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**RE: Docket No. UW 165 – SHADOW WOOD WATER SERVICE
Request for a General Rate Revision.**

Enclosed for electronic filing is Staff Testimony In Support of the
Stipulation in UW 165.

/s/ Kay Barnes

Kay Barnes

Filing on Behalf of Public Utility Commission Staff

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**PUBLIC UTILITY COMMISSION
OF OREGON**

UW 165

**STAFF TESTIMONY
OF**

CELESTE HARI

**In the Matter of
SHADOW WOOD WATER SERVICE
Request for a General Rate Revision**

June 24, 2016

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 100

**Direct Testimony
In Support of
The Stipulation**

June 24, 2016

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INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Celeste Hari. I am a Utility Analyst in the Telecommunications and Water Division of the Utility Program for the Public Utility Commission of Oregon (Commission). My business address is 201 High St SE Ste. 100, Salem, Oregon 97301.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. My Witness Qualification Statement is found in Exhibit Staff/101, Hari/1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to introduce and support the Stipulation entered into by Commission Staff (Staff) and Shadow Wood Water Service, LLC (Shadow Wood or Company) in docket UW 165, Shadow Wood’s request for a general rate revision.

Q. WHO IS TESTIFYING IN THIS DOCKET?

A. I am testifying as the Staff witness in UW 165.

Q. WHO ARE THE PARTIES IN DOCKET UW 165?

A. The Parties in Docket UW 165 are: Shadow Wood, Staff, and two Shadow Wood customers who have intervened, Mr. Pat and Mrs. Kathe Thurston, and Mr. Walt Gamble (Intervenors).

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1 **Q. DID THE PARTIES REACH A SETTLEMENT IN UW 165?**

2 A. Staff and the Company (Signing Parties) reached an agreement in this docket.
3 The Intervenors did not agree to the settlement. The agreement reached by
4 the Signing Parties is outlined in the Stipulation filed with this testimony.

5 **Q. DID YOU PREPARE EXHIBITS FOR THIS DOCKET?**

6 A. Yes. I prepared Exhibit Staff/100, consisting of 31 pages; Exhibit Staff/101,
7 Hari/1, consisting of one page; Exhibit Staff/102, consisting of four pages;
8 Exhibit Staff/103, consisting of four pages; Exhibit Staff/104, consisting of three
9 pages; Exhibit Staff/105, consisting of six pages; and Exhibit Staff/106,
10 consisting of 13 pages.

11 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

12 A. My testimony is organized as follows:

| | | |
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1 Exhibit 103 ---- Year 2 Revenue RequirementHari/1
2 Exhibit 103 ---- Year 2 Adjustment SummaryHari/2
3 Exhibit 103 ---- Year 2 Stipulated and Current/Proposed Rates.....Hari/3
4 Exhibit 103 ---- Year Rate Impact.....Hari/4
5
6 Exhibit 104 ---- Cost of CapitalHari/1
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9 Exhibit 105 ---- Data Requests.....Hari/1-6
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11 Exhibit 106 ---- ORWD Permit.....Hari/1-13
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ISSUE 1

STAFF’S SUMMARY RECOMMENDATION

Q. WHAT IS STAFF’S SUMMARY RECOMMENDATION?

A. Staff recommends that the Commission adopt the Stipulation agreed to by the Signing Parties in UW 165. The Signing Parties agreed to a lower revenue requirement in the first year (Year 1) than in the second year (Year 2). The agreed upon revenue requirement for Year 1 is \$57,891, with rates outlined in the Stipulation, Attachment B–Shadow Wood’s tariffs, and shown in my testimony. The agreed upon revenue requirement for Year 2 is \$66,800, with rates outlined in the Stipulation, Attachment B–Shadow Wood’s tariffs, and shown in my testimony.

ISSUE 2

SHADOW WOOD’S DESCRIPTION AND REGULATORY HISTORY

Q. PLEASE DESCRIBE SHADOW WOOD WATER SERVICE, LLC.

A. Shadow Wood is a rate and service regulated investor-owned water utility located in West Linn, Oregon. The system was constructed in 1922, began

1 providing water service in 1924, and became rate regulated in 1998. Shadow
2 Wood currently serves a community of 63 residential customers.

3 Shadow Wood is a subsidiary of Hiland Water Corporation (Hiland) and
4 became a registered limited liability company on March 21, 2016. Hiland
5 purchased Shadow Wood in 2003, at a time when the water system was in
6 disrepair. Hiland is a privately owned, service regulated corporation that owns
7 20 other water systems. Hiland allocates “indirect costs” that benefit all
8 systems, including overhead and certain expenses, to each water company it
9 owns based on the number of customers in each system, and allocates “direct
10 costs” that are system-specific to the appropriate system. Hiland has a
11 Commission-approved Master Service Affiliated Interest Agreement in place for
12 the administration, management, and operation of Shadow Wood.

13 WELLS

14 Two wells currently serve Shadow Wood customers: Well #1 is a water source
15 that is 120 feet deep and was constructed in 1927; Well #3 is a water source
16 that is 440 feet deep and was constructed in 2009.

17 RESERVOIRS

18 The Shadow Wood water system has three reservoirs, but only two are
19 operational. Reservoir #1 was abandoned in late 2002 due to
20 inoperability. Reservoir #2, which holds 20,000 gallons, was relined in June
21 2005 and put back into service. Reservoir #3 is also in service and holds
22 24,000 gallons. The water flows from the reservoirs to a nearby pump house
23 and then into the distribution lines to customers.

1 TOPOGRAPHY, TRANSMISSION, AND DISTRIBUTION

2 The water system serves customers on two sides of a ravine. At the bottom of
3 the ravine is a creek and classified wetlands. Well #1 and the well house are
4 located on the south side of the ravine. The reservoirs and pump house are
5 located on the north side of the ravine. Well #3 is located on the north side of
6 the ravine approximately 350 feet west of the pump house.

7 South Side

8 Forty-eight customers are located on the south side of the ravine (opposite the
9 reservoirs). An 8-inch distribution line runs from the pump house next to the
10 reservoirs, down the north side of the ravine, under the wetlands, and up the
11 south side, ending at a fire hydrant at the top of Shadow Wood Drive. There
12 the 8-inch line extends to the corner of Shadow Wood Drive and Bolds Way,
13 where it services fire flow to a fire hydrant. From the hydrant, a 6-inch mainline
14 continues south for approximately 320 feet along Shadow Wood Drive before
15 splitting into two 4-inch mainlines which continue along Shadow Wood Drive
16 (approximately 230 feet) and Greenway Circle (approximately 800 feet). The
17 majority of the small distribution line has been replaced, but some portions,
18 particularly along Bolds Way, Royal Court, and the western portion of
19 Greenway Circle, remain small diameter, old, 2-inch steel pipe that is
20 deteriorated and subject to leaks.

21 A 2-inch dedicated fill line carries water from Well #1, located at the lower
22 portion of the south side of the ravine, to the reservoirs. This 2-inch line lies on
23 top of the ground, along with a 2-inch electrical conduit line from the well

1 house. The two lines cross the creek and continue partially up the north side of
2 the ravine. There the lines connect to underground lines where the water line
3 increases to a 4-inch line and remains buried up to the reservoir. Water from
4 the dedicated fill line also serves one customer.

5 North Side

6 Fifteen customers are located on the north side of the ravine. According to the
7 Company, Well #3 is located a few feet away from the 4-inch underground fill
8 line where it inter-ties and carries water up to the reservoir. An 8-inch line
9 running from the pump house down Crescent Drive to Stafford Road (ending at
10 a fire hydrant on Stafford Road) serves four customers and provides fire
11 protection. A pressurized 2-inch line extends from the pump house partway
12 down Crescent Drive. This line serves three customers.

13 A 6-inch line extends northwest from the reservoirs on Johnson Road and
14 branches off as a 2-inch high-density polyethylene water line on Sunset Drive.
15 This portion of the water system serves three customers along Sunset Drive
16 and two customers on Johnson Road. Three other customers are served on
17 Johnson Road east of the reservoirs through a 2-inch line.

18 **Q. PLEASE PROVIDE A SUMMARY OF SHADOW WOOD'S REGULATORY** 19 **HISTORY.**

20 A. Shadow Wood has been providing water service since 1924; however, it did
21 not become a rate and service regulated water utility until 1998 by Order No.
22 98-105, in docket UW 57. Shadow Wood was acquired by Hiland in 2003, by
23 Order No. 03-052, in docket UP 199. There have been two subsequent

1 general rate cases, UW 97 in 2004, and UW 106 in 2005. It has been eleven
2 years since the Company's last general rate case filing.

3 **ISSUE 3**

4 **SUMMARY OF SHADOW WOODS' GENERAL RATE FILING**

5 **Q. PLEASE DESCRIBE SHADOW WOODS' RATE APPLICATION.**

6 A. The Company filed for a general rate increase on December 15, 2015. The
7 application proposed an annual revenue increase of \$31,097 resulting in total
8 annual revenues of \$68,696, with a 10 percent rate of return on a rate base of
9 \$283,941. Shadow Wood's application stated its proposed increase was
10 82.71 percent above 2014 test year revenues. When Staff entered the
11 Company's information into its rate model, the overall increase calculated at 81
12 percent. Staff will reference that recalculated number throughout this
13 testimony. The application states that the Company requests a 10 percent rate
14 of return because that is "a usual, customary, and reasonable return based on
15 the level of risk involved in the water industry." Shadow Wood currently
16 operates as an all-equity company.

17 **Q. WHY IS THE COMPANY REQUESTING THE GENERAL RATE**
18 **INCREASE?**

19 A. Shadow Wood states that it requires a rate increase because "the revenues do
20 not cover expenses and provide a reasonable return on the company's
21 investment. In addition, major capital improvements have been made since
22 Shadow Wood's last rate case in 2005 that need to be reflected in the rate
23 base."

1 **Q. WHAT ARE THE CURRENT RATES AND WHAT RATE INCREASES DID**
2 **SHADOW WOOD PROPOSE IN ITS APPLICATION?**

3 A. Please see Staff/102, Hari/3 for the Company's current and proposed rates as
4 stated in its rate application.

5 **Q. WHAT ARE THE EFFECTS OF SHADOW WOOD'S PROPOSED RATES ON**
6 **THE AVERAGE CUSTOMERS?**

7 A. In its application, Shadow Wood proposed an average residential rate increase
8 from \$49.73 to \$90.87.

9 **Q. DID THE COMPANY REQUEST ANY OTHER TARIFF CHANGES?**

10 A. No. The Company did not request any other tariff changes.

11 **Q. DID THE COMPANY REQUEST ANY CHANGES TO UTILITY PLANT**
12 **THAT WERE NOT ALREADY INCLUDED IN ITS PLANT AS FILED?**

13 A. No. Shadow Wood's application proposed an original plant amount of
14 \$413,996 and a net plant amount of \$280,350. Included in the Company's
15 plant are several infrastructure improvements to the water system and wells
16 that were completed over the past 11 years. Plant and depreciation were
17 already updated in the Company's filing.

18 **ISSUE 4**

19 **SUMMARY OF STAFF'S ANALYSIS OF SHADOW WOOD'S FILING**

20 **Q. PLEASE SUMMARIZE STAFF'S ANALYSIS OF SHADOW WOOD'S**
21 **REQUEST FOR A GENERAL RATE REVISION.**

22 A. The Signing Parties stipulated to a lower revenue requirement in Year 1 than in
23 Year 2. Staff's use of an Average Rate Base method and actual depreciation

1 expense for Year 1 were used to better match revenues and costs, with the
2 added benefit of reducing rate shock to customers. The Year 1 revenue
3 requirement is \$57,891. This is an increase in revenues of \$19,936 or 53
4 percent above the Company's 2014 test year revenues (compared to the
5 Company's proposed 81 percent increase), with a 9.5 percent rate of return on
6 a rate base of \$237,825.

7 The Year 2 revenue requirement is \$66,800. This is an increase in revenues of
8 \$28,845 or 76 percent above the Company's 2014 test year revenues, with a
9 9.5 percent rate of return on a rate base of \$290,274.

10 A settlement conference was held on April 28, 2016 and a tentative agreement
11 was reached; however, the Intervenors did not end up agreeing to the terms.
12 Staff presented a second settlement proposal to the Parties, which the
13 Company accepted and the Intervenors rejected, but proposed counteroffers.
14 The Company did not accept either counter offer made by the Intervenors, but
15 confirmed acceptance of Staff's second settlement proposal.

16 **ISSUE 5**

17 **STAFF'S REVIEW OF SHADOW WOOD'S FILING**

18 **Q. WHAT ISSUES DID STAFF INVESTIGATE?**

19 A. Staff's investigation and analysis of Shadow Wood's general rate filing included
20 a comprehensive examination of the Company's revenues, expenses,
21 proposed adjustments, rate spread and rate design, rate base, capital
22 improvements, cost of capital, capital structure, quality of service, capacity, and
23 customer concerns. Specific expense issues included a review of the allocation

1 of affiliated interest expenses recently approved by Order No. 16-101, in
2 Docket UI 362, that was filed concurrently with this rate case. Staff investigated
3 the capital investments made to the water system since 2005, as well as the
4 capital structure of the Company. Additionally, Staff investigated customer
5 concerns expressed during the rate case, namely the proposed percentage
6 increase in customer rates.

7 **Q. PLEASE DISCUSS STAFF'S REVIEW OF SHADOW WOODS' EXPENSES.**

8 A. Staff examined all of Shadow Wood's expenses with consideration of prudence
9 and reasonableness, as well as compliance with the rules and statutes applying
10 to rate regulated water companies. Staff's adjustments are shown in Exhibits
11 Staff/102, Hari/2 and Staff/103, Hari/2. Additionally, many of the Company's
12 expenses were also thoroughly examined and approved in Docket UI 362 on
13 March 8, 2016, while the Company's proposed rate increase was concurrently
14 under review. The following is a brief explanation of the primary adjustments.

15 **Salaries and Wages**

16 In its application, Shadow Wood reported its 2014 test year wage expense as
17 \$9,601. With the Company's proposed addition of \$394, the wage expense
18 increased to \$9,995, reflecting the amount allocated in UI 362. Shadow Wood
19 does not have any direct employees due to its Master Service Agreement with
20 Hiland. As a result, all wage expense is allocated from Hiland. Staff
21 transferred the wage expense for meter reading from "Wages" to "Contract
22 Meter Reading," resulting in a decrease of \$443 in wage expense and a total
23 annual Salaries and Wages expense of \$9,552.

1 **Transportation**

2 Shadow Wood proposed a Transportation expense of \$847, including miles
3 driven. Staff disallowed the \$847 expense given that the Company already
4 includes a lease expense for its vehicles, which Staff believes should
5 encompass the mileage expense.

6 **Q. PLEASE DISCUSS WHY STAFF DID NOT ADJUST OTHER EXPENSES.**

7 A. Staff reviewed all expenses for reasonableness and prudence, but did not find
8 many expenses that were unreasonable or imprudent. Further, Staff found that
9 the allocation of expenses recently approved in UI 362, Order No. 16-101, were
10 still reasonable. For example, Hiland's Salaries and Wages are consistent with
11 the comparison wages found in the Oregon Employment Department's Oregon
12 Labor and Market Information System. Further, the allocations in UI 362 allow
13 only a portion of employee wages to be allocated in Shadow Wood customers'
14 rates. Staff agreed with the conclusion in the UI docket that without the Master
15 Service Agreement, Shadow Wood would have to hire its own employees or
16 contract out all aspects of management and labor. If this were the case,
17 Shadow Wood customers, which include only 63 residential customers, would
18 bear the full expense of employee wages (or contract fees). Thus, the use of a
19 Master Service Agreement and the allocated amount of employee salaries
20 results in cost savings for Shadow Wood customers.

21 A second example of cost savings was in the O&M Materials and Supplies
22 category. As a result of the Master Service Agreement allocations, this

1 expense was reduced to \$1,031, as compared to the full cost of \$1,828 based
2 on the test year.

3 **Q. PLEASE DISCUSS STAFF'S REVIEW OF SHADOW WOOD'S PROPOSED**
4 **PLANT.**

5 A. The Company's utility plant as indicated in its application was \$413,996, which
6 includes all changes through the review period which runs through 2015. The
7 Company did not propose any additional changes, thus, the proposed utility
8 plant is also \$413,996, with a net plant of \$280,350.

9 Staff examined Shadow Wood's utility plant and depreciation schedule through
10 December 31, 2015. Staff corrected a calculation error (\$6,422 of depreciation
11 expense was double-counted in accumulated depreciation in the Company's
12 spreadsheet), resulting in a reduction in accumulated depreciation of \$6,422.
13 The total plant remained at \$413,996, but the correction of the error resulted in
14 a net plant of \$286,773.

15 **Q. PLEASE DESCRIBE SHADOW WOOD'S CAPITAL INVESTMENTS SINCE**
16 **ITS LAST RATE CASE, UW 106, IN 2005.**

17 A. Shadow Wood has invested \$164,263 in plant improvements since 2005. The
18 improvements include developing wells and water rights, replacing mainlines
19 and distribution lines, and adding fire protection.¹

20 //

21 //

¹ Exhibit Staff/105, Hari/3-5

1 **Q. PLEASE DESCRIBE THE MOST PROMINENT OF SHADOW WOOD'S**
2 **CAPITAL INVESTMENTS SINCE ITS LAST RATE CASE IN 2005.**

3 MAINS AND DISTRIBUTION

4 A. In 2008-2009, the Company invested approximately \$36,000 upgrading and
5 replacing main and distribution water lines in the Stafford Road area. The lines
6 were very old, leaked, frequently ruptured, and did not allow enough water flow
7 for good pressure or enough volume for fire suppression. The Company's
8 installation of 8-inch mains relieved the issues. At the time of the
9 improvements, Clackamas County was working on the roads and the Company
10 was able to take advantage of the cost savings of not having to repave the road
11 at the expense of Shadow Wood customers. The Company also installed a fire
12 hydrant, bringing the number of hydrants up to three.

13 In 2013, the Company invested approximately \$11,000 to replace main water
14 lines in the Sunset Drive area. Like the Stafford Road lines, the Sunset area
15 lines consisted of very old pipes that were inefficient due to leakage and did not
16 provide adequate flow or pressure for customers.

17 In 2015, the Company invested approximately \$58,000 in main water line
18 upgrades and replacements along Shadow Wood Drive and Greenway Circle.
19 Improvements included replacing old, 2-inch steel lines with larger lines, and
20 moving all services along the route to the new water line. The Company had
21 been informed that Clackamas County had scheduled major repaving projects
22 for the involved roads, so the Company accelerated the replacement schedule
23 involving these roads by one year in order to take advantage of the cost

1 savings of not having to repave the roads. Besides capturing the cost savings
2 for customers, the Company concluded that if it did not replace the old lines
3 prior to the County's repaving, the heavy equipment used on the roads would
4 likely damage the old lines, causing them to break and leak. The damage may
5 not have been visible immediately or all at once, causing the Company to open
6 the road and repair lines repeatedly. Completing the project one year ahead of
7 schedule reduced capital costs to the Company, and ultimately to Shadow
8 Wood customers.

9 The Company also moved the fire hydrant installed in 2008 to the end of
10 Shadow Wood Drive.

11 FIRE PROTECTION

12 The mainline and fire protection upgrades brought all of the homes on the
13 Shadow Wood system within the range for compliance with the Tualatin Valley
14 Fire and Rescue's prescribed 1,000 foot range of a fire hydrant that is required
15 for fire safety. The upgrades also addressed the concerns in Order No. 05-993,
16 in UW 106, where lack of fire protection was discussed and the parties
17 stipulated that all 22 customers who did not live within 1,000 feet of a fire
18 hydrant would receive a credit from the Company of \$4.19/month until
19 adequate fire protection was achieved.

20 WELLS

21 In 2004, the Company applied to the Oregon Water Resources Department
22 (Water Resources) for a permit (No. G-15918²) to develop water rights for each

² Exhibit Staff/106, Hari/1-13

1 of the following four wells (or well sites), securing a priority date of November
2 9, 2004 with perfection required by 2024: Well #1 is a 120-foot well drilled in
3 1927; Well #2 is the Mossy Brae Water District well, located near the
4 Company's service territory, but does not currently provide water to Shadow
5 Wood; Well #3 is a 440-foot well drilled in 2009; and Well #4 is a well site that
6 has yet to be drilled. According to Water Resources, Shadow Wood will not be
7 able to secure a water right to Well #1 unless it is drilled to a minimum depth of
8 275 feet below land surface, or a new well is drilled to that minimum depth next
9 to the existing well. Similarly, Shadow Wood will not be able to secure a water
10 right to Well #2 unless it is drilled to a minimum depth of 380 feet below land
11 surface or a well is drilled next to it at the required depth. Well #3 and #4 are
12 required to be drilled to an approximate minimum depth of 330 feet and 300
13 feet, respectively. These well depth requirements reflect the Water Resources'
14 requirement that Shadow Wood only use water from the Columbia River Basalt
15 aquifer located at the minimum depths below the land surface noted above.

16 For example, Well #3 is 440 feet deep because of this requirement; even
17 though the Company may have detected water above the 330 foot level, it was
18 not allowed to draw from that water source.

19 Finally, as discussed earlier, the Company invested close to \$53,000 to drill a
20 new well (Well #3), develop the new well, and place it in service. At the time,
21 Well #1 had no back up in case of a failure and provided inadequate water for
22 fire protection. Developing Well #3 complied with the specifications in Permit
23 Number G-15918 issued by Water Resources, and according to the Company,

1 enabled the Company to provide enough water for all of its customers at peak
2 demand, adequate fire protection to all of its customers, and redundancy within
3 the water system. In conjunction with drilling Well #3, a pump was necessary
4 to render it operable.

5 Regarding the water right development discussed above, when Hiland acquired
6 Shadow Wood in 2003, no water right existed for the sole well (Well #1)
7 providing water to customers. In UW 106, the Company indicated that in 2004,
8 the local water master advised Shadow Wood that a water right was required
9 for its water use and that the continued use of water without said right was in
10 violation of Oregon law. Additionally, Staff is aware through working with
11 Water Resources that water continues to be restricted in the Shadow Wood
12 area. Staff believes the Company made a prudent decision to secure a water
13 right for the system with a priority date of November 9, 2004, and to continue to
14 develop the water right for the benefit of Shadow Wood customers in
15 accordance with the conditions specified by Water Resources. Conversely, not
16 obtaining a water right puts the Company at risk of losing the ability to use the
17 water.

18 After careful review of the Company's capital investments, Staff found that the
19 improvements to the system made since the Company's last rate case were
20 necessary and improved water service, including fire protection that was
21 required in UW 196. Staff concludes that the capital investments, including the
22 well development, are reasonable and prudent. Shadow Wood's investments
23 since 2005 are shown in Table 1.

TABLE 1 – CAPITAL IMPROVEMENTS SINCE 2005

| Project | Date | Type | Expenditure |
|--------------------------|-------------|----------------------|--------------------|
| New Well #3 | 2009/2015 | Wells | \$30,896 |
| Well Development | 2010/2015 | Wells | \$4,337 |
| Well #3 Pump | 2015 | Wells | \$17,585 |
| Shadow Wood | 2008 | Mains & Distribution | \$11,541 |
| Stafford | 2009 | Mains & Distribution | \$24,140 |
| Sunset | 2013 | Mains & Distribution | \$10,836 |
| Shadow Wood/ Greenway | 2015 | Mains & Distribution | \$58,497 |
| Fire Protection | 2008 | Hydrant | \$2,568 |
| Services | 2008 | Meter | \$3,863 |
| TOTAL | | | \$164,263 |

ISSUE 6**CUSTOMER CONCERNS****Q. DID THE CUSTOMERS EXPRESS ANY CONCERNS DURING THE RATE CASE?**

A. Yes. Staff received a total of four protests regarding the requested rate increase; two from Intervenor and two from other customers. The two Intervenor and the two customers indicated that, although they have experienced benefits from the improvements made to the water system and recognized that an increase in rates is overdue, an 81 percent increase was simply too high. As a result, the Intervenor suggested a phase-in of the increase.

1 Customer concerns regarding increasing rates are to be expected in general
2 rate cases. However, because the Company proposed such a large increase,
3 the matter took on significant status in this case, and Staff shares the concern
4 with customers. In reviewing the Company's filing, Staff considered rate
5 mitigation methods and several different approaches. However, Staff had to
6 balance customer concerns over increased water rates with the Company's
7 ability to recover its prudent operating expenses and capital costs with the
8 opportunity to earn a reasonable return on its investment.

9 Other areas Staff investigated included customer service, water
10 provision/pressure, water safety, and the length of time between Shadow
11 Wood's rate cases.

12 **Q. WHAT ACTIONS DID STAFF TAKE TO ADDRESS THE CUSTOMERS'**
13 **STATED CONCERNS?**

14 A. Staff addressed customer concerns as explained below.

15 **General Displeasure Regarding a Rate Increase**

16 Four customer complaints regarding the general rate increase were handled by
17 Staff or the Consumer Services Division. Information regarding how a rate
18 case is investigated, including the length of the investigation and the depth of
19 examination, was provided to the customers to assure them that the
20 Company's proposed rates would be thoroughly investigated.

21 **The Need for a Rate Increase**

22 Customers understand the need for a rate increase and are aware and
23 appreciative of the improvements made to the water system. However,

1 customers were surprised and unhappy with the Company's proposed 81
2 percent increase all at once, without a progressive phase-in over time.
3 Staff responded to this concern by assuring customers that all aspects of the
4 Company's filing are carefully investigated. Staff also explained that the need
5 for a rate adjustment is based on the cost of providing service to customers and
6 the opportunity to earn a reasonable return on capital investments. Staff also
7 discussed the fact that the Company did not request a rate increase for 11
8 years, and as a result, customers have been paying rates for the past 11 years
9 that were likely lower than the actual cost of service.

10 **The Size of the Increase**

11 The size of the proposed increase was the primary concern that four customers
12 expressed to Staff. Shadow Wood has spent the past 11 years investing in,
13 repairing, and replacing nearly the entire Shadow Wood water system. These
14 capital improvements benefit all customers and were not unreasonable;
15 however, Staff recognized that the Company could have come in for a rate
16 case earlier, which would have likely resulted in a smaller increase to customer
17 rates during this particular rate case. Staff assured customers that the financial
18 impact of the proposed rate increase was not taken lightly and was carefully
19 evaluated. Staff considered several different options to reduce the financial
20 impact to customers, while still allowing the Company to recover its cost of
21 service. Staff worked to achieve an all-Party settlement and entertained
22 proposals made by all Parties, but was unable to reach agreement with the
23 Intervenors who requested a smaller increase in rates.

1 Staff explained that customers have received the benefit of underpaying for
2 water service for 11 years while the Company has continued to improve service
3 and has gradually earned lower returns. The final agreement reached by the
4 Signing Parties comports with cost-of-service principles, is a reasonable way to
5 help mitigate the rate impact on customers, and is a better option than allowing
6 a large increase immediately in rates. The fact is that the Company must
7 recover its cost of service with the opportunity to earn a reasonable return on its
8 investment, and rates may not be set punitively as a result of the Company's
9 decision to stay out.

10 **Service, Quality, Pressure, and Timing**

11 There are no recent customer service complaints filed with the Commission.
12 Staff checked with the Drinking Water Program and the Company is current
13 with required tests for water safety. While water pressure was mentioned by a
14 customer at the prehearing conference, there have been no recent complaints
15 filed with the Commission regarding this issue. The Company did not state a
16 reason for not coming in sooner for a rate revision; however, a water company
17 is not required to file for a rate revision within a certain time period. In the
18 interest of Shadow Wood customers going forward, the stipulation includes a
19 requirement that the Company file a rate review in three years to avoid another
20 large rate increase.

21 //

22 //

23 //

ISSUE 7**COST OF CAPITAL****Q. WHAT COST OF CAPITAL DID THE COMPANY REQUEST IN ITS APPLICATION?**

A. The Company requested a 10 percent cost of capital based on a 10 percent cost of equity, with no debt in its capital structure. Because the Company's proposed capital structure did not include debt, the proposed cost of capital (allowed rate of return) is equal to the proposed cost of equity.

Q. PLEASE SUMMARIZE THE COST OF CAPITAL THE PARTIES STIPULATED TO.

A. The Signing Parties in this docket stipulated to a 9.5 percent cost of capital (allowed rate of return) for both Year 1 and Year 2 going forward.

Q. WHAT CAPITAL STRUCTURE DID STAFF RECOMMEND?

A. Shadow Wood's capital structure is 100 percent shareholder equity. Staff recommends a capital structure of 100 percent equity for this case. However, Staff recognizes that a capital structure consisting of both equity and debt typically results in a lower rate of return. Despite the Company's stated inability to obtain traditional loans, or even non-traditional loans, to finance investments, in the interest of potentially reducing costs to customers, the Signing Parties have stipulated that the Company must document its attempts to secure a source of financing other than shareholder equity before making any future

1 capital investments.³ This condition was agreed upon to ensure that the
2 Company will do all it can to secure least-cost financing.

3 **ISSUE 8**

4 **THE STIPULATION**

5 **Q. WHAT REVENUE REQUIREMENT DID THE PARTIES STIPULATE TO IN**
6 **UW 165?**

7 A. The Parties stipulated to a two-part revenue requirement. Year 1 provides a
8 revenue requirement of \$57,891 reflecting a 53 percent or \$19,936 increase
9 over test year revenues, compared the to the Company’s proposed 81 percent
10 increase. Year 2 provides a revenue requirement of \$66,800 reflecting 76
11 percent or \$28,845 increase over test year revenues, compared to the
12 Company’s proposed 81 percent increase. A comparison of the Company’s
13 proposed revenue requirement and the stipulated revenue requirements are
14 shown in Table 2.

15 **TABLE 2 – REVENUE REQUIREMENT COMPARISON**
16

| Revenue Requirement | Shadow Wood Proposed | Stipulated | |
|----------------------|-----------------------|--------------------|--------------------|
| Total Company | All Years \$68,696 | Year 1 \$57,891 | Year 2 \$66,800 |

17
18 **Q. PLEASE DESCRIBE THE FACTORS DRIVING THE DIFFERENCE**
19 **BETWEEN THE YEAR 1 AND YEAR 2 REVENUE REQUIREMENTS.**

20 A. The difference between the Year 1 and the Year 2 revenue requirement results
21 from the calculation methods used to determine both the amount of rate base

³ Exhibit Staff/105, Hari/1-2

1 and the amount of depreciation expense included in the Company's revenue
2 requirement calculation for each of those periods.

3 The Year 1 rate base amount was determined by averaging the rate base
4 values at the beginning and at the end of the last year of the review period (the
5 Average Rate Base method). The Year 2 revenue requirement was determined
6 by using the rate base value at the end of the review period (Year-End Rate
7 Base method).

8 The Year 1 depreciation expense was based on the actual depreciation
9 expense incurred during 2015, the last year of the review period. The Year 2
10 depreciation expense was based on an annualized depreciation amount.

11 **Q. WHAT WAS THE OUTCOME OF USING AVERAGE PLANT INSTEAD OF**
12 **YEAR-END PLANT?**

13 A. Year 1 calculations resulted in net plant of \$234,324, with accumulated
14 depreciation of \$124,014. Adjustments to reflect the results were made on the
15 Revenue Requirement sheet for Year 1, rather than changing the Plant sheet.
16 Year 2 calculations resulted in net plant of \$286,773, with accumulated
17 depreciation of \$127,224. See Exhibit Staff/104, Hari 2-3, which shows the
18 plant and depreciation schedule. Table 3 summarizes the Company's plant
19 and depreciation in the test year, Shadow Wood's proposed plant and
20 depreciation, and the Signing Parties' stipulated plant and depreciation for Year
21 1 and Year 2.

22 //
23 //
24 //

**TABLE 3 – TEST YEAR, COMPANY PROPOSED, AND
STAFF’S RECOMMENDED PLANT AND DEPRECIATION**

| | TEST YEAR | COMPANY PROPOSED | STIPULATED YEAR 1 | STIPULATED YEAR 2 |
|-----------------------------|--------------|---------------------|----------------------|----------------------|
| UTILITY PLANT | \$413,996 | \$413,996 | \$358,339 | \$413,996 |
| ACCUMULATED DEPRECIATION | \$133,646 | \$133,646 | \$124,014 | \$127,224 |
| NET PLANT | \$280,350 | \$280,350 | \$234,324 | \$286,773 |

**Q. PLEASE COMPARE THE COMPANY’S PROPOSED RATE BASE AND
STAFF’S RECOMMENDED RATE BASE.**

A. The Company’s proposed rate base in its application was \$283,941. The Company included all capital improvements since its last rate case. Due to the error in the Company’s accumulated depreciation noted earlier in this testimony, Staff’s recommended rate base of \$290,298 is higher than that proposed by the Company.

**Q. PLEASE EXPLAIN THE RATIONALE FOR USING DIFFERENT RATE BASE
AND DEPRECIATION METHODS FOR YEAR 1 AND YEAR 2.**

A. As a general matter, rates established through the ratemaking process are intended to allow companies to collect revenues from customers that are adequate to cover the company’s cost of providing service; there is a matching between the revenues collected and the costs incurred.

Staff determined that using different rate base and depreciation calculation methods for Year 1 and Year 2 provides a better matching of revenues collected from customers and costs incurred by the Company to fund capital investments.

1 Capital investments typically occur throughout the review period being
2 examined for ratemaking purposes. As a result, the Company's cost of funding
3 those investments also varies during the period. For example, assuming a
4 calendar year review period, a company which makes capital investments in
5 January would incur over eleven months of capital costs associated with that
6 particular investment during the review period. Conversely, a company that
7 makes an investment in December of the same review period would incur less
8 than one month of capital costs associated with that particular investment.

9 Given the size and timing of the investments (near year-end 2015) made by the
10 Company during the review period, Staff determined that adjustments were
11 necessary to appropriately match the revenues supplied by customers with the
12 costs incurred by the Company; the use of the Average Rate Base calculation
13 and actual depreciation expense methods for the Year 1 revenue requirement
14 address this issue. However, beginning in Year 2, the capital costs associated
15 with the investments discussed above will be incurred for the entire period, so
16 no mismatch will occur; thus, the use of the Year-End Rate Base and
17 annualized depreciation methods are appropriate, and were used by Staff to
18 calculate the Year 2 revenue requirement.

19 As discussed above, the Company incurred significant capital expenditures
20 near the end of the review period for capital expenditures (through year-end
21 2015).

22 //

23 //

1 Specifically, the Company made the following plant investments in late 2015:

| 2 | Description | <u>Date</u> | <u>Amount</u> |
|---|-----------------------|--------------------|----------------------|
| 3 | New Well/Development | December 2015 | \$35,233 |
| 4 | Install New Well Pump | December 2015 | \$17,585 |
| 5 | Main Upgrades | August 2015 | <u>\$58,497</u> |
| 6 | Total | | \$111,315 |

7 As illustrated by the dates above, the capital investments were not providing
8 service to customers for the entire review period for capital investments.

9 Further, these costs were significant in the context of Shadow Wood's costs.

10 As a result, a mismatch between costs and revenues would occur if the Year-
11 end Rate Base and annualized depreciation methods were employed for Year
12 1. Thus, the Average Rate Base method was used to resolve the mismatch in
13 revenues and costs by including only half of the above additions in the Year 1
14 revenue requirement as a result of the averaging process. The use of actual
15 depreciation expense resolves this mismatch by only reflecting the actual
16 depreciation expense incurred in Year 1.

17 **Q. PLEASE DESCRIBE HOW THE AVERAGE RATE BASE METHOD WAS**
18 **INCORPORATED IN THE YEAR 1 REVENUE REQUIREMENT.**

19 The Average Rate Base method was applied only to the net plant values for
20 purposes of determining the Year 1 revenue requirement. Net plant represents
21 almost 99 percent of the Company's rate base. No change between beginning
22 and end of period balances is apparent for any other rate base items.

23 Net plant consists of utility plant reduced by the accumulated depreciation on
24 that plant.

25 //

1 ***I. Utility Plant***

2 To apply the Average Rate Base method to plant, Staff took the sum of the
 3 2015 additions described above, divided that amount by two, and removed the
 4 resulting amount from plant (see Exhibit Staff/102, Hari/1). Specifically, Staff
 5 made the following adjustment:

6 Total 2015 Additions \$111,315 / 2 = \$55,658

7 ***II. Accumulated Depreciation***

8 Balance 12/31/2014 \$120,804

9 Balance 12/31/2015 \$127,224

10 Average Balance \$124,014

11 The results shown in Exhibit Staff/102, Hari/1 are based on the Year-End Rate
 12 Base method, reflecting balances as of 12/31/2015. Therefore, to adjust to the
 13 Average Rate Base method, Staff reduced the Accumulated Depreciation by
 14 the difference between the 12/31/2015 balance and the Average Balance
 15 calculated above.

16 The adjustment to Accumulated Depreciation in Exhibit Staff/102, Hari/1 also
 17 reflects correction of the error in the Company's filing described earlier in this
 18 testimony. As a result, the total adjustment to the Accumulated Depreciation
 19 for Year 1 is as follows:

20 Balance 12/31/2015 \$127,224

21 Less: Average Balance \$124,014

22 Difference \$3,210

23 Difference \$3,210

24 Plus: Correction of error \$6,422

25 Total Year 1 Adjustment \$9,632

1 **Q. PLEASE DESCRIBE HOW THE ACTUAL DEPRECIATION EXPENSE WAS**
2 **INCORPORATED IN THE YEAR 1 REVENUE REQUIREMENT.**

3 A. The Company's filing included depreciation expense which reflected the
4 annualized depreciation expense level for all review period investments. As a
5 result, the filing included \$9,026 in depreciation expense. Staff adjusted the
6 Year 1 depreciation expense level to \$6,420 to reflect only the amount of
7 depreciation expense which the Company actually incurred in 2015. The
8 resulting adjustment of \$2,606 (\$9,026 less \$6,420) can be seen on Exhibit
9 Staff/102, Hari/1.

10 **Q. PLEASE COMMENT ON ANY OTHER EFFECTS FROM USING THE**
11 **AVERAGE RATE BASE AND ACTUAL DEPRECIATION METHODS FOR**
12 **YEAR 1.**

13 A. The rationale for using the Average Rate Base and actual depreciation
14 methods for Year 1 was to address the mismatch in revenues and costs
15 discussed above. However, the use of those methods also has the additional
16 benefit of reducing the rate increase to customers in Year 1 to 53 percent
17 (down from 76 percent in Year 2). This represents a full 30 percent reduction in
18 the increase initially faced by customers, as compared to the increase if the
19 Year 2 rate increase was implemented immediately. The more gradual
20 increase benefits customers and reduces rate shock, which was the primary
21 concern raised by Intervenors in this case.

22 **Q. WHAT RATES DID THE PARTIES STIPULATE TO IN UW 165?**
23

24 A. The Parties stipulated to the rates for Year 1 shown in Staff/102, Hari/3.

1 The Parties stipulated to the rates for Year 2 and thereafter shown in
2 Staff/103, Hari/3.

3 **Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN SHADOW WOOD'S**
4 **PROPOSED RATES/RATE DESIGN AND THE STIPULATED RATES/RATE**
5 **DESIGN.**

6 A. Shadow Wood only serves residential customers; thus, the Company currently
7 has a single rate for all customers. Staff did not change the classification of
8 customers. The Company proposed a single rate increase in its filing. As
9 described above, Staff is recommending a lower rate increase in Year 1 than in
10 Year 2.

11 **Q. WHAT ARE THE RATE COMPONENTS?**

12 A. Rates are comprised of a base rate that is charged regardless of water
13 consumption and a commodity rate (usage rate) that is charged per 100 gallons
14 of water consumed. This stipulated rate design includes a base rate which will
15 provide a stable revenue stream that ensures the Company receives adequate
16 funds to operate during the winter months when water usage is lower. The
17 commodity rate ensures that customers are paying for their own actual water
18 use per month. A base rate plus commodity charge structure also encourages
19 water conservation, as a customer's bill will increase as consumption
20 increases.

21 The base rate for Year 1 is \$53.60. The base rate for Year 2 and thereafter is
22 \$61.85. The Year 1 commodity rate is \$0.42 for each 100 gallons of water
23 used. The Year 2 commodity rate and thereafter is \$0.48 for each 100 gallons

1 of water used. Since all Shadow Wood customers are residential, there are no
2 other tiers or rate classifications.

3 **Q. WHAT ARE THE EFFECTS OF THE STIPULATED RATES ON THE**
4 **AVERAGE CUSTOMER BILL?**

5 A. The effects of the stipulated rates on the average customer's monthly bill are
6 shown below:

7 1. The average residential bill will increase from \$49.73 to \$76.58 in Year 1
8 and from \$76.58 to \$88.36 in Year 2. Some customers' individual bills
9 may increase more than the average bill and some customers' bills may
10 increase less than the average bill; the total increase is dependent on
11 water usage.

12 2. In Year 1, the base rate will increase from \$28.20 to \$53.60, and in Year
13 2, the base rate will increase from \$53.60 to \$61.85.

14 3. In Year 1, the commodity rate will increase from \$0.39 per 100 gallons to
15 \$0.42 per 100 gallons, and in Year 2, the commodity rate will increase
16 from \$0.42 per 100 gallons to \$0.48 per 100 gallons.

17 **Q. ARE THE RESULTING RATES FAIR AND REASONABLE?**

18 A. Yes. The stipulated rates are fair and reasonable. The Signing Parties were
19 able to reduce the initial rate increase borne by customers as requested in
20 customer comments, while allowing the Company to recover its prudent costs
21 and the opportunity to earn a reasonable rate of return on its investments.

22 //

1 **Q. DID THE PARTIES STIPULATE TO AN EFFECTIVE DATE FOR THE NEW**
2 **RATES?**

3 A. Yes. The Signing Parties agreed to an effective date of October 20, 2016 for
4 implementation of Year 1 rates, and October 20, 2017 for implementation of
5 Year 2 rates.

6 **Q. DOES THE STIPULATION CONTAIN ANY OTHER CONDITIONS?**

7 A. Yes. The Signing Parties agreed to the following conditions:

- 8 1. The Company must engage a minimum of five financial institutions in an
9 attempt to obtain a loan at a cheaper cost to customers prior to using
10 shareholder equity to finance future capital improvements; and
11 2. The Company will apply for a general rate review on or before October
12 20, 2019 in order to prevent another large increase in rates going
13 forward, and to potentially reduce overall rates as the capital
14 investments depreciate.

15 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE STIPULATION?**

16 A. Staff recommends that the Commission adopt the Stipulation in its entirety.

17 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

18 A. Yes.

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 101

Witness Qualifications Statement

June 24, 2016

WITNESS QUALIFICATION STATEMENT

NAME: Celeste Hari

EMPLOYER: Public Utility Commission of Oregon

TITLE: Senior Utility Analyst
Telecommunications and Water Regulation Division.

ADDRESS: 201 High Street, SE., Suite 100
Salem OR 97301

EDUCATION: Bachelor of Science, Business Management, Linfield College.
Associate of Science, Business Management, Chemeketa Community College.

EXPERIENCE: Employed with the Oregon Public Utility Commission since 1986. Currently a Senior Utility Analyst for the Telecommunications and Water Regulation Section.

Performed many functions within my career at PUC, including providing testimony in over 60 telecommunications dockets, analyzing tariffs, compiling reports, and processing applications for certificates of authority and ETC designations. Case manager on water rate cases as well as provide testimony in those cases. Provide assistance to other water analysts, analyze water tariffs, compile reports, respond to complicated consumer issues, and provide expertise for special projects.

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 102

**Exhibits in Support
Of Direct Testimony**

June 24, 2016

YEAR 1

Staff/102
Hari/1

| |
|-------------------|
| Shadow Wood Water |
| Docket UW 165 |
| Test Year: 2014 |

| | |
|----------------------------|-----|
| Company Proposed Increase: | 81% |
|----------------------------|-----|

| | |
|--------------------------|-----|
| Staff Proposed Increase: | 53% |
|--------------------------|-----|

Revenue Requirement

| Acct No. | | A | B | C | D | E | F | G | H |
|----------|--|-------------------------|------------------------------|-------------------------|-------------------|------------------|-------------------------------|-----------------------|----------------------|
| | | Company | Company | Company | Staff | Staff | Staff | Staff | Total |
| | | | | A+B+C | | C+D+E | | D+F=G | C+G=H |
| | | Balance per Application | Proposed Company Adjustments | Proposed Company Totals | Staff Adjustments | Adjusted Results | Revenue-Sensitive Adjustments | Total PUC Adjustments | PUC Proposed Results |
| 460 | Unmetered Water Sales | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 461.1 | Residential Water Sales | \$ 37,599 | \$ 31,097 | \$ 68,696 | \$ - | \$ 68,696 | \$ (10,805) | \$ (10,805) | \$ 57,891 |
| 461.2 | Commercial Water Sales | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 462 | Fire Protection | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 464 | Water Sales to Public Authorities | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 465 | Irrigation - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 466 | Sales for Resale | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 467 | Golf Course | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 468 | Special Contracts | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 471 | Miscellaneous Revenues | \$ 356 | \$ (358) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 472 | Cell Tower/Rent from Util. Property | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 475 | Cross Connection Control Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 0 | 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | TOTAL REVENUE | \$ 37,955 | \$ 30,741 | \$ 68,696 | \$ - | \$ 68,696 | \$ (10,805) | \$ (10,805) | \$ 57,891 |
| | OPERATING EXPENSES | | | | | | | | |
| 801 | Salaries and Wages - Employees | \$ 9,601 | \$ 394 | \$ 9,995 | \$ (443) | \$ 9,552 | | \$ (443) | \$ 9,552 |
| 803 | Salaries and Wages - Officers | \$ - | \$ 130 | \$ 130 | \$ (0) | \$ 130 | | \$ (0) | \$ 130 |
| 804 | Employee Pension & Benefits | \$ - | \$ 412 | \$ 412 | \$ - | \$ 412 | | \$ - | \$ 412 |
| 810 | Purchased Water | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 811 | Telephone/Communications | \$ 438 | \$ 125 | \$ 563 | \$ (2) | \$ 561 | | \$ (2) | \$ 561 |
| 815 | Purchased Power | \$ 2,172 | \$ (461) | \$ 1,711 | \$ (0) | \$ 1,711 | | \$ (0) | \$ 1,711 |
| 816 | Fuel for Power Production | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 817 | Other Utilities - Natural Gas & Janitorial | \$ 23 | \$ 9 | \$ 32 | \$ 0 | \$ 32 | | \$ 0 | \$ 32 |
| 818 | Chemical / Treatment Expense | \$ 2,510 | \$ (2,510) | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 819 | Office Supplies | \$ 3 | \$ 370 | \$ 373 | \$ - | \$ 373 | | \$ - | \$ 373 |
| 819.1 | Postage | \$ 203 | \$ 66 | \$ 269 | \$ - | \$ 269 | | \$ - | \$ 269 |
| 820 | O&M Materials/Supplies | \$ 1,828 | \$ (1,031) | \$ 797 | \$ (0) | \$ 797 | | \$ (0) | \$ 797 |
| 821 | Repairs to Water Plant | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 831 | Contract Svcs - Engineering | \$ 163 | \$ - | \$ 163 | \$ - | \$ 163 | | \$ - | \$ 163 |
| 832 | Contract Svcs - Accounting | \$ 47 | \$ (7) | \$ 40 | \$ - | \$ 40 | | \$ - | \$ 40 |
| 833 | Contract Svcs - Legal | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 834 | Contract Svcs - Management Fees | \$ 849 | \$ (849) | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 835 | Contract Svcs - Testing | \$ - | \$ 1,815 | \$ 1,815 | \$ - | \$ 1,815 | | \$ - | \$ 1,815 |
| 836 | Contract Svcs - Labor | \$ 704 | \$ - | \$ 704 | \$ - | \$ 704 | | \$ - | \$ 704 |
| 837 | Contract Svcs - Billing/Collection | \$ 226 | \$ (226) | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 838 | Contract Svcs - Meter Reading | \$ - | \$ - | \$ - | \$ 443 | \$ 443 | | \$ 443 | \$ 443 |
| 839 | Contract Svcs - Other | \$ 277 | \$ 470 | \$ 747 | \$ 0 | \$ 747 | | \$ 0 | \$ 747 |
| 841 | Rental of Building/Real Property | \$ 513 | \$ 117 | \$ 630 | \$ - | \$ 630 | | \$ - | \$ 630 |
| 842 | Rental of Equipment/Vehicles | \$ 440 | \$ 229 | \$ 669 | \$ - | \$ 669 | | \$ - | \$ 669 |
| 843 | Small Tools | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 848 | Computer/Electronic Expenses | \$ 92 | \$ 22 | \$ 114 | \$ - | \$ 114 | | \$ - | \$ 114 |
| 850 | Transportation | \$ 858 | \$ (11) | \$ 847 | \$ (847) | \$ (0) | | \$ (847) | \$ (0) |
| 856 | Vehicle Insurance | \$ 134 | \$ (20) | \$ 114 | \$ - | \$ 114 | | \$ - | \$ 114 |
| 857 | General Liability Insurance | \$ 206 | \$ 22 | \$ 228 | \$ - | \$ 228 | | \$ - | \$ 228 |
| 858 | Workers' Comp Insurance | \$ - | \$ 164 | \$ 164 | \$ - | \$ 164 | | \$ - | \$ 164 |
| 859 | Insurance - Other | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 866 | Amortz. of Rate Case | \$ - | \$ 1,667 | \$ 1,667 | \$ (0) | \$ 1,667 | | \$ (0) | \$ 1,667 |
| | Gross Revenue Fee (PUC) | \$ 97 | \$ 109 | \$ 206 | \$ - | \$ - | \$ (32) | \$ (32) | \$ 174 |
| 670 | Bad Debt Expense | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 671 | Cross Connection Control Program | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 673 | Training and Certification | \$ 22 | \$ 89 | \$ 111 | \$ - | \$ 111 | | \$ - | \$ 111 |
| 674 | Consumer Confidence Report | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 675 | Miscellaneous Expense | \$ 292 | \$ (54) | \$ 238 | \$ - | \$ 238 | | \$ - | \$ 238 |
| OE1 | Public Relations | \$ - | \$ 12 | \$ 12 | \$ (12) | \$ - | | \$ (12) | \$ 0 |
| OE2 | Other Expense 2 | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| OE3 | Other Expense 3 | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| OE4 | Other Expense 4 | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| OE5 | Other Expense 5 | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| | TOTAL OPERATING EXPENSE | \$ 21,698 | \$ 1,053 | \$ 22,751 | \$ (862) | \$ 21,683 | \$ (32) | \$ (894) | \$ 21,857 |
| | OTHER REVENUE DEDUCTIONS | | | | | | | | |
| | Depreciation Expense | \$ 7,946 | \$ 1,080 | \$ 9,026 | \$ (2,606) | \$ 6,420 | | \$ (2,606) | \$ 6,420 |
| 406 | Amort of Plant Acquisition Adjustment | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 407 | Amortization Expense | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 408.11 | Property Tax | \$ 837 | \$ 60 | \$ 897 | \$ - | \$ 897 | | \$ - | \$ 897 |
| 408.12 | Payroll Tax | \$ - | \$ 458 | \$ 458 | \$ - | \$ 458 | | \$ - | \$ 458 |
| 408.13 | Other | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 409.1 | Federal Income Tax | \$ 194 | \$ 4,817 | \$ 5,011 | \$ - | \$ - | \$ (1,024) | \$ (1,024) | \$ 3,987 |
| 409.11 | Oregon Income Tax | \$ 92 | \$ 2,269 | \$ 2,361 | \$ - | \$ - | \$ (483) | \$ (483) | \$ 1,878 |
| 409.13 | Extraordinary Items Income Tax | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| | TOTAL REVENUE DEDUCTIONS | \$ 30,567 | \$ 9,737 | \$ 40,304 | \$ (3,467) | \$ 29,259 | \$ (1,539) | \$ (5,006) | \$ 35,298 |
| | NET OPERATING INCOME | \$ 7,388 | \$ 21,004 | \$ 28,392 | \$ 3,467 | \$ 39,437 | \$ (9,266) | \$ (5,799) | \$ 22,593 |
| | UTILITY RATE BASE | | | | | | | | |
| | Utility Plant Invested by Company | \$ 413,996 | \$ - | \$ 413,996 | \$ (55,658) | \$ 358,339 | | \$ (55,658) | \$ 358,339 |
| 271 | + Contributions in Aid of Construction - Excess Capacity | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| | Equals: Total Utility Plant | \$ 413,996 | \$ - | \$ 413,996 | \$ (55,658) | \$ 358,339 | \$ - | \$ (55,658) | \$ 358,339 |
| | - Accum. Depreciation--Invested Plant | \$ 133,646 | \$ - | \$ 133,646 | \$ (9,632) | \$ 124,014 | | \$ (9,632) | \$ 124,014 |
| | - Accum. Depreciation--CIAC | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 271 | - Contributions in Aid of Construction | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 281 | - Accumulated Deferred Income Tax | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| 272 | + Accum. Amortization of CIAC | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ 0 |
| | Equals: Net Invested Utility Plant Plus: (working capital) | \$ 280,350 | \$ - | \$ 280,350 | \$ (46,026) | \$ 234,324 | \$ - | \$ (46,026) | \$ 234,324 |
| 151 | Materials and Supplies Inventory | \$ - | \$ 1,694 | \$ 1,694 | \$ - | \$ 1,694 | | \$ - | \$ 1,694 |
| WrkCash | Working Cash (Total Op Exp /12) | \$ 1,808 | \$ - | \$ 1,808 | \$ (1) | \$ 1,807 | | \$ (1) | \$ 1,807 |
| | TOTAL RATE BASE | \$ 282,158 | \$ 1,694 | \$ 283,852 | \$ (46,027) | \$ 237,825 | \$ - | \$ (46,027) | \$ 237,825 |
| | Rate of Return | 2.62% | | 10.00% | | | | | 9.50% |

Adjustment Summary

| Acct No. | REVENUES | Company | | PUC Proposed | | Reason for Adjustment |
|---------------------------------|---------------------------------------|-------------------|--------------------|-------------------|--|--|
| | | Proposed | Adjustments | Results | | |
| 460 | Unmetered Water Sales | \$ - | \$ - | \$ - | | No Adjustment |
| 461.1 | Residential Water Sales | \$ 68,696 | \$ (10,805) | \$ 57,891 | | Revenue sensitive |
| 461.2 | Commercial Water Sales | \$ - | \$ - | \$ - | | No Adjustment |
| 462 | Fire Protection | \$ - | \$ - | \$ - | | No Adjustment |
| 464 | Water Sales to Public Authorities | \$ - | \$ - | \$ - | | No Adjustment |
| 465 | Irrigation - | \$ - | \$ - | \$ - | | No Adjustment |
| 466 | Sales for Resale | \$ - | \$ - | \$ - | | No Adjustment |
| 467 | Golf Course | \$ - | \$ - | \$ - | | No Adjustment |
| 468 | Special Contracts | \$ - | \$ - | \$ - | | No Adjustment |
| 471 | Miscellaneous Revenues | \$ - | \$ - | \$ - | | No Adjustment |
| 472 | Cell Tower/Rent from Util. Property | \$ - | \$ - | \$ - | | No Adjustment |
| 475 | Cross Connection Control Revenue | \$ - | \$ - | \$ - | | No Adjustment |
| 0 | 0 | \$ - | \$ - | \$ - | | No Adjustment |
| | TOTAL REVENUE | \$ 68,696 | \$ (10,805) | \$ 57,891 | | |
| OPERATING EXPENSES | | | | | | |
| 601 | Salaries and Wages - Employees | \$ 9,995 | \$ (443) | \$ 9,552 | | Moved to Meter Reading |
| 603 | Salaries and Wages - Officers | \$ 130 | \$ (0) | \$ 130 | | |
| 604 | Employee Pension & Benefits | \$ 412 | \$ - | \$ 412 | | No Adjustment |
| 610 | Purchased Water | \$ - | \$ - | \$ - | | No Adjustment |
| 611 | Telephone/Communications | \$ 583 | \$ (2) | \$ 581 | | Rounding |
| 615 | Purchased Power | \$ 1,711 | \$ (0) | \$ 1,711 | | |
| 616 | Fuel for Power Production | \$ - | \$ - | \$ - | | No Adjustment |
| 617 | Other Utilities | \$ 32 | \$ 0 | \$ 32 | | |
| 618 | Chemical / Treatment Expense | \$ - | \$ - | \$ - | | No Adjustment |
| 619 | Office Supplies | \$ 373 | \$ - | \$ 373 | | No Adjustment |
| 619.1 | Postage | \$ 269 | \$ - | \$ 269 | | No Adjustment |
| 620 | O&M Materials/Supplies | \$ 797 | \$ (0) | \$ 797 | | |
| 621 | Repairs to Water Plant | \$ - | \$ - | \$ - | | No Adjustment |
| 631 | Contract Svcs - Engineering | \$ 163 | \$ - | \$ 163 | | No Adjustment |
| 632 | Contract Svcs - Accounting | \$ 40 | \$ - | \$ 40 | | No Adjustment |
| 633 | Contract Svcs - Legal | \$ - | \$ - | \$ - | | No Adjustment |
| 634 | Contract Svcs - Management Fees | \$ - | \$ - | \$ - | | No Adjustment |
| 635 | Contract Svcs - Testing | \$ 1,815 | \$ - | \$ 1,815 | | No Adjustment |
| 636 | Contract Svcs - Labor | \$ 704 | \$ - | \$ 704 | | No Adjustment |
| 637 | Contract Svcs - Billing/Collection | \$ - | \$ - | \$ - | | No Adjustment |
| 638 | Contract Svcs - Meter Reading | \$ - | \$ 443 | \$ 443 | | Moved from Wages |
| 639 | Contract Svcs - Other | \$ 747 | \$ 0 | \$ 747 | | |
| 641 | Rental of Building/Real Property | \$ 630 | \$ - | \$ 630 | | No Adjustment |
| 642 | Rental of Equipment | \$ 689 | \$ - | \$ 689 | | No Adjustment |
| 643 | Small Tools | \$ - | \$ - | \$ - | | No Adjustment |
| 648 | Computer/Electronic Expenses | \$ 114 | \$ - | \$ 114 | | No Adjustment |
| 650 | Transportation | \$ 847 | \$ (847) | \$ (0) | | Already pay lease |
| 656 | Vehicle Insurance | \$ 114 | \$ - | \$ 114 | | No Adjustment |
| 657 | General Liability Insurance | \$ 228 | \$ - | \$ 228 | | No Adjustment |
| 658 | Workers' Comp Insurance | \$ 164 | \$ - | \$ 164 | | No Adjustment |
| 659 | Insurance - Other | \$ - | \$ - | \$ - | | No Adjustment |
| 666 | Amortz. of Rate Fee | \$ 1,667 | \$ (0) | \$ 1,667 | | No Adjustment |
| 667 | Gross Revenue Fee (PUC) | \$ 206 | \$ (32) | \$ 174 | | Revenue Sensitive Adjustment |
| 670 | Bad Debt Expense | \$ - | \$ - | \$ - | | No Adjustment |
| 671 | Cross Connection Control Program | \$ - | \$ - | \$ - | | No Adjustment |
| 673 | Training and Certification | \$ 111 | \$ - | \$ 111 | | No Adjustment |
| 674 | Consumer Confidence Report | \$ - | \$ - | \$ - | | No Adjustment |
| 675 | Miscellaneous Expense | \$ 238 | \$ - | \$ 238 | | No Adjustment |
| OE1 | Other Expense 1 | \$ 12 | \$ (12) | \$ - | | |
| OE2 | Other Expense 2 | \$ - | \$ - | \$ - | | No Adjustment |
| OE3 | Other Expense 3 | \$ - | \$ - | \$ - | | No Adjustment |
| OE4 | Other Expense 4 | \$ - | \$ - | \$ - | | No Adjustment |
| OE5 | Other Expense 5 | \$ - | \$ - | \$ - | | No Adjustment |
| | TOTAL OPERATING EXPENSE | \$ 22,751 | \$ (894) | \$ 21,857 | | |
| OTHER REVENUE DEDUCTIONS | | | | | | |
| 403 | Depreciation Expense | \$ 9,026 | \$ (2,606) | \$ 6,420 | | Rounding |
| 406 | Amort of Plant Acquisition Adjustment | \$ - | \$ - | \$ - | | No Adjustment |
| 407 | Amortization Expense | \$ - | \$ - | \$ - | | No Adjustment |
| 408.11 | Property Tax | \$ 697 | \$ - | \$ 697 | | No Adjustment |
| 408.12 | Payroll Tax | \$ 458 | \$ - | \$ 458 | | No Adjustment |
| 408.13 | Other | \$ - | \$ - | \$ - | | No Adjustment |
| 409.1 | Federal Income Tax | \$ 5,011 | \$ (1,024) | \$ 3,987 | | Revenue Sensitive Adjustment |
| 409.11 | Oregon Income Tax | \$ 2,361 | \$ (483) | \$ 1,878 | | Revenue Sensitive Adjustment |
| 409.13 | Extraordinary Items Income Tax | \$ - | \$ - | \$ - | | No Adjustment |
| | TOTAL REVENUE DEDUCTIONS | \$ 40,304 | \$ (5,006) | \$ 35,298 | | |
| | NET OPERATING INCOME | \$ 26,392 | \$ (5,799) | \$ 22,593 | | |
| UTILITY RATE BASE | | | | | | |
| 101 | Utility Plant in Service | \$ 413,996 | \$ (55,658) | \$ 358,339 | | Average 2015 beginning and ending |
| 272 | Amortization of CIAC | \$ - | \$ - | \$ - | | No Adjustment |
| | Less: | | | | | |
| 108.1 | Depreciation Reserve | \$ 133,646 | \$ (9,632) | \$ 124,014 | | Average 2015 beginning and ending plus calculation error |
| 271 | Contributions in Aid of Const | \$ - | \$ - | \$ - | | No Adjustment |
| 281 | Accumulated Deferred Income Tax | \$ - | \$ - | \$ - | | No Adjustment |
| | Net Utility Plant | \$ 280,350 | \$ (46,028) | \$ 234,324 | | |
| | Plus: (working capital) | | | | | |
| 151 | Materials and Supplies Inventory | \$ 1,694 | \$ - | \$ 1,694 | | No Adjustment |
| WkCash | Working Cash (Total Op Exp /12) | \$ 1,808 | \$ (1) | \$ 1,807 | | |
| | TOTAL RATE BASE | \$ 283,852 | \$ (46,027) | \$ 237,825 | | |

**YEAR 1
 RATE COMPARISON**

| Current Company Rates | | | | | |
|------------------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.39 | \$21.53 | \$28.20 | \$49.73 |
| 1" | 0 | | 0 | \$0.00 | \$0.00 |
| 1.5" | 0 | | 0 | \$0.00 | \$0.00 |
| 2" | 0 | | 0 | \$0.00 | \$0.00 |
| 3" | 0 | | 0 | \$0.00 | \$0.00 |
| 6" | 0 | | 0 | \$0.00 | \$0.00 |

| Proposed Company Rates | | | | | |
|-------------------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.44 | \$24.28 | \$66.33 | \$90.61 |
| 1" | 0 | | 0 | | \$0.00 |
| 1.5" | 0 | | 0 | | \$0.00 |
| 2" | 0 | | 0 | | \$0.00 |
| 3" | 0 | | 0 | | \$0.00 |
| 6" | 0 | | 0 | | \$0.00 |

| Stipulated Rates Year 1 | | | | | |
|--------------------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.42 | \$22.97 | \$53.60 | \$76.58 |
| 1" | 0 | \$0.42 | 0 | \$0.00 | \$0.00 |
| 1.5" | 0 | \$0.42 | \$0.00 | \$0.00 | \$0.00 |
| 2" | 0 | \$0.42 | 0 | \$0.00 | \$0.00 |
| 3" | 0 | \$0.42 | 0 | \$0.00 | \$0.00 |
| 6" | 0 | \$0.42 | 0 | \$0.00 | \$0.00 |

Shadow Wood Water
 Docket UW 165
 Test Year: 2014

YEAR 1

Staff/102
 Hari/4

Residential Rate Impact

Residential 5/8" x 3/4"

| | Monthly Consumptions Customer Usage | Current Base Rate | Monthly Consumptions Customer Usage | Current Commodity Rate | Total Current Average Monthly Bill | Staff Proposed Customer Base Rate | Proposed Commodity Rate per 100 gal | Usage Factor | Total Proposed Monthly Bill | Difference | Percentage Difference |
|----------------|---|-------------------------|--|---------------------------|--|--|---|-----------------|-----------------------------------|----------------|--------------------------|
| | 0 | 28.2 | 0 | \$0.39 | \$28.20 | \$53.60 | \$0.42 | 0 | \$53.60 | \$25.40 | 90% |
| | 1000 | 28.2 | 10 | \$0.39 | \$32.10 | \$53.60 | \$0.42 | 10 | \$57.76 | \$25.66 | 80% |
| | 2000 | 28.2 | 20 | \$0.39 | \$36.00 | \$53.60 | \$0.42 | 20 | \$61.93 | \$25.93 | 72% |
| | 3000 | 28.2 | 30 | \$0.39 | \$39.90 | \$53.60 | \$0.42 | 30 | \$66.09 | \$26.19 | 66% |
| | 4000 | 28.2 | 40 | \$0.39 | \$43.80 | \$53.60 | \$0.42 | 40 | \$70.25 | \$26.45 | 60% |
| | 5000 | 28.2 | 50 | \$0.39 | \$47.70 | \$53.60 | \$0.42 | 50 | \$74.41 | \$26.71 | 56% |
| Average | 5519 | 28.2 | 55.19 | \$0.39 | \$49.73 | \$53.60 | \$0.42 | 55.1931 | \$76.58 | \$26.85 | 54% |
| | 6000 | 28.2 | 60 | \$0.39 | \$51.60 | \$53.60 | \$0.42 | 60 | \$78.58 | \$26.98 | 52% |
| | 8000 | 28.2 | 80 | \$0.39 | \$59.40 | \$53.60 | \$0.42 | 80 | \$86.90 | \$27.50 | 46% |
| | 10000 | 28.2 | 100 | \$0.39 | \$67.20 | \$53.60 | \$0.42 | 100 | \$95.23 | \$28.03 | 42% |

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 103

**Exhibits in Support
Of Direct Testimony**

June 24, 2016

YEAR 2

Staff/103
Hari/1

| |
|-------------------|
| Shadow Wood Water |
| Docket UW 165 |
| Test Year: 2014 |

| | |
|----------------------------|-----|
| Company Proposed Increase: | 81% |
|----------------------------|-----|

| | |
|--------------------------|-----|
| Staff Proposed Increase: | 76% |
|--------------------------|-----|

Revenue Requirement

| | | A | B | C | D | E | F | G | H |
|----------|--|-------------------------|------------------------------|-------------------------|-------------------|-------------------|-------------------------------|-----------------------|----------------------|
| | | Company | Company | Company | Staff | Staff | Staff | Staff | Total |
| | | | | A+B+C | | C+D+E | | D+F+G | C+G+H |
| Acct No. | REVENUES | Balance per Application | Proposed Company Adjustments | Proposed Company Totals | Staff Adjustments | Adjusted Results | Revenue-Sensitive Adjustments | Total PUC Adjustments | PUC Proposed Results |
| 460 | Unmetered Water Sales | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 461.1 | Residential Water Sales | \$ 37,599 | \$ 31,097 | \$ 68,696 | \$ - | \$ 68,696 | \$ (1,896) | \$ (1,896) | \$ 66,800 |
| 461.2 | Commercial Water Sales | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 462 | Fire Protection | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 464 | Water Sales to Public Authorities | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 465 | Irrigation - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 466 | Sales for Resale | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 467 | Golf Course | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 468 | Special Contracts | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 471 | Miscellaneous Revenues | \$ 356 | \$ (356) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 472 | Cell Tower/Rent from Util. Property | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 475 | Cross Connection Control Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 0 | 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | TOTAL REVENUE | \$ 37,955 | \$ 30,741 | \$ 68,696 | \$ - | \$ 68,696 | \$ (1,896) | \$ (1,896) | \$ 66,800 |
| | OPERATING EXPENSES | | | | | | | | |
| 601 | Salaries and Wages - Employees | \$ 9,601 | \$ 394 | \$ 9,995 | \$ (443) | \$ 9,552 | \$ - | \$ (443) | \$ 9,552 |
| 603 | Salaries and Wages - Officers | \$ - | \$ 130 | \$ 130 | \$ (0) | \$ 130 | \$ - | \$ (0) | \$ 130 |
| 604 | Employee Pension & Benefits | \$ - | \$ 412 | \$ 412 | \$ - | \$ 412 | \$ - | \$ - | \$ 412 |
| 610 | Purchased Water | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 611 | Telephone/Communications | \$ 438 | \$ 125 | \$ 563 | \$ (2) | \$ 561 | \$ - | \$ (2) | \$ 561 |
| 615 | Purchased Power | \$ 2,172 | \$ (461) | \$ 1,711 | \$ (0) | \$ 1,711 | \$ - | \$ (0) | \$ 1,711 |
| 616 | Fuel for Power Production | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 617 | Other Utilities - Natural Gas & Janitorial | \$ 23 | \$ 9 | \$ 32 | \$ 0 | \$ 32 | \$ - | \$ 0 | \$ 32 |
| 618 | Chemical / Treatment Expense | \$ 2,510 | \$ (2,510) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 619 | Office Supplies | \$ 3 | \$ 370 | \$ 373 | \$ - | \$ 373 | \$ - | \$ - | \$ 373 |
| 619.1 | Postage | \$ 203 | \$ 86 | \$ 269 | \$ - | \$ 269 | \$ - | \$ - | \$ 269 |
| 620 | O&M Materials/Supplies | \$ 1,828 | \$ (1,031) | \$ 797 | \$ (0) | \$ 797 | \$ - | \$ (0) | \$ 797 |
| 621 | Repairs to Water Plant | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 631 | Contract Svcs - Engineering | \$ 163 | \$ - | \$ 163 | \$ - | \$ 163 | \$ - | \$ - | \$ 163 |
| 632 | Contract Svcs - Accounting | \$ 47 | \$ (7) | \$ 40 | \$ - | \$ 40 | \$ - | \$ - | \$ 40 |
| 633 | Contract Svcs - Legal | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 634 | Contract Svcs - Management Fees | \$ 849 | \$ (849) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 635 | Contract Svcs - Testing | \$ - | \$ 1,815 | \$ 1,815 | \$ - | \$ 1,815 | \$ - | \$ - | \$ 1,815 |
| 636 | Contract Svcs - Labor | \$ 704 | \$ - | \$ 704 | \$ - | \$ 704 | \$ - | \$ - | \$ 704 |
| 637 | Contract Svcs - Billing/Collection | \$ 226 | \$ (226) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 638 | Contract Svcs - Meter Reading | \$ - | \$ - | \$ - | \$ 443 | \$ 443 | \$ - | \$ 443 | \$ 443 |
| 639 | Contract Svcs - Other | \$ 277 | \$ 470 | \$ 747 | \$ 0 | \$ 747 | \$ - | \$ 0 | \$ 747 |
| 641 | Rental of Building/Real Property | \$ 513 | \$ 117 | \$ 630 | \$ - | \$ 630 | \$ - | \$ - | \$ 630 |
| 642 | Rental of Equipment/Vehicles | \$ 440 | \$ 229 | \$ 669 | \$ - | \$ 669 | \$ - | \$ - | \$ 669 |
| 643 | Small Tools | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 648 | Computer/Electronic Expenses | \$ 92 | \$ 22 | \$ 114 | \$ - | \$ 114 | \$ - | \$ - | \$ 114 |
| 650 | Transportation | \$ 858 | \$ (11) | \$ 847 | \$ (847) | \$ (0) | \$ - | \$ (847) | \$ (0) |
| 656 | Vehicle Insurance | \$ 134 | \$ (20) | \$ 114 | \$ - | \$ 114 | \$ - | \$ - | \$ 114 |
| 657 | General Liability Insurance | \$ 206 | \$ 22 | \$ 228 | \$ - | \$ 228 | \$ - | \$ - | \$ 228 |
| 658 | Workers' Comp Insurance | \$ - | \$ 164 | \$ 164 | \$ - | \$ 164 | \$ - | \$ - | \$ 164 |
| 659 | Insurance - Other | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 666 | Amortz. of Rate Case | \$ - | \$ 1,667 | \$ 1,667 | \$ (0) | \$ 1,667 | \$ - | \$ (0) | \$ 1,667 |
| | Gross Revenue Fee (PUC) | \$ 97 | \$ 109 | \$ 206 | \$ - | \$ - | \$ (6) | \$ (6) | \$ 200 |
| 670 | Bad Debt Expense | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 671 | Cross Connection Control Program | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 673 | Training and Certification | \$ 22 | \$ 89 | \$ 111 | \$ - | \$ 111 | \$ - | \$ - | \$ 111 |
| 674 | Consumer Confidence Report | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 675 | Miscellaneous Expense | \$ 292 | \$ (54) | \$ 238 | \$ - | \$ 238 | \$ - | \$ - | \$ 238 |
| OE1 | Public Relations | \$ - | \$ 12 | \$ 12 | \$ (12) | \$ - | \$ - | \$ (12) | \$ 0 |
| OE2 | Other Expense 2 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| OE3 | Other Expense 3 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| OE4 | Other Expense 4 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| OE5 | Other Expense 5 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | TOTAL OPERATING EXPENSE | \$ 21,698 | \$ 1,053 | \$ 22,751 | \$ (862) | \$ 21,683 | \$ (6) | \$ (867) | \$ 21,884 |
| | OTHER REVENUE DEDUCTIONS | | | | | | | | |
| 406 | Depreciation Expense | \$ 7,946 | \$ 1,080 | \$ 9,026 | \$ 0 | \$ 9,026 | \$ - | \$ 0 | \$ 9,026 |
| 407 | Amort of Plant Acquisition Adjustment | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 407 | Amortization Expense | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 408.11 | Property Tax | \$ 637 | \$ 60 | \$ 697 | \$ - | \$ 697 | \$ - | \$ - | \$ 697 |
| 408.12 | Payroll Tax | \$ - | \$ 458 | \$ 458 | \$ - | \$ 458 | \$ - | \$ - | \$ 458 |
| 408.13 | Other | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 409.1 | Federal Income Tax | \$ 194 | \$ 4,817 | \$ 5,011 | \$ - | \$ - | \$ (145) | \$ (145) | \$ 4,866 |
| 409.11 | Oregon Income Tax | \$ 92 | \$ 2,269 | \$ 2,361 | \$ - | \$ - | \$ (69) | \$ (69) | \$ 2,292 |
| 409.13 | Extraordinary Items Income Tax | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | TOTAL REVENUE DEDUCTIONS | \$ 30,567 | \$ 9,737 | \$ 40,304 | \$ (861) | \$ 31,865 | \$ (219) | \$ (1,080) | \$ 39,224 |
| | NET OPERATING INCOME | \$ 7,388 | \$ 21,004 | \$ 28,392 | \$ 861 | \$ 36,831 | \$ (1,677) | \$ (816) | \$ 27,576 |
| | UTILITY RATE BASE | | | | | | | | |
| 271 | Utility Plant Invested by Company | \$ 413,996 | \$ - | \$ 413,996 | \$ 1 | \$ 413,997 | \$ - | \$ 1 | \$ 413,997 |
| | + Contributions in Aid of Construction - Excess Capacity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | Equals: Total Utility Plant | \$ 413,996 | \$ - | \$ 413,996 | \$ 1 | \$ 413,997 | \$ - | \$ 1 | \$ 413,997 |
| | - Accum. Depreciation--Invested Plant | \$ 133,646 | \$ - | \$ 133,646 | \$ (6,422) | \$ 127,224 | \$ - | \$ (6,422) | \$ 127,224 |
| | - Accum. Depreciation--CIAC | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 271 | - Contributions in Aid of Construction | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 281 | - Accumulated Deferred Income Tax | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| 272 | + Accum. Amortization of CIAC | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0 |
| | Equals: Net Invested Utility Plant (Plus: working capital) | \$ 280,350 | \$ - | \$ 280,350 | \$ 6,423 | \$ 286,773 | \$ - | \$ 6,423 | \$ 286,773 |
| 151 | Materials and Supplies Inventory | \$ - | \$ 1,694 | \$ 1,694 | \$ - | \$ 1,694 | \$ - | \$ - | \$ 1,694 |
| WkCash | Working Cash (Total Op Exp /12) | \$ 1,808 | \$ - | \$ 1,808 | \$ (1) | \$ 1,807 | \$ - | \$ (1) | \$ 1,807 |
| | TOTAL RATE BASE | \$ 282,158 | \$ 1,694 | \$ 283,852 | \$ 6,421 | \$ 290,274 | \$ - | \$ 6,421 | \$ 290,274 |
| | Rate of Return | 2.62% | | 10.00% | | | | | 9.50% |

Adjustment Summary

| Acct No. | REVENUES | Company Proposed | PUC Adjustments | PUC Proposed Results | Reason for Adjustment |
|----------|---------------------------------------|-------------------|-------------------|----------------------|------------------------------|
| 460 | Unmetered Water Sales | \$ - | \$ - | \$ - | No Adjustment |
| 461.1 | Residential Water Sales | \$ 68,898 | \$ (1,898) | \$ 66,800 | Revenue sensitive |
| 461.2 | Commercial Water Sales | \$ - | \$ - | \$ - | No Adjustment |
| 462 | Fire Protection | \$ - | \$ - | \$ - | No Adjustment |
| 464 | Water Sales to Public Authorities | \$ - | \$ - | \$ - | No Adjustment |
| 465 | Irrigation - | \$ - | \$ - | \$ - | No Adjustment |
| 466 | Sales for Resale | \$ - | \$ - | \$ - | No Adjustment |
| 467 | Golf Course | \$ - | \$ - | \$ - | No Adjustment |
| 468 | Special Contracts | \$ - | \$ - | \$ - | No Adjustment |
| 471 | Miscellaneous Revenues | \$ - | \$ - | \$ - | No Adjustment |
| 472 | Cell Tower/Rent from Util. Property | \$ - | \$ - | \$ - | No Adjustment |
| 475 | Cross Connection Control Revenue | \$ - | \$ - | \$ - | No Adjustment |
| 0 | 0 | \$ - | \$ - | \$ - | No Adjustment |
| | TOTAL REVENUE | \$ 68,898 | \$ (1,898) | \$ 66,800 | |
| | OPERATING EXPENSES | | | | |
| 601 | Salaries and Wages - Employees | \$ 9,995 | \$ (443) | \$ 9,552 | Moved to Meter Reading |
| 603 | Salaries and Wages - Officers | \$ 130 | \$ (0) | \$ 130 | |
| 604 | Employee Pension & Benefits | \$ 412 | \$ - | \$ 412 | No Adjustment |
| 610 | Purchased Water | \$ - | \$ - | \$ - | No Adjustment |
| 611 | Telephone/Communications | \$ 563 | \$ (2) | \$ 561 | Rounding |
| 615 | Purchased Power | \$ 1,711 | \$ (0) | \$ 1,711 | |
| 616 | Fuel for Power Production | \$ - | \$ - | \$ - | No Adjustment |
| 617 | Other Utilities | \$ 32 | \$ 0 | \$ 32 | |
| 618 | Chemical / Treatment Expense | \$ - | \$ - | \$ - | No Adjustment |
| 619 | Office Supplies | \$ 373 | \$ - | \$ 373 | No Adjustment |
| 619.1 | Postage | \$ 269 | \$ - | \$ 269 | No Adjustment |
| 620 | O&M Materials/Supplies | \$ 797 | \$ (0) | \$ 797 | |
| 621 | Repairs to Water Plant | \$ - | \$ - | \$ - | No Adjustment |
| 631 | Contract Svcs - Engineering | \$ 163 | \$ - | \$ 163 | No Adjustment |
| 632 | Contract Svcs - Accounting | \$ 40 | \$ - | \$ 40 | No Adjustment |
| 633 | Contract Svcs - Legal | \$ - | \$ - | \$ - | No Adjustment |
| 634 | Contract Svcs - Management Fees | \$ - | \$ - | \$ - | No Adjustment |
| 635 | Contract Svcs - Testing | \$ 1,815 | \$ - | \$ 1,815 | No Adjustment |
| 636 | Contract Svcs - Labor | \$ 704 | \$ - | \$ 704 | No Adjustment |
| 637 | Contract Svcs - Billing/Collection | \$ - | \$ - | \$ - | No Adjustment |
| 638 | Contract Svcs - Meter Reading | \$ - | \$ 443 | \$ 443 | Moved from Wages |
| 639 | Contract Svcs - Other | \$ 747 | \$ 0 | \$ 747 | |
| 641 | Rental of Building/Real Property | \$ 630 | \$ - | \$ 630 | No Adjustment |
| 642 | Rental of Equipment | \$ 669 | \$ - | \$ 669 | No Adjustment |
| 643 | Small Tools | \$ - | \$ - | \$ - | No Adjustment |
| 648 | Computer/Electronic Expenses | \$ 114 | \$ - | \$ 114 | No Adjustment |
| 650 | Transportation | \$ 847 | \$ (847) | \$ (0) | Already pay lease |
| 656 | Vehicle Insurance | \$ 114 | \$ - | \$ 114 | No Adjustment |
| 657 | General Liability Insurance | \$ 228 | \$ - | \$ 228 | No Adjustment |
| 658 | Workers' Comp Insurance | \$ 164 | \$ - | \$ 164 | No Adjustment |
| 659 | Insurance - Other | \$ - | \$ - | \$ - | No Adjustment |
| 666 | Amortz. of Rate Case | \$ 1,667 | \$ (0) | \$ 1,667 | No Adjustment |
| 667 | Gross Revenue Fee (PUC) | \$ 206 | \$ (6) | \$ 200 | Revenue Sensitive Adjustment |
| 670 | Bad Debt Expense | \$ - | \$ - | \$ - | No Adjustment |
| 671 | Cross Connection Control Program | \$ - | \$ - | \$ - | No Adjustment |
| 673 | Training and Certification | \$ 111 | \$ - | \$ 111 | No Adjustment |
| 674 | Consumer Confidence Report | \$ - | \$ - | \$ - | No Adjustment |
| 675 | Miscellaneous Expense | \$ 238 | \$ - | \$ 238 | No Adjustment |
| OE1 | Other Expense 1 | \$ 12 | \$ (12) | \$ - | |
| OE2 | Other Expense 2 | \$ - | \$ - | \$ - | No Adjustment |
| OE3 | Other Expense 3 | \$ - | \$ - | \$ - | No Adjustment |
| OE4 | Other Expense 4 | \$ - | \$ - | \$ - | No Adjustment |
| OE5 | Other Expense 5 | \$ - | \$ - | \$ - | No Adjustment |
| | TOTAL OPERATING EXPENSE | \$ 22,751 | \$ (667) | \$ 21,884 | |
| | OTHER REVENUE DEDUCTIONS | | | | |
| 403 | Depreciation Expense | \$ 9,026 | \$ 0 | \$ 9,026 | Rounding |
| 406 | Amort of Plant Acquisition Adjustment | \$ - | \$ - | \$ - | No Adjustment |
| 407 | Amortization Expense | \$ - | \$ - | \$ - | No Adjustment |
| 408.11 | Property Tax | \$ 697 | \$ - | \$ 697 | No Adjustment |
| 408.12 | Payroll Tax | \$ 458 | \$ - | \$ 458 | No Adjustment |
| 408.13 | Other | \$ - | \$ - | \$ - | No Adjustment |
| 409.1 | Federal Income Tax | \$ 5,011 | \$ (145) | \$ 4,866 | Revenue Sensitive Adjustment |
| 409.11 | Oregon Income Tax | \$ 2,361 | \$ (69) | \$ 2,292 | Revenue Sensitive Adjustment |
| 409.13 | Extraordinary Items Income Tax | \$ - | \$ - | \$ - | No Adjustment |
| | TOTAL REVENUE DEDUCTIONS | \$ 40,304 | \$ (1,080) | \$ 39,224 | |
| | NET OPERATING INCOME | \$ 28,392 | \$ (816) | \$ 27,576 | |
| | UTILITY RATE BASE | | | | |
| 101 | Utility Plant in Service | \$ 413,996 | \$ 1 | \$ 413,997 | |
| 272 | Amortization of CIAC | \$ - | \$ - | \$ - | No Adjustment |
| | Less: | | | | |
| 108.1 | Depreciation Reserve | \$ 133,646 | \$ (6,422) | \$ 127,224 | Adjusted for error |
| 271 | Contributions in Aid of Const | \$ - | \$ - | \$ - | No Adjustment |
| 281 | Accumulated Deferred Income Tax | \$ - | \$ - | \$ - | No Adjustment |
| | Net Utility Plant | \$ 280,350 | \$ 6,423 | \$ 286,773 | |
| | Plus: (working capital) | | | | |
| 151 | Materials and Supplies Inventory | \$ 1,694 | \$ - | \$ 1,694 | No Adjustment |
| WkCash | Working Cash (Total Op Exp /12) | \$ 1,808 | \$ (1) | \$ 1,807 | |
| | TOTAL RATE BASE | \$ 283,852 | \$ 6,421 | \$ 290,274 | |

YEAR 2 RATE COMPARISON

| Current Company Rates | | | | | |
|-----------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.39 | \$21.53 | \$28.20 | \$49.73 |
| 1" | 0 | | 0 | \$0.00 | \$0.00 |
| 1.5" | 0 | | 0 | \$0.00 | \$0.00 |
| 2" | 0 | | 0 | \$0.00 | \$0.00 |
| 3" | 0 | | 0 | \$0.00 | \$0.00 |
| 6" | 0 | | 0 | \$0.00 | \$0.00 |

| Proposed Company Rates | | | | | |
|------------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.44 | \$24.28 | \$66.33 | \$90.61 |
| 1" | 0 | | 0 | | \$0.00 |
| 1.5" | 0 | | 0 | | \$0.00 |
| 2" | 0 | | 0 | | \$0.00 |
| 3" | 0 | | 0 | | \$0.00 |
| 6" | 0 | | 0 | | \$0.00 |

| Stipulated Rates | | | | | |
|------------------|-----------------------|----------------|---------------------------------|-----------|----------------------------|
| Size of Line | Average Monthly Usage | Commodity Rate | Average Monthly Commodity Price | Base Rate | Total Average Monthly Bill |
| 5/8" x 3/4" | 55.19 | \$0.48 | \$26.51 | \$61.85 | \$88.36 |
| 1" | 0 | \$0.48 | 0 | \$0.00 | \$0.00 |
| 1.5" | 0 | \$0.48 | \$0.00 | \$0.00 | \$0.00 |
| 2" | 0 | \$0.48 | 0 | \$0.00 | \$0.00 |
| 3" | 0 | \$0.48 | 0 | \$0.00 | \$0.00 |
| 6" | 0 | \$0.48 | 0 | \$0.00 | \$0.00 |

Shadow Wood Water
 Docket UW 165
 Test Year: 2014

YEAR 2

Staff/103
 Hari/4

Residential Rate Impact

Residential 5/8" x 3/4"

| | Monthly Consumptions Customer Usage | Current Base Rate | Monthly Consumptions Customer Usage | Current Commodity Rate | Total Current Average Monthly Bill | Staff Proposed Customer Base Rate | Proposed Commodity Rate per 100 gal | Usage Factor | Total Proposed Monthly Bill | Difference | Percentage Difference |
|----------------|---|-------------------------|--|---------------------------|--|--|---|-----------------|-----------------------------------|----------------|--------------------------|
| | 0 | 28.2 | 0 | \$0.39 | \$28.20 | \$61.85 | \$0.48 | 0 | \$61.85 | \$33.65 | 119% |
| | 1000 | 28.2 | 10 | \$0.39 | \$32.10 | \$61.85 | \$0.48 | 10 | \$66.65 | \$34.55 | 108% |
| | 2000 | 28.2 | 20 | \$0.39 | \$36.00 | \$61.85 | \$0.48 | 20 | \$71.46 | \$35.46 | 98% |
| | 3000 | 28.2 | 30 | \$0.39 | \$39.90 | \$61.85 | \$0.48 | 30 | \$76.26 | \$36.36 | 91% |
| | 4000 | 28.2 | 40 | \$0.39 | \$43.80 | \$61.85 | \$0.48 | 40 | \$81.06 | \$37.26 | 85% |
| | 5000 | 28.2 | 50 | \$0.39 | \$47.70 | \$61.85 | \$0.48 | 50 | \$85.87 | \$38.17 | 80% |
| Average | 5519 | 28.2 | 55.19 | \$0.39 | \$49.73 | \$61.85 | \$0.48 | 55.1931 | \$88.36 | \$38.63 | 78% |
| | 6000 | 28.2 | 60 | \$0.39 | \$51.60 | \$61.85 | \$0.48 | 60 | \$90.67 | \$39.07 | 76% |
| | 8000 | 28.2 | 80 | \$0.39 | \$59.40 | \$61.85 | \$0.48 | 80 | \$100.27 | \$40.87 | 69% |
| | 10000 | 28.2 | 100 | \$0.39 | \$67.20 | \$61.85 | \$0.48 | 100 | \$109.88 | \$42.68 | 64% |

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 104

**Exhibits in Support
Of Direct Testimony**

June 24, 2016

Shadow Wood Water
Docket UW 165
Test Year: 2014

Cost of Capital

Utility Proposed Rate of Return

Test Year Rate of Return

Staff Proposed Rate of Return

Cost of Debt

| Debt | Original Balance | Outstanding Balance | Capital Structure | Cost | Weighted Cost |
|----------------------------|------------------|---------------------|-------------------|-------|---------------|
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| \$ | \$ - | \$ - | 0.00% | 0.00% | 0.00% |
| | | | 0.00% | | |
| | | | 0.00% | | |
| Company filed for no debt. | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| TOTAL DEBT | \$0 | \$0 | | | 0.00% |

Equity

| Equity | Original Balance | Outstanding Balance | Capital Structure | Cost | Weighted Cost |
|--------------------------------------|------------------|---------------------|-------------------|-------|---------------|
| No Split | \$290,298 | \$290,298 | 100.00% | 9.50% | 9.50% |
| | | | 0.00% | 0.00% | 0.00% |
| | | | 0.00% | | |
| Company filed for 100% equity at 10% | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| | | | 0.00% | | |
| TOTAL EQUITY | \$290,298 | \$290,298 | | | 9.50% |
| TOTAL DEBT + EQUITY | | \$290,298 | | | 9.50% |

Rate of Return

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 105

**Exhibits in Support
Of Direct Testimony**

June 24, 2016



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Email: info@hilandwater.com
Internet: www.hilandwater.com

February 22, 2016

Re: Shadow Wood Rate Case UW 165 Data Request

Public Utility Commission of Oregon
Attn: Celeste Hari
PO Box 2148
Salem, OR 97308-2148

2. On Page 8, response 25A, the Company indicates that it utilizes no debt in its capital structure:

c. Given that the use of debt in Shadow Wood's capital structure would result in lower customer rates, why has the Company chosen not to issue debt applicable to Shadow Wood's capital structure?

Response:

Shadow Wood does not agree with the premise of question, which assumes that low interest loans are available to small water companies such as Shadow Wood. They are not. Loans are not available and if they were, they would come with such a high interest rate that they would be untenable from a business and customer rate perspective. One of the biggest issues faced by small water systems is their inability to obtain capital through business loans.

The following debt options have been explored or contemplated, and ultimately rejected resulting in a management decision that the most sound course of action was to utilize owner resources to complete the necessary capital improvement projects:

I. Traditional Business Loans

Shadow Wood has no debt because the system is not desirable to banks or credit unions for loan purposes. Hiland explored securing a traditional business loan from financial institutions. It was made clear by both bank and credit union that Shadow Wood would not qualify on its own merits for a bank loan. Any business loans for capital improvements at Shadow Wood would have to be made to Hiland Water. While the improvements that have been made at Shadow Wood are of real value to the operation of the water system and ability to serve the community into the future, they possess no assets that a bank would value as collateral. Therefore, the owners of Hiland, who hold assets of value to a financial institution, would be required to sign personal guarantees. This is a poor business practice and was unacceptable.

The rates of return illustrated in the answer to question 8 below demonstrate that any loan secured would have "defaulted" based on Shadow Wood's financial performance in the last six years. Such default would have resulted in a "rescue" investment from Hiland Water because the loan would be legally issued to Hiland Water.

On a larger scale, assuming borrowing were a preferable approach for customer rates, it would not be possible to replace Hiland's equity with debt. No bank would provide a business loan to essentially take the place of the invested shareholders. Therefore, it would be unreasonable for Hiland to borrow money on behalf of Shadow Wood because it would be unfair to the water customers at other water systems owned by Hiland Water.

II. Private Lenders

While loan rates from private lenders are generally higher than from banks, there are cases in which private lenders could be a viable funding option. As described below, Hiland has only encountered one private lender who was willing to loan money (outside of a seller carrying a loan on the sale of a water system). That lender had a vested interest in seeing the project in Shady Cove succeed. Private lenders still want collateral that is of value to them and water systems do not have attractive collateral. As the attractiveness goes down, the interest rate goes up.

Hiland Water has historically taken out private debt in order to acquire water systems. As you can see in section a. these loans are from the owners of water systems who desire to sell their systems. Hiland has been able to convince water system owners to carry the loans with the water systems as collateral to secure the debt because the owners are anxious to rid themselves of the liability and high risk that come with small water system ownership.

For Shadow Wood, going through a private lender or a financial institution makes less financial sense in terms of interest rates than using ownership investment.

III. OHA State Revolving Loan Fund.

This fund can provide loans to community water systems at very low interest rates. The qualification is extremely selective. The water systems that receive funding are those ranked highest in terms of health and safety concerns and are generally out of compliance with the Oregon Drinking Water Program. Essentially, the Revolving Loan Fund issues loans to water systems that have health and safety issues. While Shadow Wood's distribution lines were in poor condition when Hiland Water took over in 2003, the water system had not deteriorated to a point where it had become a health and safety hazard to its customers.

4. Please provide a narrative detailing the improvements Hiland has performed on the Shadow Wood water system since the last rate case, UW 106, in 2005. Please include the reasons for the improvements and how all customers receive benefits of the improvements.

Response: Since taking over operations and ownership of Shadow Wood in 2003, Hiland Water has worked through a number of important operational problems that required improvement. Several of these improvements are described below:

- I. **Water Right and Well Development.** Prior to 2003, Shadow Wood held no water right on the well that provides drinking water to the community. Therefore the system was limited as to how much water it could provide. Water rights are an essential piece of any water system and ensure necessary water capacity. Given the necessity to ensure adequate water service now and into the future for all of Shadow Wood's water users, and the potential of water shortages and future limitations in water use imposed by Oregon Water Resources Department (WRD), Hiland determined that it was crucial for Shadow Wood to obtain a water right from WRD. A permit was issued in 2005 and an extension was issued in 2011 to perfect the permit by 2024. The permit included several stipulations, including drilling new wells and reconstructing the existing well. At this time, WRD is no longer issuing water right permits in the Shadow Wood service area, confirming the value of Hiland's decision to act promptly to obtain a water right upon assuming ownership of Shadow Wood.

In accordance with the permit issued in 2005, Hiland Water drilled a 440' well ("well #3") in late 2009 and further developed it in early 2010. In 2015, a pump was installed for the well in order to place the well in service. The purpose of this work and the future reconstruction of Well #1 is to provide safe and adequate drinking water which is essential to the health and safety of the community we serve. It is Hiland's responsibility to take reasonable measures to ensure that its ability to consistently serve water to the community is not compromised in the future. The terms through which that objective is achieved were dictated by WRD, making Hiland's decision on how to proceed academic.

- II. **Distribution mainlines and fire protection.** When Hiland Water assumed ownership of Shadow Wood, most of the distribution mainlines were undersized for proper service, too small for fire protection, and so old that leaks and pipe failure were a regular occurrence. In the last rate case, these issues were raised by the customers, especially fire protection.

Hiland coordinated some of the early line replacement from small water lines to fire flow size with the resolution of an easement issue related to a mainline crossing property owned by an individual on the north side of the canyon. This occurred near the reservoirs (which is the starting point for distribution), so this was a logical area to begin making improvements. A large portion of the distribution piping on the north side of the canyon was replaced to improve flow for water service and accommodate fire protection. Specifically, this undertaking consisted of replacing the fill line from the well to the reservoir, installing an 8" gravity fed mainline, and installing a smaller pressurized mainline for the higher elevation homes. The 8" mainline was extended under the canyon and along Shadow Wood Drive on the south side of the canyon using a directionally boring process to create a tunnel and then pull in a water line that was fused together on site. We installed a fire hydrant at the end of Shadow Wood Drive. We installed another fire hydrant at the corner of Crescent Dr. and Stafford (the end of

another branch of the newly installed 8" mainline). We further installed a liner due to leakage and the poor condition of Reservoir #2.

We did a substantial amount of work during 2004 and 2005 and resolved important operational problems which improved water service for all customers and provided needed fire protection to cover most of the Shadow Wood customer base. In UW 106, the PUC ordered that certain customers who were not within the prescribed radius of a fire hydrant be granted a monthly credit until fire hydrants and fire flow was provided to protect all homes served in Shadow Wood's service area. This illustrates the concern and emphasis on fire protection the Commission had during the last rate case. At this time, due to our subsequent fire flow and hydrant improvements, every home served by Shadow Wood water system benefits from the fire protection provided.

In 2013, we replaced a portion of mainline on Sunset because leaks in the old water line were causing damage to a water user's property. During that time period, we replaced the old 2" mainline water connections along the north end of Shadow Wood Dr. with a new 8" fire flow line.

There are times when opportunities for efficiency and cost savings arise, and it is prudent, good management and in the customer's best interest, for the water system to take advantage of those opportunities. For example, in 2009, Shadow Wood took advantage of a road relocation to upsize the mainline around and under Stafford Road. By making these improvements while the road work was being done, the ratepayers experienced substantial savings over tearing up the road in the future.

The 2015 mainline replacement along Shadow Wood and Greenway was a substantial undertaking, but is another example of an opportunity for efficiency and cost savings. We did not anticipate starting this project until 2016 or 2017, but we made the decision to proceed in 2015 when we learned of Clackamas County's plans to repave the roads. Given the age and condition of the mainline, we were not only concerned that we would end up having to tear up new roads to make repairs in the near future, but also that the road construction would cause the old lines to fail. The old 2" steel lines were replaced with larger water lines and we moved all services along the route to the new water line so that the old water line could be replaced. Many within the Shadow Wood community expressed their appreciation for the improved water service along with a new road that is not likely to be damaged or torn up due to the condition of the water line and the need to perform frequent repairs. All customers benefit whenever we replace old and deteriorated water lines because it conserves water through minimizing loss while also keeping repair costs at a minimum and operating expenses low.

Deteriorating water infrastructure is a nationwide problem. Replacing the infrastructure is costly, but essential. Shadow Wood's improvements made in the area of water rights, sources, storage, and distribution are part of Hiland's ongoing commitment to make the improvements necessary to ensure that the water users in Shadow Wood receive excellent service and safe drinking water now and in the future. Hiland took over Shadow Wood's old and deteriorating water system and invested in infrastructure improvements that will last for decades to come to provide its customers with a quality system they can depend on for water and fire protection. Our decision to make these investments is good for customers, the business, and the Commission.

While it was not our desire to expend resources to the extent we have during the past 13 years, we have done so in every instance because of the customer benefits each circumstance offered to

complete capital improvements at the lowest cost possible. Consequently, the Shadow Wood water system is significantly superior in every aspect to what it was in 2003. All customers enjoy the benefit of the capital improvements that provide the excellent service and water quality they now receive.



Staff/105
Hari/6

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March 22, 2016

Re: Shadow Wood Rate Case UW 165 Data Request

Public Utility Commission of Oregon
Attn: Celeste Hari
PO Box 2148
Salem, OR 97308-2148

12. Please provide the bank/credit union names that Shadow Wood/Hiland contacted in regard to obtaining a loan for capital improvements. Please indicate the business loan rates these institutions offered.

RESPONSE: Hiland Water contacted First Community Credit Union about obtaining a loan in 2009. A general conversation about application requirements occurred and Hiland Water was informed that personal guarantees would be required in order to obtain a loan. Shadow Wood assets or any other Hiland Water assets would not suffice as collateral. The loan application was never completed and First Community Credit Union never offered a business loan and never quoted an interest rate.

In 2013, Hiland Water discussed obtaining a loan from AmericanWest Bank for the purchase of Shady Cove Waterworks LLC (SCWW) from AmericanWest (the bank had been attempting to divest of SCWW for several years). SCWW holds a 29-acre piece of real estate, but AmericanWest Bank was still unwilling to take SCWW as collateral. Initially, they indicated a willingness to consider a business loan to Hiland Water if personal guarantees were made by Hiland officers, but eventually AmericanWest determined it would not finance the sale of SCWW under any circumstances. No business loan rates were ever offered and Hiland Water raised the funds from owners and Mr. John Collins to purchase SCWW with cash.

CASE: UW 165
WITNESS: CELESTE HARI

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 106

**Exhibits in Support
Of Direct Testimony**

June 24, 2016

**Oregon Water Resources Department
Water Right Services Division**

Water Rights Application
Number G-16338

**Final Order
Extension of Time for Permit Number G-15918
Permit Holder: Shadow Wood Water Service**

Permit Information

Application File G-16338 / Permit G-15918
Basin 2 – Willamette River Basin / Watermaster District 18
Date of Priority: November 9, 2004

Authorized Use of Water

Source of Water: Wells 1, 2, 3, and 4 within the Shipley Creek Basin
Purpose or Use: Quasi-Municipal
Maximum Rate: 0.89 Cubic Feet per Second (cfs)

Appeal Rights

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. A request for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either file for judicial review, or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Application History

Permit G-15918 was issued by the Department on June 16, 2005. The permit called for complete application of water to beneficial use by October 1, 2009. On March 29, 2010, Shadow Wood Water Service, Division of Hiland Water Corporation submitted an application to the Department for an extension of time for Permit G-15918. In accordance with OAR 690-315-0050(2), on May 31, 2011, the Department issued a Proposed Final Order proposing to extend the time to apply water to full beneficial use to October 1, 2024. The protest period closed July 15, 2011, in accordance with OAR 690-315-0060(1). No protest was filed.

The Department adopts and incorporates by reference the Proposed Final Order dated May 31, 2011. At time of issuance of the Proposed Final Order the Department concluded that, based on the factors demonstrated by the applicant, the permit may be extended subject to no additional conditions.

The applicant has demonstrated good cause for the permit extension pursuant to ORS 537.630, 539.010(5) and OAR 690-315-0080(3).

Order

The extension of time for Application G-16338, Permit G-15918, therefore, is approved. The deadline for applying water to full beneficial use within the terms and conditions of the permit is extended from October 1, 2009 to October 1, 2024.

DATED: August 4, 2011



Dwight French, Water Rights Services Division Administrator for
PHILLIP C. WARD, DIRECTOR

If you have any questions about statements contained in this document, please contact Ann Reece at (503) 986-0827.

If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900.

STATE OF OREGON

COUNTY OF CLACKAMAS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

SHADOW WOOD WATER SERVICE; DIVISION OF HILAND WATER CORP
PO BOX 699
NEWBERG, OR 97132

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-16338

SOURCE OF WATER: WELL 1; WELL 2; WELL 3; AND WELL 4 IN SHIPLEY CREEK
BASIN

PURPOSE OR USE: QUASI-MUNICIPAL USE

MAXIMUM RATE: 0.89 CUBIC FOOT PER SECOND

PERIOD OF USE: YEAR ROUND

DATE OF PRIORITY: NOVEMBER 9, 2004

WELL LOCATIONS:

WELL 1: NE $\frac{1}{4}$ SW $\frac{1}{4}$, SECTION 21, T2S, R1E, W.M.; 1967 FEET NORTH &
1730 FEET EAST FROM SW CORNER, SECTION 21

WELL 2: SE $\frac{1}{4}$ NW $\frac{1}{4}$, SECTION 21, T2S, R1E, W.M.; 3010 FEET NORTH &
1997 FEET EAST FROM SW CORNER, SECTION 21

WELL 3: NE $\frac{1}{4}$ SW $\frac{1}{4}$, SECTION 21, T2S, R1E, W.M.; 2540 FEET NORTH &
2359 FEET EAST FROM SW CORNER, SECTION 21

WELL 4: NE $\frac{1}{4}$ SW $\frac{1}{4}$, SECTION 21, T2S, R1E, W.M.; 2273 FEET NORTH &
2150 FEET EAST FROM THE SW CORNER, SECTION 21

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NE $\frac{1}{4}$ SE $\frac{1}{4}$
NW $\frac{1}{4}$ SE $\frac{1}{4}$
SECTION 20

SW $\frac{1}{4}$ NE $\frac{1}{4}$
SE $\frac{1}{4}$ NW $\frac{1}{4}$
NE $\frac{1}{4}$ SW $\frac{1}{4}$
NW $\frac{1}{4}$ SW $\frac{1}{4}$
SE $\frac{1}{4}$ SW $\frac{1}{4}$

NW ¼ SE ¼
SECTION 21
TOWNSHIP 2 SOUTH, RANGE 1 EAST, W.M.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the water user shall install a meter or other suitable measuring device as approved by the Director. The water user shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the water user to report general water use information, including the place and nature of use of water under the permit.
- B. The water user shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

WELL CONDITIONS

1. The wells shall be constructed to allow production from a single Columbia River Basalt aquifer below elevations of approximately 150.0 feet below sea level, at approximate depth of 275.0, 380.0, 330.0, and 300.0 feet below land surface locations of Wells 1 through 4, respectively. Wells 1 and 2 shall be reconstructed to meet this requirement.
2. Drill cuttings shall be collected from each newly drilled, deepened, or reconstructed well listed on this permit to help determine which part of the basalt column the well penetrates and which aquifer the well is completed in.
3. Cuttings shall be collected at ten-foot intervals and at major formation changes and shall be delivered to the Oregon Water Resources Department, Ground Water Hydrology Section within 30 days after the completion of the well(s).
4. A. Use of water from the wells, as allowed herein, shall be controlled or shut off if the well displays:
 - 1) An average water level decline of three or more feet per year for five consecutive years; or
 - 2) A total water level decline of fifteen or more feet; or

3) A hydraulic interference decline of fifteen or more feet in any neighboring well providing water for senior exempt uses or wells covered by prior rights.

B. The water user shall install a meter or other measuring device suitable to the Director, and shall submit an annual report of water used to the Department by December 1 of each year.

C. The water user/appropriator shall be responsible for complying with each of the following requirements for measuring water levels in the wells.

1) Use of water from a new well shall not begin until an initial static water level in the well has been measured and submitted to the Department.

2) In addition to the measurement required in subsection (a) of this section, a water level measurement shall be made each year during the period March 1 through March 31.

3) All water level measurements shall be made by a qualified individual. Qualified individuals are certified water rights examiners, registered geologists, registered professional engineers, licensed land surveyors, licensed water well constructor, licensed pump installer, or the water user/appropriator.

4) Any qualified individual measuring a well shall use standard methods of procedure and equipment designed for the purpose of well measurement. The equipment used shall be well suited to the conditions of construction at the well. A list of standard methods of procedure and suitable equipment shall be available from the Department.

5) The water user/appropriator shall submit a record of the measurement to the Department on a form available from the Department. The record of measurement shall include both measurements and calculations, shall include a certification as to their accuracy signed by the individual making the measurements, and shall be submitted to the Department within 90 days from the date of measurement. The Department shall determine when any of the declines cited in section (1) are evidenced by the well measurement required in section (3).

STANDARD CONDITIONS

If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may not be valid.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

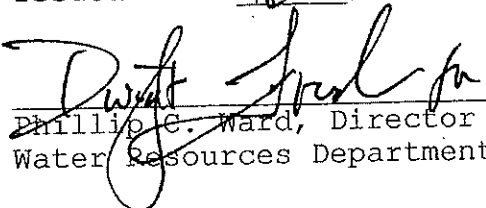
By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Complete application of the water to the use shall be made on or before October 1, 2009. If the water is not completely applied before this date, and the water user wishes to continue development under the permit, the water user must submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after complete application of water to the proposed use, the water user shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

Issued June 16, 2005

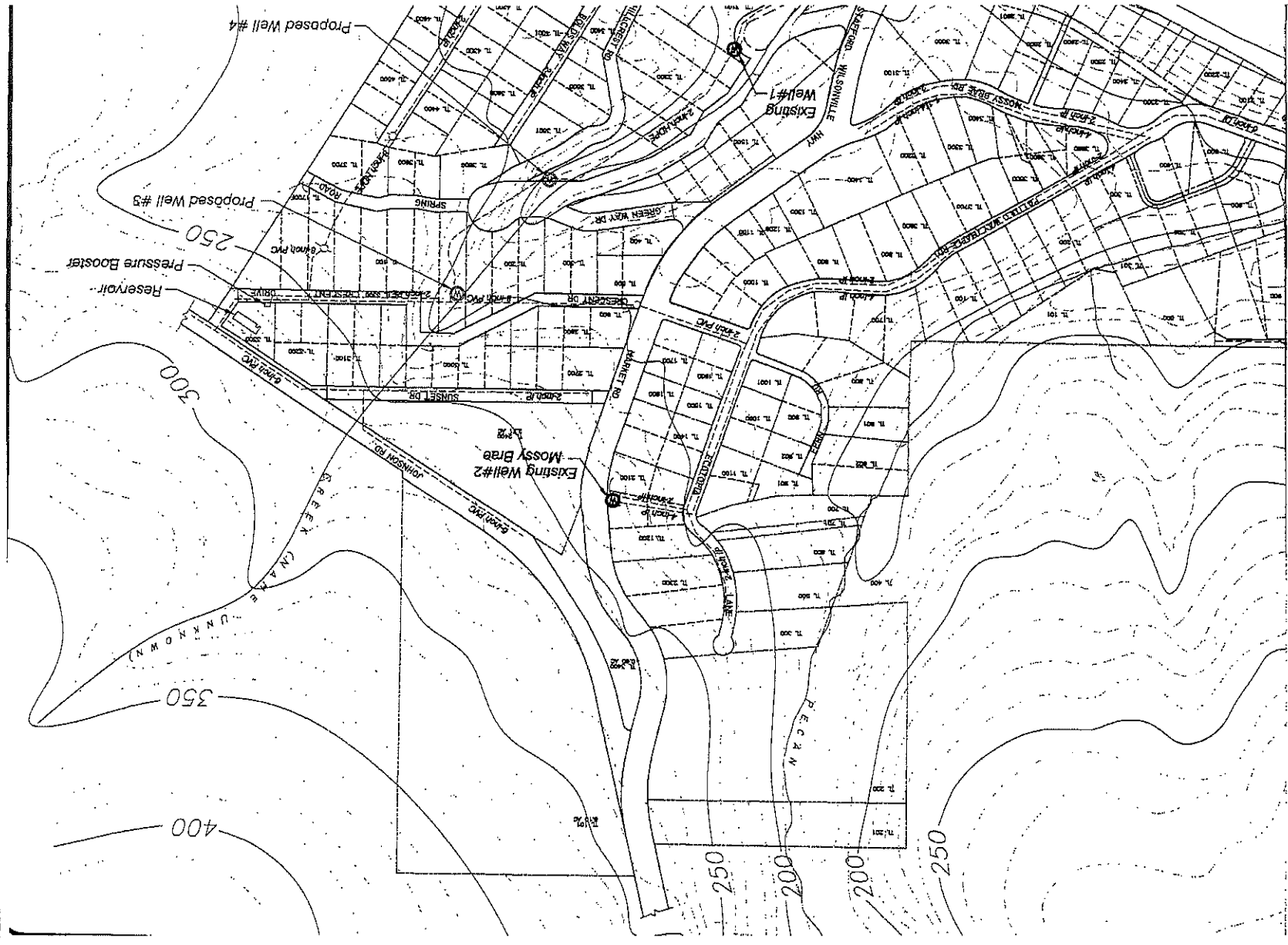

Phillip C. Ward, Director
Water Resources Department

ASSIGNMENT OF PERMIT: Pursuant to ORS 537.220, this permit may be assigned to a party other than the water user named hereon, if the land the permit is associated with changes ownership, or if the water user is an organization whose name changes as a result of sale or merger. Request for Assignment forms are available from the Oregon Water Resources Department web site at <http://www.wrd.state.or.us/>, or may be requested from the Department at 503-986-0801 or Water Right Application Section, Oregon Water Resources Department, 725 Summer St NE Ste A, Salem OR 97301-1271.

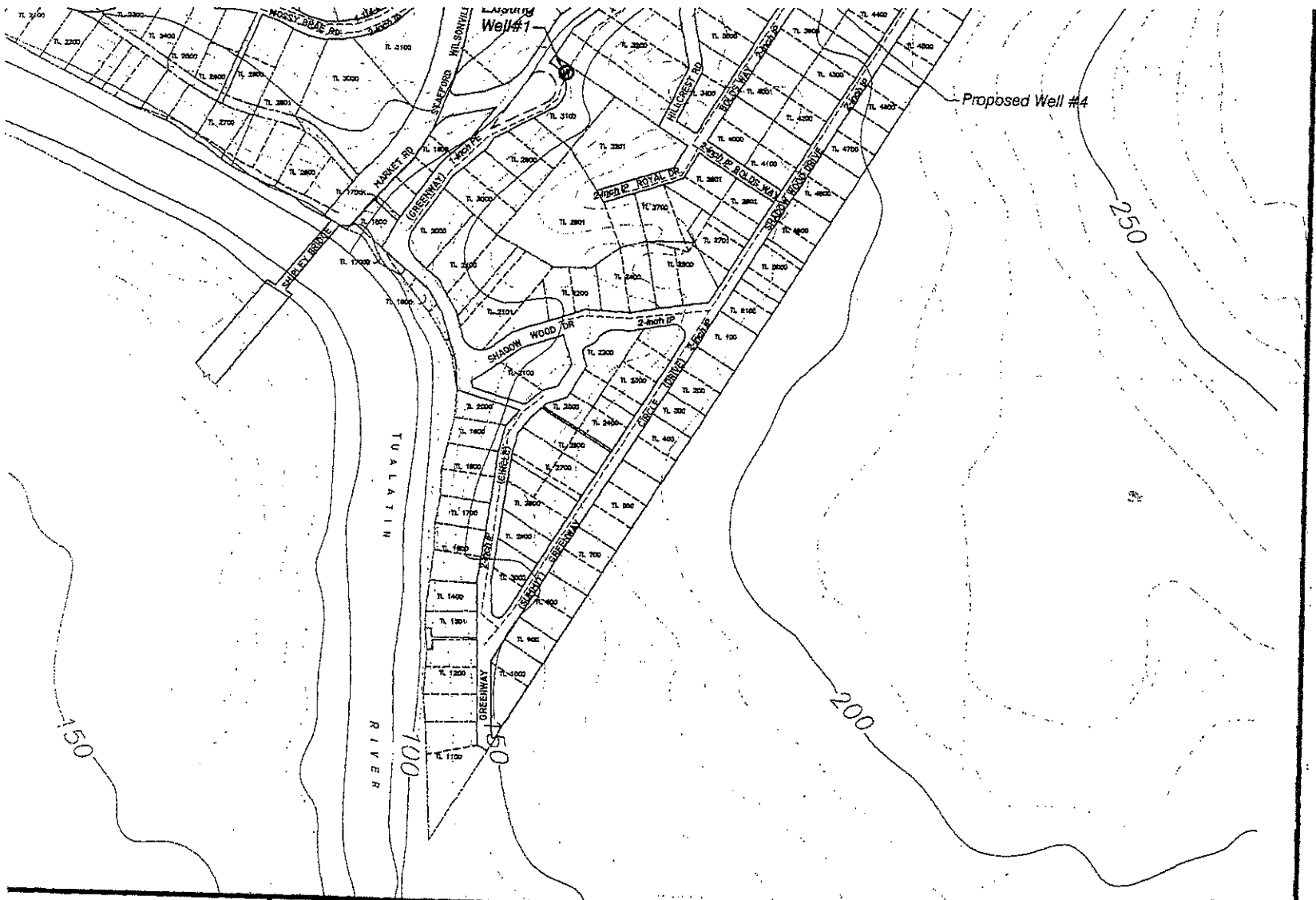
MAILING ADDRESS CHANGES: If the mailing address of the water user named hereon changes, it is important that the Oregon Water Resources Department be informed of the change. Address changes must be submitted in writing with the water user's signature to Water Right Application Section, Oregon Water Resources Department, 725 Summer St NE Ste A, Salem OR 97301-1271.

REAL ESTATE TRANSACTIONS: Pursuant to ORS 537.330, in any transaction for the conveyance of real estate that includes any portion of the lands described in this permit, the seller of the real estate shall, upon accepting an offer to purchase that real estate, also inform the purchaser in writing whether any permit, transfer approval order, or certificate evidencing the water right is available and that the seller will deliver any permit, transfer approval order or certificate to the purchaser at closing, if the permit, transfer approval order or certificate is available.

CULTURAL RESOURCES PROTECTION LAWS: Water users involved in ground-disturbing activities should be aware of federal and state cultural resources protection laws. ORS 358.920 prohibits the excavation, injury, destruction or alteration of an archeological site or object, or removal of archeological objects from public and private lands without an archeological permit issued by the State Historic Preservation Office. 16 USC 470, Section 106, National Historic Preservation Act of 1966 requires a federal agency, prior to any undertaking to take into account the effect of the undertaking that is included on or eligible for inclusion in the National Register. For further information, contact the State Historic Preservation Office at 503-378-4168, extension 232.



Staff/106
Hari/10



EN CONSULTING

5597 RIVER ST.
WEST LINN, OR. 97068
503-723-4257

WATER RIGHT APPLICATION MAP

LEGEND

- ROADWAY
- TAXLOT LINE
- EASEMENT
- SURVEY LINE
- OPEN WATER
- MAJOR TOPO (50' INTERVAL)
- MINOR TOPO (10' INTERVAL)
- SECTION AND 1/4-1/4 GRID
- PROJECT BOUNDARY
- WATER DISTRIBUTION SYSTEM
- ⊙ WELL (EXISTING)
- ⊙ WELL (PROPOSED)
- ⊙ SECTION CORNER



SCALE: 1" = 200'

app# G16338

RECEIVED

NOV 09 2004

WATER RESOURCES DEPT
SALEM, OREGON

NOTES:

EXISTING WELL #1 IS 1967 FEET NORTH AND 1730 FEET EAST FROM THE SW CORNER OF SECTION 21.

EXISTING WELL #2 IS 3010 FEET NORTH AND 1997 FEET EAST FROM THE SW CORNER OF SECTION 21.

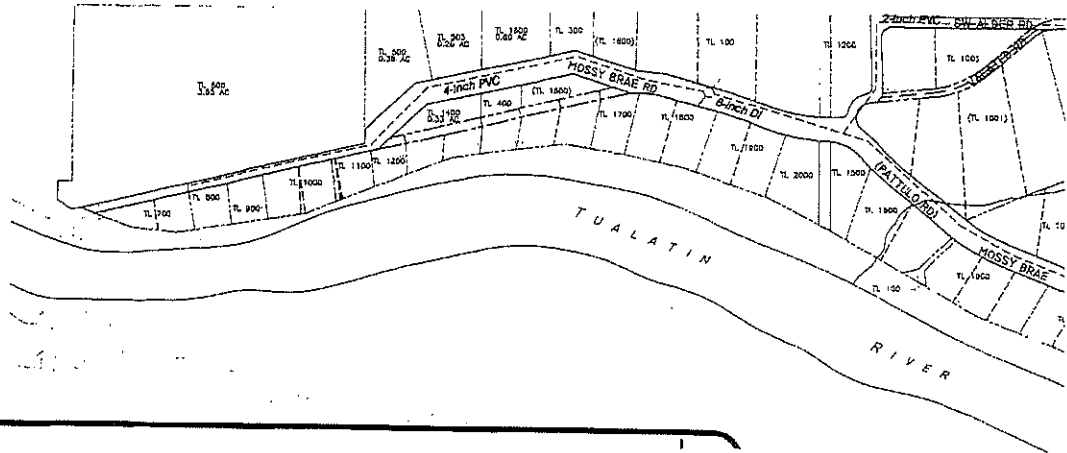
PROPOSED WELL #3 IS 2540 FEET NORTH AND 2359 FEET EAST FROM THE SW CORNER OF SECTION 21.

PROPOSED WELL #4 IS 2273 FEET NORTH AND 2150 FEET EAST FROM THE SW CORNER OF SECTION 21.

PREPARATION OF THIS MAP IS FOR THE PURPOSE OF IDENTIFYING THE LOCATION OF THE WATER RIGHT ONLY. THERE IS NO INTENT TO PROVIDE DIMENSIONS OR LOCATION OF PROPERTY OWNERSHIP LINES.

SECTION GRID

SECTIONS 20 & 21 T.2S. R.1E. W.M.
CLACKAMAS COUNTY, OREGON



Staff/106
Harf/11



Contact Information (Click to Collapse...)

Workflow (Click to Collapse...)

Current contact information

APPLICANT:
SHADOW WOOD WATER SERVICE; DIVISION OF
23875 NE DILLON RD
NEWBERG, OR 97132

Application: G 16338

Received: 11/9/2004

Application Workflow

| Action | Date | Result | Completed By |
|----------------------|-----------|--------------------|----------------|
| Application Filed | 11/9/2004 | | HERBERT MOSGAR |
| Initial Review | 2/4/2005 | Propose to Approve | JERRY GAINNEY |
| IR Comment Period | 2/8/2005 | Propose to Approve | JONNINE SKAUG |
| Proposed Final Order | 4/5/2005 | Propose to Approve | JERRY GAINNEY |
| PFO Protest Period | 5/20/2005 | Propose to Approve | JERRY GAINNEY |
| Final Order | 6/16/2005 | Issued | JERRY GAINNEY |
| Permit Issued | 6/16/2005 | Issued | JERRY GAINNEY |

Water Right Information (Click to Collapse...)

Status: Non-Cancelled
County: Clackamas
File Folder Location: Salem
Watermaster District: 18

Related Documents

- Unable to view right in new web mapping because this water right is not currently mapped.
- [View Places of Use from Water Rights in the Same Area](#)

Scanned Documents (Click to Expand...)

Point(s) of Diversion (Click to Collapse...)

- POD 1 - A WELL > SHIPLEY CREEK
- POD 2 - A WELL > SHIPLEY CREEK
- POD 3 - A WELL > SHIPLEY CREEK
- POD 4 - A WELL > SHIPLEY CREEK

Place(s) of Use (Click to Collapse...)

[Add TRS grouping](#)

- Use - QUASI-MUNICIPAL USES
(Primary); Priority Date: 11/9/2004

Water Right Genealogy (Click to Collapse...)

- App: G 16338
 - Permit: G 15918 *

[View Water Rights In same Family](#)

[Report Errors with Water Right Data](#)



Contact Information (Click to Collapse...)

Current contact information

OWNER:
SHADOW WOOD WATER SERVICE; DIVISION OF
23875 NE DILLON RD
NEWBERG, OR 97132

Water Right Information (Click to Collapse...)

Status: Non-Cancelled
County: Clackamas
File Folder Location: Salem
Watermaster District: 18

Workflow (Click to Collapse...)

- ▶ Application: G 16338
- ▶ Permit: G 15918 document , paper map
- ▶ Signature: 6/16/2005

Permit Workflow

| Action | Date | Result | Completed By |
|---|-----------|--------------------|-----------------|
| Completion Date [C Date] | 10/1/2009 | | JERRY GAINEY |
| Extension Application Received | 3/29/2010 | | SCOTT KUDLEMYER |
| ▶ Extension Comment Period Ends | 4/6/2010 | | SCOTT KUDLEMYER |
| Extension PFO 315 Issued | 5/31/2011 | Propose to Approve | JERRY GAINEY |
| Extension PFO Protest Period Ends | 7/15/2011 | | JERRY GAINEY |
| Extension FO Issued | 8/4/2011 | Extended | ANN REECE |
| Extended Completion Date [Extension C Date] | 10/1/2024 | | ANN REECE |

Related Documents

- ▶ View right with Web Mapping
- ▶ View Places of Use from Water Rights in the Same Area
- ▶ View Reported Water Use

Scanned Documents (Click to Collapse...)

Records per page: 3

| Document Type | Document Title | Date | Remarks |
|---------------------------|--------------------------------|-----------|---------|
| Permit | <u>Permit G15918 Map Image</u> | 6/16/2005 | |
| Permit | <u>Permit G15918 Image</u> | 6/16/2005 | |
| Order - Extension of Time | <u>Extension of Time</u> | 8/4/2011 | |

Point(s) of Diversion (Click to Collapse...)

- ▶ POD 1 - A WELL > SHIPLEY CREEK
- ▶ POD 2 - A WELL > SHIPLEY CREEK
- ▶ POD 3 - A WELL > SHIPLEY CREEK
- ▶ POD 4 - A WELL > SHIPLEY CREEK

Place(s) of Use (Click to Collapse...)

Add TRS grouping

- ▶ Use - QUASI-MUNICIPAL USES
(Primary); Priority Date: 11/9/2004

Water Right Genealogy (Click to Collapse...)

- ▶ App: G 16338
- ▶ Permit: G 15918 *