WUTC DOCKET: UW-170924
EXHIBIT: BB-1T
ADMIT ☑ W/D ☐ REJECT ☐

Exh. BB-1T
Docket UW-170924
Witness: Bob Blackman

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORATION COMMISSION

SARAH HAND, Complainant(s), v. RAINIER VIEW WATER COMPANY, INC., Respondent(s).	DOCKET UW-170924 **TESTIMONY OF BOB BLACKMAN**

TESTIMONY OF

BOB BLACKMAN

MAY 3, 2018

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I. BACKGROUND

Q: Please introduce yourself and describe your relevant background, employment history and experience

A: My name is Bob Blackman. I am the General Manager of Rainier View Water Company, Inc. I have held that position for five years, and prior to that I was Operations Manager for 22 years. I received my Water Distribution Manager 3 certification in 2002 along with my Cross Control Specialist certification. In 1985 I received my Water Distribution Specialist certification. My Washington State Department of Health Certification No. is 3535. Washington State Department of Health requires 30 hours of Continuing Education every three years to retain a certification, which I have maintained.

Q: Please describe Rainier View Water Company, Inc.

A: Rainier View Water Company, Inc. is a privately owned, but publicly regulated, water utility provider serving a population of over 45,000 customers across 18,000 connections in Graham, Spanaway, Puyallup, Gig Harbor, and other outlying areas. Rainier View Water Company services the Springwood Estates subdivision, including providing water to Sarah and Gretchen Hand.

II. REGULATION OF RAINIER VIEW WATER COMPANY

Q: Which state agencies oversee and/or regulate Rainier View Water Company?

A: The Washington Utilities and Transportation Commission and Washington Department of Health both oversee and/or regulate various aspects of Rainier View Water Company's operation.

Q: Please describe the Utility and Transportation Commission's regulation of Rainier View Water Company.

A: Rather than allowing utilities to operate in a free-market environment, the legislature implemented a regulatory system that foregoes competition in favor of stringent regulation by the Commission. The Commission is created in Title 80 RCW and its rules are in Washington Administrative Code Title 480, and specifically regulates investor-owned water companies under Chapter 480-110 WAC. The Commission focuses largely on matters involving customer service, billing and rates, and financial records and reporting, although this necessarily also involves some aspects of water quality and quantity.

Q: Please describe the tariff governing your operations and the process through which that tariff is enacted.

A: The Commission approves a tariff that sets forth terms and conditions of regulated service, including rates, charges, equipment and facilities, the manner in which rates and charges are assessed for regulated services provided to customers, and rules and conditions associated with offering service. The Commission approves filings related to the tariff in accordance with Chapters 80.04 and 80.28 RCW. Some actions of the Commission are subject to the Washington Administrative Procedures Act and the Open Meeting Act. Taken together, the statutes include public notice and comment periods for most tariff filings.

One important provision of the tariff is the limitation on liability. This limitation of liability provides the Company with a degree of certainty as to potential liability exposure, so that rates may be set appropriately. This is an important component of the overall regulatory system because regulated water utility providers cannot simply raise rates to offset costs; rather, every rate change or surcharge, for any reason, requires Commission approval, including an opportunity for public input.

Q: Please describe the Department of Health's regulation of Rainier View Water Company.

A: The Washington Department of Health regulates various aspects of RVWC's operations, focusing largely on water quality and quantity, also including the technical aspects, such as engineering and operations of water systems. The DOH is authorized to regulate water systems by Chapters 246-290 through 246-296 WAC, but as a Group A Public Water Supply, Chapter 246-290 is most applicable. The DOH reviews and issues permits annually based on compliance with these regulations.

Q: Has Rainier View Water Company been sanctioned, cited, or received any similar punishment or remedial order by either of those agencies in the prior five years?

A: No. Rainier View Water Company has not been sanctioned, cited, or received any formal punishment or remedial order from the Department of Health or the Utilities and Transportation Commission in the prior five years. This is consistent with the testimony of Mr. Bob James, the DOH Office of Drinking Water's Northwest Regional Manager, at pages 9 - 14 of his deposition, appended to Ms. Hand's testimony as Exhibit 19.

Q: Has Rainier View Water Company or any of its water system been deemed a "State Significant Noncomplier" within the past five years?

A: No. The DOH can identify a water system as a State Significant Noncomplier where that system is violating or has violated department rules creating an imminent or significant risk to human health. Examples of such violations include repeated violations of monitoring requirements or failure to address an exceedance of permissible levels of regulated contaminants. The DOH has <u>not</u> made such a finding as to RVWC.

III. WHAT IS MANGANESE?

Q: What is manganese and how does it get into the water?

A: Manganese is a naturally occurring mineral found in the groundwater of certain regions. It is also commonly found in several foods, including nuts, legumes, seeds, tea, whole grains, and leafy green vegetables. It is considered an essential nutrient because the body requires it to function properly. The U.S. EPA and Washington DOH regulate manganese as a secondary contaminant to drinking water. This is consistent with the testimony of Mr. Michael Means, Deputy Director of Operations for the DOH Office of Drinking Water, at pages 7 - 9 of his deposition, appended to Ms. Hand's testimony as Exhibit 18.

Q: What are secondary contaminants?

A: Secondary contaminants are substances present in drinking water that could adversely affect the aesthetic qualities of the water. Secondary contaminants are deemed to not be a health risk and are monitored for the limited purpose of promoting consumer confidence in public drinking water. Mr. Means (Ex. 18 to Ms. Hand's testimony, at pages 8 - 10) and Mr. James (Ex. 19 to Ms. Hand's testimony, at pages 14 - 15).

Q: How does manganese get from the groundwater into customers' homes.

A: When water containing manganese passes through the chlorination process, the manganese oxidizes, creating very, very small flecks of matter that can appear brown-ish or black-ish. In non-moving water, these flecks settle to the bottom. The same occurs in the water delivery pipes throughout water systems. Water in delivery systems is not constantly flowing, so generally, these flecks of oxidized manganese settle to the bottom, and stay there. But as large-volume water events occur, such as opening a fire hydrant or a water main break, the increased force of the water disturbs some of the

oxidized manganese and pushes it downstream. Over time, the manganese eventually works its way through the water mains, into the smaller service lines, and potentially into the consumers' homes. This process is akin to the movement of sand dunes in a desert.

Q: How did RVWC identify the elevated manganese from this one well?

A: Rainier View Water Company saw an increase in work order requests asking to flush lines due to brown or black water in the early part of 2016. After we identified the water system that was experiencing higher manganese, we reversed back through the system until we identified the exact wellhead that contained the manganese. That wellhead is known as Fir Meadows 3, part of the Southwood Sound System.

Q: What prevented RVWC from identifying the manganese level earlier?

A: Two factors prevented Rainier View Water Company from identifying the high-manganese wellhead earlier. First, this wellhead is one of four at the Fir Meadows site. The DOH authorizes blended testing from this site, so even though this one wellhead exceeded the Secondary Maximum Contaminant Level (SCML), the test results from the blended Fir Meadows well samples were still below the SMCL. Additionally, the gradual, inconsistent, and unpredictable movement of manganese through the system means that a substantial amount of time could pass before we identify the presence of visible manganese.

IV. TESTING REQUIREMENTS AND PROCEDURES

Q: What requirements must Rainier View Water Company follow related to testing for manganese?

A: We receive the water quality monitoring report from the DOH for every water system that we operate. These reports tell us what tests to run on which wells. The frequency and nature of the tests on each well depends on the history of each particular well and the

type of test being run. For example, on the Southwood Sound Water System we do 50 bacteriological tests a month. On the other hand, inorganics tests (including for manganese) are typically required every three years, but wells with a history of good results can be exempted for a longer period of time.

Q: Does Rainier View Water Company comply with each of those requirements?

A: Yes.

Q: Has Rainier View Water Company been issued any formal order or citation for failing to comply with any testing requirement related to manganese in the past five years?

A: No.

Q: What must Rainier View Water Company do in the event it fails a water quality test?

A: WAC 246-290-320 prescribes different action steps based on the category of MCL exceeded. For example, exceedances for coliform or biological contaminants, like E. coli, require prompt and severe actions, including nearly immediate notifications and remedial actions, whereas secondary contaminant violations require much less action. Secondary maximum contaminant exceedances require the water company to notify the DOH and take action as directed by the department. Where possible, we turn the exceeding well offline until we can implement our treatment and it passes all the required testing. This is consistent with Mr. James' testimony (Ex. 19 to Ms. Hand's testimony at pages 16 – 18).

Q: Did Rainier View Water Company notify the DOH of the SMCL exceedance at the Fir Meadows well?

A: Yes. The DOH receives copies of the results from all required testing.

Q: Has the DOH issued any order for Rainier View Water Company to take remedial measures?

A: No. If DOH gets five related complaints within a twelve-month period, it can require RVWC to take certain remedial action, such as to install filtration. This is something of a last resort – the DOH and the water utility providers prefer to use a proactive approach, rather than waiting for complaints to force the DOH to issue regulatory directives. In this particular case RVWC voluntarily took action without any formal or informal urging by the DOH. In fact, by the time the DOH was involved at this well, our self-initiated filtration pilot program was already underway. Mr. James also testified to this in his deposition (Ex. 19 to Ms. Hand's testimony, at pages 17-20 and 24-25).

Q: When did the DOH become aware of elevated manganese at the Fir Meadows well?

A: In November of 2016, Mr. Bob James, the DOH Northwest Regional Manager, met with me at the well site. We tested the water together and I told him about the pilot test program that we had completed. I informed him that we were in the process of obtaining DOH approval for construction and UTC approval for funding. Based on the high test results, the pending solution, and the fact that we were entering the low-usage seasons, we agreed that we could relegate Fir Meadows 3 to "emergency-only" status until the filtration system was installed and online. The pilot filtration program and emergency-only status of the offending well were both voluntary and not as a result of any DOH order. This is reiterated by Mr. James' testimony. (Ex. 19 to Ms. Hand's testimony, at pages 31 – 36.)

Q: What action did the DOH direct RVWC to take?

A: The DOH only directed the actions described above – to proceed with obtaining DOH

and UTC approval for the construction of the filtration system and approved the temporary relegation of this well to emergency-only status through the low-demand water seasons.

V. CUSTOMER SERVICE REQUESTS

Q: How does Rainier View Water Company log and track service requests from its customers?

A: Our billing system has a comments section in each customer account that we use to note special items, including work order requests and complaints. If a customer calls in, our staff will look up the account, note the specific requests and forward it on as an action item or service order to the applicable department, usually either the billing department or to field technicians. Follow-up notes are made as the request is resolved.

Q: How many service requests did Rainier View Water Company receive for the Southwood Sound water system during the last four years?

A: Rainier View Water Company receives hundreds of service requests every year for a broad variety of concerns, such as high or low pressure, reports of water leaking from a hydrant, service lateral, or meter, as well as various concerns about taste, color, turbidity, and other aesthetic properties. Our technical staff responds as quickly as possible, often the same day, but nearly always within 24-48 hours.

Q: How many of those service requests related to manganese?

A: It is difficult to determine whether manganese is the cause of certain service requests because we base the entries on the customers' descriptions. Discoloration can appear from a variety of different causes. Although it is difficult to be precise, generally speaking, possible manganese concerns accounted for about a quarter of the service requests we received in 2016 and 2017. These requests tend to come in clusters,

usually related to large-flow events, like water main breaks or fire hydrant activity. Otherwise, it typically breaks down to one or two service requests a week, from one of our 18,000 connections.

VI. RAINIER VIEW WATER COMPANY'S INTERACTIONS WITH MS. HAND

Q: When did you first encounter Sarah Hand, and what prompted that interaction?

A: My initial contact with Ms. Hand was regarding her pressure-reducing valve, which she claims was caused by the dirty water, by the discoloration and the manganese. In November 2016, Ms. Hand approached RVWC about reimbursing her for the cost she paid to replace the pressure-reducing valve on their house, which she alleged needed to be replaced due to the quality of the water.

Q: Had Ms. Hand submitted any complaints or work orders prior to this interaction?

A: No. She had neither submitted a work order nor registered a complaint prior to this time.

Q: What did you tell Ms. Hand when she sent you a demand for payment under threat of filing a lawsuit?

A: I first told her that I would bring her claim to the Board, but that I thought it was unlikely to be paid because RVWC could not be liable for plumbing issues in customers' houses. I explained that RVWC typically does not pay for repairs beyond the meter; this is consistent with the point of delivery identified in the tariff, as well as specific limitation of liability provisions. Nonetheless, I brought her claim before a customer service group and the Board, but ultimately, RVWC declined to pay her claim. I relayed this information to Ms. Hand and reiterated the explanations I told her initially.

Q: Did you ever tell Ms. Hand that Rainier View Water Company had no legal obligation to respond to her complaints?

A: No.

Q: Did you ever tell Ms. Hand that Rainier View Water Company was "protected by a commission" or was immune to suit?

A: No. However, I did explain to her that in the past, small claims lawsuits filed against Rainier View Water Company were dismissed because the UTC has an administrative process for adjudicating claims against water utility providers. I also understand that an aggrieved complainant must work through the UTC's complaint process before filing a lawsuit in court. It appears to me that the UTC's complaint process is meant to provide an easier, faster, and less expensive resolution to a customer's complaint through a less formal process than going to court.

Q: How many subsequent encounters did you have with Ms. Hand?

A: I have probably talked to her a half-dozen times on the phone and three or four times in the office.

VII. MANGANESE REMEDIATION AT SOUTHWOOD SOUND

Q: When did you start to notice an increase in customer service requests related to brown water from the Southwood Sound Water System?

A: We started to notice an increase in flushing requests related to brown water in early 2016. At that point, we decided to test the wells servicing Southwood Sound independently to identify the exact source of the "brown water".

Q: How did Rainier View Water Company respond to these customer service requests?

A: We addressed every customers' work order requests by sending a technician to the customer to flush the lines until the water ran clear. Then, once RVWC identified the particular well that was causing the elevated manganese levels, we engaged ATEC Water Systems to undertake a pilot study for a filtration system at that well. Following the

successful completion of the pilot study, we engaged Apex Engineering to design a permanent filtration system using ATEC products, similar to other filtration systems we have installed in the past. This iron and manganese removal system uses filtration media to attract the oxidized manganese and trap it in the filter. It contains six filters with water flowing through them concurrently. Each filter is about four feet in diameter and about eight feet tall. It then runs a backwash cycle to clear the trapped oxidized manganese into a discharge system. This process keeps the filters clean and allows the free flow of water with substantially reduced levels of manganese.

Q: When did Rainier View Water Company decide to implement filtration for manganese remediation at Southwood Sound?

A: In the Spring of 2016, the Board discussed the possible use of an ATEC filtration system at Fir Meadows and proceeded into the pilot program shortly thereafter.

Q: Was Rainier View Water Company required to follow any particular procedure for design, approval, or implementation of this filtration system?

A: The necessary procedure for taking a filtration such as this from idea to implementation began with engaging ATEC Water Systems to conduct a pilot study to determine the effectiveness of the concept filtration system. After we received the determination that such a concept would be effective, we engaged Apex Engineering to design all the aspects of a permanent filtration system. Apex Engineering submitted the design to the engineering team at the DOH to obtain regulatory approval for the filtration system. The DOH ultimately approved the filtration system.

After we had an approved design, we estimated the costs and went to the UTC for approval for funding. In this case, we requested an extension of an existing seventy-five cent surcharge to fund this filtration system as well as three others. The total cost

requested was around $1 Million. The public received notice of the hearing, a period for comment, and the UTC heard discussion at an open hearing. The UTC approved the funding request at that hearing.

After obtaining approval for the funding, we began construction. The construction is done with oversight from Apex Engineering, who also inspects the filtration system and submits a Construction Certification Report to the DOH. After receiving the Construction Certification Report, final DOH inspection, and approval of the completed construction, we were authorized to put the system online.

Typically, such a process takes between one-and-a-half and two years. We completed this process in about ten months because we were familiar with ATEC systems, based on using ATEC products at other wells in the past. We knew how the process worked, and as a result, were able to navigate through the entire process in an expedited manner.

Q: Did the UTC, DOH, or any regulation require a customer feedback survey of any kind prior to taking action?

A: No. The regulations and DOH water design manual only require a customer survey in limited circumstances, which did not apply to this situation. In every instance of a rate change, including this particular rate surcharge extension, customers are given notice of the hearing and allowed an opportunity to provide input or voice opposition to the proposed rate change. Customers may write comments to the UTC, as well as comment at the hearing in person or via telephone. The UTC considers this customer input when making a determination at the hearing. In this case, the UTC ultimately approved the funding for this system, through a three-year extension of an already-existing seventy-five cent surcharge. Mr. James explained this point in his deposition testimony, as well.

(Ex. 19 to Ms. Hand's testimony, at pages 17-20, 24-25).

Q: When was this filtration system put online?

A: June 2017.

Q: What results have you seen since this filtration system went online?

A: The post-filtration water test results have consistently found either non-detectable levels of manganese or the lowest detectable level of manganese. Based on these test results and the corresponding reduction in the amount of manganese entering the system, we expect to see a substantial reduction in service order requests regarding the quality of the water in Springwood Estates.

Q: **Has Rainier View Water Company taken any other actions to remediate manganese at the Southwood Sound Water System?**

A: Since the filtration system has gone online, only minimal amounts of manganese is entering the water systems. However, manganese still exists in the water system pipes past the point of filtration. We have increased our large-scale flushing efforts from fire hydrants and line blow-off valves, particularly in areas we know are more likely to contain high manganese levels, to work as much manganese out of the system as is possible. Our customers are telling us that they have experienced noticeable improvements since we began this process.

VIII. MS. HAND'S CLAIM OF "IMPURE" WATER

Q: What does Rainier View Water Company consider to be "impure" water?

A: As a technical matter, we consider water to be "impure" if it contains contaminants not naturally found in the groundwater. Examples of impure water could include water-containing lead leached from pipes or biological contaminants entering the system through cross-contamination.

Q: How do you reach that determination?

A: Groundwater is not pure H2O – and customers would not want pure H2O, which is, in essence, distilled water. Nutrients and minerals are inherently present in groundwater taken directly from the source.