



CITY OF SNOHOMISH

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NOTICE OF SPECIAL MEETING

SNOHOMISH CITY COUNCIL

in the
George Gilbertson Boardroom
1601 Avenue D

TUESDAY
May 3, 2016
5:30 p.m.

WORKSHOP AGENDA

- 5:30 1. **CALL TO ORDER**
- 2. **EXECUTIVE SESSION** – Potential Litigation
- 6:00 3. **DISCUSSION ITEM** – Water Supply (*P.I*)
- 6:55 4. **ADJOURN**

DISCUSSION ITEM 3

Date: May 3, 2016
To: City Council
From: Steve Schuller, Deputy City Manager/Public Works Director
Subject: **Council Workshop – 2017 to 2019 Water Utility Rate Update**

The purpose of tonight's workshop is for the City Council to provide direction regarding the setting of water rates for the next three-year period (2017, 2018 and 2019). In order to set rates for three years, a decision will be required between the two water supply scenarios deliberated at several Council workshops and meetings over the last couple of years.

The workshop will also be a time for the Council to discuss the two scenarios' impacts on long-term water rate projections (2017 to 2031). This has been an ongoing focus of consideration since the City retained Murray, Smith & Associates (MSA) approximately eight years ago to conduct a study of the City's existing sources of water supply, and completed the *Water Treatment Plant and Water Supply Study* in May 2009 (*2009 Study*). On September 15, 2015, the Council approved the next step in assessing the City's current water supply status by authorizing a water rate study by FCS Group to analyze the short and long-term costs of the two water supply scenarios:

Scenario 1: (Keep Two Sources of Supply): City continues to maintain two sources of supply (City water treatment plant and transmission line, and Everett supply); and

Scenario 2: (All Everett for City Supply): City served by one source of supply (Everett), and establishes alternative source of supply for transmission line customers.

ANSWERS TO TWO KEY QUESTIONS BY THE CITY COUNCIL FROM PREVIOUS MEETINGS IN 2014 AND 2015:

1. *Which scenario is the preferred option (that is, the least cost) for City rate payers, both in the short term (2017 to 2019) and in the long-term (2017 to 2031)?*

Scenario 2 (All Everett) has significantly lower water rate projections for both the short and long-term: By 2019, water rates under Scenario 2 are projected to be about 12% lower than Scenario 1 (Keeping Two Supply Sources). By 2031, water rates under Scenario 2 are projected to be a substantial 48% lower than (that is, almost half the cost of) Scenario 1. See the rate projection summary below and in Attachment A.

2. *If we shut down our water treatment plant and discontinue our diversion of water from the Pilchuck River, how do we protect our water right to either sell or re-use in the future?*

Banking our perfected water right with the State is the preferred option: The water right has a restricted value today because State law only allows us to sell it to another

DISCUSSION ITEM 3

party for use within the same watershed. The two major users of water within our watershed are the City of Everett and Snohomish PUD. Both agencies have stated over numerous meetings that they do not have an extensive financial interest in our water right either now or in the foreseeable future.

In the distant future, there is an unknown possibility that the State may allow water rights to be exchanged across boundaries. If the City were able to sell their water right to a public or private party in Eastern Washington or potentially to a party in California or another state, this could increase the value of the water right appreciably. Both the reality that the water right has restricted value today and the fact that it has unknown value in the distance future reinforces that water right banking is the preferred option.

By banking the water right the City would also have the option to return to providing its own water supply in the distant future. Under current known conditions it appears this would be a challenging choice given the cost and timeframe to permit and construct a new intake and treatment system, but technological advancements could make this a competitive choice in the future. Banking the water right would allow to City to preserve those perfected rights into the future as would be established in a detailed agreement between the State Department of Ecology and the City. In previous workshops and meetings in 2014 and 2015, additional details about the “perfected” water right have been discussed. Staff will be available at tonight’s workshop to discuss any additional questions or concerns.

BACKGROUND: The water utility is the third most expensive service provided by the City, preceded by wastewater and law enforcement. Approximately one out of every seven dollars (or 14%) of the City’s annual operating expenses is for the water utility. The City of Snohomish currently serves the northern half of the City with water purchased from the City of Everett and supplied from Everett’s No. 5 water transmission line which runs through the City of Snohomish north of Blackmans Lake. Everett’s sources of supply are the Spada and Chaplain Reservoirs, which supply water to the majority of Snohomish County (more than 600,000 residents). Most of the southern half of the City of Snohomish is supplied by the City’s own WTP constructed in 1981. The nearby diversion dam and water intake structure were constructed in 1932 on the Pilchuck River. The plant and dam are located several miles northeast of the City, just north of Lake Roesiger. Site visits to both the dam and intake structure, and the WTP are available upon request. The water is supplied by a 14.6-mile underground water transmission line that sends the flow to two City reservoirs located near Emerson Elementary school at the intersection of Pine Avenue and 13th Street.

In 2014, the City Council conducted two workshops, in March and November, to discuss in detail the option of shutting down the City’s existing 1981 WTP and pursuing the “*Everett Supply for the Entire City System*” alternative described in the *2009 Water Treatment Plant and Water Supply Study*. At the November workshop, the City Council directed staff to pursue this alternative, and bring a resolution back to the Council which would direct the City to investigate other sources of water supply, specially the All-Everett scenario.

DISCUSSION ITEM 3

On August 4, 2015 the City Council passed Resolution 1331 regarding the City's sources of water supply, and directed staff to proceed forward with next steps, which is a water rate study based on the two water supply scenarios. Tonight's workshop will review the results on the draft study.

SUMMARY OF RATE PROJECTIONS: Below is a summary of the rate impacts of the two scenarios based on the recent FCS Group study. This is the monthly average residential water bill for City customers. The rate projections were extended to the year 2031, which is when both the City's water treatment plant and the 14.6 mile long transmission line would be approximately 50 years old and near the end of their service life. For a year-by-year comparison and further detail see the spreadsheet in Attachment A.

Scenario 2, in which the City customers are served by one source of supply from the City of Everett is significantly more cost effective. Based on the estimated projections in the rate study, the rate in 6 years (in 2022) would increase by 47.98% in Scenario 1 versus 14.28% in Scenario 2. In 15 years (in 2031) the rate would increase by 166.39% in Scenario 1 versus 39.28% in Scenario 2. The difference in projected rates between the two scenarios is almost **double** (\$109.49/month vs. \$57.24/month) by 2031. See the table below:

Monthly Average Residential Water Bill Comparison for City ("Non-Transmission Line") Customers:

	2016	2017	2019	2022	2031
Scenario 1 - Keep Two Sources					
Residential Bill (<i>Monthly</i>)	\$41.10	\$43.87	\$50.00	\$60.82	\$109.49
Cumulative Rate Increase		6.75%	21.65%	47.98%	166.39%
Scenario 2 - All Everett					
Residential Bill (<i>Monthly</i>)	\$41.10	42.02	\$43.94	\$46.97	\$57.24
Cumulative Rate Increase		2.25%	6.90%	14.28%	39.28%

ADDITIONAL COSTS TO MAINTAIN BOTH SUPPLIES SIGNIFICANT IN PAST YEARS: Keeping the City source of water supply and WTP has already cost the City considerably more in the last several years than if the City was purchasing water only from Everett. Over a five year period (2008 to 2012) the City spent \$3.41 million on water supply and treatment. The same amount of water could have been purchased from the City of Everett for \$476,000 over that identical five year period. To put this amount in perspective, the City could have provided free water to all customers, both residential and business, for 1.5 years during this

DISCUSSION ITEM 3

period, if the City did not have to supply its own water. The cost of City supplied water was over seven times more than water supplied from Everett. Even if all City capital costs over this five year period are not included in the totals, the cost of City supplied water was still three times more than Everett's. See Figure 1 below:

Figure 1: Five Year (2008 to 2012) Total Operation and Capital Cost Comparison between Everett Purchased and Water Produced from the WTP



Since 2008, the City has made a number of key capital improvements and enhancements in the operation of the WTP. This has brought the unit cost of water at the WTP down significantly from over \$4.00 per CCF (CCF=100 Cubic Feet) to approximately \$2.00 per CCF in 2013. These unit costs are for operational expenses only and do not include capital costs.

This last year (2015), the operational expenses for the City's water treatment plant were about \$292,000. This only includes costs for the two personnel, chemicals, basic repairs and utilities to run the plant. This amount does not include capital costs or debt from previous capital upgrades. Any capital costs required would be in addition to the \$292,000. The cost to purchase the same amount of water from Everett in 2015 was approximately \$170,000. Everett's charge includes

DISCUSSION ITEM 3

both operational expenses and funding for future capital improvements. The total 2015 expenses for the City's water fund were \$2.47 million. If the City could have instantly switched to Everett, the savings in 2015 would have been about \$122,000 or about 5% of the total water expenses.

Both the WTP and the 14.6 mile transmission line were built in the early 1980's. They are going to face additional capital improvement needs in the coming years that will drive costs up considerably.

CAPITAL IMPROVEMENT PLAN (CIP) ASSUMPTIONS: The FCS Group rate study assumed the following capital costs for the WTP and the transmission line under Scenario 1:

- \$100,000 per year average WTP capital costs (2015 dollars);
- \$50,000 per year average transmission line repair costs (2015 dollars);
- \$1.1 Million for major WTP Upgrade in the year 2019 (2015 dollars);
- \$18 Million Replacement (*in 2008 dollars*) of the transmission line in 2031 after 50 years in service. Scenario 1 assumes 30% cash and 70% debt issuance in 2031.

The CIP assumption assumes no other major upgrades at the WTP is needed between 2019 and 2031. If additional upgrades were needed to replace aging systems or to respond to new regulations, then the projected rate increases for Scenario 1 (currently about 6.75% each year) would be higher. The transmission line may last longer than the currently projected 50 years service life. This could allow the City to reduce rate increases and issue less debt for the years beyond 2031.

EVERETT RATE ASSUMPTIONS: The City of Everett's Council approved their most recent Water Comprehensive Plan update in 2015. From their plan, "The 2014 Amendment to the 2007 Water Comprehensive Plan was approved by the State of Washington Department of Health on April 9, 2015. This amendment will remain in effect until April 9, 2021." The approved plan identified a 0% rate increase for 2017, and 3% increases for 2018, 2019 and 2020 for the cost of wholesale water purchases. Based on a review of their 15-year operational and capital cost projections, a 3% per year rate increase amount was also used in the FCS Group study for the years 2021 to 2031.

CLIMATE CHANGE AND DROUGHT: In the year 2031 and beyond, would it be better for the City to pay nearly double the water rates in 2031 in order to keep a secondary source of water supply? At the workshop, staff will provide their perspective, but the ultimate decision will be the City Council's.

TRANSMISSION LINE CUSTOMERS: There are currently about 76 water meters (or about 100 customers) served directly from the 14.6 mile transmission line which runs between the WTP on the upper Pilchuck River and the City of Snohomish. Currently, customers outside the City limits, including the transmission line customers, pay a 50% surcharge in addition to City water rates. Under Scenario 1 or Scenario 2, the study projected that about 21 customers will connect directly to Snohomish PUD (PUD) over the next 6 years. For the draft FSC Group rate

DISCUSSION ITEM 3

study, we assumed that the City would pay up to \$10,000 per each parcel to reimburse “lower” transmission line customers (those between Machias Elementary School and the City) to connect to nearby PUD mains. This would allow the City to abandon about 60% of the transmission line in the future. Once the City’s WTP is shutdown, the City can continue to provide the “upper” transmission line customers (about 55 meters) with PUD water purchased wholesale. The City already has a supply connection with PUD near the WTP.

See Attachment A for details regarding short-term and long-term rate projections for both scenarios for the transmission line customers. Over a decade from now (2025 and beyond), Scenario 2 starts to cost more than 50% more than Scenario 1. This is because it is hard to predict how many upper transmission line customers will want to stay on the line and pay to upgrade and repair an older transmission system serving customers spread out over several miles. Staff believes that future private development will extend the Snohomish PUD system into this area and that many of our existing transmission line customers will connect to PUD or pursue other options such as individual or group groundwater wells. The FCS Group projection shown in Scenario 2 of Attachment A assumes that all these customers will want to upgrade the existing City transmission line in 2031 at an estimated cost of two million dollars. Staff believes this is unlikely but wanted to show this “worst case.”

TONIGHT’S COUNCIL DIRECTION: Over the last couple of years, the City of Snohomish has been putting off as many capital upgrades at the WTP as possible while the two scenarios were discussed and studied. In order to continue meeting stringent public health regulations, the City should not continue to postpone improvements. In order to set rates for 2017, 2018 and 2019, and to plan for capital and operation upgrades over the next 10-years, the City Council has two key options to choose from tonight:

- 1) **Direct Staff to Implement Scenario 1 (Keep Both Sources of Supply):** Staff would bring back a rate resolution later in the year to raise rates 6.75% each year over the next three years (2017, 2018 and 2019). Average water rates would go from \$41.10 in 2016 to \$50.00 in 2019 (**for a cumulative increase of 21.65%**).
- 2) **Direct Staff to Continue to Implement Scenario 2 (All Everett for City Supply):** Staff would bring back a rate resolution later in the year to raise rates 2.25% each year over the next three years (2017, 2018 and 2019). Average water rates would go from \$41.10 in 2016 to \$43.94 in 2019 (**for a cumulative increase of 6.90%**).

NEXT STEPS UNDER SCENARIO 2: The water treatment plant would not be shut down and the City would keep both sources of supply until the following were completed and approved to the satisfaction of the City Council:

- 1) **Meeting with Transmission Line Customers:** A notice and separate meeting with transmission line customers would be held in order to review the details of the proposed plan and provide follow-up by city staff. An agenda item would be placed on a future City Council meeting for the Council to hear from the public and all current water customers, including the transmission line customers.

DISCUSSION ITEM 3

- 2) **Planning for Removal of the Existing Dam and Intake Structure on the Pilchuck River:** City staff would work with the Tribes, Washington Water Trust, State agencies and others on a Memorandum of Understanding regarding financial grants, payments or reimbursements to the City, and schedule for removal of the existing dam and intake structure.
- 3) **Water Right Banking Agreement:** Staff would work with the Department of Ecology, our City Attorney's office and specialized Legal Counsel on a draft Water Right's banking agreement for Council review.
- 4) **Snohomish PUD Water Supply Agreement:** Staff would work with the PUD on a wholesale supply agreement for supplying water to the transmission line customers and future conversion of some of the parcels to the PUD for direct service.

The City would continue to operate the WTP with a tentatively planned date of 2018 or later to close down its operations only and if only the Council approved each of the items above. The City would not shutdown operations of the plant without Council's specific authorization and with a goal of providing a minimum of 6-months notice to staff, the public and other agencies.

STRATEGIC PLAN REFERENCE: Not applicable

RECOMMENDATION: That the City Council **DISCUSS** the water utility rate update and provide **DIRECTION** on the setting of 2017 to 2019 water rates by selecting one of the options below:

- 1) Council **DIRECTS** staff to implement Scenario 1, keeping both sources of water supply, and to bring a rate resolution for Council approval later in the year to raise rates 6.75% each year over the next three years (2017, 2018 and 2019) for a cumulative rate increase of 21.65%.

OR

- 2) Council **DIRECTS** staff to continue to implement Scenario 2, using Everett for all the City's water supply, and to bring a rate resolution for Council approval later in the year to raise rates 2.25% each year over the next three years (2017, 2018 and 2019) for a cumulative increase of 6.90%.

ATTACHMENT: Scenario Summaries and Residential Bill Comparison Spreadsheet

Attachment A
Scenario Summaries and Residential Bill Comparison (March 2016)

Scenario 1:

- Continue two sources of supply
- All transmission customers stay on transmission line
- Transmission line fully replaced in 2031
- All customers bare costs equally

Scenario 2:

- Transmission customers served by wholesale PUD water purchased (21 customers connect directly to PUD in 2023)
- Remainder of customers served by Everett water purchased
- Treatment costs cease in 2018
- Lower portion of transmission line is re-lined in 2031 for \$2M (escalated at 1.50%)
- Transmission customers bare all costs associated with them

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Rate Increase Non-Transmission Line Customers	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Cumulative Rate Increase Non-Transmission Line	6.75%	13.96%	21.65%	29.86%	38.62%	47.98%	57.97%	68.63%	80.02%	92.17%	105.14%	118.99%	133.77%	149.55%	166.39%	184.23
Non-Transmission Residential Bill (5/8" Meter, 6 ccf)	\$ 41.10	\$ 43.87	\$ 46.84	\$ 50.00	\$ 53.37	\$ 56.97	\$ 60.82	\$ 64.93	\$ 69.31	\$ 73.99	\$ 78.98	\$ 84.31	\$ 90.00	\$ 96.08	\$ 102.56	\$ 109.49
Monthly Average Increase	\$ 2.77	\$ 2.96	\$ 3.16	\$ 3.37	\$ 3.60	\$ 3.85	\$ 4.11	\$ 4.38	\$ 4.68	\$ 4.99	\$ 5.33	\$ 5.69	\$ 6.08	\$ 6.49	\$ 6.92	\$ 7.38
Rate Increase Transmission Line Customers	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Cumulative Rate Increase Transmission Line	6.75%	13.96%	21.65%	29.86%	38.62%	47.98%	57.97%	68.63%	80.02%	92.17%	105.14%	118.99%	133.77%	149.55%	166.39%	184.23
Transmission Residential Bill (5/8" Meter, 6 ccf)	\$ 61.65	\$ 65.81	\$ 70.25	\$ 75.00	\$ 80.06	\$ 85.46	\$ 91.23	\$ 97.39	\$ 103.96	\$ 110.98	\$ 118.47	\$ 126.47	\$ 135.00	\$ 144.12	\$ 153.85	\$ 164.23
Monthly Average Increase	\$ 4.16	\$ 4.44	\$ 4.74	\$ 5.06	\$ 5.40	\$ 5.77	\$ 6.16	\$ 6.57	\$ 7.02	\$ 7.49	\$ 8.00	\$ 8.54	\$ 9.11	\$ 9.73	\$ 10.38	\$ 11.06

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Rate Increase Non-Transmission Line Customers	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.00%
Cumulative Rate Increase Non-Transmission Line	2.25%	4.55%	6.90%	9.31%	11.77%	14.28%	16.85%	19.48%	22.17%	24.92%	27.73%	30.60%	33.54%	36.55%	39.28%	41.85%
Non-Transmission Residential Bill (5/8" Meter, 6 ccf)	\$ 41.10	\$ 42.02	\$ 42.97	\$ 43.94	\$ 44.93	\$ 45.94	\$ 46.97	\$ 48.03	\$ 49.11	\$ 50.21	\$ 51.34	\$ 52.50	\$ 53.68	\$ 54.89	\$ 56.12	\$ 57.24
Monthly Average Increase	\$ 0.92	\$ 0.95	\$ 0.97	\$ 0.99	\$ 1.01	\$ 1.03	\$ 1.06	\$ 1.08	\$ 1.10	\$ 1.13	\$ 1.16	\$ 1.18	\$ 1.21	\$ 1.23	\$ 1.23	\$ 1.12
Rate Increase Transmission Line Customers	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Cumulative Rate Increase Transmission Line	6.75%	13.96%	21.65%	29.86%	38.62%	47.98%	57.97%	68.63%	80.02%	92.17%	105.14%	118.99%	133.77%	149.55%	166.39%	184.23
Transmission Residential Bill (5/8" Meter, 6 ccf)	\$ 61.65	\$ 65.81	\$ 71.24	\$ 78.19	\$ 86.58	\$ 95.07	\$ 111.31	\$ 126.80	\$ 144.66	\$ 164.92	\$ 188.00	\$ 214.32	\$ 244.33	\$ 278.54	\$ 317.53	\$ 361.98
Monthly Average Increase	\$ 4.16	\$ 5.43	\$ 6.95	\$ 8.60	\$ 10.46	\$ 12.56	\$ 14.91	\$ 17.52	\$ 20.39	\$ 23.09	\$ 26.32	\$ 30.07	\$ 34.21	\$ 38.99	\$ 44.45	\$ 50.78