BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION Complainant, v. CASCADIA WATER, LLC Respondent.	DOCKET UW-240151

CASCADIA WATER, LCC

Direct Testimony of Culley J. Lehman

BACKGROUND, OPERATIONS AND CAPITAL PROJECTS

Exh. CJL-1T

September 26, 2024

DIRECT TESTIMONY OF CULLEY J. LEHMAN

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I. Introduction and Summary

Q. Please state your name and business address.

A. My name is Culley J. Lehman, and my business address is 18181 State Route 525, Freeland, Washington, 98249. My business email address is culley@cascadiawater.com.

Q. By whom are you employed and in what capacity?

A. I am the General Manager of Cascadia Water, LLC ("Cascadia Water" or the "Company"), which is a subsidiary of NW Natural Water Company, LLC ("NW Natural Water"). I am providing this testimony on behalf of Cascadia Water. I oversee the operations, management and regulatory compliance of 30 water systems in the State of Washington that are listed below:

Table 1 – Cascadia Water Systems

System Name	Region/Tariff
Beachcombers H2o Co	Island/Mainland
CAL Waterworks	Island/Mainland
TEL Company #1	Island/Mainland
TEL Company #3	Island/Mainland
TEL Company #4	Island/Mainland
TEL Company #5	Island/Mainland
TEL Company #6	Island/Mainland
TEL Company #10	Island/Mainland
TEL Company #11	Island/Mainland

W&B Waterworks	Island/Mainland
SeaView Water	Island/Mainland
Estates Inc	Peninsula
Monterra	Peninsula
Del Bay	Island/Mainland
Discovery Bay Village	Peninsula
Cedarhearth	Island/Mainland
Silver Lake Water	Island/Mainland
Blanchard Knob	Island/Mainland
Bacus Road #1	Island/Mainland
Skagit River Colony	Island/Mainland
Rolf Bruun	Island/Mainland
Tjetland	Island/Mainland
Lake Alyson	Island/Mainland
Lynch Cove	Peninsula
Agate West	Peninsula
Island Lake	Peninsula
Diamond Point	Peninsula
Dungeness Bay Plat	Peninsula
Jamestown on Wilcox Ln	Peninsula
Pelican Point	Eastern WA

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Q. Please state your qualifications to provide testimony in this proceeding.

A. I am a certified Water Distribution Manager level 2, Water Treatment Plant Operator level 2, and Cross Connection Control Specialist. I have more than 22 years of water system operational experience, mainly with the systems that Cascadia Water now operates on Whidbey Island. It is not an exaggeration to say that I know these systems better than anyone. The W&B Waterworks system is named after Wally and Betty Lehman, my grandparents. The TEL systems are named after Terry Edward Lehman, my uncle. The CAL Waterworks system is named after Culley and Adam Lehman (me and my brother). I started reading the water meters for these island systems when I was about eight years old, and would help my dad and uncle fix leaks after school and on weekends. There are still longtime customers on the systems whom I have known since I was a little kid. I started formally working for Lehman Enterprises, Inc. (the company that previously owned the majority of the island systems) part-time in 2002, and full-time in 2009. I transitioned to the General Manager position when NW Natural Water acquired the systems and Cascadia Water was formed in November 2018. Since then, I have assisted NW Natural Water with the acquisition of 19 additional water systems under Cascadia Water ownership, throughout seven additional counties.

Q. What other qualifications and experience do you have?

A. I am a board member for the Whidbey Island Water Systems Association. I am a board member for the NW subsection of the Pacific Northwest section of American Water Works Association ("AWWA"). The AWWA is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring

the effective management of water. I am on the steering committee for Clallam County Hazard Mitigation Planning.

Q. Have you testified previously before a regulatory commission?

A. I have not formally testified before a regulatory commission. I have provided extensive comments at three Washington Utilities and Transportation Commission ("WUTC" or the "Commission") open meetings for water company general rate cases for both Lehman Enterprises and Cascadia Water in 2013 and 2021, respectively.

Q. What is the purpose and scope of your testimony?

A. The purpose of my testimony is to support Cascadia Water's proposed rates and resulting revenue requirement as it relates to plant additions and ongoing projects that will go in service during the rate year. I provide background about Cascadia Water, its acquisitions and its approach to customer service. I then describe in detail the capital investments that are included as plant in this rate case; specifically, I explain why these plant additions were necessary for Cascadia Water to continue to deliver safe and adequate drinking water to its customers. Finally, I describe Cascadia Water's approach to being a regulated utility and working with its regulators, specifically the WUTC, Washington Department of Health ("DOH") and Washington Department of Ecology ("DOE").

Q. Will you be submitting any exhibits?

A. Yes, I will be providing four exhibits (Exhibit CJL-2 through Exhibit CLJ-5) that all relate to the Estates Reservoir project. I will be providing one exhibit (Exhibit CJL-6)_) that relates to the CAL Waterworks project. I will be providing one exhibit (Exhibit CJL- 7)_) that relates to the W&B Waterworks project. I will also be

providing one exhibit (Exhibit CJL- 8) that is our Unified Master Plan that relates to several projects. I will be providing one exhibit (Exhibit CJL-9) for the DOH Water System Design Manual. I will be providing three exhibits that all relate to manganese as a secondary contaminant (Exhibit CJL-9 through Exhibit CJL-11). All projects described in this testimony follow the guidance of the DOH Water System Design Manual – see Exhibit CJL-12).

II. Background, Acquisitions, Approach to Customer Service

Q. What is Cascadia Water's mission?

A. Cascadia Water's primary responsibility as a regulated public water system in the State of Washington is to provide our customers with safe, adequate and reliable drinking water at rates that are fair, just, reasonable and sufficient.

Q. Please list the systems acquired by Cascadia Water since its last rate case, UW-200979.

A. We have acquired 16 water systems (that were previously owned by five different companies), since our last rate case. The owners of these past five acquisitions have all been ready to retire and were not willing to invest any more into their systems.

Table 2 – Systems Acquired Since Rate Case in UW-200979

Name	Discovery Bay Village	Pelican Point	Northwest Water Service ("NWWS")	Aquarius	Pedersen
Docket	UW-210763	UW-210564	UW-220425	UW-220469	UW-220900
Year	Oct 2021	Aug 2021	July 2022	July 2022	Jan 2023
Number of systems	1	1	8	4	2
Tariff/Region	Peninsula	Eastern WA	Island/Mainland	Peninsula	Peninsula

Q. What is Cascadia Water's method for acquiring systems?

A. Generally speaking, Cascadia Water acquires systems where either the owner or the homeowners' association is ready to step aside because of the responsibility or the financial obligation of operating these water systems. The systems are aging and sometimes neglected, and Cascadia Water works to improve and standardize them. Unfortunately, the capital investments that are necessary are most often quite expensive. Cascadia Water takes a more proactive approach, rather than a reactive one, to avoid even costlier improvements. Cascadia Water strongly believes our acquisitions ensure adequate capital is available to fund future needed system maintenance and upgrades, and reduce the rate impact of future system maintenance and upgrades through economies of scale and spreading of those costs over a larger customer base.

Q. Please speak to the overall water quality of the Cascadia Water systems.

A. Overall, the chemistry of water in the Cascadia Water systems is generally the same, high in mineral content because the water is sourced from groundwater wells. Cascadia Water currently does not operate any surface water sources. This means that there is at least one well (or multiple wells) for each system that serves the customers for that system. Distinct water characteristics change from aquifer to aquifer, and well to well. For example, one well might be high in one contaminant, where another well a half mile away does not have that contaminant at detectable levels. One well might have nitrates, and one might not. Some contaminates move through the ground/groundwater, such as Per- and polyfluoroalkyl substances ("PFAS"), where

this year PFAS might be at undetected levels, and next year PFAS might be at detected levels. So to speak directly to a geographical region within the Pacific Northwest being "better" than another in terms of water quality is simply not possible. It is true, however, that out of all the systems Cascadia Water has tested for PFAS, (on both the Island/Mainland and Peninsula), none have had any PFAS detected.

Q. What is Cascadia Water's overall approach to customer service?

A. Cascadia Water has four customer service-related employees. One part-time employee will be moved to full time in 2025 to accommodate customer service demands, and that change is reflected in this rate case. Emails are sent to a centralized mailbox that is then divided among the customer-service employees based on subject matter. Emergency calls are distributed to each on-call operator for specific regional locations (NWWS has a different operator than Aquarius, for example). Cascadia Water has implemented a company-wide newsletter that is intended to be sent to our customers three times a year. Two of our customer service-related employees recently participated in a "Utility Communications" webinar.

Q. Please expand on the Company's communications as it relates to the rate case.

A. Cascadia Water mailed the rate case Customer Letter to all customers on March 14, 2024 and posted a notice to the Company website that same day. Customers emailed, called, and mailed in responses related to the rate case and the Company kept track electronically of all feedback received. Company personnel, myself included, participated in three customer meetings sponsored by the WUTC, one in person on the Peninsula on April 22, 2024, and two virtual meetings on May 15 and June 12,

2024. The Company posted the virtual meeting information to our website, and included it on e-bill messages. Field employees carried cards to hand out to any customers on site who had rate case-related questions (with our contact information and the WUTC contact information). Company personnel also met with a number of customers in person.

III. Capital Investments (Plant Additions and Ongoing Projects)

Q. Please list the major projects that make up the plant additions and ongoing projects since the last rate case.

A. There are 14 major plant additions and ongoing projects since the Company's most recent rate case, Docket UW-200979:

1. Del Bay Watermain Replacement & Consolidation with W&B Waterworks #1
2. CAL Waterworks – Distribution System Loop at Beachwood Drive
3. CAL Waterworks – Reservoir Replacement & Booster Pump Improvements
4. W&B Waterworks #1 – Watermain Replacement and PRV/Vault to Mutiny Lane
5. W&B Waterworks #1 –PRV/Vault Replacement on Mutiny Bay Road
6. Rolf Bruun – Disinfection Treatment
7. Estates – Reservoir, Booster Pumps, and Treatment
8. W&B Waterworks – Reservoir, Pumphouse, Treatment and Watermain Replacement
9. Sea View – Source Development
10. Diamond Point – Chlorination System
11. Agate West – Chlorination System
12. Generators – Multiple Systems

13. SCADA Remote Monitoring System – Multiple Systems

14. Coordinated Water System Plan ("WSP") – Island County

Q. In general, how does Cascadia Water seek to manage the cost of capital projects?

A. Cascadia Water works with selected engineers to design projects and construction plans that meet current and future system needs. All projects follow the guidance of the DOH Water System Design Manual – see Exhibit CJL-12. Of the fourteen projects listed above, ten were included in the Coordinated Water System Plan – see Exhibit CJL-8. The other four were required from DOH. To be clear, this rate case is not about future spending; it is about recovering historical costs for investments that have already gone into service or will be in service by the rate effective date in this case. Looking at current and future demands/needs helps to ensure the long-term viability of the installed improvements. For large projects, bid schedules are sent to multiple, reputable contractors for competitive bids. Bid schedules provide alternative bid items as applicable and also protect the customers from unnecessary costs if/when additions or subtractions occur during construction.

1. <u>Del Bay Watermain Replacement & Consolidation with W&B Waterworks #1 project</u>.

Q. Please describe the project in detail.

A. Cascadia Water consolidated the Del Bay system into the W&B Waterworks #1 system. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8). The project replaced approximately 3,000 feet of watermain in the Del Bay distribution system along Mutiny Bay Road, Mutiny Sands Road, and

Timber Lane. The existing well and pumphouse infrastructure associated with the Del Bay system plus the new Del Bay watermain were connected into the W&B Waterworks #1 distribution system.

Q. Why was the project necessary?

A. When the Del Bay Water System (PWS ID # 18575K) was purchased, the system had a history of distribution system leakage ("DSL") over 10%. WAC 246-290-820 requires an action plan to reduce leakage at such percentage. The action plan developed was the replacement of existing distribution piping. This decision was based on a number of factors, including:

- Lack of established easements to be able to legally access portions of the existing distribution piping for servicing and repairs; and
- History of frequent leak repairs to the distribution piping, indicating that the pipe has reached the end of its serviceable life.

Q. Are there any additional benefits to the project?

A. Yes. There are multiple benefits to the Del Bay watermain replacement and consolidation into W&B Waterworks #1 water system. These benefits include the following:

- Replacement water mains were sized to extend fire suppression capability into the system;
- The Del Bay system had a failing reservoir and older well that needed replacement. The consolidation with W&B Waterworks #1 saved costs associated with reservoir replacement and development of a new source; and
- The Del Bay system had a history of poor water quality and was on direct disinfection. This consolidation has improved their water quality.

Q. Did the Company consider alternatives to performing the project?

A. Yes. The Company analyzed the cost-benefit of consolidation versus maintaining and replacing existing infrastructure within the Del Bay community system in the design process.

In addition, the Company considered design alternatives to placing the new watermain along Mutiny Sands Road under the edge of the asphalt surface, under the existing ditch line, along the west side of the roadway, and within the right-of-way through existing landscaping. The selected project was the least cost, least risk alternative.

Q. Please discuss the contractor selection process.

A. Cascadia Water received four separate bids from experienced, reputable contractors to complete the project. The lowest responsive bidder was Morley and Sons Construction, LLC, which Cascadia Water selected to undertake the project.

Q. What is the status of the project?

A. The project was completed in November 2023.

Q. What is the cost of the project?

A. The project cost just under $800,000.

2. <u>CAL Waterworks – Distribution System Loop at Beachwood Drive</u>

Q. Please describe the project in detail.

A. Cascadia Water added piping and valving at the intersection of Beachwood Drive and East Harbor Road. This project completed a loop in the distribution system at this juncture. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Why was the project necessary?

A. The analysis and modeling of the CAL Waterworks distribution system, completed in the Water System Plan, identified that the lack of a loop along East Harbor Road provided inadequate service pressures in the distribution system while maintaining minimum pressures per WAC 246-290-230(5). The project was considered an immediate priority to bring the existing system into compliance with DOH-required levels of service.

Q. Did the Company consider alternatives to performing the project?

A. Yes, the Company considered an alternative to extend a new larger water main from the intersection down to the pumphouse. Doing so would have added costs and time that were considered avoidable. Roughly 1,000 feet of piping at $200/ft would have cost $200,000.

Q. Please discuss the contractor selection process.

A. The Company bid out the project to multiple contractors and awarded it to the lowest responsive bidder, Madsen Enterprise.

Q. What is the status of the project?

A. The project was completed in March 2023.

Q. What is the cost of the project?

A. The project cost approximately $30,000.

3. <u>CAL Waterworks – Reservoir Replacement & Booster Pump Improvements</u>

Q. Please describe the project in detail.

A. The Company replaced both the concrete reservoir and pumphouse with new structures. This project was included in our Island County Unified Master Plan - see Exhibit CJL-12). This project was also mentioned as a recommendation by DOH in

the most recent sanitary survey performed by DOH and Island County Health Department representatives – see Exhibit CJL-6). We replaced booster pumps for the system and a water main from the pumphouse down to East Harbor Road (approximately 500 feet). The Company also removed/demolished the old pumphouse (installed in the 1980s) and reservoir (installed in the 1960s). The new reservoir was placed in the same location as the removed reservoir, so temporary storage was provided during construction activities.

Q. Why was the project necessary?

A. As shown in the Water System Plan, the system could not provide Peak Hour Demand while maintaining minimum pressure requirements in accordance with (WAC) 246-290-230(6). The older reservoir was leaking excessively, had surpassed its anticipated useful life, and was inadequately sized to meet the DOH recommended service levels for the number of approved connections. The project was included in the Company's 2021 long-term capital plan. This project was also recommended in the last sanitary survey performed by DOH.

Q. Are there any additional benefits to the project?

A. Yes. The improvements expanded the approved capacity of the system and the infrastructure is sized to meet future demands, including fire flow, if or when water mains along East Harbor Road are replaced.

Q. Did the Company consider alternatives to performing the project?

A. During the design process, the Company considered alternative layouts and options to provide a second reservoir to supplement the first reservoir, but adequate area was not available on the system owned parcel. Additional land would have needed to be

purchased or secured through an easement, which would have driven the price even higher for this alternative.

Q. Please discuss the contractor selection process.

A. The Company bid out the project to multiple bidders with the contract awarded to the lowest responsive bidder, Larry Brown Construction. This bid did not include costs for obtaining a new service line to the Puget Sound Energy ("PSE") connection. That bid included additional fees from an electrician to complete new system controls, heating, lighting, a generator, and remote monitoring.

Q. What is the status of the project?

A. The majority of work was completed in January 2024. Full completion is pending the new service line from PSE. The project is expected to be completed in 2024.

Q. What is the estimated cost of the project?

A. The project cost approximately $1.1 million.

4. <u>W&B Waterworks #1 – Watermain Replacement and PRV Vault to Mutiny Lane</u>

Q. Please describe the project in detail.

A. Service to connections off of Mutiny Lane and its associated cross streets were served by a single waterline from Wahl Road through an easement on a parcel which traversed down a very steep slope and under a stream to Mutiny Lane. A movement in the steep slope caused the failure of this water main. To restore service, a temporary line was sleeved through the existing line but it was inadequately sized for higher demands in the summer months. The project replaced the failed water main within the easement from Wahl Road to Mutiny Lane (approximately 300 feet) and replaced the Pressure Reducing Valve ("PRV") & Vault in Mutiny Lane. The line

down the steep slope and under the stream was installed via a directional drill. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Why was the project necessary?

A. The temporary water line that restored service was inadequately sized to meet the requirements of (WAC) 246-290-230(6), and the existing main line was in a condition beyond repair.

Q. Are there any additional benefits to the project?

A. Yes. The new water main was increased in size and provides an increased level of service to the connections off Mutiny Lane.

Q. Did the Company consider alternatives to performing the project?

A. Yes. The Company considered providing service by providing a new watermain from Mutiny Bay Road to the end of the waterline off Robinson Road. This would have required approximately 1,400 feet of new water main. Although an identified medium-term/long-term improvement to the system, the project would not replace the need for the repaired line and the timeline was prohibitive because of the need for revised franchise agreements with Island County.

Q. Please discuss the contractor selection process.

A. The project was divided into two portions; the water main installed by directional drill and the installation of the new PRVs. The Company bid out each portion of the project to reputable contactors. The directional drilling was awarded to the lowest responsive bidder, Trenchless Construction. The PRVs, isolation valves, and associated concrete vault were awarded to the lowest responsive bidder, Madsen Enterprise.

Q. What is the status of the project?

A. The project was completed in April 2022.

Q. What is the cost of the project?

A. The project cost just under $180,000.

5. W&B Waterworks #1 –PRV/Vault Replacement on Mutiny Bay Road

Q. Please describe the project in detail.

A. The Company replaced and relocated the PRVs & Vault from the intersection of Mutiny Bay Road and Woodard Avenue to the intersection of Mutiny Bay Road and Robinson Road.

Q. Why was the project necessary?

A. The existing PRVs were located underground in a hole with pressure treated wood sides and an open floor. This did not allow proper access to perform maintenance on the PRVs, which caused them (along with age), to become inoperable. The PRVs were also seized and were unable to be adjusted (due to the condition of the vault) and therefore were not functioning properly, which impacted flow and pressure to customer service lines and hydrants. In order to adjust system pressures and allow for increased flows for fire hydrants, and the addition of the Del Bay system (see Project 1, above), the PRVs and associated vault were replaced and relocated. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Are there any additional benefits to the project?

A. Yes. Replacement of the PRVs allowed for relocation to an improved site at the intersection of Mutiny Bay Road and Robinson Road. Underpressurized connections along Mutiny View Place were moved to the higher-pressure zone which increased

their pressure. Additional fittings and valves were installed for a future extension down Robinson Road. The new location also improved safety for operators/employees accessing the vault.

Q. Did the Company consider alternatives to performing the project?

A. There were no viable alternatives to the project. The PRVs were required to maintain pressure levels on the system, and repairing them was not possible due to the condition of the existing vault. Replacement PRVs were not able to be installed in the existing vault, and therefore needed to be installed in the new location.

Q. Please discuss the contractor selection process.

A. The pressure reducing valves, isolation valves, and associated concrete vault were awarded to the lowest responsive bidder, Madsen Enterprise.

Q. What is the status of the project?

A. The project was completed in November 2023.

Q. What is the cost of the project?

A. The project cost approximately $150,000.

6. <u>Rolf Bruun – Disinfection Treatment</u>

Q. Please describe the project in detail.

A. The Company installed a chlorination system to address a history of coliform bacteria in the Rolf Bruun distribution system.

Q. Why was the project necessary?

A. Based on a history of bacteriological test results in the Rolf Bruun distribution system, the DOH issued a notice of corrective action to install a disinfection barrier on the system. Because of site and building constraints, it was necessary to install an

addition to the existing pumphouse structure to house chlorination equipment. Piping from the source to the concrete reservoir was rerouted to allow for chlorination prior to storage.

Q. Are there any additional benefits to the project?

A. Yes. Installing the necessary piping to reroute the piping to the chlorination system enabled the Company to identify and correct various pathways for bacteria within system piping. The design included the addition of a manganese treatment filter system and the correct valving was installed so that this project can be installed at a future date if desired. This manganese treatment filter system was not installed during this project due to cost.

Q. Did the Company consider alternatives to performing the project?

No, as it was a requirement from DOH. As mentioned, the Company used the least cost option for now but left open the option for the manganese filter system to be installed without system disruption or building expansion in the future.

Q. Please discuss the contractor selection process.

The Company bid out the project to multiple contractors and awarded it to the lowest responsive bidder, Larry Brown Construction.

Q. What is the status of the project?

The project is nearly complete and is pending the installation of an appropriate flow switch. The expected project completion is October 2024.

Q. What is the estimated cost of the project?

A. The estimated cost of the project is approximately $140,000.

7. <u>Estates – Reservoir, Booster Pumps, and Treatment</u>

Q. Please describe the project in detail.

A. The Company replaced the underground storage reservoirs on the Estates system. It was also necessary to replace the system booster pumps because they were not compatible with the new above-ground reservoir. A treatment filter system (for iron, manganese and arsenic), was designed and incorporated into the design. The old reservoirs were removed/demolished and the old pumphouse is being repurposed as a storage structure, while the former storage building is being repurposed for the new components and treatment filter system to save cost.

Q. Why was the project necessary?

A. Because of deficiencies noted in the latest Sanitary Survey, the DOH required a corrective action plan for the leaking reservoir. See Exhibit CJL-2 for a copy of the Sanitary Survey. The existing underground reservoirs had structural deficiencies and significant leaking issues that were a bacteriological concern.

Q. Are there any additional benefits to the project?

A. Yes. With the organization of the new facilities, the treatment filter system was added to optimize the proposed improvements to controls, valving, and piping. Addressing this emerging concern now will save future modifications to newly installed improvements. In other words, utilizing the existing storage building that was converted into the new pumphouse, saves money by not requiring a new building to be constructed in the future. The new treatment facility will also eliminate any buildup on legacy manganese deposited in the existing mainlines.

Q. Did the Company consider alternatives to performing the project?

A. Yes. There was some consideration of reservoir repairs such as an interior coating. Doing so would have been an unacceptable risk for reservoirs over 40 years old with structural deficiencies that are at or nearing the end of their anticipated useful life and that are no longer in compliance with current design standards. Also, the logistics of taking the old reservoirs out of service and leaving the community without water for an extensive length of time was determined to be unsatisfactory. An underwater inspection was performed to see the extent of the cracking. See Exhibit CJL-3 for a copy of the underwater inspection. The previous owner of the system supplied an inspection report from 2007 that showed cracks were forming at that time. See Exhibit CJL-4 for a copy of the 2007 inspection report. The increase in the cracks from 2007 until 2021 was noticeable.

The Company also received bids for more expensive reservoir materials. Cascadia Water decided to proceed with the lesser expensive concrete material, instead of glass-fused steel tanks that are substantially more expensive, to mitigate costs.

Q. Did the Company engage with customers of the Estates system about the project?

A. Yes. The Company held a virtual public meeting with the Estates customers to discuss this project on February 9, 2022, and also kept customers updated through notices and annual required water quality reports sent to customers.

Q. Please discuss the contractor selection process.

A. The Company bid out the project to multiple contractors, and awarded it to the lowest responsive bidder, Madsen Enterprise.

Q. What is the status of the project?

A. The reservoir, pumps and piping are complete and have been in service since July 2024. The treatment system is installed and connected. It is currently in a bypass state, waiting for the manufacturer to do a startup process. Anticipated completion is in October 2024.

Q. What is the estimated cost of the project?

A. The estimated cost of this project is just under $1.6 million.

8. <u>W&B Waterworks – Reservoir, Pumphouse, Treatment and Watermain Replacement</u>

Q. Please describe the project in detail.

A. This project included the installation of a larger concrete storage reservoir, a treatment system (for iron, manganese and arsenic), a pumphouse to house the treatment plant, and a watermain replacement from the reservoir to the intersection of Wahl Road and Roy Road (approximately 1,400 feet). The project also incorporated significant improvements to the electrical system and controls at the site including well controls, pressure transducers, and remote monitoring. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8). This project was also included in the sanitary survey that was performed by DOH – see Exhibit CJL-7).

Q. Why was the project necessary?

DOH has required the completion of the reservoir and treatment project to provide W&B Waterworks #1 with the capacity to serve an adequate number of equivalent residential units ("ERUs") to comply with the current and committed number of connections. The older reservoir was leaking excessively and had surpassed its anticipated useful life.

Q. Are there any additional benefits to the project?

A. Yes. The project was able to provide additional valving in the W&B Waterworks #1 distribution system to allow proper isolation and redundancy for improved operational control. Aside from providing adequate storage capacity and improved water quality, relocation of the reservoir to a higher elevation provides appropriate pressure to the low-pressure connection along the north end of Wahl Road. This project will also allow Cascadia Water to finally be able to provide service for all service requests within the W&B Waterworks service area, which we have not been able to do for over a decade.

Q. Did the Company consider alternatives to performing the project?

A. No, the reservoir capacity in the system was an ongoing, significant concern for the W&B Waterworks #1 system. This system was installed in the late 1970s and has only received general upkeep, but no major improvements since then. The W&B Waterworks #1 customer base had been vocal for decades about irritation with pressure and water quality.

Q. Please discuss the contractor selection process.

A. The Company bid out the project to multiple contractors, and awarded it to the lowest responsive bidder, Morley and Sons Construction. Cascadia Water purchased the materials for the new pumphouse from Bode Precast.

Q. What is the status of the project?

A. The reservoir and watermains were completed in June 2024 and the watermain extension was completed in August 2024. Project completion is pending the delivery

of the new pumphouse, installation of treatment, and associated electrical improvements. Anticipated completion is December 2024.

Q. What is the estimated cost of the project?

A. The estimated cost of this project is $1.7 million.

9. <u>Sea View – Source Development</u>

Q. Please describe the project in detail.

A. This project involves the development, installation, and approval of a new groundwater source (well & pump) for the Sea View water system. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Why is the project necessary?

A. This project is necessary in order to supply the Sea View water system with safe, reliable drinking water since the existing sources either had unacceptable water quality (Wells 1 & 2) to meet state standards or were no longer reliable (Well 3).

Q. Are there any additional benefits to the project?

A. Yes. The project also provided redundancy in the source water and improved water quality in the Sea View system.

Q. Did the Company consider alternatives to performing the project?

A. Yes. Cascadia Water had previously pursued options to rehabilitate the wells, as did the previous system owner. These rehabilitation options were not pursued again because there was no evidence of long-term effects on the source water quality or production rate.

Q. Please discuss the contractor selection process.

The Company bid out the project to multiple contractors, and awarded it to the lowest responsive bidder, Aquatech Well Drilling.

Q. What is the status of the project?

A. The new source has been approved by the State, the new pump was installed in August 2024 and final approval is pending electrical improvements and final connection of the source into the existing infrastructure. Anticipated completion is by the end of 2024.

Q. What is the estimated cost of the project?

A. The estimated cost of the project is approximately $170,000.

10. <u>Diamond Point – Chlorination System</u>

Q. Please describe the project in detail.

A. The Company is installing a chlorination system to address a history of coliform bacteria in the Diamond Point distribution system.

Q. Why is the project necessary?

A. Based on a history of bacteriological test results in the Diamond Point distribution system, the DOH issued a notice of corrective action to install a disinfection barrier on the system. Because of the configuration of the Diamond Point system, it was necessary to install a new building adjacent to the system sources to house chlorination equipment. Chlorine remote monitoring was added near the far end of the distribution system to meet DOH requirements.

Q. Are there any additional benefits to the project?

A. Yes. Remote monitoring provides valuable real-time data to the Company without the need for an operator to be onsite.

Q. Did the Company consider alternatives to performing the project?

A. Yes. The Company considered alternative locations for the installation of chlorination. Since coliform positives were primarily located in the portion of the Diamond Point distribution system served by the elevated reservoir, there was consideration given to replacing that reservoir. The reservoir and booster pumps will need to be replaced at some point in the future, but the Company elected to address the acute health risk in a more timely manner rather than a longer reservoir replacement project that would still require the same chlorination project.

Q. Please discuss the contractor selection process.

A. The Company bid out the project to multiple contractors, and awarded it to the lowest responsive bidder, Larry Brown Construction.

Q. What is the status of the project?

A. The project is in construction with an anticipated completion date of November 2024.

Q. What is the estimated cost of the project?

A. The estimated cost of this project is $140,000.

11. <u>Agate West – Chlorination System</u>

Q. Describe the project in detail.

A. The Company is installing a chlorination system to address a history of coliform bacteria in the Agate West distribution system.

Q. Why is the project necessary?

A. Based on a history of bacteriological test results in the Agate West distribution system, the DOH will be issuing a notice of corrective action to install a disinfection barrier on the system (as a result of three unsatisfactory samples within a 12-month period). Because of the configuration of the Agate West system, it will be necessary to install a new building adjacent to the system sources to house chlorination equipment. Chlorine remote monitoring will be added near the far end of the distribution system to meet DOH requirements.

Q. Are there any additional benefits to the project?

A. Yes. Remote monitoring provides valuable real-time data to the Company to support the periodically onsite operator.

Q. Did the Company consider alternatives to performing the project?

A. No. Because of the newer age of the infrastructure for this system, industry standard would be to install a barrier of disinfection on the Agate West system.

Q. What is the status of the project?

A. The Company will bid out the project soon with an anticipated completion date of March 2025.

Q. What is the estimated cost of the project?

A. The estimated cost of this project is $110,000.

12. <u>Generators – Multiple Systems</u>

Q. Please describe the project in detail.

A. The Company installed standby generators at each water system source that relies on electrical power. This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Why was the project necessary?

A. Per the DOH Water System Design Manual, the minimum recommended standby storage is Minimum Daily Demand ("MDD") for the pressure zones served. The DOH Design Manual allows for a consideration for a reduction in standby storage volume for systems when "two or more sources have permanent on-site auxiliary power that starts automatically when the primary power feed is disrupted."1 Standby generators keep systems in pressure during the event of a power loss. Positive pressure ensures that no contaminants can enter the distribution system. With a loss of pressure, contaminants can enter the distribution system and would therefore require a boil advisory each time the power goes out. Most of the Company's 30 systems are in locations that experience power loss frequently.

Q. Are there any additional benefits to the project?

A. Yes. Simply stated, customers rely on water. Not surprisingly, we have never received a complaint from a customer about having water when the power was out.

Q. Did the Company consider alternatives to performing the project?

A. The only alternative would be to proceed without a standby generator. We did not consider this alternative, as it is industry standard to have a standby generator at each

1 https://doh.wa.gov/sites/default/files/2022-02/331-123.pdf

water system. Not having a standby generator can pose an acute health risk to customers due to pressure loss.

Q. Please discuss the contractor selection process.

A. The Company selected different contractors for each system based on region, location, availability and cost.

Q. What is the status of the project?

A. All generators included in the rate case are online and operational.

Q. What is the cost of the project?

A. The generators varied in cost (depending on size) ranging from $20,000-$80,000.

13. <u>SCADA Remote Monitoring System – Multiple Systems</u>

Q. Please describe the project in detail.

A. The Company installed SCADA (Supervisory Control and Data Acquisition) at each water system source to monitor real-time tank levels, pressure settings, pump controls (events, hours, etc). This project was included in our Island County Unified Master Plan - see Exhibit CJL-8).

Q. Why was the project necessary?

A. This project allows the Company to gain more knowledge of each water system without having to rely on onsite resources to visually inspect each of these components constantly.

Q. Are there any additional benefits to the project?

A. Yes. The system actively pre-warns (with alarms to operators) events such as low pressure and/or low storage level, so the operator can act before customers notice any effect.

Q. Did the Company consider alternatives to performing the project?

A. No, as it is industry standard to have SCADA installed at each water system.

Q. Please discuss the contractor selection process.

A. The same contractor was used to install all SCADA systems on all water systems to ensure redundancy, resiliency and networking.

Q. What is the status of the project?

A. All SCADA systems included in the rate case are online and operational.

Q. What is the cost of the project?

A. The costs varied (depending on system complexity) and ranged from $5,000-$15,000.

14. <u>Coordinated Water System Plan – Island County</u>

Q. Please describe the project in detail.

A. Cascadia Water worked with Facet (formerly DCG/Watershed) to develop a Water System Plan in accordance with DOH requirements for its 11 water systems owned and operated in Island County at the time the plan was developed. The principal goal of water system planning is to identify current demands and future needs and apply available resources most efficiently to provide high-quality service at the lowest cost while protecting the community's health. This is our Island County Unified Master Plan – that has been referenced throughout this testimony – see Exhibit CJL-8).

Q. Why was the project necessary?

A. All public water systems must develop and implement a technical, managerial, and financial plan appropriate to the system's size, complexity, and performance; expected demographic changes; community-specific resource constraints; and planning history (see WAC 246- 290-100 and 246- 290-105).

Q. Are there any additional benefits to the project?

A. Yes. Appropriate planning provides a path to ensure systems are able to reliably provide safe drinking water to consumers. The plan identifies system deficiencies and develops anticipated capital improvement plans and schedules to meet current and future needs.

Q. Did the Company consider alternatives to performing the project?

A. The only alternative to staying in compliance with WAC 246-290-100 and WAC 246-290-105 was to develop a small water system management program for each individual system. Cascadia Water met with the DOH prior to developing the Unified Water System Plan to evaluate the requirements and options to appropriately and efficiently meet the requirements and it was determined that a Unified Water System Plan was the appropriate route to take.

Q. What is the status of the project?

A. This coordinated Water System Plan for the 11 systems in Island County was approved in August 2022.

Q. What is the approximate cost of the project?

A. The cost of this project was approximately $150,000.

Q. Please elaborate on the status of the Master Plans for each system.

A. A water system master plan is a planning document used to look at future capital expenditures based on priority of system upgrades and components. Each water system was installed at different times, so some have their own individual master plan, and some are part of a consolidated plan. The below Table 3 displays the status of Master Plans for each 'community'.

Table 3 – Status of Master Plans for Each 'Community'

Name	Seaview/LEI	Estates/Monterra	Pedersen	NWWS	Aquarius	Discovery Bay	Pelican Point
No. of Systems	11	2	2	8	4	1	1
Last approved	2022	Mid-90s	2020 & 2000	Unknown	2008	n/a	2009
Current	Yes	No* New WSP filed June 2024	Yes (1) No (1)	No	No *one system included in new WSP filed June 2024	No *New WSP filed June 2024	No *New plan being drafted

Q. Please elaborate on the Master Plans that are not current.

A. NWWS has eight different systems. Tjetland is a Class B system and does not have a WSP. Skagit River Colony is a non-transient non-community and does not have a WSP. The Company has requested the filing dates for the remaining six systems (Blanchard Knob, Lake Alyson, Silver Lake, Bacus Road, Rolf Bruun and Cedarhearth) from DOH, because we did not receive this information from the

previous owner. These systems need updated WSPs. One of the Pedersen systems, Jamestown on Wilcox Lane, was last filed in 2000. An update is needed for this system. Aquarius' last WSP was filed in 2008. There are four water systems within this 'community'; Diamond Point is in Clallam County and is therefore included in the Southwest Region Water System Plan that was filed in June 2024 and is currently under DOH review. The remaining three systems need to be updated.

IV. Regulators

Q. What is your approach to working with regulators?

A. Cascadia Water takes its relationship with regulators very seriously. We consider ourselves to have three main regulators: DOH, WUTC, and DOE.

Q. Please elaborate on your relationship with DOH.

A. DOH primarily regulates water quality and system planning, among other things. Because Cascadia Water has water systems throughout the state, we fall under all three DOH regions: Northwest, Southwest, and Eastern. The Pelican Point System is in the Eastern system, the Peninsula System is regulated by the Southwest region, and the Island/Mainland Systems is regulated by the Northwest region. The Company has seen several regional planners come through the Southwest region, and we are happy to tour the systems with any of the planners so they have hands-on knowledge of the systems in question. Cascadia Water has an obligation to provide safe, adequate and efficient service, and we take that very seriously. DOH is the direct link to helping us achieve that. Cascadia Water has a longstanding quarterly meeting with DOH regional engineers to discuss status of ongoing projects, upcoming projects, as well as future regulation.

Q. Do you wait for DOH to require an upgrade?

A. No, and this is important to the Company. Just because DOH does not require us to make a specific investment does not mean that it was not a prudent investment. There are times when a system needs an upgrade ahead of being ordered to upgrade. Once Cascadia Water gets an order from DOH, it is often too late to be able to evaluate certain options that might otherwise have been available. If we wait for DOH to require an upgrade or improvement, it may mean the system has already failed somewhere along the way. Take our chlorination/filtration projects for Rolf Bruun, Agate West & Diamond Point: these systems are now required to install chlorination/disinfection, because they had numerous unsatisfactory coliform samples which could pose a public health risk. It is prudent to correct issues before public health might become an issue.

Q. Please elaborate on the requirement aspect of the Estates reservoir.

A. The sanitary survey for Estates, which was performed by the DOH, noted the cracks in the reservoir as a Significant Finding. A corrective action plan was therefore required. The sanitary survey mentions *"ODW (Office of Drinking Water) is aware Cascadia Water plans to replace both buried reservoirs with an above ground storage tank."*[2] See Exhibit CJL-2 for a copy of the Sanitary Survey. Underground reservoirs are no longer industry standard or recommended by DOH to be installed new, so Cascadia Water advised the inspector that it would be planning to replace the reservoir. This is because Cascadia Water knew from diligence before the Estates

2 240151-Water Cons Adv of Olympic Peninsula-Exh. 1-6-21-24.pdf

system was acquired that the underground reservoir was old and would need to be replaced at some point, so it was already on the Company's radar. The previous owner of the Estates system had stated in sanitary surveys in 2013 and 2018 that he would re-seal the roof cracks each year with sealant. A 2007 report conducted by the previous owner also confirms that there was cracking inside the reservoir at that time. See Exhibit CJL-4 for a copy of the 2007 inspection report. A third-party contractor was hired to perform an underwater rover inspection, which not only verified the cracks, but also brought to light significant stress cracks and root infiltration. See Exhibit CJL-3 for a copy of the underwater inspection report. Cascadia Water initially did not plan to replace the underground reservoir so soon after acquiring the system, however after the sanitary survey and inspection report, it was prudent to replace the reservoir rather than wait for it to fail completely. If the Company had waited for DOH to require the reservoir to be upgraded, it would have meant the reservoir had already failed; customers would have been drinking unsafe water and on a prolonged boil advisory or there would be no water left in the reservoir which would also eliminate fire protection for the community. All of those possibilities would present acute public health risks. It is not Cascadia Water's business practice to wait until an acute public health risk is present; Cascadia Water's business practice is to act before one arises if we are able to do so. In this case, we were fortunate enough to be able to do so.

Q. Please elaborate on manganese being a secondary contaminant, and therefore the filtration aspect for Estates not being required.

A. Manganese is a secondary contaminant, with a Maximum Contaminant Level ("MCL") set primarily for aesthetics. However, new research is proving that manganese has potential health risks as well, especially for infants/children under the age of 5. This has been discussed amongst industry professionals and regulators for the past few years. According to a DOH publication from December 2023, "*For many years, manganese in drinking water was considered as only an aesthetic concern, causing discoloration and staining. However, recent studies show negative health effects from exposure to high levels of manganese in drinking water. We have used this new information to revise our guidelines*."3 See Exhibit CJL-9 for a full copy of the publication, with further detail as well as Exhibit CJL-10 for an issue paper from DOH. The United States Environmental Protection Agency ("EPA") has also filed a report that includes manganese as a priority contaminant for regulatory decision making to move it to a primary contaminant. See Exhibit CJL-11 for this report. The filtration system was not part of the corrective action plan as it related to the sanitary survey. The filtration system was included with the overall design concept after further discussions with our engineers, DOH, and previous results of a pilot test, attached as Exhibit CJL-5, that showed manganese over the MCL. Since we were already exploring filtration for the Estates system, it made the most sense to include it with the reservoir upgrade project, since it would have cost more to add filtration into the system after the upgrade project was complete because a new building would have been required at a later date. Cascadia Water chose to install it now, so that we

3 https://doh.wa.gov/sites/default/files/2023-12/331-741.pdf

could utilize the existing pumphouse and reduce costs. This filtration will also be removing iron and arsenic, which are part of the water chemistry makeup of the Estates system.

Q. Please elaborate on your relationship with WUTC.

A. Our open line of communication policy really started back in 2012, when I started working on my first rate case as part of Lehman Enterprises. I worked extensively with a former regulatory analyst at Staff who stressed the importance of being transparent with the WUTC. The Staff are extremely diligent and thorough, which carried over into their earlier investigation in this rate case as well. The Company hosted Staff on site visits so they could see first-hand the projects that were included for cost recovery in this rate case. The Company provided Staff access to our books and records including invoices related to the projects described in this testimony and participated in the three virtual meetings Staff held with customers on April 22, 2024, May 15, 2024, and June 12, 2024. Cascadia Water also engaged in this rate case with Public Counsel, which represents our customers, and offered to host site visits to Public Counsel representatives.

Q. Please elaborate on your relationship with DOE.

A. DOE primarily regulates water rights and water use. Admittedly, this is the regulator we interact with the least out of the three. DOE is engaged anytime a water system plan update is done, or new source is drilled. Cascadia Water worked with DOE on its most recent water master plan that was approved in 2022, and also for the new source that was drilled on the SeaView system. Cascadia Water also interacts with the DOE about seawater intrusion and we submit samples to them bi-annually. DOE also has a

new website they are working at implementing for tracking water usage, and Cascadia Water has volunteered to test it out with all of our systems.

Q. Does this complete your Direct Testimony?

A. Yes it does.

IV. List of Exhibits

Exh. CJL-2 Sanitary Survey Report

Exh. CJL-3 Water Storage Tank and Inspection Report

Exh. CJL-4 Underwater Inspection Report of Procedures and Findings

Exh. CJL-5 Summary of Pilot Testing, Estates Water System, North and South Wells

Exh. CJL-6 CAL Waterworks Sanitary Survey 2023

Exh. CJL-7 W&B Waterworks Sanitary Survey 2024

Exh. CJL-8 Cascadia Water Unified Water System Plan

Exh. CJL-9 EPA Manganese Contaminant Candidate List

Exh. CJL-10 DOH Manganese Issue Paper Oct. 2023

Exh. CJL-11 DOH Manganese Publication 331-741

Exh. CJL-12 DOH Water System Design Manual