

**RESOLUTION NO. 2317**

A RESOLUTION OF THE CITY OF WILSONVILLE AUTHORIZING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITIES OF SHERWOOD AND WILSONVILLE REGARDING ADOPTION OF AN INTERIM WATER TREATMENT AND SUPPLY AGREEMENT INCLUDING A METHODOLOGY AND RELATED PROVISIONS FOR INTERIM WATER TREATMENT AND PRODUCTION RATES AND WHEELING RATES FOR PRODUCTION/DELIVERY OF WATER TO SHERWOOD FOLLOWING COMPLETION OF THE METER VAULT PROJECT AND CONTINUING UNTIL SEGMENT 3 OF THE 48-INCH TRANSMISSION LINE IS IN PLACE AND IS FULLY OPERATIONAL, AND THIS AGREEMENT IS REPLACED BY A PERMANENT WATER SUPPLY AGREEMENT BETWEEN THE PARTIES.

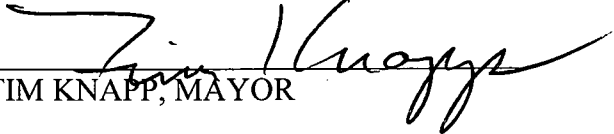
WHEREAS, the City of Wilsonville and the City of Sherwood desire to enter into an intergovernmental agreement between the cities of Sherwood and Wilsonville regarding adoption of an interim water treatment and supply agreement including a methodology and related provisions for interim water treatment and production rates and wheeling rates for production/delivery of water to Sherwood following completion of the meter vault project and continuing until Segment 3 of the 48-inch transmission line is in place and is fully operational, and this agreement is replaced by a permanent water supply agreement between the parties, hereinafter referred to as "IGA Regarding Interim Water Treatment and Supply", a copy of which is marked Exhibit A, attached hereto and incorporated by reference as if fully set forth herein, in accordance with the recitals and the provisions of the agreement; and

WHEREAS, the Parties have the authority to enter into this Agreement pursuant to their applicable charters, principal acts, and ORS 190.003-190.030.

NOW, THEREFORE, THE CITY OF WILSONVILLE RESOLVES AS FOLLOWS:

1. The City Council authorizes the City Manager to enter on behalf of the City of Wilsonville into the IGA Regarding Interim Water Treatment and Supply, Exhibit A, attached hereto and incorporated by reference as if fully set forth herein.
2. This resolution is effective upon adoption.

ADOPTED, by the Wilsonville City Council at a special meeting thereof this 7<sup>th</sup> day of September, 2011, and filed with the Wilsonville City Recorder this date.

  
TIM KNAPP, MAYOR

Attest:

  
Sandra C. King, MMC, City Recorder

SUMMARY OF VOTES:

Mayor Knapp	Yes
Council President Núñez	Yes
Councilor Hurst	Yes
Councilor Goddard	Yes
Councilor Starr	Yes

Attachment:

Exhibit A – IGA Regarding Interim Water Treatment and Supply

**AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITIES OF SHERWOOD AND WILSONVILLE REGARDING ADOPTION OF AN INTERIM WATER TREATMENT AND SUPPLY AGREEMENT INCLUDING A METHODOLOGY AND RELATED PROVISIONS FOR INTERIM WATER TREATMENT AND PRODUCTION RATES AND WHEELING RATES FOR PRODUCTION/DELIVERY OF WATER TO SHERWOOD FOLLOWING COMPLETION OF THE METER VAULT PROJECT AND CONTINUING UNTIL SEGMENT 3 OF THE 48-INCH TRANSMISSION LINE IS IN PLACE AND IS FULLY OPERATIONAL, AND THIS AGREEMENT IS REPLACED BY A PERMANENT WATER SUPPLY AGREEMENT BETWEEN THE PARTIES**

This Agreement ("Agreement") is made and entered into this \_\_\_ day of \_\_\_\_\_, 2011, by and between the City of Sherwood, an Oregon municipal corporation ("Sherwood"), and the City of Wilsonville, an Oregon municipal corporation ("Wilsonville"), referred to collectively as ("the Parties").

Recitals

The Parties agree upon the following Recitals:

A. WHEREAS, originally Tualatin Valley Water District ("TVWD") and Wilsonville partnered to construct and own undivided ownership shares in the Willamette River Water Treatment Plant ("WRWTP") and appurtenances thereto from the raw water intake in the Willamette River through Segment 1 of the finished water 63-inch water transmission line (Supply Facilities). The treatment plant portion of the WRWTP has a current designed capacity of 15 mgd. Subsequently, based on certain conditions Wilsonville consented to Sherwood's purchasing certain interests in the WRWTP Supply Facilities from TVWD's interests, which included a capacity purchase from TVWD of TVWD's 1/3 or 5 mgd of the 15 mgd capacity, while Wilsonville owns 2/3 or 10 mgd of WRWTP capacity. In addition, Wilsonville and TVWD own larger capacity interests in other appurtenant facilities.

B. WHEREAS, Sherwood and Wilsonville entered into agreements whereby Wilsonville had constructed or would construct and Sherwood would purchase capacity in Segments 2, 4, and 5A of 48-inch diameter water transmission lines within Wilsonville, which in conjunction with the WRWTP and other facilities will jointly serve both cities with a permanent

potable water supply. All these segments are now constructed and capacity purchased under the terms of the agreements. Together these already constructed transmission facilities are 8,183 lf in length and represent a present joint investment of \$7,313,838. Sherwood and Wilsonville each own 1/2 of the capacity of Segment 2. Sherwood owns 2/3 of the capacity of Segments 4 and 5A, while Wilsonville owns the remaining 1/3 capacity of each.

C. WHEREAS, Sherwood has constructed and owns 18,000 lf of 48-inch diameter transmission (Segments 6-9) from a point connecting to the Tooze Road Meter Vault described herein and continuing to a recently constructed Sherwood Reservoir (Snyder Park - 4 mgd capacity) which is also owned by the City of Sherwood. The cost of the construction of these Sherwood transmission facilities, not including the cost of the Snyder Park Reservoir, is estimated to be in excess of \$11,630,000. Completion of construction of these transmission segments had been estimated to occur in the spring of 2011 by Emery and Son's (Emery), Sherwood's General Contractor. Actual completion occurred in December 2010. In order for Sherwood to accept these new transmission facilities, the facilities needed to be pressure tested and flushed, and then maintained and refreshed with a required maximum amount of potable water (400 gpm). The source of this water is from the WRWTP and the Water Distribution System of the City of Wilsonville. A Temporary Water Supply Agreement was negotiated between the parties for the 400 gpm water supply to permit pressure testing, flushing, and line maintenance. An Agreement reflecting those negotiations was adopted by the Parties on January 11, 2011.

D. WHEREAS, it has been long recognized and agreed to by the Parties that full use of the collectively owned 48-inch transmission linkage between the WRWTP and the City of Sherwood will not occur until the 2500 lf of Segment 3 48-inch diameter transmission is constructed by Wilsonville. This transmission project is a part of a significantly larger project involving the extension of Kinsman Road from Barber Road to Boeckman Road, and the allied construction of sanitary and storm lines. This Project also requires substantial Environmental Permitting because it traverses wetlands, a FEMA established Floodway/Flood Plain, Bonneville Power Administration (BPA) transmission line, and acquisition of property interest from private property owners. Presently completion of Segment 3 is estimated by Wilsonville to occur in 2014, but the Parties recognize this is a soft estimate given the permitting and acquisition issues

stated above. However, late developments indicate the possibility of discrete permitting and construction of this transmission line segment, separate from the other portions of the overall project. The Parties are working collectively and in good faith to achieve that result. This Project is now proceeding through Preliminary Design and Engineering prior to beginning formal regulatory permitting. The Parties will separately negotiate terms of an Agreement wherein Sherwood would front the costs relating to the water transmission portion of this Project subject to Wilsonville reimbursement of its share of water transmission project costs.

E. WHEREAS, the Parties have also negotiated successfully the design and proposed construction of the Tooze Road Meter Vault facility and appurtenant small segment of 48-inch diameter transmission line (Segment 5B), collectively referred to as the Meter Vault Project. The Meter Vault Project will link previously constructed Transmission Segments 5A and 6, provide required metering and flow control facilities for water flowing to Sherwood, and house pressure reducing valves and transmission lines to serve existing and planned Wilsonville's distribution and reservoir systems. The Parties adopted an Agreement authorizing the construction of these improvements on January 11, 2011. Current estimated total project costs are \$1,296,030 net of Sherwood's construction of a 24-inch water line as discussed below and an authorized change order with Emery estimated to be approximately \$50,000. Completion of the Meter Vault Project is anticipated in September 2011. Sherwood has agreed to advance funding of its proportionate share of the Project, as well as advance funding and construction of the extension of a Wilsonville 24-inch diameter transmission line which will be a wholly owned Wilsonville component of this Project. The specific terms of this Project are the subject of the Tooze Road Meter Vault Agreement and the aforementioned Temporary Water Supply Agreement referred to in these recitals.

F. WHEREAS, the unanticipated early completion of Segments 6-9 of 48-inch diameter transmission by Sherwood in December 2010 and the estimated completion of the Tooze Road Meter Vault in September 2011 left a short but very important period (this period has been extended to no earlier than October 1, 2011 because of Sherwood's contract with the Portland Water Bureau (PWB) for interruptible water when temporary water supply to Sherwood in an amount not to exceed 400 gpm will be required as explained in Recital C above). The Parties developed a way to provide temporary water supply during this period by the advance

construction by Sherwood of a 24-inch diameter transmission line extension. This transmission line extension previously was a part of the Meter Vault Project, referenced in Recital E above, to serve Wilsonville permanently with potable water through the Tooze Road Meter Vault. All required real property has been acquired by Wilsonville for the construction of the Tooze Road Meter Vault and this line extension and its connection to Sherwood's Segment 6 transmission line. Sherwood proposed to construct these facilities by means of a change order to its Segment 6 contract with Emery and to pay for the redesign associated with advancing the 24-inch line extension and to front costs for this Project subject to reimbursement of Wilsonville's share through credits against future temporary and interim water sales to Sherwood. The specific terms of this Project are contained in the Temporary Water Supply Agreement between the Parties. Sherwood subsequently executed a change order for the Project in the amount \$276,000. Total project costs are estimated to be \$308,000. The project is 99% completed. It is anticipated by the Parties that these change order improvements will be in place and operational well before October 1, 2011.

G. WHEREAS, the Parties have negotiated this Interim Water Supply Agreement, which will involve temporary wheeling of surplus water to Sherwood of up to 2.5 mgd of WRWTP potable water through jointly owned Sherwood and Wilsonville transmission lines and also partially through Wilsonville existing distribution lines until such time as Segment 3 is completed and on line. The Parties commissioned Montgomery Watson Harza, Inc. ("MWH") to perform a hydraulic capacity analysis of current WRWTP and Wilsonville facility capacity to ensure that the 2.5 mgd is currently available through the distribution system in addition to Wilsonville's ongoing and projected needs. MWH completed this analysis on February 22, 2011 and concluded that ample capacity was available to accomplish this. A copy of this hydraulic capacity analysis is attached hereto as Exhibit A and incorporated herein by reference. The Parties also contracted with the Galardi Rothstein Group to develop and recommend a methodology and estimated rates of interim water treatment and production and associated wheeling rates for production/delivery of water to Sherwood following completion of the Meter Vault Project described above and continuing until Segment 3 of the jointly owned 48-inch transmission line is in place and operational. The Final Interim Water Production and Delivery Rate analysis is attached as Exhibit B and incorporated herein by reference. These and related matters are the subject of this Agreement between the parties.

H. WHEREAS, Sherwood and Wilsonville agree to the terms of Interim Water Supply, including the methodology and estimates of Interim Water Treatment and Production Rates and Wheeling Rates, and related matters as set forth in this Agreement.

I. WHEREAS, it is recognized by the Parties that it is necessary to enter into this Intergovernmental Cooperative Agreement through ORS Chapter 190 to provide for the adoption of an Interim Water Supply Agreement, including a methodology and estimates of interim water treatment and wheeling rates, and related provisions.

J. WHEREAS, the Parties have the authority to enter into this Agreement pursuant to their applicable charters, principal acts, and ORS 190.003 – 190.030.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. **Recitals.** The recitals set forth above are incorporated by reference and made a part of this Agreement.

2. **Consideration.** In consideration of the terms and conditions set forth below, the Parties enter into this Agreement.

3. **Term.** The effective term of this Agreement shall be the later of October 1, 2011 or the date of the completion and operation of the Tooze Road Meter Vault Project and appurtenant facilities more particularly described in the Meter Vault Project agreement previously executed by the Parties on January 11, 2011. The Parties agree to exercise due diligence and good faith efforts to conclude negotiations regarding a Segment 3 IGA by October 15, 2011. This Agreement shall then continue until it is replaced by a Permanent Water Supply Agreement between the Parties at a time after completion and fully operational status of Segment 3 is achieved.

4. **Purpose and Framework.** As described in the Recitals of this Agreement, the purpose of the Agreement is to set out the terms between the parties whereby Sherwood will receive an Interim Supply of water not to exceed a peak demand of 2.5 mgd. Peak demand is generally during the months of June through September. The Parties share ownership of 15 mgd of the capacity of the water treatment and production of the WRWTP. Wilsonville owns 10 mgd of the capacity and Sherwood owns the remaining 5 mgd through its purchase from TVWD.

During the term of this Agreement, it is estimated that joint average daily demand by the Parties during the Interim Period will not exceed 4.75 mgd, with Wilsonville receiving 2.80 mgd and Sherwood 1.67 mgd. It is estimated that joint peak use by the Parties during the Interim Period will not exceed 12.5 mgd, with WV receiving 10 mgd and Sherwood 2.5 mgd. The Projected Water Production of the WRWTP and estimated respective water usage of the parties is set out more specifically in Table 1 of Exhibit B.

The Parties have previously contracted with MWH to perform a hydraulic capacity analysis of WRWTP, jointly owned Wilsonville Sherwood facilities, and Wilsonville facilities which analysis determined that there is ample current capacity to meet the water requirements set forth in this Agreement. The Parties are jointly relying on that assessment and opinion. The MWH hydraulic capacity analysis is set out in Exhibit A and incorporated herein by reference.

The Parties also contracted with the Galardi Rothstein Group to develop and recommend a methodology and estimated rates of interim water treatment and production and associated wheeling rates for the production/delivery of WRWTP water to Sherwood following completion of the Meter Vault Project described above and continuing until Segment 3 of the jointly owned 48 inch transmission is in place and fully operational. The Final Interim Water Production and Delivery Rate Analysis (hereinafter referred to as the "Interim Rate Analysis") is attached as Exhibit B and incorporated herein by reference. The Parties have approved this study as the basis for water rates for Sherwood and Wilsonville during the Interim Period. The operational implementation structure of the Interim Rate Analysis is set forth more definitely in the following Section.

**5. Operational Implementation Structure of the Interim Rate Analysis.** The Interim Rate Analysis described above establishes a methodology for treatment and production of potable water and estimated rates for Sherwood and for Wilsonville. The methodology and the resultant rates are based upon estimated costs for production and treatment as well as respective water consumption levels of the Parties for each year or partial year of the Interim Period. In contrast, the wheeling rates are applicable only to Sherwood as they reflect a charge for temporary wheeling through a portion of the Wilsonville distribution system. There is a separate methodology for the computation of that rate based upon estimated Sherwood peak usage during each year of the Interim Period. The Interim Rate Analysis establishes an estimated



treatment and production rate for the first year of the Interim Period based upon estimated costs for the treatment and production of water for that year and upon a five year average of past usage by Wilsonville, and by estimated limited usage during the Interim Period by Sherwood assuming continued partial supply from Sherwood ground water resources and other sources of supply. The estimated rate for the first year is \$1.24/ccf. The wheeling rate for Sherwood based upon anticipated peak usage by Sherwood of 2.5 mgd is \$.045/ccf.

At the end of each fiscal year, there will be a true up of rates for treatment and production based on respective actual water usage of the Parties and actual treatment and production costs, and for wheeling, upon the actual peak water demand by Sherwood. The rate true up will occur in conjunction with the process set forth in the Operation and Maintenance Contract among Wilsonville, TVWD, and Veolia Water North America (Veolia) for a report of actual costs for treatment and water production by Veolia which are due no later than August 1 of each year. The first year of the Interim Period will be foreshortened as the first year of the Interim Period will commence no earlier than October 1, 2011. It will end on June 30, 2012 so as to track with the fiscal year term of the Wilsonville, TVWD, and Veolia Operation and Maintenance (O&M) Agreement. Subsequent years may also be foreshortened contingent upon the date of termination of the Interim Period. Wilsonville and Sherwood will deliver their respective water consumption figures to Galardi Rothstein no later than July 15 following June 30 of each year of the Interim Period.

Galardi Rothstein will calculate actual treatment and production rates for the Parties based upon actual costs of treatment and production and respective water usage for the preceding year, and for Sherwood, wheeling charges based upon peak usage for the preceding year. Galardi Rothstein will prepare a Report setting forth their conclusions in this regard no later than September 1 of each year. The Parties have 30 days to present comment or rebuttal. If there remains disagreement by a Party as to the Final Rates as determined by Galardi Rothstein, the Dispute Resolution provisions of this Agreement are the sole remedy available to the Parties. The final true up of rates for a given year shall be reflected by a rate credit or debit to the respective Parties in the succeeding rate year. The cost of the services of Galardi Rothstein in the true up process shall be shared equally by the parties.

**6. Future Good Faith Negotiations among the Parties.** By this Agreement Sherwood assumes a new relationship and responsibilities to the WRWTP and to Wilsonville and TVWD. The Accord Agreement executed between Wilsonville and TVWD on 19 June 2001 at Section 8.1 acknowledges the intent of both Wilsonville and TVWD in the future "...to cooperate with the other in reaching accord in the future including, but not limited to, financing for future costs and expenses." That time has now come to implement this process, not because of TVWD's use of WRWTP water but because Sherwood, through TVWD, has invoked its use. In keeping with the previous agreements entered into by the parties and the conditions agreed upon therein for the consent provided by Wilsonville to the purchase by Sherwood from TVWD as recited above, Wilsonville and Sherwood pledge their good faith efforts to work among themselves and TVWD to reach a fair and equitable resolution of these matters. IGAs for Segment 2, 3, 4, 5, 5A and the Meter Vault separately deal with O&M of the jointly owned supply facilities not covered by this Agreement.

**7. Dispute/Attorneys Fees.** If a dispute arises between the Parties regarding breach of this Agreement or interpretation of any term of this Agreement, the Parties shall first attempt to resolve the dispute by negotiation, followed by mediation and arbitration.

Step One: The respective City Managers of the Parties or their designees are designated to negotiate on behalf of the Party each represents. If the dispute is resolved at this Step One, there shall be a written determination of such resolution, signed by each Party's Manager and ratified by each governing body, if required by the governing body, which shall be binding upon the Parties. Step One will be deemed complete when a Party delivers notice in writing to the other Parties that the Party desires to proceed to Step Two.

Step Two: If the dispute cannot be resolved within 10 days at Step One, or earlier after written notice given by a party, the Parties shall submit the matter to non-binding mediation by a professional engineer with demonstrated substantial experience in the design, construction and operation of complex municipal treatment, transmission, distribution, and storage systems. The Parties shall attempt to agree on a mediator. If they cannot agree, the Parties shall request a list of five mediators from an entity or firm experienced in providing engineering mediation services who do not have an existing professional relationship with either Party. The Parties will mutually agree upon a mediator from the list provided. Any common costs of mediation shall be

borne equally by the Parties who shall each bear their own costs and fees. If the issue(s) is resolved at this Step Two, a written determination of such resolution shall be signed by each Manager and approved by their respective governing bodies, if necessary.

Step Three: If mediation does not resolve the issue within 45 days of submission of the issue to mediation, the matter will be referred to binding arbitration by a panel of three arbitrators who are professional engineers with demonstrated substantial experience in the design, construction and operation of complex municipal treatment, transmission, distribution, and storage systems. One arbitrator will be chosen by each Party and those two arbitrators chosen will choose a third arbitrator. No panel member may have an on-going professional relationship to either Party. The arbitration panel will reasonably endeavor to reach a decision on the dispute within 60 days of its submission to the panel. The decision shall be binding on both Parties and there shall be no right of further appeal. The prevailing Party shall be entitled to its reasonable attorneys fees as shall be awarded by the arbitration panel.

**8. Breach.** If a Party defaults under the terms of this Agreement, then upon twenty 20 days written notice, the defaulting Party shall undertake steps to commence cure of the breach within a reasonable time, depending on the circumstances. In the event there is a dispute over the amount to be paid, the undisputed amount shall be paid immediately and the Agreement shall not be in default while the solution to the disputed payment portion is resolved under Section 7. The Parties understand and agree that water service is critical to each Party's customers and that monetary damages may be an insufficient remedy considering the infrastructure involved. Therefore, the Parties expressly agree that equitable remedies such as injunction or specific performance are specifically contemplated and allowed by this Agreement.

**9. Notices.** Notices regarding operation, maintenance, repair, replacement, breach, termination, renewal or other issues shall be deemed sufficient if deposited in the United States Mail, First Class, postage prepaid, addressed to the Parties as follows:

City Manager  
City of Sherwood  
22560 SW Pine Street  
Sherwood, OR 97140

City Manager  
City of Wilsonville  
29799 SW Town Center Loop E  
Wilsonville, OR 97070

**10. Insurance and Indemnity.** To the full extent permitted by law, each Party agrees to indemnify and hold harmless the other, its counsel, officers, employees, and agents from any and all claims, demands, damages, actions, or other harm caused by the sole negligence or intentional acts of that Party, including any attorneys fees or other costs of defense. Further, independent of the indemnity obligation, and as may be allowed under law, each Party agrees to maintain general liability insurance in an amount not less than Oregon Tort Claim limits applicable to public agencies as set forth in ORS 30.260 – 30.300.

**11. Succession.** This Agreement shall be binding upon any successors to the respective Parties, which through merger, consolidation or other means, including a lawful transfer by Sherwood to the Willamette River Water Coalition (“WRWC”), succeeds to the water supply treatment and distribution and transmission functions of that Party. No transfer to a private, nonpublic entity is permissible without the consent of both parties.

**12. Amendment.** The terms of this Agreement may be amended or supplemented by mutual agreement of the Parties. Any amendment or supplement shall be in writing and shall refer specifically to this Agreement, and which shall be executed by the Parties.

**13. Good Faith and Cooperation.** The Parties agree and represent to each other good faith, complete cooperation, and due diligence in the performance in all obligations of the Parties pursuant to this Agreement.

**14. Governing Law.** This Agreement is governed by the laws of the State of Oregon.

**15. Counterparts.** This Agreement may be signed in two counterparts, each of which shall be deemed as an original and, when taken together, shall constitute one and the same agreement.

**16. Instruments of Further Assurance.** From time to time, at the request of either Party, each Party shall, without further consideration, execute and deliver such further instruments and shall take such further action as may be reasonably required to fully effectuate the purposes of this Agreement.

**17. Severability.** In case any one or more of the provisions contained in this Agreement shall be judicially deemed invalid, illegal, or unenforceable in any respect, the

validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

IN WITNESS WHEREOF, the Parties have, pursuant to official action of their respective governing bodies duly authorizing the same, caused their respective officers to execute this Agreement on their behalf.

**CITY OF SHERWOOD**

**CITY OF WILSONVILLE**

**An Oregon municipal corporation**

**An Oregon municipal corporation**

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
City Recorder

\_\_\_\_\_  
City Recorder

**APPROVED AS TO FORM**

**APPROVED AS TO FORM**

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City Attorney

MEMORANDUM

***Wilsonville/Sherwood Water Treatment and Wheeling Rates – Final***

PREPARED FOR: Gary Wallis, City of Wilsonville  
Craig Sheldon, City of Sherwood

PREPARED BY: Deb Galardi, Galardi Rothstein Group  
Eric Rothstein, Galardi Rothstein Group

DATE: June 28, 2011

**Introduction**

Galardi Rothstein Group was retained by the Cities of Wilsonville and Sherwood (the cities) to assist in the development of interim water treatment and wheeling rates for production/delivery of water to the City of Sherwood following completion of the Meter Vault Project (including completion of Segment 5B of the 48-inch transmission line). The interim rates are intended to be in effect until Segment 3 of the 48-inch transmission line is in place and operational (estimated to be sometime during the 2012 to 2014 period), at which time a new water treatment rate will be developed, and the wheeling charge eliminated.

This memorandum presents the final analysis of the interim water treatment and wheeling rates, based on cost information provided by Veolia and the City of Wilsonville, and water delivery projections provided by both cities. The rate analyses draw from industry standard approaches.

**Water Production**

For purposes of estimating future water treatment plant operation and maintenance costs and rates, monthly water production estimates were developed by the cities, and are presented in Table 1 (for FY2013-FY2014). Additional water production information for FY2012 and FY2013 is provided in an attachment to this memorandum ("Water Production Projections FY2012 and FY2013"). In Table 1, Wilsonville projections are provided using both 5-year average and current production information, as water use has trended downward over the past five years. Rates are developed using both sets of data to provide a potential range. Sherwood's peak demand of 2.5 mgd (June through September) is used for allocation of transmission line capacity and costs, for purposes of determining the wheeling rates.

Table 1  
 Water Treatment Cost Analysis  
 Projected Water Production (FY2013 – FY2014)

	Wilsonville	Sherwood	Total
<b>Wilsonville based on 5-year average production</b>			
July	163,893,126	77,500,000	241,393,126
Aug	162,216,886	77,500,000	239,716,886
Sep	117,886,130	75,000,000	192,886,130
Oct	78,315,922	42,160,000	120,475,922
Nov	63,078,905	33,000,000	96,078,905
Dec	64,284,874	33,170,000	97,454,874
Jan	66,115,903	33,526,500	99,642,403
Feb	60,342,092	31,147,200	91,489,292
Mar	67,425,224	37,677,400	105,102,624
Apr	68,017,314	38,007,000	106,024,314
May	93,683,174	53,642,400	147,325,574
Jun	119,133,752	77,250,000	196,383,752
Total (gal)	1,124,393,302	609,580,500	1,733,973,802
Mgd	3.08	1.67	4.75
Ccf	1,503,200	814,947	2,318,147
<b>Wilsonville based on current production</b>			
	Wilsonville	Sherwood	Total
Total (gal)	1,022,255,918	609,580,500	1,631,836,418
Mgd	2.80	1.67	4.47
Ccf	1,366,652	814,947	2,181,599

## Interim Water Treatment Rate Analysis

The interim water treatment rate analysis, shown in Table 2, is based on the projection of annual plant operation, maintenance, and replacement costs associated with the projected production shown in Table 1 for FY2013 and FY2014, and projections for FY2012 shown in the Water Production Projections attachment.

### Treatment Plant Costs

Operator labor, "not-to-exceed" costs, pass-through costs, and major repair and replacement estimates were obtained from Veolia (see attachments for detailed information referenced in Table 2 footnotes 1, 2, and 5). Pass-through costs fluctuate each year due to the Granular Activated Carbon (GAC) costs which are incurred every two years. Major repair and replacement (R&R) costs are based on anticipated scheduling of specific improvements, and exclude costs associated with improvements to the City of Wilsonville's water feature (\$25,000 for recirculation pump in Fiscal Year 2013).

Electricity costs are projected based on Fiscal Year (FY) 2011 estimates from the City of Wilsonville, adjusted for annual inflation of 1.4 percent in FY2012 and 5 percent in subsequent years, and projected water production (for the variable portion of the electric bill)<sup>1</sup>. Since electricity costs are based in part on water production, Table 2 presents costs for both water production scenarios (Wilsonville based on 5 year average and current trends).

<sup>1</sup> Information provided by PGE indicates a current fixed annual charge of \$14,880.

Table 2  
 Water Treatment Cost Analysis  
 Projected Annual Treatment Costs and Rates

		2012		2013		2014	
		5-yr Avg Prod	Current Prod	5-yr Avg Prod	Current Prod	5-yr Avg Prod	Current Prod
Operator Labor	<sup>1</sup>	\$1,121,865	\$1,121,865	\$1,372,182	\$1,372,182	\$1,413,347	\$1,413,347
Not to Exceed Costs	<sup>1</sup>	\$117,784	\$117,784	\$121,317	\$121,317	\$124,956	\$124,956
Pass Through Costs	<sup>2</sup>	\$402,191	\$402,191	\$685,033	\$685,033	\$448,084	\$448,084
Electricity	<sup>3</sup>	\$428,165	\$404,390	\$500,782	\$477,132	\$525,821	\$500,989
Security		\$38,300	\$38,300				
Insurance	<sup>4</sup>	\$18,500	\$18,500	\$19,055	\$19,055	\$19,627	\$19,627
<b>Subtotal</b>		<b>\$2,126,805</b>	<b>\$2,103,030</b>	<b>\$2,698,369</b>	<b>\$2,674,719</b>	<b>\$2,531,835</b>	<b>\$2,507,003</b>
Major Repair & Replacement	<sup>5</sup>	\$185,000	\$185,000	\$60,000	\$60,000	\$51,000	\$51,000
Directly Allocated Costs	<sup>6</sup>	\$49,500	\$49,500	\$50,985	\$50,985	\$52,515	\$52,515
Overhead/Administration	<sup>6</sup>	\$62,930	\$62,930	\$64,818	\$64,818	\$66,763	\$66,763
<b>Subtotal</b>		<b>\$112,430</b>	<b>\$112,430</b>	<b>\$115,803</b>	<b>\$115,803</b>	<b>\$119,277</b>	<b>\$119,277</b>
<b>Total Costs</b>		<b>\$2,424,235</b>	<b>\$2,400,460</b>	<b>\$2,874,172</b>	<b>\$2,850,522</b>	<b>\$2,702,113</b>	<b>\$2,677,280</b>
Production - ccf	<sup>7</sup>	2,051,265	1,933,203	2,318,147	2,181,599	2,318,147	2,181,599
Rate/ccf		\$1.18	\$1.24	\$1.24	\$1.32	\$1.17	\$1.23
Production - 1,000 gal		1,534,347	1,446,036	1,733,974	1,631,836	1,733,974	1,631,836
Rate/1,000 gal		\$1.58	\$1.66	\$1.66	\$1.76	\$1.56	\$1.64

1. From Veolia "WRWTP Staffing Plan and Costs"
2. From Veolia "Attachment A-1 Modified for 2011 Production Increase"; 2013 includes \$250K Granular Activated Carbon costs (every 2 years)
3. Based on estimated FY2010/11 costs, adjusted for 1.4% inflation in 2012; 5% annually thereafter
4. Based on 2011 budget, escalated at 3% per year
5. From Veolia (Memorandum dated 1/15/2011)
6. From Gary Wallis, escalated at 3% per year
7. Sherwood estimates from Craig Sheldon; Wilsonville estimates from Eric Mende



Security costs are assumed to be eliminated in FY2013 as staffing at the plant increases. Insurance costs are based on the City of Wilsonville's FY2011 budget, escalated by 3 percent annually. The City of Wilsonville also provided estimates of directly allocated costs, and overhead and administration costs associated with water treatment.

Total projected treatment costs range from about \$2.4 million in FY2012 to about \$2.9 million in FY2013.

### **Interim Treatment Rates**

Based on the projected costs and annual production shown in Tables 1 and 2, the interim water treatment rates range from \$1.17 per hundred cubic feet (Ccf) to \$1.32 per Ccf (\$1.56 to \$1.76 per 1,000 gallons), depending on the year, and the assumed annual water production.

### **Interim Water Wheeling Rates**

The water wheeling rate analysis draws from an industry standard approach to determination of rate revenue requirement referred to as the "utility basis". This approach is used because it explicitly provides for recovery of capital-related revenue requirements on the basis of capital investments like the City of Wilsonville's investment in transmission line capacity that will be used to deliver water to Sherwood. Further, this approach is more suited to "arms-length" transactions between parties where returns are a cost component subject to recovery through rates.

Table 3 presents the interim water wheeling rate analysis. In short, the wheeling rates recover O&M costs and annual depreciation and return on the wheeling assets, in proportion to capacity requirements. In this case, the wheeling assets are limited to segments of the 18-inch transmission main identified in the attached diagram ("Waterline Schematic"). A portion of the line segments were installed and funded in part by developers. The City of Wilsonville's "out of pocket" costs include oversizing costs for the developer installed segments, and total project costs for the City-installed segment.

In determining Sherwood's allocation of the transmission line costs, a weighted average capacity share was determined based on the portion of the City of Wilsonville's out-of-pocket costs attributable to the developer installed segments (33 percent) and the City-installed segment (67 percent). For the City-installed portion, Sherwood's share is based on the 2.5 mgd peak demand, as a percent of the total 5.56 mgd line capacity, or 45 percent. For the developer-installed line, Sherwood's share is based on the oversizing capacity of 3.3 mgd, so the allocation is 2.5 mgd/3.3 mgd, or 75 percent. The weighted average share for the all of the segments combined is 55 percent.

### **Operation and Maintenance Costs**

The City of Wilsonville provided information on projected O&M costs associated with the 18-inch line. These costs consist of leak detection, valve exercise, line flushing, and utility locating on an annual basis. Cost estimates for each of these activities include

direct costs (\$500 per occurrence for leak detection) and estimated labor hours and rates (\$53.40 per hour, for labor and vehicles, combined). In addition, repair costs (major and minor) are estimated to be about \$4,300 per year, including direct costs of \$3,000, and about \$1,300 for labor. Administration costs are added based on an overhead rate of 10 percent.

As shown in Table 3, total annual O&M costs associated with the 18 inch line are about \$7,400. Sherwood's share of the total costs is 55 percent, or about \$4,000.

Table 3  
Wheeling Rate  
Interim Rate Analysis

	Annual \$	Total Annual Cost
<b>O&amp;M Costs</b>		
Leak Detection	\$714	\$393
Valve Exercise	\$854	\$471
Line Flushing	\$427	\$235
Utility Locating	\$427	\$235
Minor Repairs	\$1,427	\$787
Major repairs	\$2,854	\$1,573
Administration	\$670	\$370
<b>Capital Costs</b>		
Depreciation Expense		\$7,652
Rate of Return on Assets		\$26,005
<b>Total</b>	<b>\$7,374</b>	<b>\$37,721</b>
Capacity/Sales (ccf)		814,947
Volume Rate (\$/ccf)		\$0.046
<b>Rounded Volume Rate (\$/ccf)</b>		<b>\$0.045</b>
<b>Capital Assumptions:</b>		
Total Project Costs		
Developer credits		\$343,311
City installed		\$697,925
City Costs (SDC Credits + CIP)		\$1,041,236
Useful Life		75
Annual Depreciation Expense		\$13,883
Total Line Capacity (mgd)	1	5.56
Oversizing Line Capacity (mgd)	2	3.30
Sherwood Capacity Req. (mgd)		2.50
Sherwood Allocation Share	3	55%
Accumulated Depreciation		\$58,309
Net Book Value		\$982,927
Rate of Return	4	4.8%

(1) Total capacity based on 3,800 gpm

(2) For developer installed line

(3) Weighted average of City funded and developer credits

(4) Base option uses Oregon Bond Index (AA 20 year Bonds) 2010

### Capital Costs

The capital portion of the revenue requirements includes annual depreciation and a return on investment, based on the net book value of wheeling assets. Depreciation is

calculated using an estimated asset life of 75 years. The Oregon Bond Index is the source for rate of return (consistent to the practice of Tualatin Valley Water District).

### **Interim Wheeling Rates**

As shown in Table 3, the total annual revenue requirements for wheeling water to Sherwood are about \$38,000. Dividing the annual revenue requirements by the estimated FY2013 water production for Sherwood, results in an average rate per Ccf of \$0.045 (rounded).