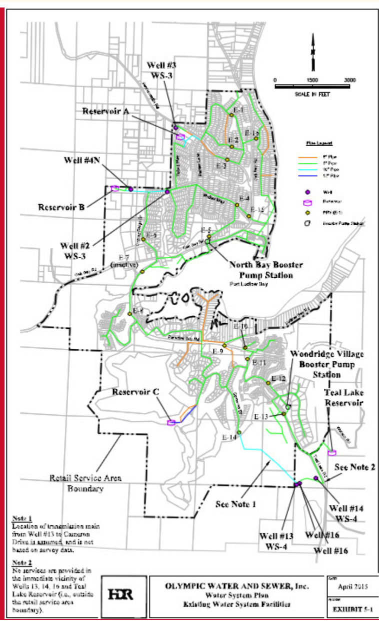


Jefferson County Public Utility District

OWSI Water System Acquisition Feasibility Study

Final Report

June 30, 2015

Contents

Tables

Figures

Appendix

1 Introduction

The Jefferson County Public Utility District (PUD) is evaluating the feasibility of restructuring Olympic Water and Sewer, Inc. (OWSI), a private, investor-owned utility that provides water and sewer service to the master planned resort (MPR) community of Port Ludlow, under the ownership and operation of the PUD. The PUD has retained the services of HDR Engineering, Inc. (HDR) to provide an engineering and financial analysis to support the system valuation and acquisition evaluation of the OWSI water system. The OWSI sewer system is not included in this evaluation.

This report provides a summary description of the OWSI water system, identification of system limitations and needed improvements, determination of a market value and a range of reasonable values for the system, and discussion of potential financing strategies and impacts to the rates of current OWSI customers.

The primary sources of data utilized in the compilation of this report were:

- OWSI Draft Water System Plan Update (WSP, dated September 19, 2014, with revisions submitted to the Washington State Department of Health [DOH] on April 9, 2015, and under review as of June 5, 2015). The system description and identification of system limitations and needed improvements are based primarily on information contained in the WSP.
- OWSI annual reports submitted to the Washington Utilities and Transportation Commission (WUTC). The system valuation made use of these data.

Other information and methodologies used in this analysis are described throughout the report.

2 OWSI Water System Description

2.1 Background

OWSI provides water service to the Port Ludlow MPR in unincorporated Jefferson County. OWSI's retail service area is coincident with the Port Ludlow MPR boundary, as defined in the Jefferson County Comprehensive Plan and as shown on Figure 1.

Development in Port Ludlow began in 1967. Water system infrastructure was added and modified over the years to meet growth and increasing water needs.

At the end of 2012 (the last year when connection data were analyzed in depth for the WSP), there were a total of 1,914 residential lots developed within the MPR: 1,698 single family and 216 multi-family (condominiums). Of this total, there were 1,536 residential connections to the water system; 1,390 single family and 216 multi-family. In addition, the MPR includes a marina, restaurant, two homeowner activity centers, conference center, commercial center, inn, and golf course.

2.2 Water Demands

Current (2012) OWSI water usage is approximately 270,000 gallons per day (gpd) on an average day demand (ADD) basis and 590,000 gpd on a maximum day demand (MDD) basis, reflecting a peaking factor of roughly 2.2. Growth is anticipated to be slow in the short-term, with full build-out of the water system occurring just beyond the 20-year planning horizon. The demand forecast is summarized in Table 1.

Table 1. Water Demand Forecast

Year	Average Day Demand (gpd)	Maximum Day Demand (gpd)
2012	270,000	590,000
2020	310,000	780,000
2034	400,000	1,000,000

2.3 Key System Components

The service area is comprised of two distinct service zones. Service Zone A refers to the developed area north of Port Ludlow Bay, and Service Zone B refers generally to the area south of the bay.

Service Zone A receives its water supply from three groundwater wells having a present combined pumping capacity of approximately 310 gallons per minute (gpm). Storage is provided by two ground-level steel reservoirs, with a combined capacity of approximately 450,000 gallons. Water is conveyed to two pressure zones within Service Zone A. Water treatment for the removal of iron and manganese is provided at two of this service zone’s wells.

Service Zone B receives its water supply from two groundwater wells having a present combined pumping capacity of approximately 475 gpm. Storage is provided by two ground-level steel reservoirs, with a combined capacity of approximately 445,000 gallons. Water is conveyed to eight pressure zones within Service Zone B.

Details regarding the system’s water rights, wells, reservoirs, and distribution piping are provided in Tables 2 through 5. The key system features are depicted in Figure 2.

Table 2. Water Rights Summary

	Water Right No.	Q_a (afy) [(1)]	Q_i (gpm) [(2)]
Service Zone A			
Well 2	G2-00194C	120	150
Well 3	G2-00193C	88	110
Well 4N	G2-25627C	122	150
Sub-Total		330	410
Service Zone B			
Active Wells[(3)]			
Well 13	G2-25816C	35 (45 S)	175
Well 14 Well 13, 14, 16	G2-27492P G2-30442P	(161 S) 90	300 100
Sub-Total		125 (206 S)	575
Inactive Wells			
Well 4A	G2-21542C	30	23
Well 9	G2-21543C	70	46
Sub-Total		100	69
System Total		555	1,054

Notes: afy = acre-feet per year; gpm = gallons per minute
Information in this table is based on information in Department of Ecology's water right records.
(1) Annual quantity. Numbers in parentheses indicate supplemental quantities, which are not additive to primary quantities.
(2) Instantaneous quantities.
(3) The water rights for Wells 13 and 14 include Well 16 as an additional point of withdrawal.

Table 3. Water Supply Wells

Well Name	Current Pumping Capacity [(1)] (gpm)	Date Drilled
Service Zone A		
Well 1 (inactive)	NA	December 1941
Well 2	120	April 1967
Well 3	74	November 1968
Well 4N	115	April 1980
Service Zone B		
Well 4A (inactive)	NA	September 1972
Well 9 (inactive)	NA	October 1972
Well 13 (emergency)	130	August 1975
Well 14	155 [(2)]	October 1988
Well 16	320	October 2005

Notes:
(1) Based on OWSI pumping records as of December 2013.
(2) Rated capacity is 300 gpm; however, its capacity is limited to 155 gpm when pumping with Well 16 so as to maintain a blended arsenic concentration within acceptable levels.

Table 4. Water Storage Reservoirs

Name	Diameter (ft)	Overflow Height (ft)	Base Elev (ft)	Overflow HGL (ft)	Total Volume (gallons)
Reservoir A	28	32	411	443	147,386
Reservoir B	40	31.5	411.5	443	296,089
Reservoir C	27.5	38.5	329	367.5	171,048
Teal Lake Reservoir	32	44.5	497.5	542	267,702

Notes: HGL = Hydraulic Grade Line

Table 5. Water System Transmission Piping

Diameter (in.)	Length (ft)
6	12,169
8	83,353
10	7,203
12	1,326
Total	104,051

2.4 System Limiting Capacities

The WSP contains an analysis of the capacities of the key system components (water rights, pumping capacity, and storage) to determine the system's carrying capacities and limiting factors. Table 6 summarizes this analysis, with water demands presented in the form of Equivalent Residential Units (ERUs). The system's existing source and storage capacities are sufficient to support projected 20-year growth. This is also depicted graphically in Figure 3. The most limiting system component is source pumping, at a current maximum capacity of 2,592 ERUs.

Table 6. Summary of Capacity Limiting Factors

	ERU Projections (1)			Carrying Capacities (2)		
	Current (2012)	6-Year (2020)	20-Year (2034)	Water Rights (3)	Source Pumping	Storage
Total System	1,444	1,682	2,164	2,676	2,592	3,426
Sub-Areas						
Service Zone A	548	616	771	1,080	1,082	1,794
Service Zone B	896	1,066	1,393	1,596	1,510	1,632
Woodridge Village BPS (4)	35	36	36	NA	44	NA

Notes:

ERU = Equivalent Residential Unit; NA = Not Applicable

(1) Year 2013 is defined as the "base" year for projection purposes. Year 2012 data are shown as "current," as they represent the most recent complete year of water production and usage information (as of the time of this analysis). One future ERU is equal to an average day demand of 185 gallons per day (gpd) per single-family household. The associated maximum day demand is 464 gpd per household. ERU projections include both residential and commercial ERUs.

(2) Maximum number of ERUs supported by existing or planned facilities.

(3) All carrying capacities are based on comparison of annual water rights (Qa) with average day demand, as annual quantities are more limiting than instantaneous quantities.

(4) Woodridge Village ERUs are included in the Service Zone B sub-total. Water supply to the Woodridge Village subdivision is boosted by a booster pump station (BPS). Water rights analysis for this small area alone is not applicable; it is included in the Service Zone B analysis. No storage is provided in the subdivision; a fire flow pump provides the required fire flow.

2.5 Water System Personnel

The personnel that manage and operate the OWSI water system are included in the overall OWSI organizational chart provided in Figure 4. The system currently has four certified water system operators, including the operations supervisor.

3 Needed System Improvements

3.1 Identified Capital Improvement Needs

The OWSI water system has operated well in recent years, providing reliable water service to its customers. However, as with all systems, improvements and modifications are occasionally necessary to maintain compliance with regulatory requirements.

The WSP identifies capital improvements to address deficiencies in the system and provide improvements to system operation. The complete capital improvement program (CIP) is provided in Figure 5. Of the projects listed in OWSI's current CIP, there are two that serve to address key regulatory or infrastructure deficiencies. Other items listed in the CIP are not as critical, do not address a primary regulatory requirement or deficiency that necessitates immediate attention, and are therefore not discussed in detail below nor are they considered in the valuation of the system in Section 4. The two primary CIP items are:

1) **Well No. 18 Design and Construction**. $250,000. Well 18 is the planned development of a replacement well for Well 2 in Service Zone A, whose production has declined. This improvement is necessary to bolster the reliability of supply to this portion of the system.
2) **Improvements in High Elevation Area near Reservoir A**. $200,000. This project involves further evaluation of the high elevation area surrounding Reservoir A. Portions of this area experience static pressures less than the required 30 psi. Pressures are significantly reduced during modeled fire flow events. Presently, residences have individual, private booster pumps to maintain pressures during normal operating conditions. A potential remedy includes the construction of a booster pump station to serve this discreet area, which is comprised of approximately 100 parcels.

Because these projects are needed to address identified system deficiencies, their costs are factored into the system valuation discussed in Section 4.

3.2 Other Considerations

Beyond the CIP items discussed in Section 3.1, there are other items the PUD should bear in mind when considering the potential purchase of the OWSI water system, as summarized below.

a) **Hydrocarbon Contamination at Walker Way**. Well 2 is located at 781 Walker Way in Service Zone A. It was noted in the Robinson Noble 2005 Annual Report on the Port Ludlow Area Groundwater Monitoring Program that the well was becoming inefficient, which led to the decision to drill a replacement well (designated Well 17) on the same site, approximately 150 feet away from the existing wellhead. Drilling commenced in early 2009 and proceeded without incidence to a depth of 50 feet where hydrocarbon odors were observed. Drilling ceased and an investigation was undertaken. It was determined that the source of the "contamination" was residual gasoline from underground storage tanks (USTs) that were removed in 1990. While the former presence of these tanks and small amount of contamination was documented, the conclusion of the geotechnical report for the tank removal indicated that there was little likelihood of the contamination migrating as it was contained beneath a building (the reason for the contaminated soil not being removed in 1990).

The investigation is detailed in Site Characterization Report, Olympic Water & Sewer Inc. Property, 781 Walker Way, Port Ludlow, Washington, SLR International Corp, December 17, 2010, wherein the aerial and vertical extent of the contamination was defined. The conclusion is that the existing Well 2 is upgradient of and not impacted by, the hydrocarbon contamination. Annual VOC analysis performed on the well since the discovery confirms this conclusion.

In 2013, an agreement was reached with the former property owner whereby the third party (Pope Resources) would enter the Department of Ecology Voluntary Cleanup Program (VCP) in order to obtain a No Further Action (NFA) determination for the property. That VCP (identification number SW1311) has been entered into, and a draft remediation plan is under review. The preferred alternative contained within that draft plan is predicated on natural attenuation and continued monitoring.

Although a NFA has not yet been issued by Ecology, it is HDR's understanding, based upon the above summary of actions, that the OWSI water system bears no liability regarding this contamination. Furthermore, as noted previously, the site characterization and recent water quality sampling indicates that the nearby Well 2 has not been, and is not anticipated to be, impacted by the contamination.

b) **Manganese-Related Customer Complaints**. Manganese levels in Wells 14 and 16, in Service Zone B, are slightly elevated and have led to some customer complaints. OWSI has begun investigating this issue and exploring options to resolve it. At this time, no specific solution has yet been arrived at. The potential options are quite varied, ranging from adjusting the flow of water in this portion of the system through the closing of specific valves (minimal cost) to implementation of sequestration or filtration processes to remove the manganese (a project that could cost in excess of $1,000,000). This is an aesthetic issue, and does not relate to a public health concern or regulatory deficiency. As such, it is not factored into the system valuation described in Section 4. However, the PUD should recognize it as an issue that may potentially have associated costs in the future. It is possible that the PUD may be able to address this, at least in part, through the use of a currently unused filtration system that it owns; however, the applicability of that system to these wells has not been fully evaluated.

c) **Additional Desired System Improvements**. While the above analysis has focused on previously identified needs and improvements, mainly from a regulatory perspective, it is important to consider additional upgrades that the PUD may desire, to bring the operation of the OWSI system inline with current operation of other PUD systems. For example, the PUD may desire to convert customer meters to the drive-by automated meter reading (AMR) system that it utilizes elsewhere. The costs of such an upgrade are not considered in the system valuation presented in Section 4, since it is not required to meet functional or regulatory system requirements. However, the PUD may elect to consider such items when deciding whether or not to pursue acquisition of the system.

4 System Valuation

The valuation of the OWSI water system was completed using generally accepted valuation methods. The approach was guided by the following objectives:

- Utilization of conventional cost valuation approaches
- Identification of considerations, financial and others, influencing the values established
- Establish a range of system values.

HDR relied on information provided by OWSI to develop portions of the valuation study. Other sources of information include state agencies, the laws and rules of the State of Washington, and other water utility industry personnel. The goal of this analysis is to establish a range of values for OWSI's water system using generally accepted methods. Generally accepted methods used in determining the water system's value are:

- Net Operating Income Approach
- Replacement Cost New Less Depreciation (RCNLD)
- Book Value.

4.1 Valuation Methodologies Overview

In the development of valuation studies, there are several approaches used to determine the value of a water system. The net operating income approach is based on the income received or earned by the owner/operator(s), the RCNLD approach determines the value of rebuilding the system to current conditions, and the final approach is based on the current book value of the system. Each of these is discussed in more detail below.

Calculating the value under the net operating income approach requires historical documents such as income statements and balances sheets to determine the annual revenues and expenses of the system. The information used in this study was taken from the annual reports, which were submitted to the WUTC and supplied by Olympic Water & Sewer, Inc.

When calculating the RCNLD and the book value, detailed asset listings are utilized for the valuation. The RCNLD value is then determined at today's construction cost less all accumulated depreciation expense. The book value is simply the original cost of the assets less the accumulated depreciation of those assets. This number provides a base value on the asset of the system and the current asset lives.

4.2 Net Operating Income Approach

4.2.1 Overview of the Net Income Approach

The net operating income approach is a technique that values a company based on its ability to provide the owner or investor an adequate return on their investment. This approach differs from the other valuation methods used in this report because it ignores the assets that the company may have as well current market conditions facing similar companies.

The net operating income approach attempts to place a value on the income earning potential of a business so as to establish a forfeiture value of the income potential to the current owners. In essence, the calculation leads to a value equivalent to the money required in an investment to generate a comparable annual income. This technique does not reflect or consider the condition, useful life, or age of the purchased facilities.

Components of Net Operating Income

Net operating income is a financial value placed on the difference between total gross income and total expenses not including interest and taxes. Net operating income is comprised, therefore, of three main components:

- Gross revenue
- Cash expenses
- Non-cash expenses.

Gross revenue includes all sources of revenue for the company including operating revenue, non-operating revenue, interest income, and any other sources of revenue. However, specific fees for growth related improvements (i.e., connection charges, impact fees, facility charges, etc.) are netted out of the calculation. Cash expenses are expenses for which the company receives a bill from a vendor for a product or service. Non-cash expenses include such items as the accounting adjustment of depreciation where a portion of the plant in service owned by the company is reduced by some measure of the amount of usefulness it lost during a specific fiscal period.

Limitation of the Net Income Approach

Although the net operating income approach is widely used in many applications, it does have certain limitations in establishing values of some utility systems. As with any “generally accepted” approach, its applicability may be altered due to a particular situation or circumstance.

A key limitation of the net income approach centers around the regulation of private utilities. In the State of Washington, the WUTC regulates the rates and charges of jurisdictional water utilities according to Chapter 80.01 Revised Code of Washington (RCW). In a typical utility setting, the revenue requirement, or the amount of revenue necessary to be generated by the rates of the utility is determined using one of the models shown in Table 7.

Table 7. Utility Rate Setting Models Cash and Utility Basis

Cash Basis		Utility (Accrual) Basis	
+	O&M Expense	+	O&M Expense
+	Taxes	+	Taxes
+	Capital Improvements Financed with Operating Revenues	+	Depreciation Expense
+	Debt Service	+	Return on Investment (Rate Base x Rate of Return)
=	**Revenue Requirement**	**=**	**Revenue Requirement**

Most municipal utilities use the cash basis approach, while most regulated utilities use the utility basis approach. OWSI uses the utility basis for accounting purposes. The rate setting approach generally used by the WUTC is the utility basis. This method allows a regulated utility to recover the reasonable cost of operations as well as a return on the investment as recognized by the WUTC.

For a regulated utility, the "return on investment" is its net operating income. Return on investment is calculated by multiplying the allowed rate of return by the recognized rate base of the utility. Both the allowed rate of return and recognized rate base are determined by the WUTC. Net operating expenses, taxes, and depreciation expense are added to the calculated return on investment to determine the utility's revenue requirement. This revenue requirement is then spread over the customer base to establish the rate level. Therefore, the net incomes of privately owned water systems in the State of Washington are set by the WUTC. Regulation of a utility limits the applicability of this approach because WUTC intervention can change the values of any or all of the components of the utility rate setting models, thereby impacting the results of the net operating income analysis.

4.2.2 Calculation of Net Income Value

HDR performed the net operating income using OWSI's 2014 Annual Report filed with the WUTC. Additional detailed data was supplied to HDR by OWSI staff. The following discusses the calculation of the net income value.

Net Operating Income

The first component of this approach was to determine the net operating income for OWSI over a historical time period. For this analysis, the 2014 income statement was used to develop the net operating income of OWSI's water system. Given the 2014 results, the analysis projected revenues and expenses through 2025. The projection was based on HDR's recent water rate study completed for OWSI. Given these assumptions, the net income was calculated for 2014 through 2025. For purposes of calculating the net operating income for the valuation study the results for 2014 and projected 2015 were the focus of the analysis.

Rate of Return

To calculate the appropriate rate of return, HDR reviewed the previous OWSI filings to the WUTC. Historically, the WUTC was observing a range of return components from 4% to 12%. Part of the reason for such a wide variation in utility rates of return is the cost of debt (e.g., Drinking Water State Revolving Fund Loans (DWSRF) vs. revenue bonds, etc.). Utilizing the information from the 2011 filing, the latest filing for OWSI with the WUTC on rate of return, HDR used a rate of return of 9.59% to calculate the valuation of the system.

Net Operating Income Results

Table 8 provides the results of the net income approach for valuing OWSI's water system. A more detailed analysis is provided in the appendix of this report.

Table 8. Net Operating Income Value

Average Net Income (2014 historical & 2015 Projected)	$118,418	=	$1,234,807
Historical Rate of Return (2011 WUTC Filing)	9.59%		

The results of the net operating income approach results in a value of OWSI's water system of approximately $1.2 million.

The values calculated in Table 8 represent an economic value of the system based on potential return to an investor. It should be noted that this valuation method does not add or place any value on assets of which the system may have.

4.3 Replacement Cost New Less Depreciation (RCNLD)

4.3.1 Overview of the RCNLD Approach

Reconstruction cost is another basis used for system valuation. A reconstruction cost is the presumption that facilities would have to be installed at today's prices if they did not already exist in order to continue to provide service. The value should compensate for those costs that will not be paid due to the presence of existing facilities. Aged infrastructure may cause a value based upon reconstruction cost to be overstated. Subtracting accumulated depreciation from the valuation can mitigate this potential overstatement. Furthermore, this approach generally assumes the existing facilities are sufficient to meet current requirements and are in adequately functioning condition. If a system is inadequate or does not meet current standards, then using only reconstruction cost as the basis for system valuation may overstate the value due to the cost of improvements needed to satisfy regulatory requirements. To address this, the functional depreciation is backed out to represent the needed future capital improvements to the system in order to maintain the level of service.

Limitations of RCNLD Approach

The RCNLD approach has the fewest calculation limitations of all the valuation methodologies discussed in this report. As presented below, the calculation of reconstruction cost is based upon the actual historical cost of system components and the Engineering News Review – Construction Cost Index (ENR CCI).

4.3.2 Calculation of Replacement Cost New Less Depreciation

The replacement cost for each component of the OWSI water system was calculated based on the installation costs from the asset listings provided by OWSI. The asset listings provided the original cost, date of installation, and useful life of each water system asset. The replacement cost of each asset was then calculated based on the Engineering News Record Construction

Cost Index (ENR CCI) and the difference between the installation date and the February 2015 value of the ENR CCI. The ENR-CCI is an engineering industry generally accepted accounting of construction costs in areas throughout the U.S. For this analysis, the Seattle based ENR-CCI was used to represent the change in costs of construction since the asset installation dates to February 2015.

In order to account for physical depreciation from the loss of usefulness of infrastructure due to wear and tear over time, the assets were depreciated based on the current depreciation amount provided in the asset listing. The replacement cost was calculated based on the original cost and the year in which it was installed and adjusted by the appropriate ENR CCI factor. The total replacement cost of the system is $12,174,137. The replacement cost is then decreased by the percent, or value, that the asset has depreciated to determine the replacement cost new less depreciation. The replacement cost new less depreciation value of the OWSI water system was $2,707,432. A summary of the calculation of the replacement cost new less depreciation is shown in Table 9.

Table 9. Replacement Cost New Less Depreciation

Replacement Cost New	$12,174,137
Less: Depreciation	(9,466,705)
Replacement Cost New Less Depreciation (RCNLD)	**$2,707,432**
Less: Contributed Capital	(0)
Less: Functional Depreciation	(450,000)
Adjusted RCLD Value	**$2,257,232**

The reconstruction cost less accumulated physical depreciation value was then further reduced by any contributions or functional depreciation of the water system. As stated earlier, deficiencies in infrastructure can cause the calculated reconstruction cost to be overstated. Provided below is a discussion of this functional deficiency.

Typically, in a replacement cost analysis, the contributed capital that has been deeded to the utility is backed out as the utility did not invest in said capital and it should therefore not be compensated for such. However, in the case of OWSI, the contributed capital was paid for by rate payers in the form of connection charges, which are reimbursements to OWSI for infrastructure funded by OWSI. Therefore, the contributed capital is not backed out in this instance because it was a reimbursement to OWSI for infrastructure funded by OWSI.

One of the aforementioned pitfalls of the replacement cost new less depreciation approach is that it fails to take into account the level of service that the system will provide going forward. This view should also consider any additions, maintenance, improvements, etc. that may need to be completed to maintain the system at its current level of service. To address this, functional depreciation is used to adjust the system value for any projects that may need to happen in the future to improve the system. To do this, the CIP was examined to identify any projects that would fit the above definition to match the intent of functional depreciation. After the CIP was explored, two future projects were identified: the Well 18 design and construction costing $250,000 and the improvements near Reservoir A costing $200,000. Both of these values were then backed out of the RCNLD figure to determine the adjusted replacement cost new less depreciation.

Summary of the RCNLD Approach

The calculated adjusted replacement cost new less accumulated physical and functional depreciation value for the System is $2,257,432. The calculation showing all components of the water system value is shown in the appendix. It should be emphasized that this analysis was based upon the information made available to HDR for the purposes of this valuation study.

4.4 Book Value

4.4.1 Overview of the Book Value Approach

The book value approach is similar to the replacement cost new less depreciation whereby they both start with the system's asset listing and detail. When attempting to valuate a system, it is important to seek a range of values. Part of the range is creating 'book ends' so to speak, and the book value approach aims to provide a book end to the range. Typically, it will produce the low end of the range, providing the lowest valuation of the system. The approach takes the original cost of the assets and backs out depreciation. In this analysis, and similarly to the replacement cost new less depreciation approach, contributed capital and functionalized depreciation were deducted.

Limitations of Approach

As with any approach to valuing a system, there are advantages and disadvantages to each and it is important to manage expectations and identify those issues. Just like in the RCNLD approach, it is difficult to incorporate the condition of assets, not just their age or useful life. Also, this approach does not take into account the financial detail that the net income approach would include.

4.4.2 Calculation of Book Value

The analysis begins with the asset schedule and details about original cost, acquisition date depreciation rate, useful life, etc. With all of these, the book value can be calculated. The original cost is the starting point, then the accumulated depreciation is backed out. If it is a straight-line depreciated asset, the accumulated depreciation can be calculated by dividing the original cost by the useful life and that will produce the annual depreciation. Multiply that number by the number of years since the acquisition date and that equals the accumulated depreciation. The results of the analysis are presented in Table 10.

Table 10. Book Value Approach

Original Cost	$3,407,288
Less: Accumulated Depreciation	($2,323,409)
Book Value	$1,083,879
Less: Contributed Capital	($0)
Less: Functional Depreciation	($450,000)
Net Book Value	$633,879

Summary of the Book Value Approach

The book value approach arrived at a system value of $633,879. For greater depth regarding the book value approach please refer to the appendix.

4.5 Summary of OWSI Water System Valuation

The three methods reviewed produced a range of values for the OWSI water system assets. The range of values is presented in Table 11 below.

Table 11. Valuation Results for OWSI

Approach	Calculated Value
Net Operating Income	$1,234,807
Replacement Cost New *Less* Depreciation	$2,257,432
Book Value	$633,879

The limitations of each valuation approach are discussed in previous sections. The results of these analyses provide a range of values based on generally accepted valuations techniques.

These analyses provide the PUD with the information needed and ability to discuss the purchase of OWSI's water system. As noted above, the calculated values provide a range for comparison purposes.

5 Financing Strategies

5.1 Acquisition Financing

If the PUD determines it is feasible to purchase the OWSI water system the PUD will need to determine the method of financing. At this time, no discussions of how the purchase will be financed have been held. However, there are only a few options available to the PUD to purchase the water system. The two main options are through available reserves or long-term financing or a combination of these two options (e.g., part reserves and part long-term financing) based on the PUD reserve levels and ability to issue long-term debt.

The PUD may have cash reserves that are sufficient to fund the purchase of the water sale. In this case, the PUD will need to determine if the draw down on reserves maintains adequate minimum reserve ending balances. In this case, the impact to the PUD's customer will be minimal, except for the reduced interest earnings and ability to fund other capital projects with those funds.

The issuance of long-term debt, either through traditional municipal bonds or through State and/or Federal programs, would result in annual debt service payments to repay the financing of the purchase. This would add an additional cost to the PUD's customers that would need to be collected through rates. There are State/Federal programs available that offer low interest loans, and in some cases grants, for the acquisition of water systems. One example is the USDA Water and Waste Disposal Loan & Grant Program. Under this program the PUD would submit an application to the USDA and would receive a low interest loan for the purchase of the system if approved. The loans are up to a 40 year period and provide an interest rate depending on the need for the project and the median household income of the area to be served. Other grant and loan programs have historically been provided depending on the State budget and resources allocated to these types of programs.

The additional cost of annual debt service payments is generally shared with all PUD customers, both existing and, in this case, OWSI customers, as the OWSI customers have been funding the OWSI water system through rates. Therefore, any "surcharge" on OWSI customers would result in OWSI customers paying for the system twice. In addition, any sale of the OWSI water system would need to go through the Washington Utilities and Transportation Commission (UTC) for approval and agencies, such as the UTC, have typically limited the change in rates for customers of a purchased system for a short-term period to minimize any "rate shock" to the new customers.

5.2 Customer Rate Comparison

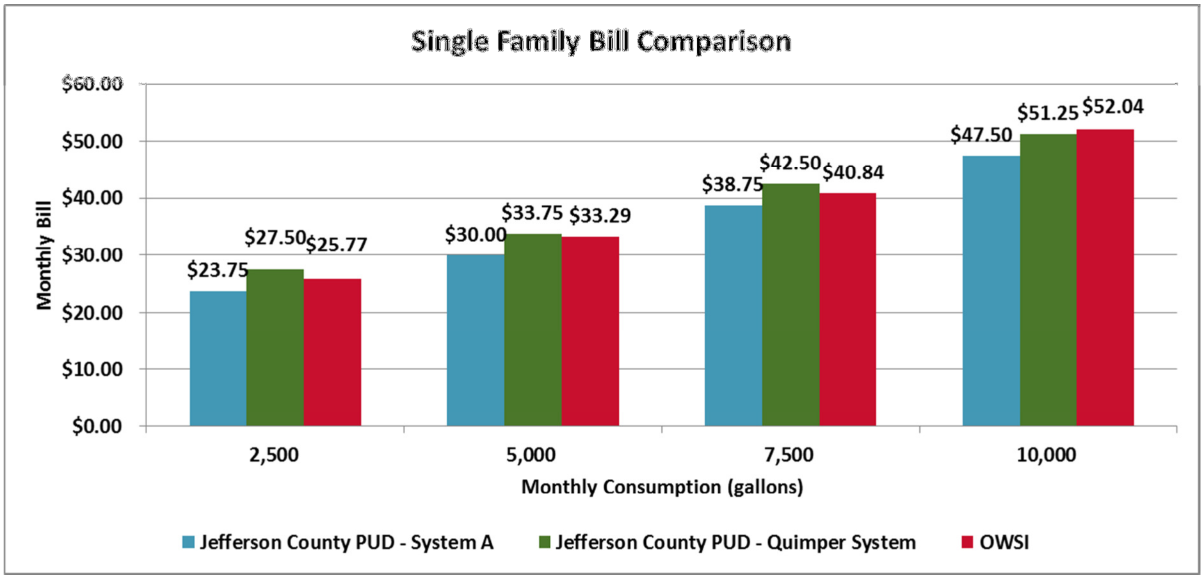
As part of the valuation analysis, a review of the OWSI and PUD rates was developed to compare the impact to customers should a purchase of the OWSI water system occur. Both utilities rate structures include a monthly fixed charge and an increasing block consumption charge. However, OWSI has a two block structure and the PUD has a three block structure, with the tier levels set at slightly different levels. In addition, the unit charge for OWSI is in cubic fee (CF) and 1,000 gallons for the PUD. Provided below is a summary of the OWSI and PUD residential rates.

Table 12. Comparison of Residential Water Rates

OWSI	
Fixed Meter Charge (3/4")	$18.25
Consumption Charge ($/CF)	
0-1,000	$0.0225
> 1,000	$0.0335
PUD [1]	
Fixed Meter Charge	$17.50
Consumption Charge ($/100 gal)	
0-5,000	$0.25
5,001-10,000	$0.35
10,000	$0.47

(1) PUD meter charge assumes Group A customers

Given these rates a bill comparison was developed to determine the monthly bill difference between the OWSI and PUD customers. Provided below is a summary of the monthly bill comparison, which also includes an example based on the PUD Quimper rate.



As can be seen in the bill comparison chart, the current OWSI water rates result in a monthly bill that is very close to the PUD's, at the various levels of customer consumption. Given this, along with any stipulation imposed by the UTC as a requirement of the purchase, it appears that the PUD would be able to transition OWSI customers to PUD rate levels with minimal impacts to the OWSI customers.

Figures

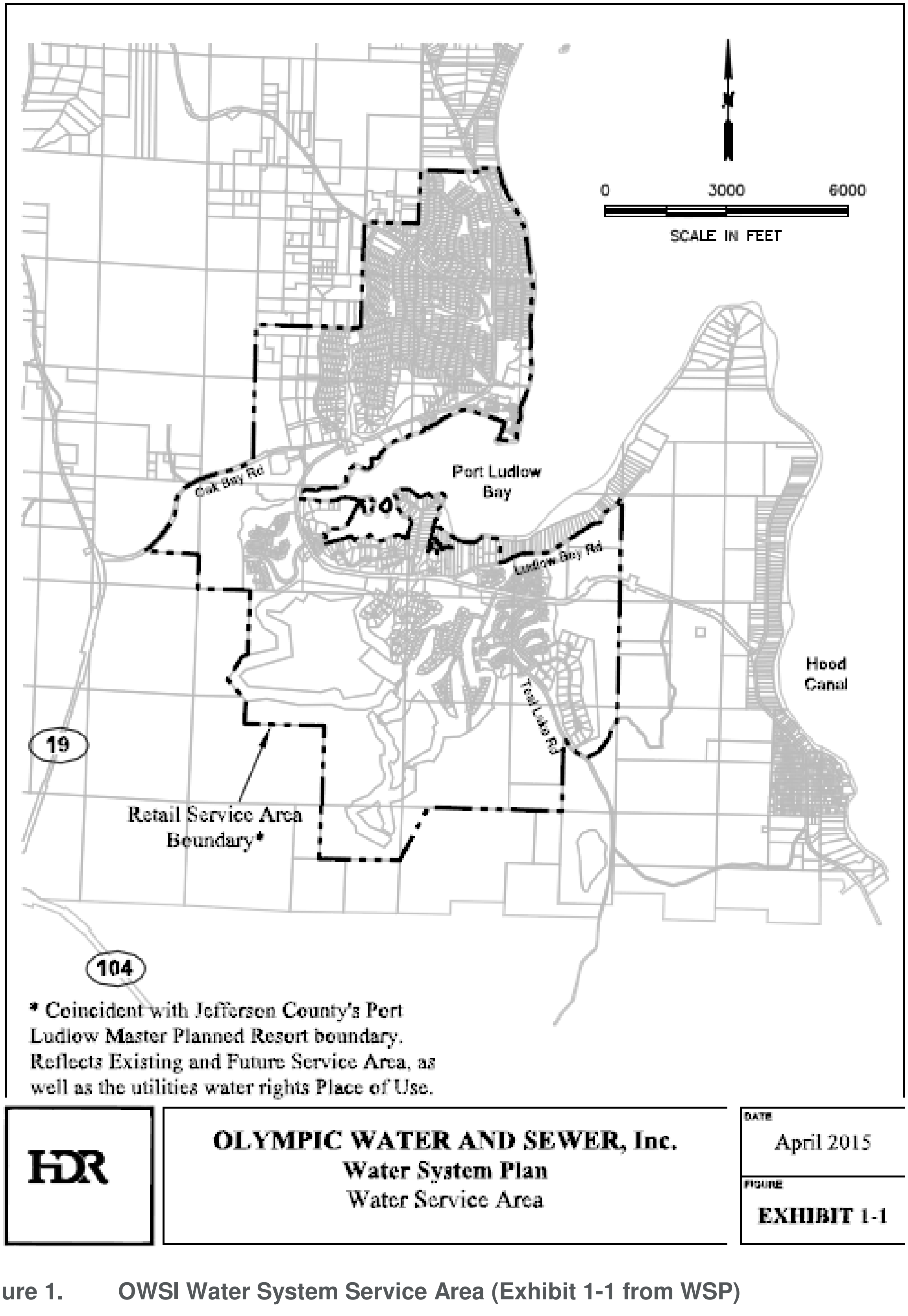


Figure 1. OWSI Water System Service Area (Exhibit 1-1 from WSP)

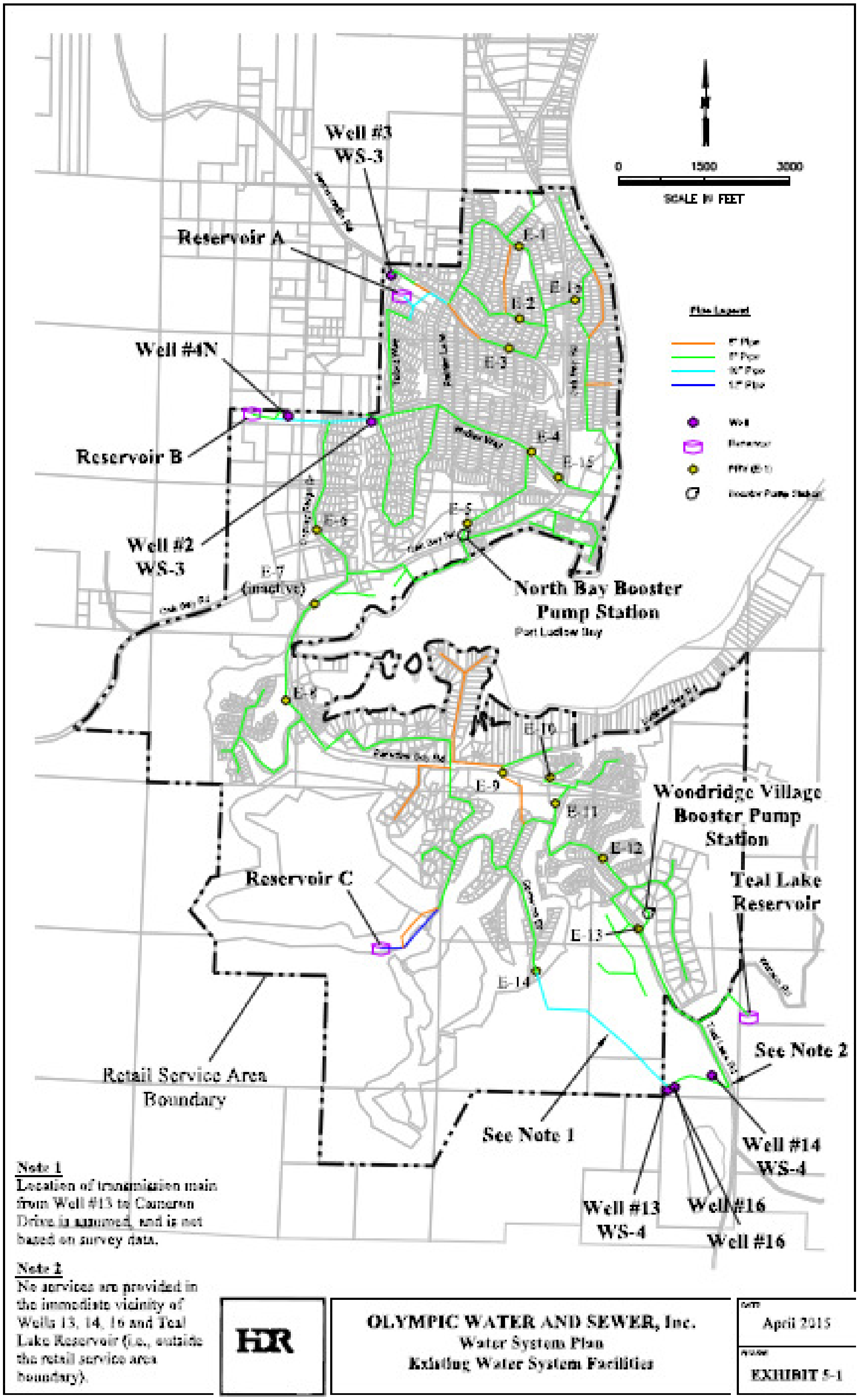
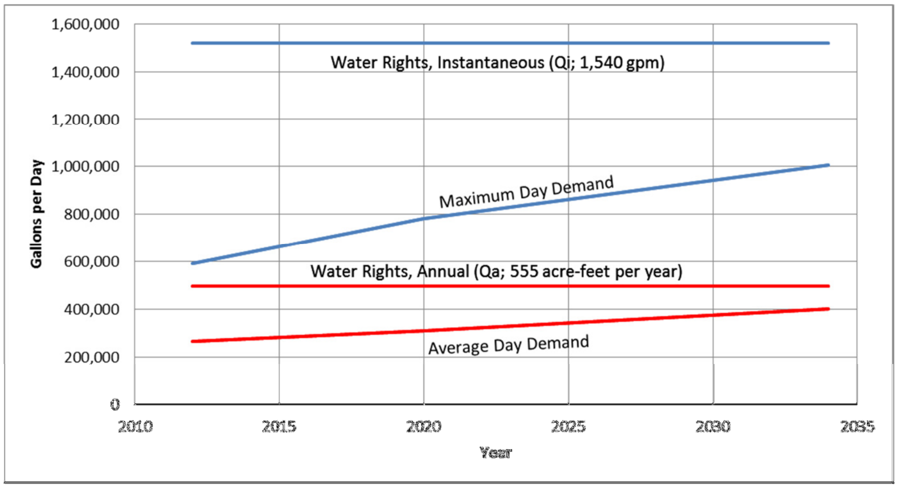
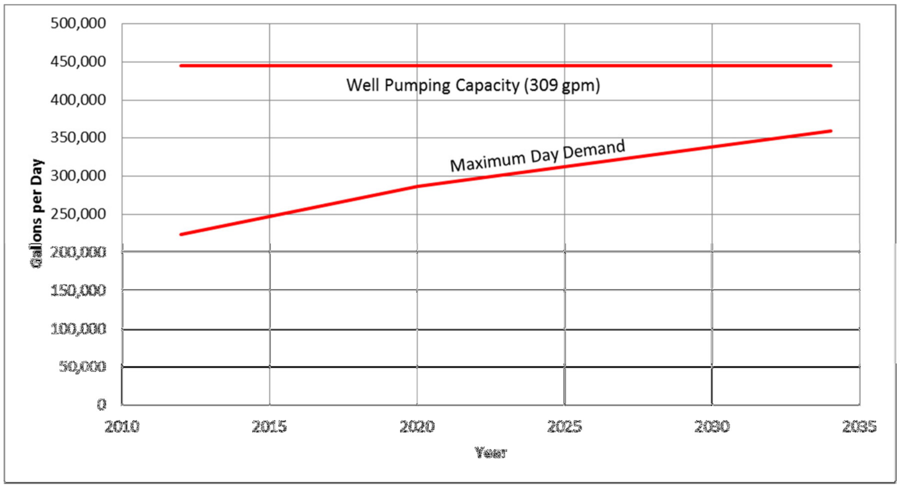


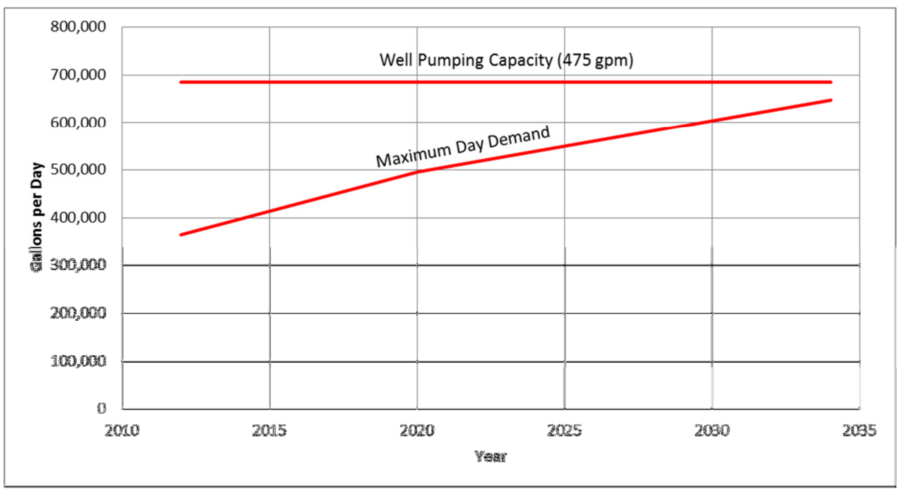
Figure 2. OWSI Water System Key Features (Exhibit 5-1 from WSP)



Water Rights Capacity Analysis



Pumping Capacity Analysis (Service Zone A)



Pumping Capacity Analysis (Service Zone B)

Figure 3. Summary of Water Supply Capacity Analyses

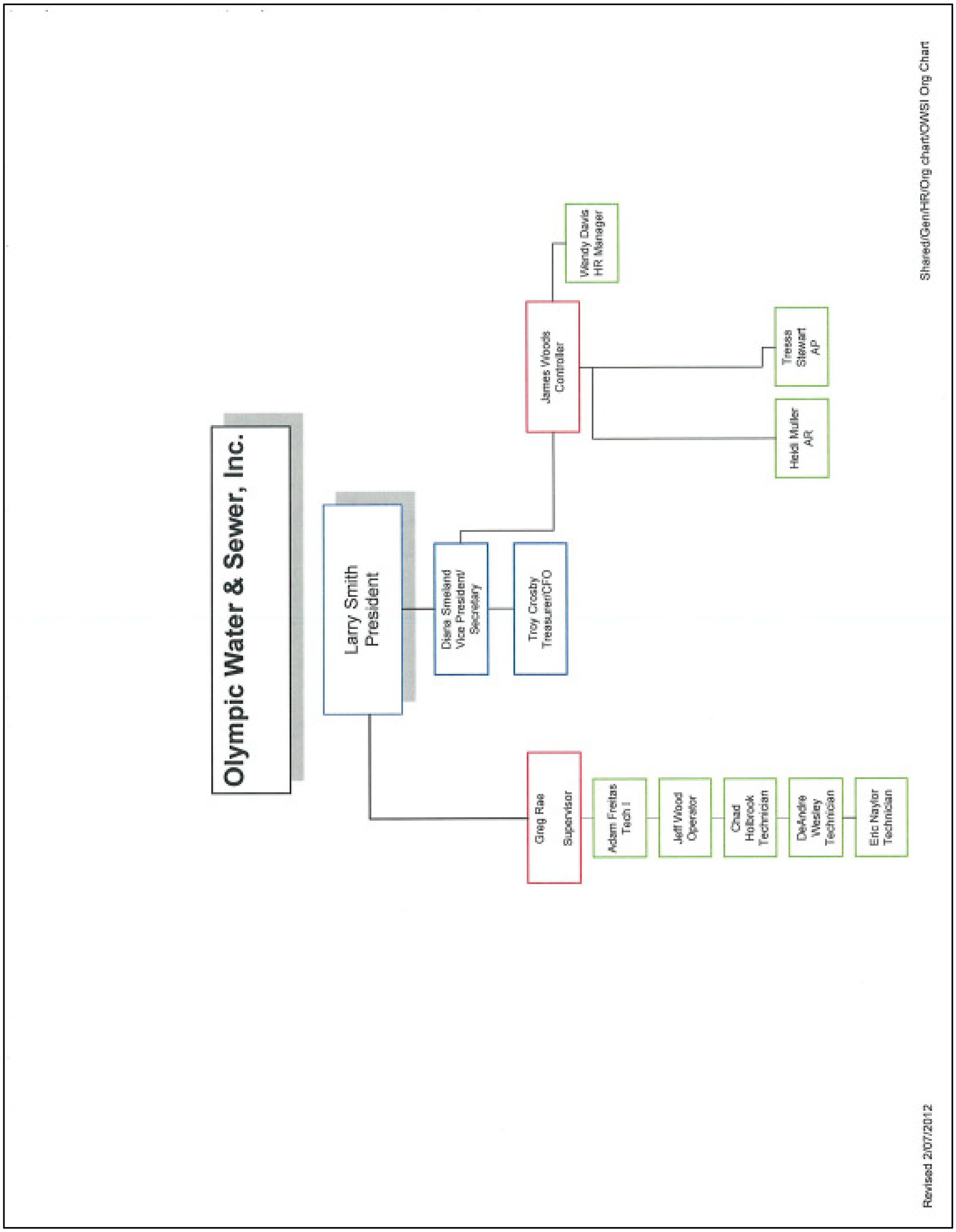


Figure 4. OWSI Organizational Chart

Figure 5. OWSI Capital Improvement Program

Table 13-1
Olympic Water and Sewer, Inc.
Capital Improvement Program

Project Code [1]	Project Description	Funding Source [2]	Total Cost (2014 dollars)	Schedule of Implementation and Cost by Year [3] 2015	2016	2017	2018	2019	2020	2021-2034
Water Supply Projects										
WS-1	Water Rights Application (Well No. 1 - 50 gpm)	S	$10,000					$11,255		
WS-2	Well 18 Design and Construction	S	$250,000		$257,500					
WS-3	Greensand Filter Backwash Controller	S	$10,000	$10,000						
WS-4	Wells 14/16 Manganese Removal (Water Quality Aesthetic Improvement)	S	TBD							TBD
Distribution System Projects										
WD-1	Portable Generator - Service Zone A (20 kW)	S	$35,000		$37,132					
WD-2	Transfer Switch - Service Zone A Well (2, 3, or 4N)	S	$5,000		$5,305					
WD-3	Improvements in high elevation area near Reservoir A (Design and Const) [4]	S	$200,000			$53,045			$173,891	
WD-4	OT2 Ph II Distribution Improvements (2,000 ft of pipe)	D	$180,000						$208,669	
WD-7	AC Pipe Replacement	S	TBD							TBD
WD-8	Well 3 Water Quality Aesthetic Improvements (inlet piping in Reservoir A)	S	TBD							TBD
Management Projects										
WM-1	Water System Plan Updates [5]	S	$60,000						$23,185	$46,371
	Total		**$750,000**	**$10,000**	**$299,936**	**$53,045**	**$0**	**$11,255**	**$405,746**	**$46,371**
	Total (funded by OWSI)		**$570,000**	**$10,000**	**$299,936**	**$53,045**	**$0**	**$11,255**	**$197,077**	**$46,371**

Notes:
TBD = Future project to be further defined in subsequent WSP updates in terms of scope, cost, and timing.
(1) Project locations shown on Exhibit 13-1.
(2) S = System Customers (i.e., OWSI funded); D = Developer Contribution
(3) Costs for projects implemented after 2014 are inflated at 3% per year to account for inflation.
(4) Costs include evaluation (~$50,000) and design/construction (~$150,000).
(5) Assumes an update occurs every six years, at a cost of $20,000 each.
(6) Piping unit cost is $90/ft for 8-inch diameter pipe. This includes all project-related costs, including design and permitting.

Appendix
Water System Valuation Analysis

Jefferson Count PUD
OWSI Water System Valuation
Summary

Net Income Approach (Historical 2014 & Projected 2015)

Average Net Income/Rate of Return = Value	$118,418 / 9.59% [1]	=	$1,234,807

Replacement Cost New Less Depreciation

Replacement cost new minus depreciation	$11,724,137 - (9,466,705)	=	$2,257,432

Book Value

Original cost minus accumulated depreciation	$2,957,288 - 2,323,409	=	$633,879

Notes:
[1] - Rate of return based on last OWSI UTC filing in 2011

Jefferson Count PUD
OWSI Water System Valuation
Revenue Requirement
Exhibit 2

	Income Stmt	Projected											
	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**Notes:**
Revenue													
Rate Revenue	$678,773	$695,064	$711,745	$728,827	$746,319	$764,230	$782,572	$801,354	$820,586	$840,280	$860,447	$881,098	As Customer Growth
Misc. Revenue	0	0	0	0	0	0	0	0	0	0	0	0	As Customer Growth
Other Revenue	34,989	35,829	36,689	37,569	38,471	39,394	40,340	41,308	42,299	43,314	44,354	45,418	As Customer Growth
Connection Fee Revenue	1,000	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209	1,238	1,268	1,298	As Customer Growth
Utility Operating Revenue	$714,762	$731,916	$749,482	$767,470	$785,889	$804,750	$824,064	$843,842	$864,094	$884,832	$906,068	$927,814	
Expenses													
Operation Expense Accounts	$427,408	$440,230	$453,437	$467,040	$481,051	$495,483	$510,348	$525,658	$541,428	$557,670	$574,401	$591,633	As Operating Expense Growth
Depreciation Expense	62,659	62,659	62,659	62,659	62,659	62,659	62,659	62,659	62,659	62,659	62,659	62,659	As Flat
Ammortization Expense	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	(7,203)	As Flat
Other Tax & Licensing	53,176	54,771	56,414	58,107	59,850	61,646	63,495	65,400	67,362	69,383	71,464	73,608	As Operating Expense Growth
Federal Income Tax	60,761	62,584	64,461	66,395	68,387	70,439	72,552	74,728	76,970	79,279	81,658	84,107	As Operating Expense Growth
Owners Draw Down/Dividens	0	0	0	0	0	0	0	0	0	0	0	0	As Operating Expense Growth
Utility Operation Expense	$596,801	$613,041	$629,769	$646,998	$664,745	$683,023	$701,850	$721,242	$741,216	$761,788	$782,978	$804,804	
Utility Operating Income (Loss)	**$117,961**	**$118,875**	**$119,713**	**$120,472**	**$121,145**	**$121,727**	**$122,214**	**$122,600**	**$122,879**	**$123,044**	**$123,090**	**$123,010**	
Other Income and Deductions													
Other Income													
Interest & Dividend Income	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Miscellaneous Nonutility Income	0	0	0	0	0	0	0	0	0	0	0	0	
Total Other Income	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Other Deductions													
Interest Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Miscellaneous Nonutility Expense	0	0	0	0	0	0	0	0	0	0	0	0	
Amortization	0	0	0	0	0	0	0	0	0	0	0	0	
Expired Loan Fees	0	0	0	0	0	0	0	0	0	0	0	0	
Total Other Deductions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Net Income (Loss)	**$117,961**	**$118,875**	**$119,713**	**$120,472**	**$121,145**	**$121,727**	**$122,214**	**$122,600**	**$122,879**	**$123,044**	**$123,090**	**$123,010**	
Average Net Income 10 year moving average										**$121,063**	**$121,576**	**$121,989**	

Jefferson Count PUD
OWSI Water System Valuation
Replacement Cost New Less Depreciation
Exhibit 3

Asset	Asset #	Original Cost	Acquisition Date Month	Acquisition Date Year	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	Notes
Pre 1981 Additions												
Water Storage Tank A	330	$24,900	1	1968	50	2.0%	$24,900	100.0%	$0	$231,363	$0	
Water Mains PL #1	331	56,266	1	1968	45	2.2%	56,266	100.0%	0	522,806	0	
Water Mains PL #2	331	166,286	1	1969	45	2.2%	166,286	100.0%	0	1,460,028	0	
Water Mains PL #3	331	46,622	1	1973	45	2.2%	46,622	100.0%	0	309,242	0	
Water Storage Tank B	330	58,109	1	1973	50	2.0%	58,109	100.0%	0	385,434	0	
Water Mains SB #1	331	49,857	1	1973	45	2.2%	49,857	100.0%	0	330,699	0	
Water Mains SB #2	331	15,748	1	1975	45	2.2%	15,748	100.0%	0	83,642	0	
Water Mains Community B	331	60,728	10	1975	45	2.2%	60,728	100.0%	0	322,545	0	
Water Mains ADM #2	331	10,823	10	1976	45	2.2%	10,823	100.0%	0	52,958	0	
Water Mains PL #5	331	22,000	1	1979	45	2.2%	22,000	100.0%	0	87,333	0	
Water Mains PL #4	331	101,729	10	1979	45	2.2%	101,729	100.0%	0	403,830	0	
Water Mains SB #3	331	55,315	10	1979	45	2.2%	55,315	100.0%	0	219,582	0	
Well 2	307	4,300	1	1968	35	2.9%	4,300	100.0%	0	39,954	0	
Well House 2	304	8,000	1	1968	40	2.5%	8,000	100.0%	0	74,333	0	
Well House 3	304	8,000	1	1973	40	2.5%	8,000	100.0%	0	53,064	0	
Teal Lake Water Drill/Exp	307	73,581	1	1975	**35**	2.9%	73,581	100.0%	0	390,811	0	
Well 3	307	7,000	1	1978	35	2.9%	7,000	100.0%	0	29,743	0	
Water Treatment Filter	339	15,000	1	1973	40	2.5%	15,000	100.0%	0	99,494	0	
1982 Additions												
Water Storage Tank #3N Co	330	$206,509	1	1982	50	2.0%	$136,295	66.0%	$70,214	$713,291	$242,522	
Port Ludlow Well 3 Commun	307	41,701	1	1981	35	2.9%	39,359	94.4%	2,342	152,055	8,538	
1985 Additions												
Rehab Tank	330	$4,400	5	1985	50	2.0%	$2,611	59.3%	$1,789	$14,435	$5,869	
Teal Lake Well Trans. Line	331	86,258	5	1985	45	2.2%	56,811	65.9%	29,447	282,989	96,608	
Teal Lake Well Pumphouse	304	53,760	5	1985	40	2.5%	39,872	74.2%	13,888	176,371	45,562	
Teal Lake Well	307	47,006	5	1985	35	2.9%	39,882	84.8%	7,124	154,214	23,372	
Teal Lake Well Power Line	307	37,036	5	1985	35	2.9%	31,424	84.8%	5,612	121,505	18,412	
Teal Lake Well Access Road	307	9,000	5	1985	35	2.9%	7,636	84.8%	1,364	29,527	4,474	
Teal Lake Well Fire Hydra	335	1,500	5	1985	50	2.0%	890	59.3%	610	4,921	2,001	
1986 Additions												
Backhoe Service, Dist. Lin	331	$210	6	1986	45	2.2%	$133	63.2%	$77	$683	$252	
Install Auto System NM We	311	2,165	10	1986	45	2.2%	1,355	62.6%	810	7,098	2,656	
Water Test Kit, Rockwell	339	411	3	1986	40	2.5%	296	72.0%	115	1,348	378	
Filter Media, Wells 2 & 3	339	12,331	3	1986	40	2.5%	8,862	71.9%	3,468	40,428	11,371	
1987 Additions												
Customer Service Installation	334	$6,915	1	1987	45		$0	0.0%	$6,915	$22,419	$22,419	
Pipe	330	900	3	1987	45	2.2%	555	61.7%	345	2,918	1,119	
Copy Machine	340	400	3	1987	20	5.0%	400	100.0%	0	1,297	0	
Weed Eater	345	400	6	1987	20	5.0%	400	100.0%	0	1,292	0	
Reshingle Wellhouse #2	307	1,700	3	1987	35	2.9%	1,348	79.3%	352	5,512	1,142	
Access Road, Well 2	307	800	6	1987	35	2.9%	630	78.8%	170	2,583	548	

Asset	Asset #	Original Cost	Acquisition Date Month	Acquisition Date Year	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	Notes
1988 Additions												
Ground Water Study	307	$1,927	1	1988	31.5	3.2%	$1,652	85.7%	$275	$6,162	$880	
Water Lines	331	9,902	6	1988	31.5	3.2%	8,357	84.4%	1,546	31,504	4,917	
Ground Water Study	307	11,410	8	1988	31.5	3.2%	9,569	83.9%	1,841	36,492	5,889	
Water Lines	331	208	8	1988	31.5	3.2%	175	83.9%	34	666	107	
Water Lines	331	1,143	8	1988	31.5	3.2%	958	83.9%	184	3,655	590	
Water Lines	331	727	8	1988	31.5	3.2%	610	83.9%	117	2,326	375	
Water Lines	331	506	8	1988	31.5	3.2%	425	83.9%	82	1,619	261	
Water Lines	331	8	8	1988	31.5	3.2%	7	83.9%	1	27	4	
Water Plan	307	870	4	1988	31.5	3.2%	739	84.9%	131	2,782	419	
Water Plan	307	1,504	5	1988	31.5	3.2%	1,273	84.7%	231	4,811	738	
Water Plan	307	6,219	6	1988	31.5	3.2%	5,248	84.4%	971	19,786	3,088	
Well Drilling	307	217	8	1988	31.5	3.2%	182	83.9%	35	695	112	
Water Mains	331	46	8	1988	31.5	3.2%	39	83.9%	7	148	24	
Water Mains	331	599	8	1988	31.5	3.2%	502	83.9%	97	1,916	309	
Water Mains	331	1,688	8	1988	31.5	3.2%	1,415	83.9%	272	5,397	871	
Water Mains	331	898	8	1988	31.5	3.2%	753	83.9%	145	2,873	464	
Drilling Well #14	307	17,494	9	1988	31.5	3.2%	14,624	83.6%	2,869	55,585	9,117	
Water Mains	331	23	9	1988	31.5	3.2%	19	83.6%	4	74	12	
Water Mains	331	213	9	1988	31.5	3.2%	178	83.6%	35	677	111	
Water Mains	331	171	9	1988	31.5	3.2%	143	83.6%	28	545	89	
Water Mains	331	115	9	1988	31.5	3.2%	96	83.6%	19	365	60	
Water Mains	331	30	9	1988	31.5	3.2%	25	83.6%	5	96	16	
Water Mains	331	546	9	1988	31.5	3.2%	457	83.6%	90	1,736	285	
Well Testing	307	1,471	9	1988	31.5	3.2%	1,229	83.6%	241	4,673	766	
Water Plan	307	853	9	1988	31.5	3.2%	713	83.6%	140	2,709	444	
Well Drilling	307	11,857	10	1988	31.5	3.2%	9,881	83.3%	1,976	37,921	6,320	
Water Plan	307	1,432	10	1988	31.5	3.2%	1,194	83.3%	239	4,581	764	
Well Drilling	307	2,929	10	1988	31.5	3.2%	2,441	83.3%	488	9,367	1,561	
Water Mains	331	14,570	10	1988	31.5	3.2%	12,142	83.3%	2,428	46,600	7,767	
Water Mains	331	133	10	1988	31.5	3.2%	111	83.3%	22	426	71	
Water Mains	331	96	10	1988	31.5	3.2%	80	83.3%	16	306	51	
Water Mains	331	60	10	1988	31.5	3.2%	50	83.3%	10	191	32	
Well Drilling, Golf Course	307	1,263	11	1988	31.5	3.2%	1,049	83.1%	214	4,040	684	
Well Drilling	307	10,698	11	1988	31.5	3.2%	8,887	83.1%	1,811	34,215	5,793	
Water Rate Study	307	598	11	1988	31.5	3.2%	497	83.1%	101	1,913	324	
Well #13	307	4,215	11	1988	31.5	3.2%	3,501	83.1%	714	13,481	2,282	
Water Mains	331	12,037	11	1988	31.5	3.2%	9,999	83.1%	2,038	38,498	6,518	
Water Mains	331	824	11	1988	31.5	3.2%	685	83.1%	140	2,635	446	
Water Mains	331	3,974	11	1988	31.5	3.2%	3,301	83.1%	673	12,708	2,152	
Water Mains	331	369	11	1988	31.5	3.2%	306	83.1%	62	1,180	200	
Water Mains	331	2,731	11	1988	31.5	3.2%	2,268	83.1%	462	8,734	1,479	
Water Mains	331	2,960	11	1988	31.5	3.2%	2,459	83.1%	501	9,466	1,603	
Water Mains	331	6,203	11	1988	31.5	3.2%	5,153	83.1%	1,050	19,839	3,359	
Water Mains	331	1,230	11	1988	31.5	3.2%	1,022	83.1%	208	3,935	666	
Well #14 Report	307	2,060	12	1988	31.5	3.2%	1,706	82.8%	354	6,575	1,131	
Water Mains	331	673	12	1988	31.5	3.2%	557	82.8%	116	2,147	369	
Water Mains	331	151	12	1988	31.5	3.2%	125	82.8%	26	481	83	
Water Mains	331	177	12	1988	31.5	3.2%	147	82.8%	31	566	97	
Water Mains	331	2,033	12	1988	31.5	3.2%	1,683	82.8%	350	6,488	1,116	
Well #1 Drilling Work	307	1,950	12	1988	31.5	3.2%	1,615	82.8%	335	6,224	1,070	

Asset	Asset #	Original Cost	Acquisition Date Month	Acquisition Date Year	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	Notes
1989 Additions												
Water Rate Study	340	$8,208	1	1989	20	5.0%	$8,208	100.0%	$0	$26,227	$0	
Key Machine	340	1,206	1	1989	20	5.0%	1,206	100.0%	0	3,853	0	
Well Testing	307	2,655	1	1989	35	2.9%	1,903	71.7%	752	8,484	2,404	
Pipe Threading Machine	340	3,137	2	1989	20	5.0%	3,137	100.0%	0	10,023	0	
Vaults With Ladder	331	5,353	3	1989	50	2.0%	2,703	50.5%	2,650	17,106	8,467	
Well 14 Costs	307	3,389	3	1989	35	2.9%	2,445	72.1%	944	10,830	3,017	
Water Mains	331	611	3	1989	45	2.2%	343	56.1%	268	1,952	857	
Well 14 Costs	307	4,611	6	1989	35	2.9%	3,360	72.9%	1,252	14,682	3,985	
Well 14 Costs	307	11,383	10	1989	35	2.9%	8,402	73.8%	2,981	35,429	9,279	
Well 14 Costs	307	2,027	11	1989	35	2.9%	1,501	74.0%	526	6,314	1,639	
Well 14 Costs	307	695	11	1989	35	2.9%	515	74.0%	180	2,165	562	
Well 14 Costs	307	3,741	11	1989	35	2.9%	2,770	74.0%	971	11,651	3,024	
Well 14 Costs	307	4,208	11	1989	35	2.9%	3,116	74.0%	1,092	13,107	3,402	
Well 14 Costs	307	1,241	11	1989	35	2.9%	919	74.0%	322	3,867	1,003	
Well 14 Costs	307	634	11	1989	35	2.9%	470	74.0%	165	1,976	513	
Well 14 Costs	307	11,697	11	1989	35	2.9%	8,661	74.0%	3,036	36,432	9,455	
Well 14 Costs	307	4,976	12	1989	35	2.9%	3,696	74.3%	1,280	15,528	3,993	
Customer Service Installation	334	5,064	12	1989	15	6.7%	5,064	100.0%	0	15,802	0	
1990 Additions												
Well 14 Costs	307	$6,580	1	1990	35	2.9%	$4,700	71.4%	$1,880	$20,533	$5,866	
Well 14 Costs	307	4,011	2	1990	35	2.9%	2,855	71.2%	1,156	12,511	3,604	
Well 14 Costs	307	3,342	4	1990	35	2.9%	2,363	70.7%	979	10,457	3,062	
Replace Pump Well 13	311	3,425	6	1990	20	5.0%	3,425	100.0%	0	10,530	0	
Motor Saver Well 13	311	1,235	6	1990	20	5.0%	1,235	100.0%	0	3,796	0	
Well 14 Costs	307	419	8	1990	35	2.9%	292	69.8%	127	1,291	390	
Customer Service Installation	334	5,944	12	1990	15	6.7%	5,944	100.0%	0	18,458	0	
1991 Additions												
Metal Detector	343	$1,790	2	1991	20	5.0%	$1,790	100.0%	$0	$5,527	$0	
Hydra Pipe Cutter	343	867	8	1991	20	5.0%	867	100.0%	0	2,609	0	
Customer Service Installation	334	20,205	12	1991	15	6.7%	20,205	100.0%	0	61,190	0	
1992 Additions												
Tools And Equipment	331	$3,175	11	1992	20	100.0%	$3,175	100.0%	$0	$9,370	$0	
Transmission Line	331	4,283	11	1992	60	1.7%	1,582	36.9%	2,701	12,638	7,969	
Engineering Road Crossing	331	340	11	1992	60	1.7%	126	36.9%	214	1,003	633	
Motor Saver Well 4	311	976	11	1992	20	5.0%	976	100.0%	0	2,880	0	
Hydrant Overhauls	335	5,961	11	1992	50	2.0%	2,643	44.3%	3,318	17,590	9,792	
Dunsmuir Transmission Lines	331	52,683	11	1992	60	1.7%	19,464	36.9%	33,220	155,462	98,027	
Creekside Water Line	331	1,750	12	1992	60	1.7%	644	36.8%	1,106	5,166	3,265	
Site 26 Extension	331	2,112	12	1992	60	1.7%	777	36.8%	1,334	6,234	3,940	
Customer Service Installation	334	19,484	12	1992	15	6.7%	19,484	100.0%	0	57,522	0	
1993 Additions												
Hazardous Air Monitor	343	$2,461	5	1993	15	6.7%	$2,461	100.0%	$0	$7,041	$0	
Repaint Water Tank	330	12,149	7	1993	8	12.5%	12,149	100.0%	0	35,446	0	
Admir 1 Distribution Mains	331	10,398	9	1993	60	1.7%	3,697	35.6%	6,701	29,693	19,135	
Security Gate	320	1,833	10	1993	20	5.0%	1,833	100.0%	0	5,246	0	
Hydrants	335	3,255	12	1993	50	2.0%	1,372	42.2%	1,882	9,259	5,355	
Hydrants	335	954	12	1993	50	2.0%	402	42.2%	552	2,714	1,570	
Well 14	311	2,250	5	1993	20	5.0%	2,250	100.0%	0	6,437	0	
Well 14	304	2,250	5	1993	40	2.5%	1,208	53.7%	1,043	6,437	2,982	
Well 14	304	18,001	5	1993	40	2.5%	9,545	53.0%	8,456	51,493	24,189	
Teal Lake Reservoir	304	2,045	5	1993	40	2.5%	1,106	54.1%	938	5,849	2,684	
Teal Lake Reservoir	330	13,282	5	1993	50	2.0%	5,605	42.2%	7,678	37,996	21,962	
Teal Lake Reservoir	330	1,798	5	1993	50	2.0%	965	53.7%	833	5,143	2,382	
Teal Lake Trans. Lines	331	6,472	5	1993	60	1.7%	2,394	37.0%	4,078	18,515	11,665	
Teal Lake Reservoir	330	95	5	1993	50	2.0%	64	67.2%	31	271	89	
Well 14	311	341	5	1993	20	5.0%	341	100.0%	0	974	0	
Well 14	304	95	5	1993	40	2.5%	51	54.0%	44	271	125	
Well 14	304	511	5	1993	40	2.5%	273	53.5%	238	1,461	680	
Customer Service Installation	334	16,918	12	1993	15	6.7%	16,918	100.0%	0	48,129	0	

Asset	Asset #	Original Cost	Acquisition Date Month	Acquisition Date Year	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	Notes
1994 Additions												
Well 14	311	$3,462	1	1994	20	5.0%	$3,462	100.0%	$0	$9,848	$0	
Well 14	304	3,462	1	1994	40	2.5%	1,817	52.5%	1,644	9,848	4,678	
Well 14	304	27,694	1	1994	40	2.5%	14,539	52.5%	13,155	78,784	37,422	
Teal Lake Reservoir	304	3,146	1	1994	40	2.5%	1,651	52.5%	1,494	8,949	4,251	
Teal Lake Reservoir	330	20,435	1	1994	50	2.0%	8,583	42.0%	11,852	58,133	33,717	
Teal Lake Reservoir	330	2,766	1	1994	50	2.0%	1,162	42.0%	1,604	7,869	4,564	
Teal Lake Trans. Lines	331	9,958	1	1994	60	1.7%	3,485	35.0%	6,472	28,327	18,413	
Teal Lake Reservoir	330	146	1	1994	50	2.0%	61	42.0%	84	414	240	
Well 14	311	524	1	1994	20	5.0%	524	100.0%	0	1,491	0	
Well 14	304	14,936	1	1994	40	2.5%	7,842	52.5%	7,095	42,491	20,183	
Well 14	304	786	1	1994	40	2.5%	413	52.5%	373	2,236	1,062	
Mars Analyzer	343	736	2	1994	20	5.0%	736	100.0%	0	2,094	0	
Well 3 Pump	311	5,279	12	1994	20	5.0%	5,279	100.0%	0	14,703	0	
Well 13 Pump	311	10,000	12	1994	20	5.0%	10,000	100.0%	0	27,851	0	
Pressure Sensor Line	311	3,153	12	1994	20	5.0%	3,153	100.0%	0	8,782	0	
Customer Service Installation	334	28,022	12	1994	15	6.7%	28,022	100.0%	0	78,046	0	
1995 Additions												
Well 14	311	$3,462	1	1995	20	5.0%	$3,462	100.0%	$0	$9,653	$0	
Well 14	304	3,462	1	1995	40	2.5%	1,731	50.0%	1,731	9,653	4,826	
Well 14	304	27,694	1	1995	40	2.5%	13,847	50.0%	13,847	77,224	38,612	
Teal Lake Reservoir	304	3,146	1	1995	40	2.5%	1,573	50.0%	1,573	8,772	4,386	
Teal Lake Reservoir	330	20,435	1	1995	50	2.0%	8,174	40.0%	12,261	56,981	34,189	
Teal Lake Reservoir	330	2,766	1	1995	50	2.0%	1,106	40.0%	1,660	7,713	4,628	
Teal Lake Trans. Lines	331	9,958	1	1995	60	1.7%	3,319	33.3%	6,638	27,766	18,511	
Teal Lake Reservoir	330	146	1	1995	50	2.0%	58	40.0%	87	406	244	
Well 14	311	524	1	1995	20	5.0%	524	100.0%	0	1,461	0	
Well 14	304	14,936	1	1995	40	2.5%	7,468	50.0%	7,468	41,650	20,825	
Well 14	304	786	1	1995	40	2.5%	393	50.0%	393	2,192	1,096	
PRV Remodel, Springwood	304	14,437	1	1995	40	2.5%	7,219	50.0%	7,219	40,257	20,129	
Rewire Well #3	311	711	2	1995	20	5.0%	708	99.6%	3	1,984	8	
Rewire Well #2	311	5,833	2	1995	20	5.0%	5,809	99.6%	24	16,280	68	
Repipe PRV, Ludlow Bay Rd	304	5,000	3	1995	35	2.9%	2,833	56.7%	2,167	13,963	6,051	
PRV Vault, Ludlow Bay Rd	304	12,767	3	1995	40	2.5%	6,330	49.6%	6,437	35,654	17,976	
Metal Doors, Well 2	304	507	9	1995	35	2.9%	280	55.2%	227	1,399	626	
Metal Doors, Well 3	304	507	9	1995	35	2.9%	280	55.2%	227	1,399	626	
Wellhouse #3 Fence	304	3,575	9	1995	35	2.9%	1,975	55.2%	1,600	9,867	4,417	
Customer Service Installation	334	20,168	12	1995	15	6.7%	20,168	100.0%	0	55,545	0	
1996 Additions												
Well 14	311	$3,462	1	1996	20	5.0%	$3,289	95.0%	$173	$9,534	$477	
Well 14	304	3,462	1	1996	40	2.5%	1,644	47.5%	1,817	9,534	5,005	
Well 14	304	27,694	1	1996	40	2.5%	13,155	47.5%	14,539	76,272	40,043	
Teal Lake Reservoir	304	3,146	1	1996	40	2.5%	1,494	47.5%	1,651	8,664	4,548	
Teal Lake Reservoir	330	20,435	1	1996	50	2.0%	7,765	38.0%	12,669	56,279	34,893	
Teal Lake Reservoir	330	2,766	1	1996	50	2.0%	1,051	38.0%	1,715	7,618	4,723	
Teal Lake Trans. Lines	331	9,958	1	1996	60	1.7%	3,153	31.7%	6,804	27,424	18,740	
Teal Lake Reservoir	330	146	1	1996	50	2.0%	55	38.0%	90	401	249	
Well 14	311	524	1	1996	20	5.0%	498	95.0%	26	1,443	72	
Well 14	304	14,936	1	1996	40	2.5%	7,095	47.5%	7,842	41,136	21,597	
Well 14	304	786	1	1996	40	2.5%	373	47.5%	413	2,165	1,136	
Paving at Adm I (Dist Mains)	304	1,407	4	1996	50	2.0%	528	37.5%	879	3,883	2,427	
Customer Service Installation	334	25,449	12	1996	15	6.7%	25,449	100.0%	0	68,877	0	

Asset	Asset #	Original Cost	Acquisition Date Month	Acquisition Date Year	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	Notes
1997 Additions												
Well 14	311	$3,462	1	1997	20	5.0%	$3,116	90.0%	$346	$9,325	$932	
Well 14	304	3,462	1	1997	40	2.5%	1,558	45.0%	1,904	9,325	5,129	
Well 14	304	27,694	1	1997	40	2.5%	12,462	45.0%	15,232	74,598	41,029	
Teal Lake Reservoir	304	3,146	1	1997	40	2.5%	1,416	45.0%	1,730	8,473	4,660	
Teal Lake Reservoir	330	20,435	1	1997	50	2.0%	7,356	36.0%	13,078	55,043	35,228	
Teal Lake Reservoir	330	2,766	1	1997	50	2.0%	996	36.0%	1,770	7,451	4,768	
Teal Lake Trans. Lines	331	9,958	1	1997	60	1.7%	2,987	30.0%	6,970	26,822	18,775	
Teal Lake Reservoir	330	146	1	1997	50	2.0%	52	36.0%	93	392	251	
Well 14	311	524	1	1997	20	5.0%	472	90.0%	52	1,411	141	
Well 14	304	14,936	1	1997	40	2.5%	6,721	45.0%	8,215	40,233	22,128	
Well 14	304	786	1	1997	40	2.5%	354	45.0%	432	2,117	1,164	
Maintenance Shop Improvement	304	3,806	1	1997	40	2.5%	1,713	45.0%	2,093	10,252	5,639	
Loomis Water Extentions	304	11,632	1	1997	40	2.5%	5,089	43.8%	6,543	31,332	17,624	
Vault Lids Pressure	304	11,688	1	1997	40	2.5%	5,113	43.8%	6,574	31,482	17,709	
Water Mains	331	2,494	2	1997	60	1.7%	717	28.8%	1,777	6,714	4,783	
Hewlit Rand P5 Computer	340	3,961	5	1997	20	5.0%	3,416	86.3%	545	10,323	1,419	
Tank Cleaning	320	10,099	1	1997	20	5.0%	9,089	90.0%	1,010	27,204	2,720	
Customer Service Installation	334	37,890	12	1997	15	6.7%	37,890	100.0%	0	97,162	0	
1998 Additions												
Well 14	311	$1,212	1	1998	20	5.0%	$1,030	85.0%	$182	$3,107	$466	
Well 14	304	1,212	1	1998	40	2.5%	515	42.5%	697	3,107	1,786	
Well 14	304	9,693	1	1998	40	2.5%	4,119	42.5%	5,573	24,856	14,292	
Teal Lake Reservoir	304	1,101	1	1998	40	2.5%	468	42.5%	633	2,823	1,623	
Teal Lake Reservoir	330	7,152	1	1998	50	2.0%	2,432	34.0%	4,720	18,340	12,105	
Teal Lake Reservoir	330	968	1	1998	50	2.0%	329	34.0%	639	2,482	1,638	
Teal Lake Trans. Lines	331	3,485	1	1998	60	1.7%	987	28.3%	2,498	8,937	6,405	
Teal Lake Reservoir	330	51	1	1998	50	2.0%	17	34.0%	34	131	86	
Well 14	311	183	1	1998	20	5.0%	156	85.0%	28	470	71	
Well 14	304	5,228	1	1998	40	2.5%	2,222	42.5%	3,006	13,405	7,708	
Well 14	304	275	1	1998	40	2.5%	117	42.5%	158	705	406	
New Roofs, Wells 2 & 3	304	3,232	6	1998	40	2.5%	1,340	41.5%	1,892	8,211	4,807	
Wells 4a & 9 Pilot Treatment	320	2,932	11	1998	20	5.0%	2,370	80.8%	562	7,306	1,400	
Telemetry Equipment	346	22,266	12	1998	10	10.0%	22,266	100.0%	0	55,504	0	
1999 Additions												
Telemetry Installation Cost	346	$7,201	5	1999	10	10.0%	$7,201	100.0%	$0	$17,985	$0	
Paint Resevoirs A & C	304	57,074	9	1999	10	10.0%	57,074	100.0%	0	142,557	0	
Replace Waterline at Baldwin Ave	331	836	10	1999	60	1.7%	212	25.4%	624	2,085	1,555	
Generator	343	2,150	12	1999	10	10.0%	2,150	100.0%	0	5,279	0	
Pilot Treatment - 4a,9,13,14	320	6,854	12	1999	20	5.0%	5,169	75.4%	1,685	16,829	4,137	
1998 Customer Service Installation	334	19,986	12	1999	15	6.7%	19,986	100.0%	0	49,072	0	
1999 Customer Service Installation	334	15,048	12	1999	15	6.7%	15,048	100.0%	0	36,948	0	
2000 Additions												
Replace 6" AC Waterline	331	$1,861	2	2000	60	1.7%	$463	24.9%	$1,398	$4,564	$3,429	
Repipe Water Main MP 19 Ludlow	331	13,624	6	2000	60	1.7%	3,311	24.3%	10,313	33,413	25,292	
AC Pipe Abatement	331	1,916	7	2000	60	1.7%	463	24.2%	1,453	4,698	3,562	
Reservior B Interior Painting	304	37,800	12	2000	10	10.0%	37,800	100.0%	0	91,086	0	
Well 14 Generator Roof	304	1,122	12	2000	40	2.5%	395	35.2%	727	2,704	1,752	
Well 4N Roof	304	754	12	2000	40	2.5%	265	35.2%	489	1,817	1,177	
Shop Improvement	304	1,102	12	2000	20	5.0%	776	70.4%	326	2,655	786	
PRV Access Road Rock	331	5,545	7	2000	5	20.0%	5,545	100.0%	0	13,595	0	
3 W Locker Gray	340	1,023	8	2000	5	20.0%	1,023	100.0%	0	2,509	0	
2000 Customer Service Installation	334	28,547	12	2000	15	6.7%	28,547	100.0%	0	68,789	0	

Jefferson Count PUD
OWSI Water System Valuation
Replacement Cost New Less Depreciation
Exhibit 3

Asset	Asset #	Original Cost	Acquisition Date *Month*	*Year*	Useful Life	Depreciation Rate	Accum. Dep. (12.31.14)	Depreciated Value	Book Value	Replacement Cost (2015)	RCNLD	*Notes*
2001 Additions												
1999 FORD SC SUP CAB 4X4	341	$14,798	8	2001	8	12.5%	$14,798	100.0%	$0	$35,633	$0	
SOFTWARE, BILLING, INHANCE 5000	340	1,606	10	2001	7	14.3%	1,606	100.0%	0	3,878	0	
Customer Service Installation	334	12,269	12	2001	15	6.7%	11,451	93.3%	818	29,643	1,976	
2002 Additions												
Walden Lane Gate	304	$1,627	7	2002	20	5.0%	$1,017	62.5%	$610	$3,864	$1,449	
Adjustment to match GL	304	9,046	1	2002	5	20.0%	9,046	100.0%	0	21,474	0	
Customer Service Installation	334	6,217	12	2002	15	6.7%	5,388	86.7%	829	14,756	1,967	
2003 Additions												
Replace water main w/ductile, Rainier Lane L	331	$3,288	9	2003	60	1.7%	$621	18.9%	$2,667	$7,644	$6,200	
Customer Service Installation	334	14,522	12	2003	15	6.7%	11,618	80.0%	2,904	33,697	6,739	
2004 Additions												
Customer Service Installation	334	$16,916	12	2004	15	6.7%	$12,405	73.3%	$4,511	$38,435	$10,249	
2005 Additions												
Customer Service Installation	334	$12,243	12	2005	15	6.7%	$8,162	66.7%	$4,081	$27,277	$9,092	
2006 Additions												
Customer Service Installation	334	$20,428	12	2006	15	6.7%			$20,428			
2007 Additions												
Water System Plan	348	$58,597	11	2007	6	16.7%	$58,597	100.0%	$0	$129,236	$0	
Well 16	304	474,223	12	2007	40	2.5%	94,845	20.0%	379,379	1,045,748	836,598	
Customer Service Installation	334	39,050	12	2007	15	6.7%	20,826	53.3%	18,223	86,111	40,185	
2008 Additions												
Customer Service Installation	334	$679	12	2008	15	6.7%	$317	46.7%	$362	$1,486	$792	
2009 Additions												
Baldwin Lane Vault	331	$24,972	9	2009	60	1.7%	$2,497	10.0%	$22,474	$54,951	$49,456	
Well 16 Booster	311	8,725	5	2009	20	5.0%	2,618	30.0%	6,108	19,164	13,415	
Customer Service Installation	334	3,972	12	2009	15	6.7%	1,589	40.0%	2,383	8,744	5,246	
Customer Service Installation (true up to G/L)	334	1,317	12	2009	15	6.7%	351	26.7%	966	2,899	2,126	
2011 Additions												
North Bay Booster	311	$43,616	11	2011	20	5.0%	$6,724	15.4%	$36,892	$93,638	$79,202	
Customer Service Installation	334	1,425	11	2011	15	6.7%	293	20.6%	1,132	3,059	2,430	
2012 Additions												
Customer Service Installation (Church)	334	$7,784	7	2012	15	6.7%	$1,254	16.1%	$6,530	$16,696	$14,006	
Reroof Well 13	304	972	7	2012	15	6.7%	157	16.1%	815	2,085	1,749	
Wren Ct Gate Valve Replace	331	1,224	8	2012	40	2.5%	71	5.8%	1,153	2,627	2,474	
Puget Loop AC Pipe Replacement	331	3,419	11	2012	60	1.7%	119	3.5%	3,300	7,187	6,938	
2013 Additions												
Wren Ct. Gate valve install	331	$2,337	3	2013	40	2.5%	$102	4.4%	$2,235	$4,912	$4,697	
Customer Service Installation (2-2-054 & 1-2-	334	139	10	2013	15	6.7%	12	8.9%	126	281	256	
Distribution Extension (Lot 11/12 Bluebird)	331	3,977	12	2013	60	1.7%	72	1.8%	3,905	8,049	7,904	
Water System Plan (partial, not yet complete)	WSP				6	16.7%						
Land, from Trial Balance 1700.5	303	13,953							$13,953			
2014 Additions												
Lean-to on shop	304	$1,123	12	2014	35	2.9%	$3	0.2%	$1,120	$2,246	$2,241	
Soft-start Well #14	311	7,862	9	2014	20	5.0%	98	1.3%	7,763	15,745	15,548	
Service Connection Fees - Lot 26 Condon	334	255	1	2014	15	6.7%	17	6.7%	238	516	482	
Service Connection Fees - Lot 11 Bluebird	334	101	3	2014	15	6.7%	5	5.0%	95	204	193	
Service Connection Fees - LC 2 Irrigation	334	174	8	2014	15	6.7%	4	2.2%	170	351	344	
Service Connection Fees - LC 2-001	334	199	8	2014	15	6.7%	4	2.2%	195	403	394	
Service Connection Fees - LC 2-002	334	213	10	2014	15	6.7%	2	1.1%	211	427	422	
2012 Chevrolet Silverado 1500	341	14,016	1	2014	7	14.3%	2,002	14.3%	12,013	28,372	24,319	
Total Plant		**$3,407,288**					**$2,323,409**		**$1,083,879**	**$12,174,137**	**$2,707,432**	
Less: Contributed Capital [1]		$0							$0	$0	$0	
Less: Functional Depreciation												
Well 18 Design and Construction		$250,000							$250,000	$250,000	$250,000	
Improvements near Reservoir A		200,000							200,000	200,000	200,000	
Total Net Plant		**$2,957,288**					**$2,323,409**		**$633,879**	**$11,724,137**	**$2,257,432**	

Notes:
[1] - Contributed capital was funded by connection fees (rate payers)