for revenue bonds to meet remaining capital needs. Debt service coverage is typically a requirement associated with revenue bonds and some State loans, and it is an important benchmark to measure the riskiness of the utility's capital funding plans. The District has set a conservative debt service coverage ratio target of 2.0 on bonded debt even though current contractual obligations from the 2016 revenue bond have a minimum requirement of 1.25. At the time of this report, the District's outstanding debt is as follows:

TABLE 5: OUTSTANDING DEBT

Project Title	Balance Remaining	Agency/Service	End Year	Rate
Geneva AC Mains	\$ 1,199,375	Drinking Water State Revolving Fund	2035	1.50%
Division 22 Reservoir	\$ 785,696	Drinking Water State Revolving Fund	2037	1.50%
2016 Revenue Bonds	\$ 3,285,000	US Bank	2035	2.25%

Division 7 Reservoir	\$ 800,000	Public Works Board	2045	1.72%
Total Outstanding Debt 12/31/2025			\$ 6,070,071	

7.2 Funding Strategy

At the time of the most recent rate study (2021), the water utility capital plan through 2040 totaled \$12.3 million (\$16.7 million with cost escalation), of which approximately \$11.2 million was expected to be funded with cash financing (pay-as-you-go). In addition, \$1.9 million was expected to come from general facilities charge revenue, \$3.3 million in debt financing, and approximately \$239,000 in grant matching funds. However, since then, the District was approved for three additional FEMA Hazard Mitigation Grants (Sudden Valley Chlorine Contact Basin, Geneva Reservoir and SVWTP Pump House Improvements and Division 22-1 Replacement) as well as an \$800,000 loan from the Public Works Board and \$220,000 in a congressional earmark (grant) through the Environmental Protection Agency.

The sewer utility capital plan through 2040 totaled \$24.6 million (\$30.5 million with cost escalation), of which \$18.6 million was expected to be funded with cash financing. In addition, \$2 million was expected to come from general facilities charge revenue, and \$10 million was expected to be debt-financed. However, it should be noted that the City of Bellingham's replacement plan for Post Point has changed and at the time of this document's preparation, the District is monitoring and working closely with the City of Bellingham as they update their plans for repairs and maintenance.

With the rate study that was conducted in 2021 and finalized in 2022, the District began building a capital surplus fund from rates. This surplus is designed to ebb and flow throughout the years analyzed to mitigate the reliance on debt or shortfalls in funding for large projects within the water and sewer utility funds in specific years. A recent review of rates and cash flow forecasting revealed that the District's revenues are covering the costs of all programs as designed and will continue to monitor rates on a continual basis to ensure that as changes are made, the District will remain in compliance with District policies, and State and Federal laws as applicable.

8 Monitoring and Reporting

8.1 Asset Management Report

The District Engineer, or other staff as assigned, will meet with the AMT and prepare an annual Asset Management Progress Report (AMPR) to provide a summary of the current state of the assets, on-going development of the asset management program. The AMPR will be distributed to the District Board, AMT and District staff.

8.2 Maintaining the Asset Management Program

On-going maintenance and improvement of the asset management program is a cornerstone of the District's approach. The AMT will identify assets that have not been evaluated and prioritize condition assessment of those assets. Once initial assessments have been completed on all assets, the District will identify recurrence schedules for each asset type to ensure the condition of assets is tracked at appropriate intervals to monitor condition while managing cost and workload. In addition, the AMT will work with District staff to maintain consistency in evaluation of assets to ensure useful information is

provided by the assessments that will be useful in determining the on-going condition of the asset and in the calculation of the Business Risk Exposure for each asset.

Every five years, the AMT will review this Strategic Asset Management Plan and Targeted Asset Management Plans and edit and update as appropriate to reflect the current state of the assets, revisions to priorities and improvements to asset management strategies.

9 Quality Assurance and Quality Control (QA/QC)

Without accurate and up-to-date asset data and high staff confidence in the accuracy of the data, the asset management program will be ineffective and will not be able to accurately inform maintenance and capital improvement decisions or maximize the useful life of the assets. To ensure high quality data, the District's Asset Management Program includes a quality assurance and quality control program. This program includes:

- Regular review of the asset inventory to ensure a complete inventory of all assets included in the program;
- Protocol for updating asset data following repair and replacement projects;
- Periodic and scheduled review of asset data for each asset category and documentation protocols for recording data reviews;
- Clearly defined and well targeted condition scoring protocols to ensure consistency in scoring;
- Periodic review of decision making protocols to ensure that the data supports calculation of risk scores that recommend action when individual asset risk approaches the limit of the District's risk tolerance.

Specific QA/QC procedures are specifically described in the Targeted Asset Management Plans for each asset category.

Appendix A: Asset Management Software

The District maintains a GIS mapping system that includes the fixed assets within the system, including sewer and water infrastructure and buildings. As further described in Appendix A-1, the District GIS system informs and is informed by the OpenGov Cartegraph asset management software, which is the foundation of the District's asset management program and complete utilization and integration of the software into District operations is critical to the success of the program. Presently, Cartegraph has been fully implemented to manage and track maintenance work orders and tasks and tracking and recording permitting and customer service requests. In addition, the system has been partially populated with asset information. However, the information is not entirely complete, accurate or current. As a result, in its current state, the information has limited usefulness to the asset management program. As the District Asset Management Team develops the Targeted Asset Management Plans for each asset category, the information included in Cartegraph will be reviewed and updated to ensure that the information can be relied on and is useful. Without complete information, the District cannot complete evaluations of the overall state of the assets or accurately prioritize maintenance and capital improvement projects.

Cartegraph also provides additional functionality to manage non-fixed asset inventory and tracking, store specific asset information and maintenance history, track asset condition and risk, and develop asset renewal scenarios. The utilization of the various functions of Cartegraph to support the District's asset management program is further described below.

Asset Data

Asset data, such as make, model, year of installation, year of replacement, size, and capacity, is documented in the "Assets" module of the Cartegraph system. The accuracy and completeness of the asset data, reflecting all replacements and modifications is critical to the effectiveness of this function. When this information can be relied upon, it is useful for capital improvement planning, repair and troubleshooting, and preparation of plans and reports.

Asset Condition Tracking

The current condition of each District asset can be tracked within the "Assets" module to inform the probability of failure. The condition is based on the age, condition, and maintenance and rehabilitation activities. Each asset includes a linear decay curve that is based on the age and expected useful life of the asset. When maintenance or rehabilitation activities are completed and logged into Cartegraph, the Cartegraph algorithm, as defined by the District, adjusts the linear decay curve to reflect the impact of the activity on the remaining useful life of the asset. In addition, when inspections of the asset are completed and the condition of the asset, which is a standardized scoring system, is recorded, the algorithm will adjust the useful life to reflect the current condition of the asset. The condition of the asset then informs the Business Risk Exposure associated with the asset in its current condition which then is used to inform maintenance priorities and the capital improvement plan (see Appendix C).

Work Orders and Tasks

Cartegraph includes a "Work" module that allows District staff to schedule preventative maintenance and repair activities as well as permitting and customer service calls. Although this function serves as a

useful tool for scheduling of activities, the primary application of this function with regard to the District asset management program is the relationship with asset condition and remaining useful life. When fully developed and implemented, the Work module will inform the asset management program in numerous ways, including:

- maintenance and rehabilitation activities will revise the asset decay curve, and thereby, the remaining useful life of the asset;
- maintenance activities will be informed by inspection activities (e.g. television inspection of a sewer main reveals clogging or debris accumulation will trigger a task to flush the sewer main); and,
- frequency and cost of maintenance activities can be used to inform asset replacement timelines and replacement of specific components of the asset.

Non-Fixed Assets (Resources)

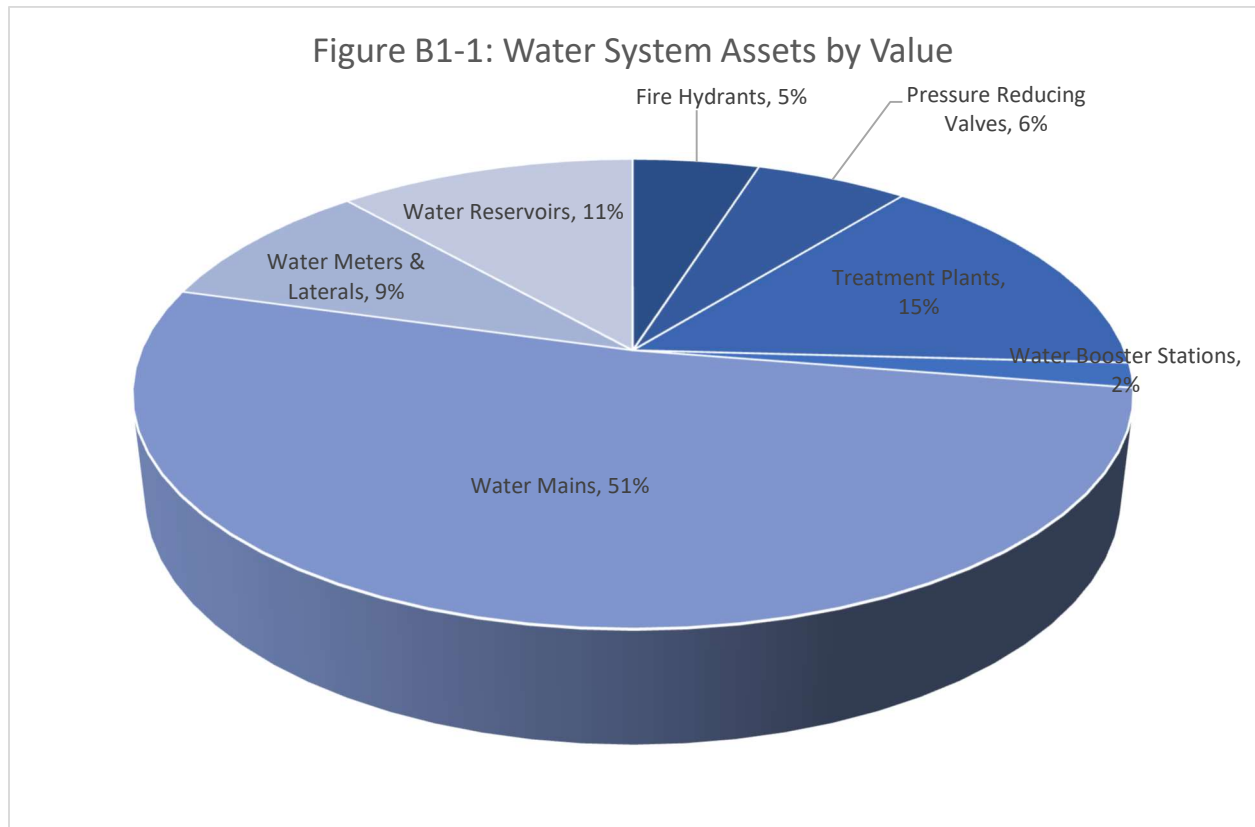
Cartegraph includes functionality to maintain an inventory of non-fixed assets such as vehicles and equipment within the “Resources” module. Similar to the “Assets” module, the “Resources” module includes an inventory of most non-fixed assets, including data such as make, model, model year, mileage/hours, capacities and other asset attributes. In addition, preventative and repair activities are scheduled and tracked and the asset decay curves are adjusted based on completion of select maintenance and repair activities. Presently, some small and attractive assets are logged in the Resources module but the module is not, as a general rule, used to track small and attractive assets (e.g. computers), small tools (e.g. saws, wrenches, drills, etc.) or consumables (e.g. bolts, drill bits, paint, etc.) and it is not currently planned to incorporate these assets into the asset management program.

Appendix B: Asset Inventory

1. Water System

The District water system is comprised of both vertical assets, which include water treatment plants, reservoirs and booster stations, and horizontal assets, which include water mains, pressure reducing valves, hydrants, meters and laterals.

The total replacement value of the water system is estimated to be \$88 million (2024 dollars). Table B-1 provides a breakdown of the water system assets by value.



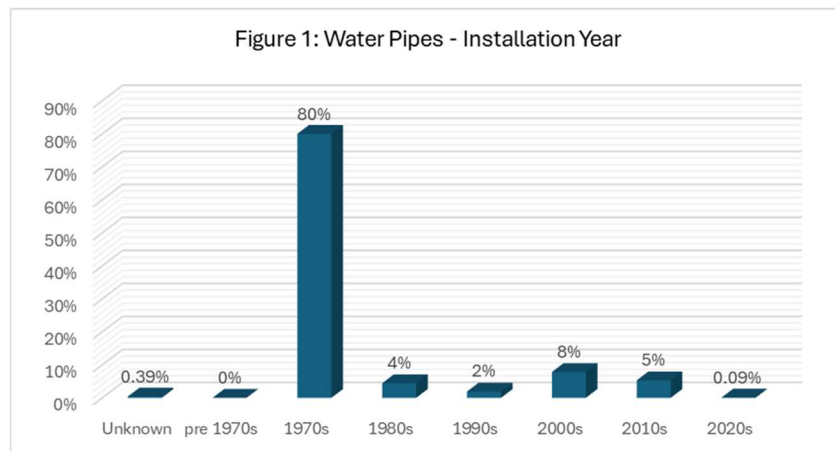
1.1. Horizontal Assets

The horizontal assets in the water system include water mains, valves, pressure reducing valves (PRVs), and fire hydrants. Nearly all the currently active horizontal assets in the water distribution system were installed after 1970.

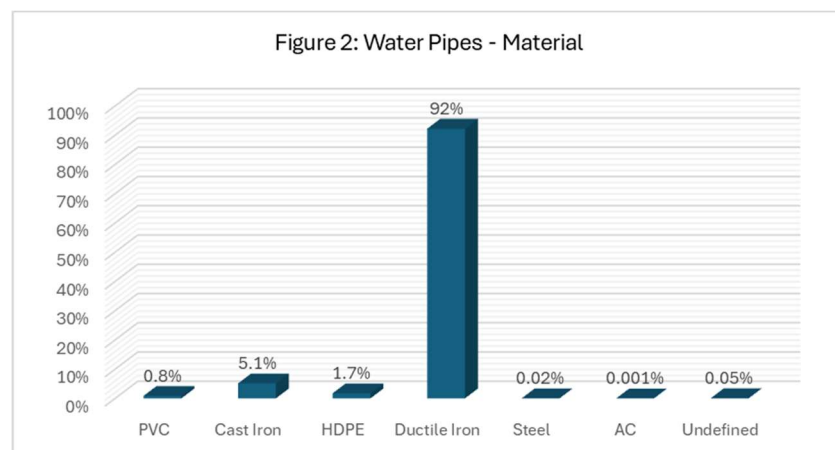
1.1.1. Pipes

As shown in Figure 1, approximately 80% of the currently active water distribution pipes were installed in the 1970s with approximately 14% of the pipes installed between 2000 and 2020. Most of the pipes

installed in the 2010s were installed as part of a 2013-15 project to replace existing asbestos cement water pipes that originally served portions of the Geneva area.



As shown in Figure 2, approximately 92% of the water mains are ductile iron with the remainder of the system being comprised of polyvinyl chloride (PVC), cast-iron, high-density polyethylene (HDPE), steel and asbestos cement (AC).



Per the 2021 update of the District's Water Use Efficiency Plan, distribution system leakage (DSL) in the system in the four service areas is summarized in Table 1 below:

TABLE B-1: DISTRIBUTION SYSTEM LEAKAGE

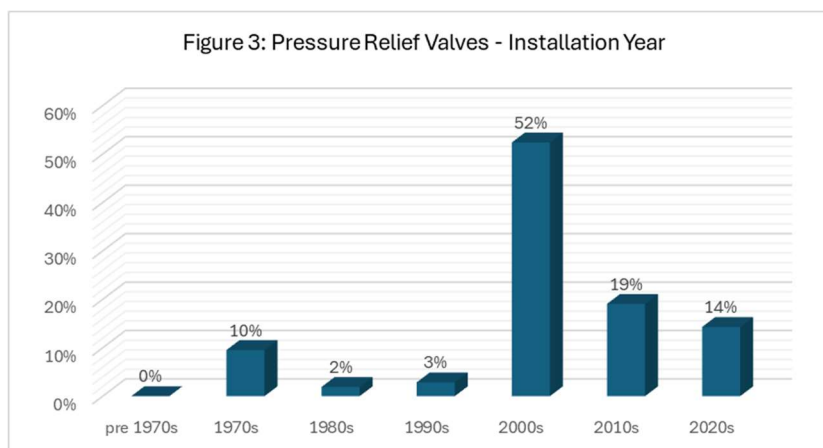
Service Area	Distribution System Leakage (2018-20 3 yr avg.)
DOH Target	10%
South Shore	7.91%
Geneva	9.1%
Eagleridge	5.5%
Agate Heights	4.42%

As shown in Table B-1, the distribution system losses are within DOH recommendations, but leakage has been trending upwards in the Eagleridge and Agate Heights service areas since 2014. Leakage within the Sudden Valley system, on the other hand, has been trending downward during that time.

The American Water Works Association has provided a recommended target break rate of 15 breaks per 100 miles of pipe per year. The District does not currently have up to date information regarding break rates within the three service areas. Available data will be collected and analyzed and a formalized program for recording and storing data going forward will be developed as part of the Targeted Asset Management Plan for the water pipe asset category. Once the data has been collected, this appendix will be updated with historical break rates.

1.1.2. Pressure Reducing Valves

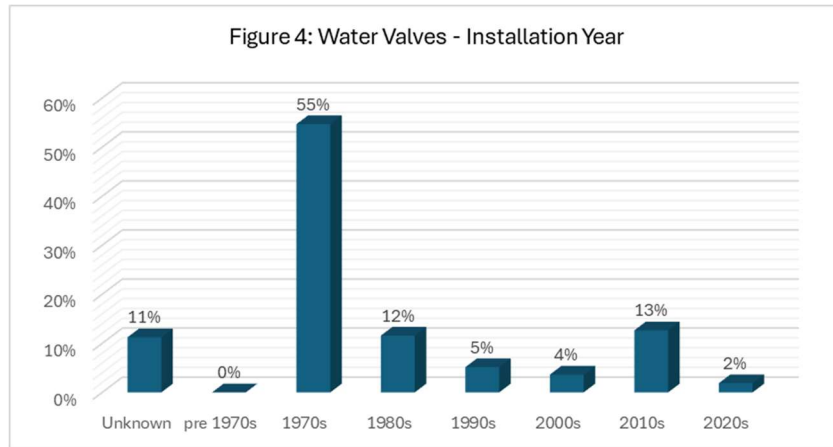
Similar to the piping system, most of the pressure reducing valves (PRVs) in the system were originally installed in the 1970s. However, PRVs have a typical useful life between 25 and 35 years and, as a result, many of the original PRVs in the system have been replaced or rebuilt since their original installation. As shown in Table 3 below, of the 105 PRVs in the system, approximately 10% of the currently active valves in the system were installed in the 1970s with a majority (approximately 86%) being installed since 2000. However, current District information is likely incomplete and does not accurately reflect the age, repair and rebuild history of all PRVs.



Based on typical useful life of PRVs, approximately 62% of the PRVs in the system have reached the end of their useful life or will reach the end of their useful life by 2035. The District has implemented a programmatic replacement program that will begin in 2027 to replace PRVs as they deteriorate and reach the end of their useful life.

1.1.3. Water Valves

Of the 854 valves in the system, slightly over half of the valves are the original valves installed prior to 1980 with the remainder being installed or replaced over time between 1980 and present.



The expected useful life of water valves, when regularly exercised, is 35 to 40 years and upwards of 65% of the valves in the water distribution system are at or within 5 years of the end of their useful life. In addition, the installation date of approximately 11% of the valves is not documented, resulting in as many as 75% of the valves nearing the end of their useful lives based on age without consideration of condition.

1.2. Vertical Assets

1.2.1. Reservoirs

The District water system includes a total of eight storage reservoirs as summarized in the table below:

Reservoir	Capacity	Year Installed	Material
Agate Heights	108,000	2008	Concrete
Opal	81,000	2001	Concrete
Geneva	524,000	1979	Welded Steel
Division 22-1*	514,000	1971	Welded Steel
Division 22-2	626,000	2017	Welded Steel
Chlorine Contact Basin**	225,000	1994	Welded Steel
Division 7***	1,000,000	1971	Welded Steel
Division 30	148,000	1971	Welded Steel

* A project is currently in progress to replace the Division 22-1 reservoir with a new reservoir in 2026.

** A project is currently in progress to replace the Chlorine Contact Basin with a new basin in 2026.

*** Division 7 reservoir will be replaced by two concrete reservoirs in 2025.

Three of the reservoirs, Division 22-1, Division 7 and Division 30, are the original reservoirs installed as part of the Sudden Valley development. All three reservoirs are coated welded steel tanks that have not been recoated or significantly rehabilitated since their original construction. A construction project to construct two new 237,900-gallon concrete reservoirs to replace the existing Division 7 reservoir is currently underway with completion planned for mid-2025. The Geneva reservoir has been in service for upwards of 45 years and has not been recoated since it was originally constructed. A coatings assessment completed in 2022 recommends recoating of the Geneva, 22-1 and Division 30 reservoirs in the near future to maximize remaining useful life of the structures.

The following capital projects are planned or underway to address reservoir deficiencies:

- Seismic stabilization and recoating of the Geneva reservoir is currently in design with construction scheduled to be complete by the end of 2026.
- A capital improvement project is also currently underway to replace the Division 22-1 reservoir with a new reservoir with construction scheduled to be complete by the end of 2027.
- A project is currently in progress to replace the chlorine contact basin with a new basin, with the new basin scheduled to go into service in late 2026.

The remaining structures are less than 25 years old and both the structure and coatings (as applicable) have significant remaining useful life. Two of the existing reservoirs, Opal and Agate Heights, are concrete and do not require any coatings. The District plans for recoating the coated steel reservoirs every 25 to 30 years. The District also contracts for inspection and cleaning of all of the reservoirs every 6 years.

1.2.2. Booster Stations

The District operates eight transmission and booster stations as summarized in the table below:

Booster/Transmission Station	# of pumps	HP/Pump	Service Area	Year Installed (replaced)
SV WTP Pump House	4	Div 22: 150 (2) Div 7: 100 (2)	Sudden Valley*	1994
Beecher	2	10	Geneva	2002
Opal	2	3	Agate Heights	1999
Division 30	2		Sudden Valley	1971 (2002)
Eagleridge	5	Domestic: 7.5 (3) High Flow: 30 (2)	Eagleridge	1990
South Geneva	2	5	Geneva	2011
ULID 5	2	2	Geneva	1998
Johnson Well	2	2	Agate Heights	1991

*transfers all treated water from the Sudden Valley WTP to the Division 7 and 22 reservoirs, which distribute water to the entire South Shore system.

The booster and transmission stations are comprised of various components, which vary from station to station, including pumps, controls, buildings, generators, piping and valves. Each component has different expected useful life and the District's asset management plan will plan for repair, rehabilitation and replacement of each component individually to the extent practical.

In general, the booster stations are in good working order with remaining useful life. However, the Eagleridge booster station is within five years of the end of its useful life and the District is planning for rehabilitation of this station within the six year planning horizon. In addition, the Johnson Well pump, which serves two homes in the Agate Heights development, is planned for replacement within the 6-year planning period.

1.2.3. Water Treatment Plants

The District operates two water treatment plants as summarized below:

- **Sudden Valley Water Treatment Plant (SVWTP):** Originally constructed in 1971 and most recently rehabilitated between 1992-1994, the SVWTP is a rapid rate direct filtration plant that treats all water distributed to the South Shore system. Ancillary components, such as the chlorine contact basin and transmission pump house, are described elsewhere in this report. The major components of the plant are summarized in the table below:

Component	Count	Year Installed (replaced or rehabilitated)	Expected Useful Life (years)
Raw Water Pumps	2	1971 (1992)	30
Flocculation Tank	1	1991	80
Alum Tank	1	1993 (2024)	35
Soda Ash Tank	1	1993	80
2-bay Filter Tank (Filters 1 and 2)	1	1970	80
2-bay Filter Tank (Filters 3 and 4)	1	1990	80
Transfer Pumps	2	1990	30
Control Panel and MCCs	1	2010	25
Generator	1	2014	25

Note that the plant includes various smaller components, including dosing pumps, piping, valves, surface washers, and flow meters that are not listed above. These low-cost items will be tracked and replaced by Operations staff on an as-needed basis.

In light of the numerous aging components within the SVWTP, the District completed a condition assessment and 20-year capital improvement plan in 2020 to plan for rehabilitation and replacement. The plan includes various projects to renew the plant over the next 20 years. Improvements include replacement of pumps, rehabilitation and re-coating of filter bays and replacement of chemical dosing systems.

- **Agate Heights Water Treatment Plan (AHWTP):** Constructed in 2001 by a private developer as part of the Agate Heights development, the AHWTP provides treated water to the Agate Heights service area, including the Lake Whatcom Residential Treatment Center. The plant was rehabilitated in 2021 with replacement of the package treatment system with a new 5-filter media filter treatment system and new treatment system controls. The treatment plant provides manganese removal as well as residual chlorination prior to distribution to the service area. The pumps and other ancillary components installed in 2001 remain in service.

The major components of the plant are summarized in the table below:

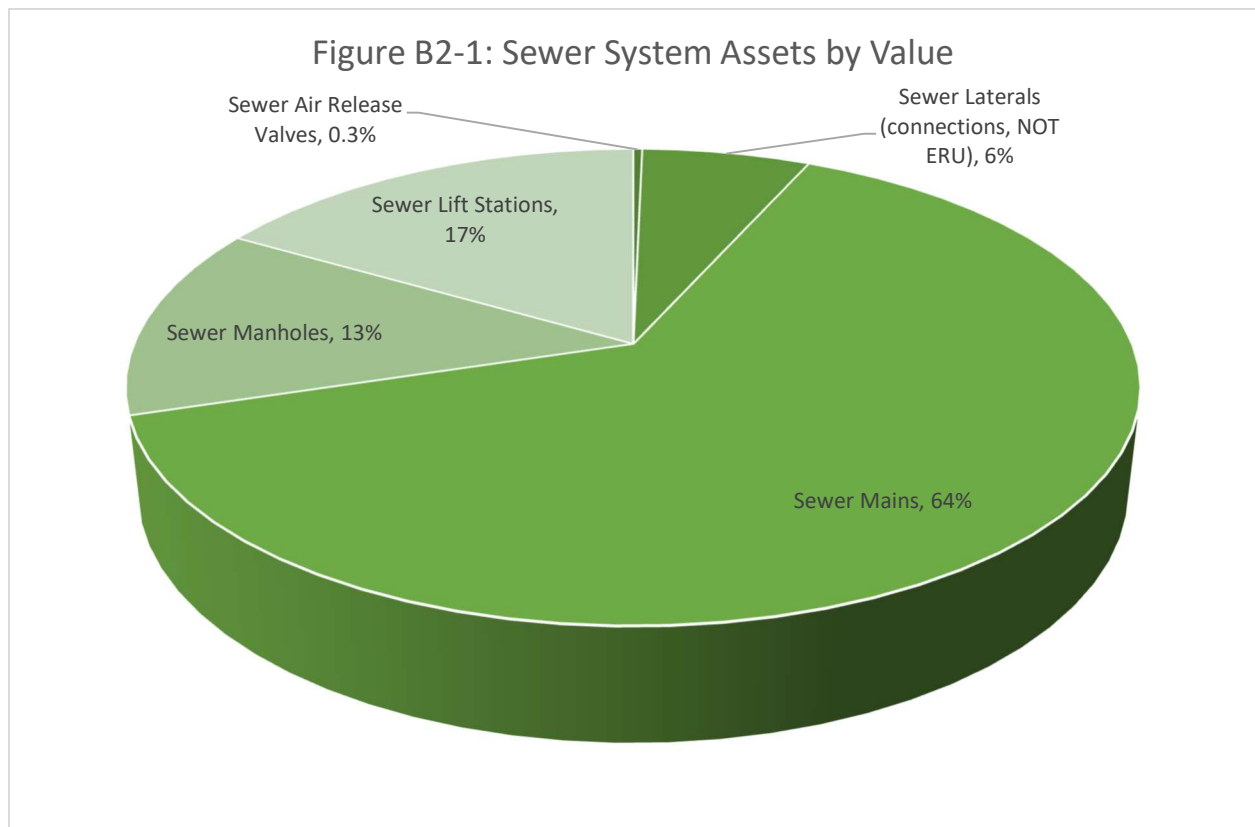
Component	Count	Year Installed (replaced or rehabilitated)	Age (years)	Useful Life (years)
Raw Water Pumps	2	2001	23	30
Pump Controls	1	2001	23	25
Manganese Removal System	1	2001 (2021)	3	30
Treatment Control Panel	1	2001 (2021)	3	25

Generator	1	2001	23	30
-----------	---	------	----	----

2. Sewer System

The District sewer system includes vertical assets, which is primarily sewage lift stations, and horizontal assets, which is comprised of gravity and pressurized pipes, air relief valves and manholes.

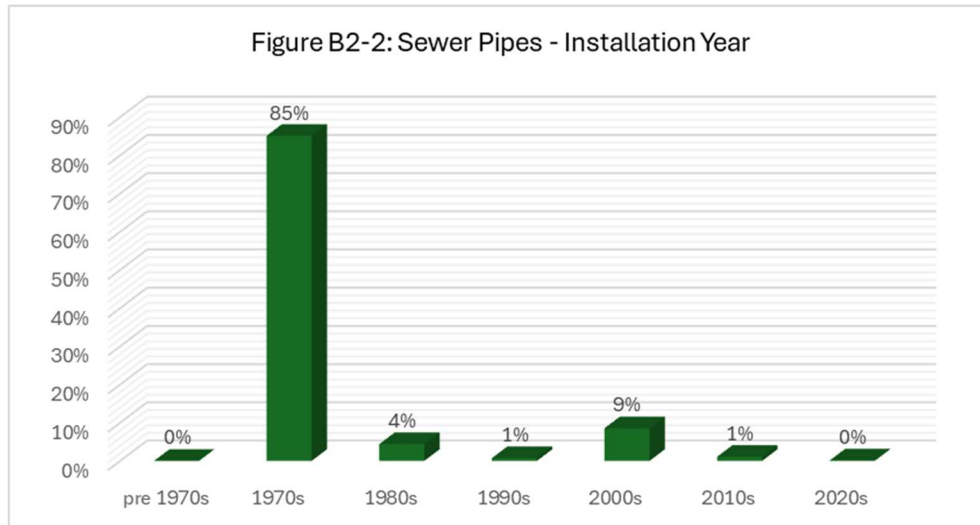
The total replacement value of the sewer system is estimated to be \$225 million (2024 dollars). Figure B2-1 provides a breakdown of the sewer system assets by value.



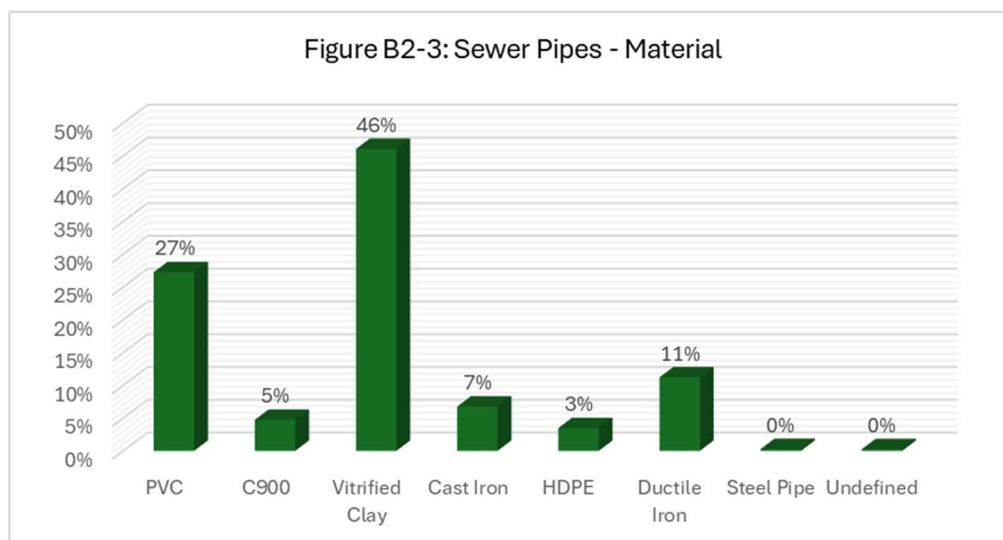
2.1. Horizontal Assets

2.1.1. Pipes

As shown in Figure B2-2, approximately 85% of the currently active sewer collection pipes were installed in the 1970s.



As shown in Figure B2-3, approximately 46% of the sewer mains are vitrified clay, which is primarily within the Sudden Valley development. The pipe material in the other service areas is primarily PVC and ductile iron with a small amount of cast iron pipes. There are small amounts of steel and HDPE within the system as well.

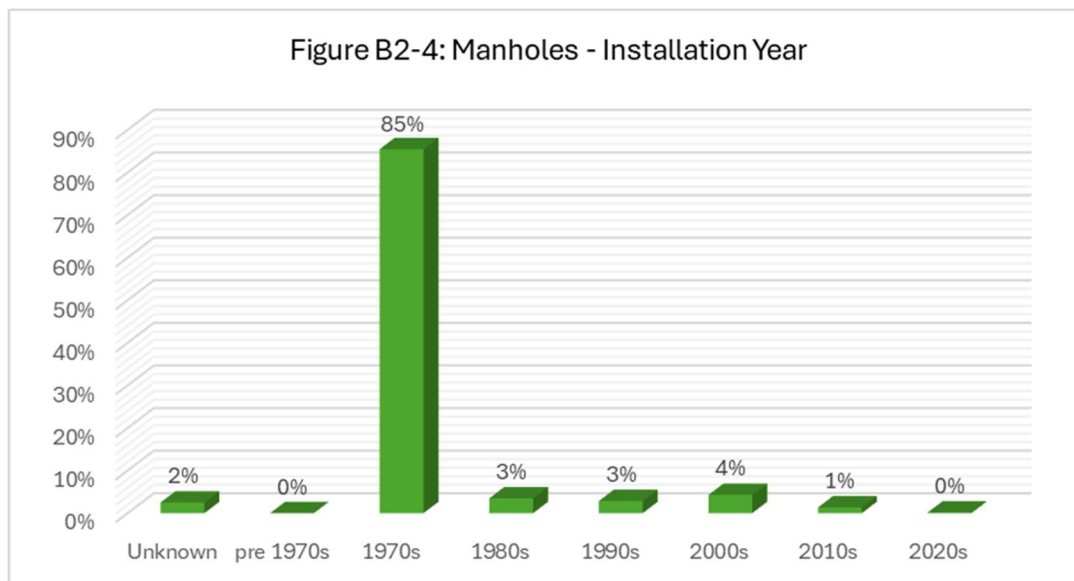


The expected useful life of sewer pipes is between 50 and 100 years depending on pipe material, quality of installation and operating condition. Based solely on the worst case expected useful life of 50 years, approximately 85% of the sewer pipes are anticipated to be at or near the end of useful life. However, based on television inspections completed in recent years, the sewers throughout the District remain in good condition with substantial remaining useful life.

In addition to physical inspection, infiltration and inflow (I&I) are indicators of deterioration of the sewer piping system. Per the District's 2020 Comprehensive Sewer Plan Update, infiltration and inflow into the North Shore and South Shore systems were within EPA guidelines for excessive I&I, indicating that the system remains in generally good condition.

2.1.2. Manholes

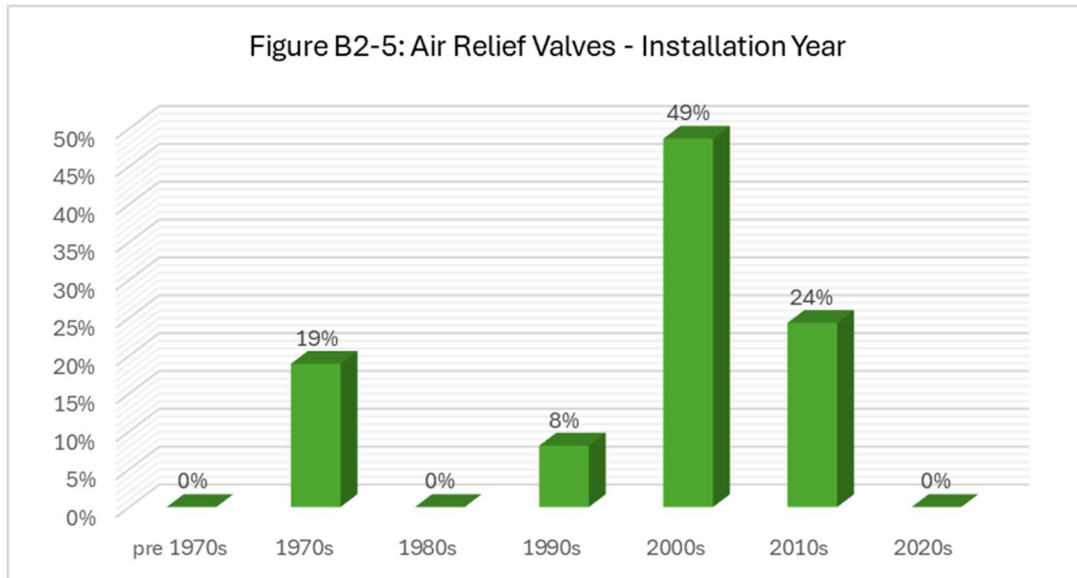
Similar to the piping system, as shown in Figure B2-4, approximately 85% of the manholes within the District system were installed in the 1970s and remain in service.



All of the manholes throughout the District are reinforced concrete and concrete manholes have an expected useful life of approximately 100 years. With the oldest manholes in the system being installed in the 1970s, based solely on expected useful life, all manholes have substantial remaining useful life.

2.1.3. Air Relief Valves

Most of the air relief valves (ARVs) in the sewer system were originally installed in the 1970s. Similar to PRVs in the water system (as described above), ARVs have a typical useful life between 25 and 35 years and, as a result, many of the original ARVs in the system have been replaced since their original installation. As shown in Table B2-5 below, of the 36 ARVs in the system, approximately 20% of the currently active valves in the system were installed in the 1970s with a majority (approximately 73%) being installed since the turn of the century.



Based on typical useful life of ARVs, approximately 30% of the ARVs in the system have reached or will reach the end of their useful life in the near future. District Operations crews replace air relief valves on an as needed basis based on periodic inspections and failures.

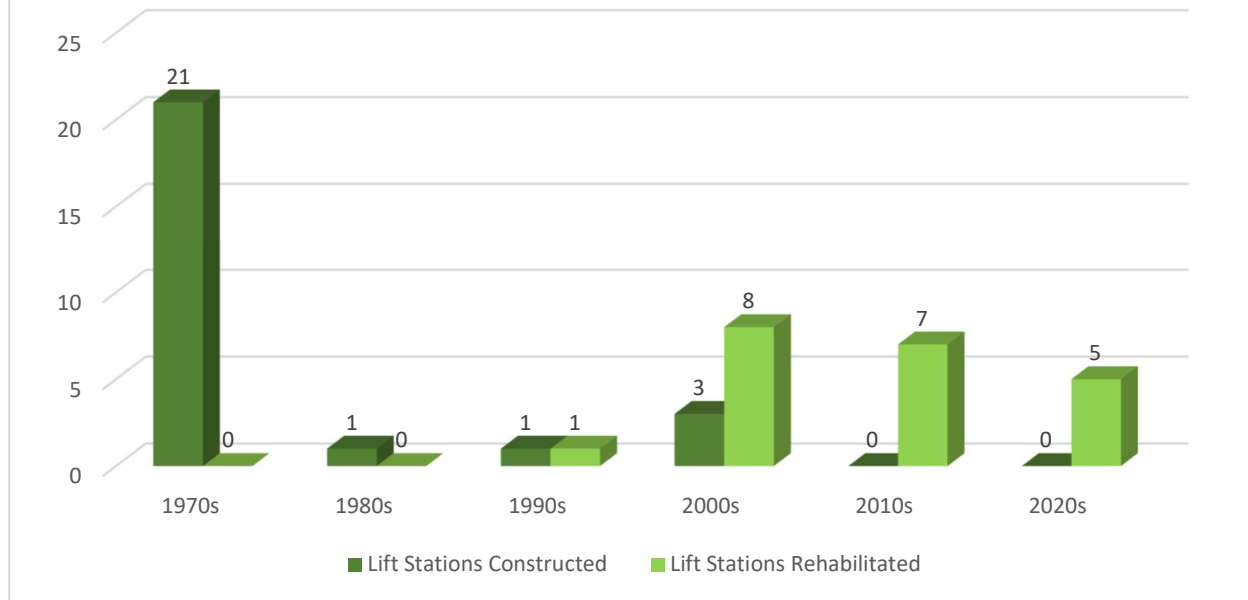
2.2. Vertical Assets

2.2.1. Lift Stations

Due to the geography and topography of the District's service area, the District operates a total of 26 sewer lift stations throughout the District. As shown in Figure B2—6, most of the lift stations serving the South Shore were originally constructed in the early 1970s when the area was first developed. Since the early 2000's, the District has executed a program to rehabilitate the lift stations as they near or reach the end of their useful lives. To date, the District has rehabilitated 21 of the 26 lift stations. Of the remaining 5 lift stations, three stations (Flat Car, the submersible side of Sudden Valley and Beaver) were constructed in 2003 and have approximately 10 years of remaining useful life before substantial renovation is required, and one lift station (Agate Bay) is scheduled for renovation in 2027. The remaining two stations (Camp Firwood and Lowe) are low flow stations with limited use and recent inspections indicated that these stations have remaining useful life with regular inspection and maintenance.

It should be noted that the lift station renovations that have been completed since the turn of the century have been targeted renovations to replace lift station components that were no longer reliable or to reconfigure the stations to improve accessibility and functionality. As a result, most of the renovated stations still retain components from their original construction. In light of this, except in cases that reconfiguration of the station is needed or desired, as the District plans for the second round of renovations to the lift stations, the age and condition of the individual lift station components will be separately tracked and scheduled for rehabilitation.

Figure B2-6 - Sewer Lift Stations



With the renovations and replacements that have been completed to date, with the exception of the Agate Bay lift station that is scheduled for renovation in 2027, all of the sewer lift stations are in generally good condition with components with upwards of five years of remaining useful life. The District is currently planning and budgeting for the next round of lift station improvements.

Appendix C: Risk Management Strategies

Risk is the probability and consequence of a disruption to the level of service and is a critical component for planning and prioritizing maintenance, rehabilitation and replacement of District assets. Some assets may require a higher degree of reliability to consistently meet the service goals and, as a result, will have a higher risk score. Other assets may be able to function in a deteriorated condition without significantly impacting service goals and may have a lower risk score as a result. For example, if the chlorine contact basin at the Sudden Valley Water Treatment Plant were to fail, the District would be unable to provide treated water to the entire South Shore system with the exception of the portion that could be served by the Scenic Avenue Intertie, which would be served by water purchased from the City. As a result, the risk to the District's ability to maintain service to District customers is high. Conversely, if one sewage pump in the Lowe Lift Station were to fail, the second redundant pump could pump the sewage until the pump could be repaired. This lift station is also located a reasonable distance from a water body, so an overflow would be unlikely to reach any surface water or Lake Whatcom. Finally the lift station serves relatively few connections so the number of impacted customers, in the event that the station failed to convey sewage, would be low. As a result, the risk associated with a pump in the Lowe Lift Station is low.

To evaluate the relative risk associated with each District asset, the District utilizes a Business Risk Exposure (BRE) scoring system. This system assigns a numerical score to each District asset based on the probability of failure (PoF), consequence of failure (CoF) and redundancy (R). These three criteria are defined as follows:

Probability of Failure (PoF):	Likelihood that an asset will fail. This is a function of the age of the asset as well as it's inspected condition.
Consequence of Failure (CoF):	The potential impact to the level of service goals if an asset is unable to meet performance expectations or is unexpectedly taken out of service (e.g., critical failure).
Redundancy (R):	The extent of backup systems that can relieve the primary systems in the event of a failure. For example, sewer lift stations contain one redundant pump that can take the place of a failed pump.

Equation 1 provides the general calculation of BRE for all District assets.

Equation 1: Business Risk Exposure

$$PoF \times CoF \times R = BRE$$

Calculation of CoF and PoF for each asset category will be described in further detail in the Targeted Asset Management Plans (TAMP) for each asset category.

Appendix D: Capital Improvement Plan

The Capital Improvement Plan included in the approved 2025-2026 District Budget is attached.

Water System Reinvestment Plan 2025 through 2030

	Total (2025 - 2030)	2025	2026	2027	2028	2029	2030
Capital Outlay - General (Water Share)							
IT Infrastructure	\$ 20,000.00				\$ 20,000.00		
Replace 5-yard Dump Truck (2007 model in fleet)	\$ 99,000.00					\$ 99,000.00	
Replace Mini Excavator	\$ 52,000.00				\$ 52,000.00		
Replace Admin Staff Vehicle	\$ 21,000.00			\$ 21,000.00			
Convert Phone Lines to Cellular Communication	\$ 26,000.00	\$ 26,000.00					
VEH31 - Tool Truck Replacement (2005)	\$ 52,000.00	\$ 52,000.00					
VEH41 - Tool Truck Replacement (2010)	\$ 60,000.00						\$ 60,000.00
Subtotal - Capital Outlay (General - Water Share)	\$ 330,000.00	\$ 78,000.00	\$ -	\$ 21,000.00	\$ 72,000.00	\$ 99,000.00	\$ 60,000.00
Capital Outlay - Water Only							
Misc Water Capital Outlay	\$ 67,000.00	\$ 10,000.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00	\$ 12,000.00	\$ 12,000.00
VEH36 - Utility Locator Van Replacement WATER ONLY	\$ 57,000.00				\$ 57,000.00		
Reservoirs - Inspection & Maintenance	\$ 48,000.00					\$ 48,000.00	
SVWTP - Replace 6 Turbidimeters and 2 Chlorine Analyzers	\$ 59,000.00				\$ 59,000.00		
Security - Intrusion Alarms at Reservoirs, Cameras at SVWTP AHWTP	\$ 184,000.00		\$ 184,000.00				
Water System Plan Update	\$ 147,000.00			\$ 147,000.00			
Water Use Efficiency Plan Update	\$ 18,000.00			\$ 18,000.00			
Subtotal - Capital Outlay (Water Only)	\$ 580,000.00	\$ 10,000.00	\$ 195,000.00	\$ 176,000.00	\$ 127,000.00	\$ 60,000.00	\$ 12,000.00
Capital Projects - Water Only							
Div 7 Reservoir Phase 2 Construction (carryover)	\$ 1,690,000.00	\$ 1,690,000.00					
1237 Lakeview St - Replace 2" PVC with 2" HDPE	\$ 65,000.00	\$ 65,000.00					
Eagleridge - Replace all pumps and controls with new package pump station	\$ 359,000.00						\$ 359,000.00
Scenic Intertie - Replace failed piping to restore intertie	\$ 78,000.00	\$ 78,000.00					
SVWTP - Core - Replace Finished Water Pumps	\$ 1,140,000.00				\$ 1,140,000.00		
SVWTP - Core - Replace Transfer Pumps	\$ 559,000.00						\$ 559,000.00
SVWTP - Core - New 0.3MG Welded Steel CCB - Design, Permitting (carryover)	\$ 242,000.00	\$ 242,000.00					
SVWTP - Core - New 0.3MG Welded Steel CCB - Construction	\$ 1,669,000.00		\$ 1,669,000.00				
Geneva Reservoir and SVWTP Pump House Seismic Upgrades - Design and Permitting (carry over)	\$ 218,000.00	\$ 218,000.00					
Geneva Reservoir and SVWTP Pump House Seismic Upgrades - Construction	\$ 1,152,000.00		\$ 1,152,000.00				
Physical Security Improvements (Locks, Ladders and Fencing) - Phase 1	\$ 37,000.00	\$ 37,000.00					
Physical Security Improvements (Locks, Ladders and Fencing) - Phase 2	\$ 46,000.00				\$ 46,000.00		
Physical Security Improvements (Locks, Ladders and Fencing) - Phase 3	\$ 48,000.00						\$ 48,000.00
Replace static mixer - SVWTP	\$ 16,000.00	\$ 16,000.00					
Treatment Center Wells Decommissioning	\$ 52,000.00	\$ 52,000.00					
Eagleridge Building Roof	\$ 21,000.00	\$ 21,000.00					
Eagleridge Building Exterior Paint	\$ 11,000.00	\$ 11,000.00					
Johnson Well Pumps	\$ 36,000.00						\$ 36,000.00
Sudden Valley WTP Soda Ash Tank Coating	\$ 30,000.00						\$ 30,000.00
Division 22-1 - Recoat	\$ 811,000.00			\$ 811,000.00			
Geneva - Recoat	\$ 1,100,000.00			\$ 1,100,000.00			
Hydrants	\$ 104,000.00			\$ 50,000.00		\$ 54,000.00	
PRV Replacement	\$ 62,000.00			\$ 30,000.00		\$ 32,000.00	
Subtotal - Capital Projects - Water Only	\$ 9,546,000.00	\$ 2,430,000.00	\$ 2,821,000.00	\$ 1,991,000.00	\$ 1,186,000.00	\$ 86,000.00	\$ 1,032,000.00
GRAND TOTAL	\$ 10,456,000.00	\$ 2,518,000.00	\$ 3,016,000.00	\$ 2,188,000.00	\$ 1,385,000.00	\$ 245,000.00	\$ 1,104,000.00


Sewer System Reinvestment Plan 2025 through 2030

	Total (2025 - 2030)	2025	2026	2027	2028	2029	2030
Capital Outlay - General (Sewer Share)							
IT Infrastructure	\$ 20,000.00				\$ 20,000.00		
Replace 5-yard Dump Truck (2007 model in fleet)	\$ 99,000.00					\$ 99,000.00	
Replace Mini Excavator	\$ 52,000.00				\$ 52,000.00		
Replace Admin Staff Vehicle	\$ 21,000.00			\$ 21,000.00			
Convert Phone Lines to Cellular Communication	\$ 26,000.00	\$ 26,000.00					
VEH31 - Tool Truck Replacement (2005)	\$ 52,000.00	\$ 52,000.00					
VEH41 - Tool Truck Replacement (2010)	\$ 60,000.00						\$ 60,000.00
Subtotal - Capital Outlay - General (Sewer Share)	\$ 330,000.00	\$ 78,000.00	\$ -	\$ 21,000.00	\$ 72,000.00	\$ 99,000.00	\$ 60,000.00
Capital Outlay - Sewer Only							
Update Sewer Comprehensive Plan	\$ 124,000.00					\$ 124,000.00	
Subtotal - Capital Outlay - Sewer Only	\$ 124,000.00	\$ -	\$ -	\$ -	\$ -	\$ 124,000.00	\$ -
Capital Projects - Sewer Only							
Agate Bay Sewer Pump Station - Predesign	\$ 146,000.00	\$ 146,000.00					
Agate Bay Sewer Pump Station - Design and Bidding	\$ 188,000.00		\$ 188,000.00				
Agate Bay Sewer Pump Station - Construction	\$ 947,000.00			\$ 947,000.00			
Rocky Ridge Pump Station - Construction and CM							
Rocky Ridge Pump Station - Construction and CM (Carryover)	\$ 656,000.00	\$ 656,000.00					
Lakewood Pump Station - Construction and CM							
Lakewood Pump Station - Construction and CM (Carryover)	\$ 591,000.00	\$ 591,000.00					
Sudden Valley Lift Station - Recondition Electrical Controls	\$ 248,000.00				\$ 248,000.00		
Flat Car Lift Station - Recondition Electrical Controls	\$ 248,000.00				\$ 248,000.00		
Beaver Lift Station- Recondition Electrical Controls	\$ 248,000.00				\$ 248,000.00		
Airport Sewer Crossing Gravity Pipeline Sag	\$ 52,000.00			\$ 52,000.00			
LWBI CIPP Renewal Project P1-2023							
LWBI CIPP Renewal Project P1-2024	\$ 195,000.00	\$ 195,000.00					
LWBI CIPP Renewal Project P2	\$ 600,000.00		\$ 600,000.00				
Sewer System Rehab and Replacement Projects	\$ 294,000.00	\$ 36,000.00	\$ 38,000.00	\$ 39,000.00	\$ 40,000.00	\$ 65,000.00	\$ 76,000.00
Flatcar Lift Station Reverse Flow (Carryover)	\$ 155,000.00	\$ 155,000.00					
Revise Flow Meter Piping - Northshore	\$ 23,000.00				\$ 23,000.00		
Flow Meter - Sudden Valley LS (submersible system only)	\$ 54,000.00		\$ 54,000.00				
COB WWTP Improvements - Post Point Generators & Controls	\$ 480,000.00		\$ 480,000.00				
COB WWTP Improvements - Post Point Sludge Tank Replacement	\$ 696,000.00		\$ 696,000.00				
COB WWTP Improvements - Post Point Incinerator Emission	\$ 1,920,000.00			\$ 1,920,000.00			
Flat Car LS Building Roof	\$ 24,000.00						\$ 24,000.00
Sudden Valley LS Building Roof	\$ 24,000.00						\$ 24,000.00
Beaver LS Building Roof	\$ 24,000.00						\$ 24,000.00
Subtotal - Capital Projects - Sewer Only	\$ 7,813,000.00	\$ 1,779,000.00	\$ 2,056,000.00	\$ 2,958,000.00	\$ 807,000.00	\$ 65,000.00	\$ 148,000.00
GRAND TOTAL	\$ 8,267,000.00	\$ 1,857,000.00	\$ 2,056,000.00	\$ 2,979,000.00	\$ 879,000.00	\$ 288,000.00	\$ 208,000.00



**AGENDA
BILL
Item 8.A**

**General Manager's
Report**

DATE SUBMITTED:	May 8, 2025	MEETING DATE:	May 14, 2025
TO: BOARD OF COMMISSIONERS	FROM: Justin Clary, General Manager		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. General Manager's Report		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL /OTHER <input checked="" type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

Updated information from the General Manager in advance of the Board meeting.

FISCAL IMPACT

None.

RECOMMENDED BOARD ACTION

None required.

PROPOSED MOTION

None.



LAKE WHATCOM WATER AND SEWER DISTRICT

General Manager's Report

Upcoming Dates & Announcements

Regular Meeting – Wednesday, May 14, 2025 – 6:30 p.m.

Important Upcoming Dates

Lake Whatcom Water & Sewer District			
Regular Board Meeting	Wed May 28, 2025	8:00 a.m.	Board Room/Hybrid
Employee Staff Meeting	Thu May 15, 2025	8:00 a.m.	Board Room/Hybrid Commissioner Carter to attend
Investment Comm. Meeting	Wed Jul 30, 2025	10:00 a.m.	Board Room/Hybrid
Safety Committee Meeting	Thur May 22, 2025	8:00 a.m.	Board Room
Lake Whatcom Management Program			
Policy Group Meeting	Wed Sep 3, 2025	3:00 p.m.	City of Bellingham Pacific St Ops Center, 2221 Pacific Street
Joint Councils Meeting	Wed Jun 4, 2025	3:00 p.m.	City of Bellingham Pacific St Ops Center, 2221 Pacific Street
Other Meetings			
WASWD Section III Meeting	Wed May 13, 2025	6:00 p.m.	Bob's Burgers 8822 Quil Ceda Pkwy, Tulalip, WA
Whatcom Water Districts Caucus Meeting	Wed May 21, 2025	2:00 p.m.	Remote Attendance
Whatcom County Council of Governments Board Meeting	Wed May 14, 2025	3:00 p.m.	Council of Governments Offices 314 E Champion Street/Hybrid

Committee Meeting Reports

Safety Committee:

- A committee meeting has not been held since the last board meeting.

Investment Committee:

- A committee meeting has not been held since the last board meeting.

Upcoming Board Meeting Topics

- Lakewood and Rocky Ridge sewer lift stations improvement project contract closeout
- Cross Connection Control Program update (resolution)
- District financial benchmarks development discussion

2025 Initiatives Status

Administration and Operations

Water Right Adjudication

- Represent the District in the water right adjudication process to ensure that its certificated and permitted rights are protected.

The Whatcom County Superior Court approved the adjudication summons and court claim form on December 3, 2024; the District received the adjudication documents from Ecology via certified mail on March 19, 2025 and has drafted initial responses for each water right for review with District legal counsel.

Safety Program Update

- Continue systematic review and revision of District's safety programs by updating nine programs in 2025.

Staff finalized updates to one (1) program (asbestos-cement pipe handling) and is reviewing the confined space, lock-out/tag-out, trenching/shoring, and lifting/rigging programs.

APWA Accreditation

- Initiate work towards multi-year effort to gain American Public Works Association accreditation.

The accreditation team met on December 17 and January 28, and have initiated review and completion of accreditation practices.

Financial Management

- Improve financial sustainability and forecasting over 6- and 20-year planning horizons through the Waterworth financial modeling platform.

District management have begun reviewing potential financial benchmarks and will discuss our recommendation with Commissioner Carter in May.

Management Team Development

- Continue professional development of the management team.

The general manager has approved management team member attendance of several trainings and conferences in 2025 pertinent to each's role with the District. The general manager also periodically meets with each manager to assess progress of their annual performance map.

Emergency Response/System Security

Emergency Readiness

- Continue use of Whatcom County Department of Emergency Management services to hold tabletop and/or field emergency response exercises.

District staff met with Whatcom County Emergency Management Division staff on May 6 to begin planning a District specific emergency response exercise in Summer 2025.

Community/Public Relations

General

- Website
The District's web content is reviewed and updated on a regular basis.
- Social Media
Posts are made to District Facebook, LinkedIn, and Nextdoor pages regularly; Nextdoor is also regularly monitored for District-related posts.
- Press Releases
A press release was issued on March 6 (Division 22-1 reservoir project FEMA hazard mitigation grant award).

Intergovernmental Relations

- *J Clary attended the WASWD Section III and semi-annual business meetings during the WASWD Spring conference on April 30 and May 1, respectively.*
- *J Clary met with Sue Sullivan, Whatcom County Health and Community Services, on May 6 regarding the next steps in the update to the Whatcom County Coordinated Water System Plan.*
- *J Clary chaired the Whatcom Utility Coordinating Committee meeting on May 7.*
- *J Clary is scheduled to attend the WASWD membership committee and quarterly general managers' meetings on May 13 and May 14, respectively.*

Lake Whatcom Water Quality

Lake Whatcom Management Program

- Participate in meetings of Lake Whatcom Management Program partners.
J Clary attended the interjurisdictional committee meeting on May 7 and the data group meeting on May 8, and is scheduled to attend another ICT meeting on May 14.