



LAKE WHATCOM WATER AND SEWER DISTRICT
1220 LAKEWAY DRIVE
BELLINGHAM, WASHINGTON 98229

REGULAR MEETING
OF THE BOARD OF COMMISSIONERS

AGENDA

August 9, 2017

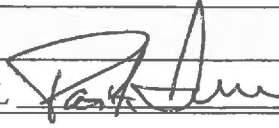
6:30 p.m. – Regular Session

1. CALL TO ORDER
2. PUBLIC COMMENT OPPORTUNITY
At this time, members of the public may address the Commission. Please state your name prior to making comments.
3. ADDITIONS, DELETIONS, OR CHANGES TO THE AGENDA
4. CONSENT AGENDA
5. SPECIFIC ITEMS OF BUSINESS:
 - A. Geneva Sewer Pump Station RH2 Presentation
 - B. North Shore Water Consolidation Policy Issues
6. OTHER BUSINESS
7. MANAGER'S REPORT
8. PUBLIC COMMENT OPPORTUNITY
9. Executive Session Per RCW 42.30.140(4) General Manager Performance Evaluation – 15 minutes
10. ADJOURNMENT



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

| | | | |
|--|---|--|--|
| DATE SUBMITTED: | August 9 17, 2017 | | |
| TO BOARD OF COMMISSIONERS | | | |
| FROM: Bill Hunter | MANAGER APPROVAL  | | |
| MEETING AGENDA DATE: | August 9, 2017 | | |
| AGENDA ITEM NUMBER: | 5.A. | | |
| SUBJECT: | Geneva Sewer Pump Station Predesign Report | | |
| LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: <u>3</u> | 1. Preliminary Cost Estimate Comparison | | |
| | 2. | | |
| | 3. | | |
| TYPE OF ACTION REQUESTED | RESOLUTION <input type="checkbox"/> | FORMAL ACTION/ MOTION <input checked="" type="checkbox"/> | INFORMATIONAL/ OTHER <input type="checkbox"/> |

BACKGROUND / EXPLANATION OF IMPACT

Spring 2017 the District contracted with RH2 for predesign services for the Geneva Sewer Pump Station Improvements. The initial scope of work includes topographic surveying, predesign, and permitting. The contract also included a feasibility study to determine if Par Sewer Pump Station could be eliminated by the installation of a gravity sewer main.

RH2 will present the predesign report for Geneva Sewer Pump Station Improvements. There are several alternative designs, each with its own set of benefits and challenges. RH2 will run thru each alternative and discuss the risks and costs of each. Staff met with RH2 on several occasions to discuss the alternatives and will make a recommendation at the meeting.

We do have some preliminary information on Par Sewer Pump Station which shows there is enough elevation difference to install a gravity pipe. However, staff and RH2 are still in the process of gathering information on the feasibility of installing the pipe and potential permitting requirements. The Par Sewer Pump Station feasibility study will be presented at a future meeting, but we will share what we know so far.

FISCAL IMPACT

Geneva Sewer Pump Station Improvements

The alternative costs are fairly close to each other except Alternate 2 which includes a building for a generator and electrical panels.

Alternates 1, 3, and 4 range from \$700k to \$730k (for design through construction and include 25% contingencies and sales tax).

The District's 2017 budget includes \$200k for the Geneva Sewer Pump Station predesign, permitting, design, and bidding. The current contract with RH2 is about \$102k for predesign and permitting, leaving about \$98k for design and bidding which appears to be adequate.

The original conceptual cost estimate for the capital project was \$475k but did not include 700 lineal feet of sewer force main replacement. Staff is projecting \$650k will need to be allocated in next year's budget for the Geneva Sewer Pump Station Improvements construction and services during construction.

RECOMMENDED BOARD ACTION

See proposed motion.

PROPOSED MOTION

Authorize staff to proceed with permitting design Alternative #_____ and to begin scope of work and fee negotiations with RH2 for detailed design through bidding for the Geneva Sewer Pump Station Improvements Project.

Table 4.1 – S&L and Flygt Cost Comparison

| Bid Item No. | No. | Description | Alt. 1 | Alt. 2 | Alt 3 | Alt 4 |
|---------------------------------------|---|---|------------------|------------------|------------------|------------------|
| A.1 - Mobilization and Demobilization | 1 | Mobilization/Demobilization | \$27,000 | \$32,000 | \$29,000 | \$28,000 |
| | 2 | Temporary Erosion and Sedimentation Control | \$6,000 | \$6,000 | \$8,000 | \$6,000 |
| | 3 | Site Work | \$14,000 | \$19,000 | \$15,000 | \$17,000 |
| | 4 | Temporary Pumping | \$5,000 | \$20,000 | \$20,000 | \$20,000 |
| | 5 | Structural | \$21,000 | \$91,000 | \$41,000 | \$41,000 |
| | 6 | Mechanical | \$12,000 | \$19,000 | \$19,000 | \$19,000 |
| | 7 | Pumps and Motors | \$90,000 | \$25,000 | \$26,000 | \$28,000 |
| | 8 | Electrical | \$124,000 | \$127,000 | \$136,000 | \$124,000 |
| | 9 | Control Systems | \$48,000 | \$75,000 | \$75,000 | \$75,000 |
| A.3 Misc. Owner-directed Extra Work | 10 | Misc. Owner-Directed Extra Work | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| A.4 On-site Owner Training | 11 | O&M Manuals and On-site Owner Training | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| A.5 Construction Records | 12 | Construction Records | \$3,000 | \$3,000 | \$3,000 | \$3,000 |
| B.1 Force main Replacement | Subtotal Pump Station Construction | | | \$360,000 | \$380,000 | \$369,000 |
| | 1 | Open Cut Outside of Road or Pipe bursting | \$7,000 | \$7,000 | \$7,000 | \$7,000 |
| | | WSST (8.5%) | \$36,000 | \$42,000 | \$38,000 | \$37,000 |
| | | Contingency (25%) | \$105,000 | \$122,000 | \$110,000 | \$107,000 |
| | | Total Construction | \$668,000 | \$649,000 | \$685,000 | \$670,000 |
| | | Engineering Design (15%) | \$84,000 | \$96,000 | \$88,000 | \$86,000 |
| | | Construction Oversight (8%) | \$45,000 | \$52,000 | \$47,000 | \$46,000 |
| | | Control System Integration | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| | | Total Project Cost | \$700,000 | \$810,000 | \$730,000 | \$720,000 |
| | | % Difference Compared to Alternative 1 | | +16% | +4% | +3% |



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

| | | | |
|--|--|---|---|
| DATE SUBMITTED: | August 2, 2017 | | |
| TO BOARD OF COMMISSIONERS | | | |
| FROM: | MANAGER APPROVAL <i>[Signature]</i> | | |
| MEETING AGENDA DATE: | August 9, 2017 | | |
| AGENDA ITEM NUMBER: | 5.B. | | |
| SUBJECT: | Draft Water Consolidation Report & Discussion | | |
| LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: | 1. Copy of District Mission Statement (1) | | |
| | 2. Water Rights Memo From District Legal Counsel () | | |
| | 3. Draft Water Consolidation Report with Survey Results (41) | | |
| TYPE OF ACTION REQUESTED | RESOLUTION <input type="checkbox"/> | FORMAL ACTION/ MOTION <input type="checkbox"/> | INFORMATIONAL/ OTHER <input checked="" type="checkbox"/> |

BACKGROUND / EXPLANATION OF IMPACT

Last year the District received a \$30,000 grant from the Washington State Department of Health (WDOH) to evaluate the feasibility of consolidating small private water systems and other water users within the North Shore into our larger system. WDOH is a proponent of consolidating small water systems into larger well run systems for both public health, regulatory, and efficiency purposes. They have annually budgeted financial resources to encourage public water districts and cities to evaluate such opportunities. Wilson Engineering was contracted by the District to conduct our evaluation along the North Shore.

Presently the District provides water to approximately 39 customers through its Agate Heights well and water treatment system and to another 70 customers via water it purchases from the City of Bellingham in the Eagle Ridge neighborhood. The balance of residential properties in the North Shore area draw their water from small private systems, individual wells, or directly from Lake Whatcom.

On June 20, 2017 the District held a public meeting with residents in order to present information on the Wilson evaluation and to gauge public opinion in the study area. Since the 20th, staff has reviewed feedback received from the public meeting and submitted a follow-up survey to 500 + property owners. The purposes of today's agenda topic are to:

- consider public input received at the June meeting and in the follow-up survey;

- present Wilson Engineering's consolidation report in advance of submittal to the State;
- hear from legal counsel on District water right implications;
- provide the Board an opportunity to consider potential options; and
- obtain further direction from the Board.

Note – Attachments 2 and 3 are forthcoming, and if not included with the Bill Agenda will be emailed to the Commissioners by Friday, August 4.

FISCAL IMPACT

Any detailed fiscal analysis on potential consolidation, and cost sharing between water users is not available for this meeting. Such information being produced is dependent on further direction from the Board. However, broad impacts are included in the Wilson report as presented on June 20.

RECOMMENDED BOARD ACTION

There is no staff recommendation at this time. This meeting is really for information, discussion, and possible direction to staff. The following is a proposed list of subjects for discussion. **Note - The following is a guide only based upon what staff has discussed internally and heard the Board previously discuss. This is not all inclusive and likely will not be resolved in one meeting:**

1. District mission statement. Does this fit into our existing mission statement (introduced by Patrick Sorensen)?
2. Draft Water Consolidation Report with survey results (Melanie Mankamyet, Wilson Engineering).
3. Water rights discussion (Bob Carmichael, District legal counsel).
4. North Shore water consolidation policy questions (all).
 - Does the District want to connect the Eagle Ridge and Agate Heights water systems together? What are the benefits and disadvantages?
 - Does the District want to stop purchasing City water?
 - Do we want to be advocates of connecting small private water systems along the North Shore into the District system?

- Is the District going to require those with existing water/sewer covenants issued previously by the District to ultimately connect to the system, assuming that the water system is expanded? Would these property owners be considered automatic yes votes toward expansion/consolidation?
- WDOE requires some property owners with permitted lake draws “to connect to a public water supply when connection to such system is practical and discontinue use from the lake.” (WDOE language in lake water permit) . Should these property owners be considered automatic yes votes toward expansion/consolidation?
- Does the District want to apply for a DWSRF consolidation loan, with the potential for 50% principal reduction?
- Does the Board want staff to proceed further with this subject beyond submitting the Final Feasibility Study to WDOH? If so, in what direction would that be in?

PROPOSED MOTION

Not applicable for this meeting.



LAKE WHATCOM WATER AND SEWER DISTRICT

MISSION AND GOALS

Mission

To provide the best possible water and sewer services to District customers at an affordable cost, and in a way that contributes to protecting Lake Whatcom's water quality.

Goals

- To provide safe and reliable drinking water and sewerage collection to District customers.
- To establish connection charges and utility rates necessary to maintain the District's financial viability.
- To protect the natural resources within the Lake Whatcom watershed through cooperative efforts with other community and governmental organizations.
- To be recognized as an outstanding public utility that is responsive to the diverse expectations of its customers.
- To maintain the District's facilities through effective planning, prevention, and corrective maintenance practices.
- To provide sewer and water service to those portions of the District as may reasonably be served.
- To have an organization environment that is responsive to customer needs, promotes teamwork, and allows all people to achieve their full potential.

**NOTE TO BOARD - THIS DRAFT IS A WORK IN PROGRESS -
PLEASE REVIEW CONTENT AND THEMES ONLY
(Not grammar and punctuation)**



**LAKE WHATCOM WATER AND SEWER DISTRICT
Whatcom County, Washington**

NORTHSHORE CONSOLIDATION FEASIBILITY STUDY

WHATCOM COUNTY, WASHINGTON

Department of Health Contract N21980

**WILSON ENGINEERING, LLC
Consulting Engineers
805 Dupont Street, Suite 7
Bellingham, Washington 98225
Project # 2016-093
August 2017**

LAKE WHATCOM WATER AND SEWER DISTRICT
NORTHSHORE CONSOLIDATION FEASIBILITY STUDY
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LAKE WHATCOM WATER AND SEWER DISTRICT
NORTHSHORE CONSOLIDATION FEASIBILITY STUDY

Whatcom County, Washington

1.0 INTRODUCTION

The Washington State Department of Health (DOH) has entered into an interagency agreement with Lake Whatcom Water and Sewer District of Whatcom County (LWWSW) to prepare and submit a feasibility study evaluating consolidating three existing Group A water systems on the north shore of Lake Whatcom: Eagleridge (#08118), Agate Heights (#52957), and Agate Bay Trailer Park (#00496). In addition, two Group B water systems and numerous individual homes will be considered for consolidation. All are within the District's service area boundary.

The study area is classified as Rural and with R5A zoning (one unit per five acres). This area is shown in Figure 1 - Study Area. Note that 90% of the lakefront development has already occurred, and at density levels much higher than one unit per five acres.

Development of this area has resulted in several private water systems, individual wells and individual surface water withdrawals that generally have limited or no fire flow capacity and are relatively expensive to operate due to their small size. The goal of this study is to examine the feasibility of combining the systems into one system that would result in improved water quality and quantity, and increased safety and reliability.

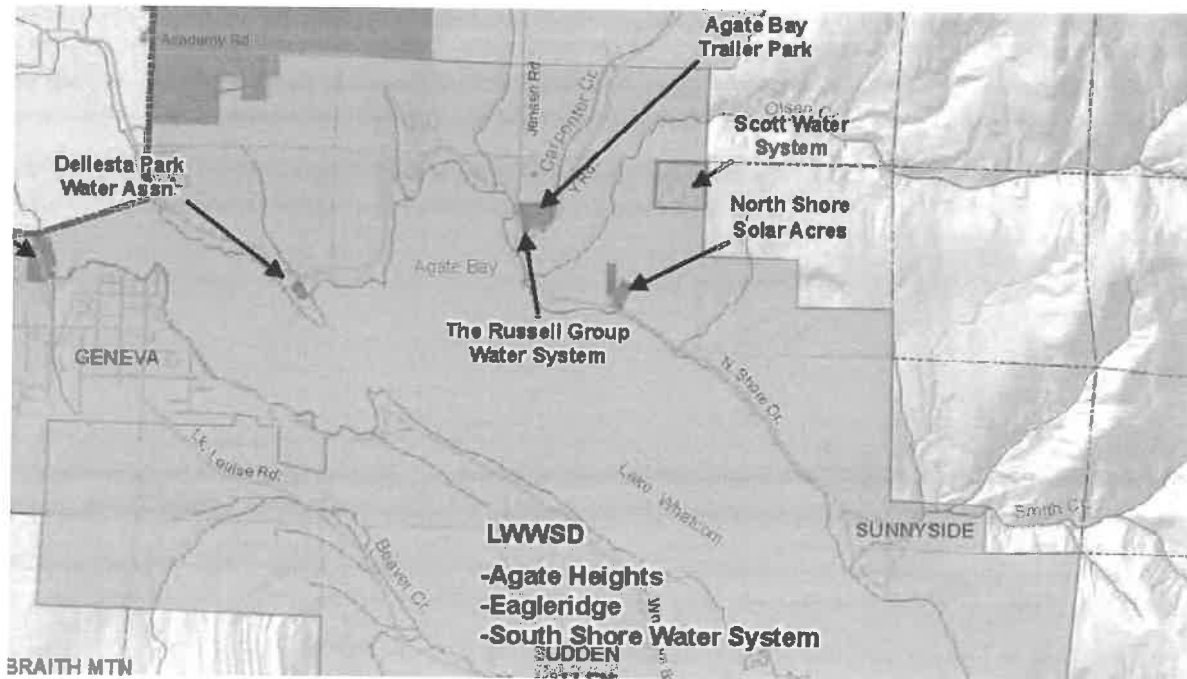


Figure 1.

2.0 NORTHSHORE STUDY AREA EXISTING CONDITIONS

The Northshore area of Lake Whatcom Water and Sewer District is located 5 miles east of the center of Bellingham and abuts the City limits on its western edge. The study area is zoned rural - R5A (rural 1 unit per 5 acres). Water facilities inventory forms (WFI's) for several of the systems are included in the Exhibit 1. The Group A systems are (1) Eagleridge (LWWSD), (2) Agate Heights (LWWSD), (3) Agate Bay Trailer Park, and (4) Russel Group (The Fork restaurant). In addition there are several Group B water systems which include (5) North Shore Solar Acres, (6) North Shore Ridge, (7) North Shore Ridge #2, and (8) Dellesta Park. There are also 330 existing private residences within the study area that are on private wells or direct lake draws. The estimated number of existing potential water services with the study area total approximately 525. The subject individual water systems are shown on Figure 1 and the capacity of each is listed below.

- Eagleridge Water System – water source is City of Bellingham; 70 connections; capacity = 85
- Agate Heights Water System – water source is a District-owned well; 39 connections (44 ERUs); capacity = 48 connections (54 ERUs)
- Agate Bay Trailer Park Water System – Group A, well source, 25 connections
- Russell Group (restaurant) – Group A, well source, one connection
- Dellesta Park – Group B, well source, 5 connections (capacity=7)
- North Shore Solar Acres – Group B, well source, 6 connections
- Northshore Ridge – Group B, well source, 4 connections
- Northshore Ridge #2 – Group B, well source, 3 connections

2.1 Source of Supply

For the consolidated water system, the District plans to use its Agate Heights well as the Source of Supply, and maintain the connection to the City of Bellingham at Eagleridge as an emergency intertie.

Well - The District's well at Agate Heights is a 10-inch artesian well with a pumped capacity of 494 gpm (322 gpm from artesian pressure). A 100-ft radius protective zone is provided with a Restrictive Covenant for the well.

Water Rights – The District has several water rights (Permits and Certificates) associated with this well that total 438 gpm:

1. G22681P - 60 gpm instantaneous; 32.4 acre-ft/yr annual
2. G22763P - 360 gpm instantaneous; 465.9 acre-ft/yr annual
3. G23449 - 18 gpm instantaneous; 8.6 acre-ft/yr annual

Water Quality – The water from the existing well needs to be treated to remove manganese. The Agate Heights Water Treatment Plant is currently a 30 gpm Filtronics package treatment system which is nearing capacity. The District plans to increase the capacity of the water treatment plant to accommodate localized demand even if the consolidation project is not constructed.

2.2 Storage

The Agate Heights water system has two reservoirs at two different elevations. The lower 80,000 gallon reservoir is filled at a rate of 30-gpm by the system transmission pumps, which is activated when the treatment plant is operated. The upper 105,000 gallon reservoir is filled at a rate of 21 gpm. The source is the lower reservoir. The existing reservoirs currently provide equalizing, standby, and fire storage for the Agate Heights water system.

2.3 Booster Pumps / Transmission Pumps

The Eagleridge water system currently uses booster pumps to maintain water pressure. With the consolidated water system, these booster pumps would no longer be needed. The Agate Heights water treatment plant pumps are sized to match the treatment plant capacity. The transmission pumps for the filling the upper tank are converted booster pumps, repurposed when the upper tank was installed.

2.4 Distribution System

The water distribution systems both consist entirely of 8-inch ductile iron pipe. Eagleridge currently provide 750 gpm for fire protection and Agate Heights currently provide 500-750 gpm for fire protection.

3.0 SYSTEM DEMANDS

For this feasibility study, we have developed three scenarios based on different projections for system expansion:

- Alternative 1 – Match District sewer service area
- Alternative 2 – Extend water to east end of Northshore Road
- Alternative 3 – Extend only to Group A systems at Y Road

The service areas and proposed schematic facility locations for each of these Alternative are included in [Exhibit 2](#).

We reviewed the Average Day Demand (ADD) and Maximum Day Demand (MDD) values for both the Eagleridge and Agate Heights water systems listed in the 2010 Water Comprehensive Plan and the 2016 Water Use Efficiency Plan Update since the customers on these systems would be similar to the new customers incorporated into the consolidated water system. The average of the four ADD values in these two reports is 243 gpd/ERU. Given that the existing data set is a small number of customers, and that the DOH Manual recommends using 350 gpd/ERU as a minimum, this analysis used 350 gpd/ERU for ADD.

The average of the four MDD values in these two reports is 680 gpm/ERU. When good metered data is not available, the DOH Manual recommends using two times the ADD for MDD. This analysis used 700 gpd/ERU for MDD.

The resulting PHD (peak hourly demand) is computed using DOH'S PHD Worksheet (See Appendix 8) for each Alternative. In addition to PHD, this water system will provide residential fire flows of 750 gpm.

4.0 SYSTEM ANALYSIS

Analysis is performed in accordance with DOH "Water System Design Manual" as described below. The amount of water supply and storage are interdependent. For instance, equalizing storage is used to supply the difference between pumping rate and demand rate. When demand rates are greater than pumping rates, water in storage is used to supply the difference. When demand rates are less than pumping rates, storage is replenished. The greater the capacity of the water supply the less equalizing storage needed. The minimum capacity of the source(s) must be equal to or greater than the maximum daily demand.

4.1 Source of Supply

The 10-inch well at Agate Heights has been performance tested at 494-gpm, however the current pump capacity is limited to 30-gpm. The District holds water rights on this well for 438 gpm. The MDD (maximum daily demand) for the system is projected to be 700 gpd/ERU. To meet MDD for any of the Alternatives, the treatment plant and pumping capacity will need to be increased.

The size of water treatment plant that each Alternative would need is calculated as follows and listed in the table below:

$$\text{Build out rate} = (700 \text{ gpd/parcel} \times \text{Build-out ERUs}) / (1,440 \text{ mins/day}) = \text{Plant Size (gpm)}$$

| Scenario: | Build-out ERUs | Minimum Plant Size (*) |
|----------------|----------------|------------------------|
| Alternative #1 | 405 | 200 gpm |
| Alternative #2 | 530 | 260 gpm |
| Alternative #3 | 355 | 175 gpm |

4.2 Storage

Storage required consists of the sum of operating storage, equalizing storage and the greater of standby storage or fire flow storage. Currently Agate Heights has an 80,000 gallon reservoir and a 105,000 gallon reservoir. For this analysis, we excluded the 105,000 gallon reservoir, which serves the upper pressure zone and provides fire suppression storage for the Lake Whatcom Residential and Treatment Center. Eagleridge relies on storage capacity provided by the City of Bellingham.

The total storage volume is the sum of several components. Operating storage is the volume between the "off" and "on" control levels in the reservoir. Equalizing storage is equal to the product of 150 and the difference in peak hourly demand (PHD) and supply rate. Standby storage is equal to twice the ADD of 350 gpd/ERU x N ERUs. Minimum fire suppression storage for the residential portion of this system is 45,000-gallons; however this is nested with standby storage; resulting in the larger of the two values being applicable. Dead storage is the volume in the bottom of the tank below the "silt guard" outlet plus the volume at the top of the tank above the "off" probe. The "total storage required" is the sum of each of these values and can be compared with "storage available" as reflected in the table below. The table also indicates the minimum additional storage volume required. Please note that these values are based on a DOH Design Manual ADD of 350 gpd/ERU and highly sensitive to that value because the largest component of storage (Standby Storage) is equal to two times ADD times the number of ERUs. For example, if the calculated average for ADD of 243 gpd/ERU (see Section 3) were used, the total required storage for Alternative #1 would be reduced by about 82,000 gallons to 230,000 gallons. Using the lower value for ADD will require DOH approval.

| Scenario: | Total Required Storage (gallons) | Storage Available (gallons) | Additional Storage Needed (gallons) |
|------------------|---|--|--|
| Alternative #1 | 312,000 | 80,000 | 232,000 |
| Alternative #2 | 403,000 | 80,000 | 323,000 |
| Alternative #3 | 274,000 | 80,000 | 194,000 |

4.3 Transmission Pumps

The transmission pump system needs to deliver the treated water to the storage reservoir(s). The flow rates will be sized to match the water treatment plant capacity, and the required pumping head will be calculated based on the elevation head and the friction head.

4.3 Distribution System

The consolidated system will provide 750 gpm fire flow and ensure that a minimum pressure of 20 psi is maintained at each service meter during a fire flow event. Supplying fire flows is the driving factor in the sizing of the distribution system. The hydraulic analyses indicated that the majority of the distribution pipe will need to be 12-inch diameter in order to meet the fire flow scenarios. The remainder will be a minimum of 8-inch diameter.

The District standard practice is to install fire hydrants every 600 feet along the distribution mains.

5.0 PROJECT COST ESTIMATE AND FUNDING OPTIONS

5.1 Project Cost Estimate

We have evaluated three scenarios and developed planning level cost estimates for each. The first is Alternative 1 which matches the existing District sewer service area (ending approximately at the east side of Agate Bay). Alternative 2 extends water service to the east end of Northshore Road. Alternative 3 limits the water system extension to only as far as needed to connect the existing Group A water systems and end at the Y Road. These preliminary, planning level cost estimates are included in Exhibit 3.

The preliminary project cost estimate for Alternative 1 is \$6.3M to \$6.9M. This includes engineering, permitting, and surveying in addition to construction costs and 10-20% contingency. It does not include the cost of metered service connections since the level of participation is unknown, and those costs are typically born directly by the property owners. The build-out number of Equivalent Residential Units (ERUs) assumed for Alternative 1 is 405 (120 from existing service areas).

The Alternative 2 scenario builds on Alternative 1, and adds about 11,750 feet of water main, nineteen fire hydrants, a larger storage reservoir, and a larger water treatment plant and transmission pumps. The build-out number of Equivalent Residential Units (ERUs) assumed for Alternative 2 is 530 (120 from existing service areas).

The preliminary project cost estimate for Alternative 2 is \$9.1 to \$10M. Again, this includes engineering, permitting, and surveying in addition to construction costs and 10-20% contingency. It does not include the cost of metered service connections since the level of participation is unknown, and those costs are typically born directly by the property owners.

Alternative 3 is a reduction from Alternative 1 - it has about 3,650 feet less of water main and 6 fewer fire hydrants. It also reduces the number of potential future customers by about 50 - the build-out number of Equivalent Residential Units (ERUs) assumed for Alternative 3 is 355 (120 from existing service areas).. The preliminary project cost estimate for Alternative 3 is about \$5.7 to \$6.2M.

5.2 Financing Options

There are several potential sources of funds for financing a drinking water project of this size. The Drinking Water State Revolving Fund (DWSRF) Loan program specifically targets projects that consolidate existing Group A water systems and will forgive up to 50% of the loan principal for these projects, subject to funding availability. These loans typically have a payback period of 24 years, so collection can also occur over time, and substantially reduce the up-front costs to participants. The Public Works Trust Fund would also fund a project like this, though funds are not reliably available. The District could issue a Revenue Bond, which would typically have a 20 year payback. The final possible funding source considered was USDA-Rural Development, which has a term of up to 40 years, but will only fund projects that have no other financing options. A summary of rates and terms for these options is listed below.

| Funding Source | Interest Rate | Loan Term |
|---|---------------|----------------|
| Drinking Water State Revolving Fund (DWSRF) Consolidation Loan <ul style="list-style-type: none"> Potential for 50% principal forgiveness (if funds are available) | 1.5% | 24 years |
| Public Works Trust Fund Loan | 1-2% | 20 years |
| Revenue Bond (as of 4/20/17; AA Bond Rating) | 2.73% | 20 years |
| USDA-Rural Development (as of 7/1/17) <ul style="list-style-type: none"> Funding source of last resort | 3.25% | up to 40 years |

Of these options, the DWSRF Loan with the 50% principal forgiveness is the most attractive financing option because it substantially reduces the amount of capital expenditures that need to be recovered. However, there is the uncertainty that funds would be available for the principal forgiveness portion of the loan. Loan applications are typically accepted in September, and are funded based on how well the project scores on Department of Health evaluation criteria.

The Revenue Bond is a funding source that is more under the control of the District than any of the loan options. The District has a AA Bond Rating and has obtained financing for capital project using Revenue Bonds in the past. Because the District has bonding capacity, it is less likely to qualify for funding from USDA-Rural Development.

5.3 Cost Sharing Options

We have identified three potential methods the District could use to collect payments over time - a Utility Local Improvement District (ULID), a "Special Benefit Area" fee assessed upon connection, or a fixed debt-service/capital charge on the water bill.

The main advantage of a ULID is that it would assess all of the properties that benefit from the improvement, whether they connect or not. It also allows the assessment to be paid over time - typically 20 years with interest. It would address the inherent inequity of those who connect subsidizing fire protection for neighbors who elect not to connect. The disadvantage of a ULID is the high costs associated with creating the ULID and the hurdle that the assessment must be no more than the amount the property's value is increased by the assessment. The area to be served is already 90% built-out, and these homes already have some source for water. We assume, therefore, that the assessment needed would exceed the amount allowed under the ULID statute.

The "Special Benefit Area" fee would be similar to a ULID, without using the formal ULID process. The project costs would be divided amongst an estimated number of likely connections. It would be possible to pay over time with a security interest recorded against the property.

It is challenging to predict the number of properties that would connect to the public water system if it is installed. Typically, a municipal purveyor cannot compel connection to a public water system, and there is a contingent of property owners who are not interested in connecting to public water. There are, however, approximately 250 residences on surface water withdrawals - some with permits, some with claims and some with applications pending. Of the 118 with permits, DOE estimates that about 64 include a provision "to connect to a public water supply when connection to such system is practical and discontinue use from the lake." DOE has indicated that the 42 pending applications would be similarly provisioned, as would any new applications for surface water withdrawals. The District has also been requiring new sewer-only customers to sign a Covenant that requires them to connect to water when it is available. The number of these covenants in place is unknown, and many probably overlap with the DOE provisional water rights.

The third option for cost recovery is adding a capital recovery charge to the water bills. This fee would not apply to existing District water customers on the North Shore. This is a simple approach, and allows the cost share to be adjusted as new connections are added. It may be interesting to investigate adding a capital recovery charge for the portion of the water system needed to provide fire protection to the sewer bills of the existing district customers. This would capture some of those who benefit from the fire protection provided by the improvements, but elected not to connect to public water.

The cost share per connection was determined using three participation levels - 50%, 75% and 90%. The cost share range shown in the table below is based on the Alternative Project Costs divided by the projected number of participants for each Alternative. The lowest value represents Alternative 2 which has the highest potential number of new connections.

Table X. Estimated Cost Share Per Connection

| | Cost Share per Connection | |
|-------------------|---------------------------|--|
| | Lump Sum Fee (range) | Annualized Fee (based on 20-year Bond repayment) |
| 50% Participation | \$48,000 - \$56,500 | \$3,146 - \$3,704 |
| 75% Participation | \$33,500 - \$39,200 | \$2,196 - \$2,570 |
| 90% Participation | \$28,500 - \$33,300 | \$1,868 - \$2,183 |

* Lump sum fee includes an estimate for the service connection including the meter assembly

If the District pursues and secures a DWSRF Loan with up to 50% principal forgiveness for a consolidation project, then the project costs would be greatly reduced and the connection share would also be much less.

The District recently had its general facilities / connection charge for future connections reviewed. The analysis conducted did not include this potential project as a future capital investment because it was assumed that the project would be paid for by those who benefit. It also did not include the potential new customers associated with this system expansion.

Because of the size of this system expansion when compared to the existing District water utility assets, it may be beneficial to consider establishing a separate general facilities / connection charge for the North Shore. The majority of the water infrastructure is in the South Shore water system, and the majority of customers are served by the South Shore system. The general facilities / connection charge is the "buy-in" for the new customers to the existing system and the consolidation project is essentially installing a new water system for the North Shore service area. It would follow that the cost share per connection above would be the basis for a new general facilities / connection charge specifically for the North Shore, with the appropriate incorporation of the existing assets at Eagleridge and Agate Heights to the "buy-in" calculation.

5.4 Example Rates and Charges

Example Bi-monthly water charges: These numbers are very preliminary and are based on existing District water rates and average water use by Agate Heights water system customers.

- Base Rate = \$62.31/two months
- Water Usage over 600 cubic feet (CF) = \$8.85/100 CF
- Bi-monthly Base + average usage = \$171.43 (\$85.72/month)

As an example, a property with a one-inch water service and an average of 750 gallons per day water use would have a total monthly bill in the range of \$213.10 to \$253.10.

5.5 Operations and Maintenance Impacts

???? get input from Staff ????

6.0 PUBLIC MEETING AND OUTREACH FEEDBACK

Summary of meeting...

Discuss Questionnaire development, and revisions following public meeting...

6.1 Summary of Questionnaire Responses

As of August 1, 2017, the District received 215 questionnaire responses, both from the public meeting and the subsequent mailing to the properties in the area. The mailing included existing District water customers in Eagleridge and Agate Heights, and did not exclude those who had submitted responses at the public meeting since not all of the responses received included addresses. There are known duplicates in the data set that can be identified by names or addresses, and there are probably also unknown duplicates in the responses that did not include a name or address.

The raw questionnaire data is included in Exhibit 4. In analyzing the data, we used addresses to identify 20 responses came from existing District customers. These responses are not included in the summary results listed below.

The breakdown of the questionnaire responses are listed below:

1. What is the current use of your property?

- Single Family 169
- Vacant 15
- Other 10
- No entry 1

2. What is the water source for your property?

- Lake Draw 91
- Well/Lake Draw 2 (checked two boxes)
- Well 45
- Shared Well 33
- Water System 6
- Rainwater 3
- Other 5
- None/No entry 10

3. Are you interested in connecting to a public water system?

- Yes 65
- No 83
- Maybe/Depends 47

4. If you are interested, what is your motivation to connect to a public water system?

| | Yes | Maybe/Depends |
|--|-----|---------------|
|--|-----|---------------|

5. If you are interested, what will drive your decision-making process? (Rank 1-4 with 1 being most important)

| | Yes | | | | Maybe/Depends | | | |
|---|-----|----|----|---|---------------|----|----|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Overall cost to connect | 34 | 16 | 2 | 0 | 26 | 14 | 0 | 0 |
| Ability to pay connection fee over time | 11 | 15 | 15 | 2 | 2 | 15 | 11 | 2 |
| Estimated water bills | 5 | 20 | 21 | | 4 | 18 | 14 | 1 |
| Other * | 8 | 4 | 0 | 7 | 2 | 1 | 1 | 6 |

**“Other” includes: water pressure, less maintenance, timing, want public sewer included, access to water, fire protection, monitored supply, ability to keep current water source for irrigation, will water use be limited, .

The “Comments” section of the questionnaire was well used. All of the comments are included with the raw questionnaire data in Exhibit 4. A summary of the most common comments is provided below.

The two main concerns of those who responded that they were not interested in connecting to public water were the costs associated with it and that they see public water as promoting growth in the Lake Whatcom watershed. These properties already have a water source that they are happy with. It is interesting to note that one “No” response was interested in fire protection, and another was interested in connecting to public sewer.

The primary concern of those who responded with “maybe/depends” is cost. Several also expressed concern about promoting growth and four expressed interest in a sewer connection.

The comments received by those who were interested in connecting to public water included general statements of support for the project, interest in fire protection, and interest in access to a potable water source with good quality water. There were two “yes” responders interested in connecting to public sewer. Most of the vacant properties indicated that they would connect considering the current circumstances where the Hirst decision has effectively placed a moratorium on using individual wells for new development.

It is interesting to note that three responders indicated that they are using rain water harvesting as their water source, which confirms that development has not been prevented from occurring even with the “moratorium” on individual wells. Two of these were very interested in connecting to public water.

6.2 Other Concerns / Comments

Several brought up the question of whether they would be able to continue to use their existing water source for irrigation, or as a back-up supply. This is a question best answered by the Department of Ecology. We have not pursued this subject with them.

There were several questions at the public meeting about whether the District would force residences to connect. In general, the District does not have the authority to compel connection to

public water. The District does have the authority to compel connection to public sewer, and has a policy that connecting to water is required with a sewer connection, where water is available. It was brought up that the District has been requiring sewer-only connections to sign a Covenant that would require connection to public water when it is available.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The financial feasibility of this water system consolidation project depends on the participation of enough parties to make the financial commitment acceptable. We estimate that the cost per connection would be considered "reasonable" with 50% participation and securing a DWSRF Loan with 50% principal forgiveness. For a Bond-financed project, one would need to better determine the projected participation rate before committing...

The public process for this project has raised other factors to consider...

7.1 Public Health

The District recently completed a program to test the lake waters along the east end of Northshore Road for phosphorus and fecal coliform. This area does not have public sewer, and there are about 100 homes on septic systems, many of which are quite close to the Lake. The test results indicate that human fecal coliform bacteria are leaching into the Lake.

7.2 Fire Protection

Several of the questionnaire responders indicated that they were also interested in the fire protection that a public water system would bring. The District will need to consider its options on cost recovery for providing hydrants and fire storage for those do not connect to the public water system.

7.3 Protection of Lake Whatcom

Many of the questionnaire responders who were against the consolidation project expressed concern that extending public water would promote growth in the watershed and harm the lake in the process.

The District is not the Land Use Authority - Whatcom County is. It should be noted that other sources of water are available - surface water for those next to the Lake, and rainwater harvesting for those not able to drill a well. At this time, the Hirst decision has halted the use of permit-exempt wells in Whatcom County, but that is expected to change...

There were a few responses that requested a sewer extension and indicated that they would be more interested in connecting to sewer, and that they felt extending sewer would do more to protect the lake than extending water.

EXHIBITS

1. **Water Facilities Inventories (WFI)**
2. **Maps / Exhibits**
3. **Water System Consolidation Preliminary Cost Estimates**
4. **Questionnaire Responses**

1. Water Facilities Inventories (WFI)

WATER FACILITIES INVENTORY (WFI) FORM - Continued

| | | | | |
|------------------------------------|---|-----------------------------|----------------------|------------------------|
| 1. SYSTEM ID NO. 08118 1 | 2. SYSTEM NAME LWWSO - EAGLERIDGE | 3. COUNTY WHATCOM | 4. GROUP A | 5. TYPE Comm |
|------------------------------------|---|-----------------------------|----------------------|------------------------|

| | ACTIVE SERVICE CONNECTIONS | DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS | DOH USE ONLY! APPROVED CONNECTIONS |
|---|----------------------------|---|------------------------------------|
| 25. SINGLE FAMILY RESIDENCES (How many of the following do you have?) | | 68 | 85 |
| A. Full Time Single Family Residences (Occupied 180 days or more per year) | 68 | | |
| B. Part Time Single Family Residences (Occupied less than 180 days per year) | 0 | | |
| 26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?) | | | |
| A. Apartment Buildings, condos, duplexes, barracks, dorms | 0 | | |
| B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year | 0 | | |
| C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year | 0 | | |
| 27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?) | | | |
| A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units) | 0 | 0 | 0 |
| B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc. | 0 | 0 | 0 |
| 28. TOTAL SERVICE CONNECTIONS | | 68 | 85 |

| |
|--|
| 29. FULL-TIME RESIDENTIAL POPULATION |
| A. How many residents are served by this system 180 or more days per year? 174 |

| 30. PART-TIME RESIDENTIAL POPULATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many part-time residents are present each month? | | | | | | | | | | | | |
| B. How many days per month are they present? | | | | | | | | | | | | |

| 31. TEMPORARY & TRANSIENT USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month? | | | | | | | | | | | | |
| B. How many days per month is water accessible to the public? | | | | | | | | | | | | |

| 32. REGULAR NON-RESIDENTIAL USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month? | | | | | | | | | | | | |
| B. How many days per month are they present? | | | | | | | | | | | | |

| 33. ROUTINE COLIFORM SCHEDULE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| * Requirement is exception from WAC 246-290 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| | | | |
|---|-----------|----------|--------------------|
| 34. NITRATE SCHEDULE (One Sample per source by time period) | QUARTERLY | ANNUALLY | ONCE EVERY 3 YEARS |
| | | | |

35. Reason for Submitting WFI:

- Update - Change
 Update - No Change
 Inactivate
 Re-Activate
 Name Change
 New System
 Other _____

| | |
|---|--------------|
| 36. I certify that the information stated on this WFI form is correct to the best of my knowledge. | |
| SIGNATURE: _____ | DATE: _____ |
| PRINT NAME: _____ | TITLE: _____ |



WATER FACILITIES INVENTORY (WFI) FORM

Quarter: 2
Updated: 06/22/2016
Printed: 12/28/2016

ONE FORM PER SYSTEM

WFI Printed For: On-Demand

Submission Reason: No Change

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822

| | | | | |
|-----------------------------|---|----------------------|---------------|-----------------|
| 1. SYSTEM ID NO. 52957 B | 2. SYSTEM NAME LWWSO - AGATE HEIGHTS | 3. COUNTY WHATCOM | 4. GROUP A | 5. TYPE Comm |
|-----------------------------|---|----------------------|---------------|-----------------|

| | | | | | |
|---|--|--|---|--|-------------------------|
| 6. PRIMARY CONTACT NAME & MAILING ADDRESS BILL A. HUNTER [DISTRICT ENGINEER] 1220 LAKEWAY DRIVE BELLINGHAM, WA 98229 | | | 7. OWNER NAME & MAILING ADDRESS LAKE WHATCOM WATER AND SEWER DIST. BILL A. HUNTER 1220 LAKEWAY DRIVE BELLINGHAM, WA 98229 | | 8. OWNER NUMBER: 006570 |
| STREET ADDRESS IF DIFFERENT FROM ABOVE | | | STREET ADDRESS IF DIFFERENT FROM ABOVE | | |
| ATTN ADDRESS CITY STATE ZIP | | | ATTN ADDRESS CITY STATE ZIP | | |

| | | | | | |
|---|--|----------------------------------|---|--|----------------------------------|
| 9. 24 HOUR PRIMARY CONTACT INFORMATION | | | 10. OWNER CONTACT INFORMATION | | |
| Primary Contact Daytime Phone: (360) 734-9224 | | | Owner Daytime Phone: (360) 734-9224 | | |
| Primary Contact Mobile/Cell Phone: (360) 296-4577 | | | Owner Mobile/Cell Phone: (360) 296-4577 | | |
| Primary Contact Evening Phone: (xxx)-xxx-xxxx | | | Owner Evening Phone: (xxx)-xxx-xxxx | | |
| Fax: (360) 738-8250 | | E-mail: xxxxxxxxxxxxxxxxxxxxxxxx | Fax: (360) 738-8250 | | E-mail: xxxxxxxxxxxxxxxxxxxxxxxx |

WAC 246-290-420(9) requires that water systems provide 24-hour contact information for emergencies.

| | |
|--|-------------------|
| 11. SATELLITE MANAGEMENT AGENCY - SMA (check only one) | |
| <input checked="" type="checkbox"/> Not applicable (Skip to #12) <input type="checkbox"/> Owned and Managed <input type="checkbox"/> Managed Only <input type="checkbox"/> Owned Only | |
| SMA NAME: _____ | SMA Number: _____ |

| | | |
|--|---|--|
| 12. WATER SYSTEM CHARACTERISTICS (mark all that apply) | | |
| <input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial / Business <input type="checkbox"/> Day Care <input type="checkbox"/> Food Service/Food Permit <input type="checkbox"/> 1,000 or more person event for 2 or more days per year | <input type="checkbox"/> Hospital/Clinic <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Licensed Residential Facility <input type="checkbox"/> Lodging <input type="checkbox"/> Recreational / RV Park | <input checked="" type="checkbox"/> Residential <input type="checkbox"/> School <input type="checkbox"/> Temporary Farm Worker <input type="checkbox"/> Other (church, fire station, etc.): _____ |

| | | | | | |
|--|---|---|--|--------------------------------|--|
| 13. WATER SYSTEM OWNERSHIP (mark only one) | | | | 14. STORAGE CAPACITY (gallons) | |
| <input type="checkbox"/> Association <input type="checkbox"/> City / Town | <input type="checkbox"/> County <input type="checkbox"/> Federal | <input type="checkbox"/> Investor <input type="checkbox"/> Private | <input checked="" type="checkbox"/> Special District <input type="checkbox"/> State | 184,000 | |

| 15 Source Number | 16 SOURCE NAME LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE | 17 INTERTIE INTERTIE SYSTEM ID NUMBER | 18 SOURCE CATEGORY | | | | | | | | | | 19 USE | 20 SOURCE METERED | 21 TREATMENT | | | | | 22 DEPTH | 23 CAPACITY (GALLONS PER MINUTE) | 24 SOURCE LOCATION | | | | | |
|---------------------|---|---|-----------------------|------------|----------------------|--------|--------------|-----------------------|-----------|---------------|-----------------------|-------|-----------|----------------------|-----------------|----------|-----------|------|--------------|-------------|-------------------------------------|-----------------------|--------------|------------------|-------|--------------------------------------|------------------|
| | | | WELL | WELL FIELD | WELL IN A WELL FIELD | SPRING | SPRING FIELD | SPRING IN SPRINGFIELD | SEA WATER | SURFACE WATER | RANNEY / INF. GALLERY | OTHER | | | PERMANENT | SEASONAL | EMERGENCY | NONE | CHLORINATION | | | FILTRATION | FLUORIDATION | IRRADIATION (UV) | OTHER | DEPTH TO FIRST OPEN INTERVAL IN FEET | 1/4, 1/4 SECTION |
| S01 | InAct 04/27/2009 GIESBRECHT 6 | | X | | | | | | | | | | | | X | X | | | | | | 80 | 220 | SW SE | 24 | 38N | 03E |
| S02 | InAct 09/01/1995 UN-NAMED SPRING | | | X | | | | | | | | | | | X | X | | | | | | | 200 | SW SE | 24 | 38N | 03E |
| S03 | GIESBRECHT 10 | | X | | | | | | | | | | X | Y | X | X | | X | | | | 76 | 484 | SW SE | 24 | 38N | 03E |

WATER FACILITIES INVENTORY (WFI) FORM - Continued

| | | | | |
|------------------------------------|--|-----------------------------|----------------------|------------------------|
| 1. SYSTEM ID NO. 52957 B | 2. SYSTEM NAME LWWSD - AGATE HEIGHTS | 3. COUNTY WHATCOM | 4. GROUP A | 5. TYPE Comm |
|------------------------------------|--|-----------------------------|----------------------|------------------------|

| | ACTIVE SERVICE CONNECTIONS | DOH USE ONLY CALCULATED ACTIVE CONNECTIONS | DOH USE ONLY APPROVED CONNECTIONS |
|---|----------------------------|---|--------------------------------------|
| 25. SINGLE FAMILY RESIDENCES (How many of the following do you have?) | | 38 | 47 |
| A. Full Time Single Family Residences (Occupied 180 days or more per year) | 38 | | |
| B. Part Time Single Family Residences (Occupied less than 180 days per year) | 0 | | |
| 26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?) | | | |
| A. Apartment Buildings, condos, duplexes, barracks, dorms | 0 | | |
| B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year | 0 | | |
| C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year | 0 | | |
| 27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?) | | | |
| A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units) | 0 | 0 | 0 |
| B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc. | 1 | 1 | 1 |
| 28. TOTAL SERVICE CONNECTIONS | | 39 | 48 |

| |
|---|
| 29. FULL-TIME RESIDENTIAL POPULATION |
| A. How many residents are served by this system 180 or more days per year? 165 |

| 30. PART-TIME RESIDENTIAL POPULATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many part-time residents are present each month? | | | | | | | | | | | | |
| B. How many days per month are they present? | | | | | | | | | | | | |

| 31. TEMPORARY & TRANSIENT USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month? | | | | | | | | | | | | |
| B. How many days per month is water accessible to the public? | | | | | | | | | | | | |

| 32. REGULAR NON-RESIDENTIAL USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month? | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| B. How many days per month are they present? | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

| 33. ROUTINE COLIFORM SCHEDULE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| * Requirement is exception from WAC 246-290 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| | | | |
|--|-----------|----------|--------------------|
| 34. NITRATE SCHEDULE | QUARTERLY | ANNUALLY | ONCE EVERY 3 YEARS |
| (One Sample per source by time period) | | | |

35. Reason for Submitting WFI:

- Update - Change
 Update - No Change
 Inactivate
 Re-Activate
 Name Change
 New System
 Other _____

| | |
|---|--------------|
| 36. I certify that the information stated on this WFI form is correct to the best of my knowledge. | |
| SIGNATURE: _____ | DATE: _____ |
| PRINT NAME: _____ | TITLE: _____ |

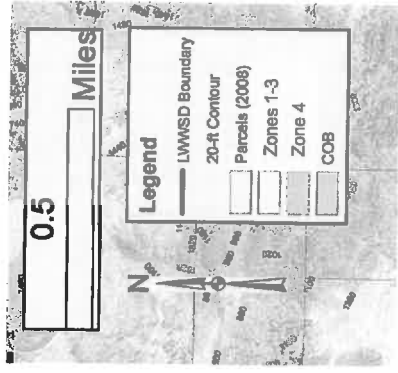
2. Maps / Exhibits



ALTERNATIVE 1 – ZONES 1-3



ALTERNATIVE 3 – ZONES 1-3 UP T Y ROAD



4. Water System Consolidation Preliminary Cost Estimates

A. Alternative 1

B. Alternative 2

C. Alternative 3

**LAKE WHATCOM WATER AND SEWER DISTRICT
North Shore Water System Conolidation Feasibility
Preliminary Cost Estimates**

7/31/2017

Prepared by: Curt Schoenfelder, PE and Melanie Mankamy, PE, Wilson Engineering LLC

Wilson Job No.: 2016-093

Preliminary Cost Estimates - Alternative 1

| Item Description | Quantity | Unit | Unit Price | Amount |
|--|----------|------|------------|--------------|
| CONSTRUCTION | | | | |
| a. Mobilization (10%) | 1 | LS | \$ 338,363 | \$ 338,363 |
| b. Traffic Control (5.5%) | 1 | LS | \$ 186,100 | \$ 186,100 |
| c. Temporary Erosion and Sediment Control (1.2%) | 1 | LS | \$ 40,604 | \$ 40,604 |
| d. Distribution Improvements | | | | |
| 8-inch DI Pipe | 11,250 | LF | \$ 65 | \$ 731,250 |
| 12-inch DI Pipe | 12,000 | LF | \$ 75 | \$ 900,000 |
| 8-inch Gate Valve | 14 | EA | \$ 1,500 | \$ 21,094 |
| 12-inch Gate Valve | 15 | EA | \$ 2,500 | \$ 37,500 |
| Hydrant Assembly | 39 | EA | \$ 5,500 | \$ 213,125 |
| Combination Air Release/Vacuum Valve | 5 | EA | \$ 2,500 | \$ 12,500 |
| Blow-off Assembly | 2 | EA | \$ 2,000 | \$ 4,000 |
| Connect to Existing Main | 3 | EA | \$ 2,500 | \$ 7,500 |
| Service Connections (all inclusive; saddles, corpe, meter ass'y, box, line) | | EA | \$ 2,000 | \$ |
| Restoration | 23,250 | LF | \$ 24 | \$ 558,000 |
| Subtotal | | | | \$ 2,484,969 |
| e. Treatment and Pumping Improvements | | | | |
| Building Addition (20'x20' and a bit taller) | 1 | LS | \$ 100,000 | \$ 100,000 |
| Filtronics Model FV-09 Electromedia 1 Fe/Mn Removal System (Equipment only; includes filter, reaction vessels, controls and chem feed equipment) | 1 | LS | \$ 225,000 | \$ 225,000 |
| Filtronics treatment system installation | 1 | LS | \$ 112,500 | \$ 112,500 |
| Booster pump station, duplex skid mount including Controls (Equipment only) | 1 | LS | \$ 33,000 | \$ 33,000 |
| Booster pump station installation | 1 | LS | \$ 16,500 | \$ 16,500 |
| Chlorination and other misc. upgrades | 1 | LS | \$ 25,000 | \$ 25,000 |
| Electrical upgrades | 1 | LS | \$ 35,000 | \$ 35,000 |
| Generator & Tank | 1 | LS | \$ 55,000 | \$ 55,000 |
| Subtotal | | | | \$ 602,000 |
| f. Storage Improvements | | | | |
| Concrete storage tank 185,000 Gallon 30x35 (installed by supplier, prevailing wages) | 1 | LS | \$ 170,775 | \$ 170,775 |
| Site Preparation and misc. under tank piping etc. | 1 | LS | \$ 85,388 | \$ 85,388 |
| Piping/valving from new tank to existing | 1 | LS | \$ 40,500 | \$ 40,500 |
| Subtotal | | | | \$ 296,663 |
| SUMMARY | | | | |
| Subtotal | | | | \$ 3,948,698 |
| Contingencies | 15% | | | \$ 592,305 |
| Sales Tax | 8.5% | | | \$ 385,985 |
| Preliminary Estimated Construction Costs | | | | \$ 4,926,988 |
| Permitting (Consulting and Permit Fees) | 2.5% | | | \$ 123,170 |
| Topographic Survey | 4% | | | \$ 197,080 |
| Engineering Design | 15% | | | \$ 739,050 |
| Construction Phase Engineering/Inspection | 10% | | | \$ 492,700 |
| Construction Phase Surveying | 3% | | | \$ 147,810 |
| GRAND TOTAL | | | | \$ 6,626,798 |

LAKE WHATCOM WATER AND SEWER DISTRICT
North Shore Water System Conolidation Feasibility
Preliminary Cost Estimates

7/31/2017

Prepared by: Curt Schoenfelder, PE and Melanie Mankamy, PE, Wilson Engineering LLC

Wilson Job No.: 2016-093

Preliminary Cost Estimates - Alternative 2

| Item Description | Quantity | Unit | Unit Price | Amount |
|---|----------|------|------------|--------------|
| CONSTRUCTION | | | | |
| a. Mobilization (10%) | 1 | LS | \$ 487,827 | \$ 487,827 |
| b. Traffic Control (5.5%) | 1 | LS | \$ 268,305 | \$ 268,305 |
| c. Temporary Erosion and Sediment Control (1.2%) | 1 | LS | \$ 58,539 | \$ 58,539 |
| d. Distribution Improvements | | | | |
| 8-inch DI Pipe | 9,750 | LF | \$ 65 | \$ 633,750 |
| 12-inch DI Pipe | 25,250 | LF | \$ 75 | \$ 1,893,750 |
| 8-inch Gate Valve | 12 | EA | \$ 1,500 | \$ 18,281 |
| 12-inch Gate Valve | 32 | EA | \$ 2,500 | \$ 78,906 |
| Hydrant Assembly | 58 | EA | \$ 5,500 | \$ 320,833 |
| Combination Air Release/Vacuum Valve | 5 | EA | \$ 2,500 | \$ 12,500 |
| Blow-off Assembly | 2 | EA | \$ 2,000 | \$ 4,000 |
| Connect to Existing Main | 3 | EA | \$ 2,500 | \$ 7,500 |
| Service Connections (all-inclusive; saddles, corps, meter ass'y, box, line) | | EA | \$ 2,000 | \$ |
| Restoration | 35,000 | LF | \$ 24 | \$ 840,000 |
| Subtotal | | | | \$ 3,809,521 |
| e. Treatment and Pumping Improvements | | | | |
| Building Addition (20'x20' and a bit taller) | 1 | LS | \$ 100,000 | \$ 100,000 |
| Filtronic Model FV-09 Electromedia 1 Fe/Mn Removal System (Equipment only; includes filter, reaction vessels, controls and chem feed equipment) | 1 | LS | \$ 225,000 | \$ 225,000 |
| Filtronic treatment system installation | 1 | LS | \$ 112,500 | \$ 112,500 |
| Booster pump station, duplex skid mount including Controls (Equipment only) | 1 | LS | \$ 33,000 | \$ 33,000 |
| Booster pump station installation | 1 | LS | \$ 16,500 | \$ 16,500 |
| Chlorination and other misc. upgrades | 1 | LS | \$ 25,000 | \$ 25,000 |
| Electrical upgrades | 1 | LS | \$ 35,000 | \$ 35,000 |
| Generator & Tank | 1 | LS | \$ 55,000 | \$ 55,000 |
| Subtotal | | | | \$ 602,000 |
| f. Storage Improvements | | | | |
| Concrete storage tank 333,000 Gallon 30x65 (installed by supplier, prevailing wages) | 1 | LS | \$ 341,000 | \$ 341,000 |
| Site Preparation and misc. under tank piping etc. | 1 | LS | \$ 85,250 | \$ 85,250 |
| Piping/valving from new tank to existing | 1 | LS | \$ 40,500 | \$ 40,500 |
| Subtotal | | | | \$ 466,750 |
| SUMMARY | | | | |
| Subtotal | | | | \$ 5,692,942 |
| Contingencies | 15% | | | \$ 853,941 |
| Sales Tax | 8.5% | | | \$ 556,485 |
| Preliminary Estimated Construction Costs | | | | \$ 7,103,368 |
| Permitting (Consulting and Permit Fees) | 2.5% | | | \$ 177,580 |
| Topographic Survey | 4% | | | \$ 284,130 |
| Engineering Design | 15% | | | \$ 1,065,510 |
| Construction Phase Engineering/Inspection | 10% | | | \$ 710,340 |
| Construction Phase Surveying | 3% | | | \$ 213,100 |
| GRAND TOTAL | | | | \$ 9,554,028 |

**LAKE WHATCOM WATER AND SEWER DISTRICT
North Shore Water System Conolidation Feasibility
Preliminary Cost Estimates**

7/31/2017

Prepared by: Curt Schoenfelder, PE and Melanie Mankamy, PE, Wilson Engineering LLC

Wilson Job No.: 2016-093

Preliminary Cost Estimates - Alternative 3

| Item Description | Quantity | Unit | Unit Price | Amount |
|--|----------|------|------------|---------------------|
| CONSTRUCTION | | | | |
| a. Mobilization (10%) | 1 | LS | \$ 301,848 | \$ 301,848 |
| b. Traffic Control (5.5%) | 1 | LS | \$ 166,016 | \$ 166,016 |
| c. Temporary Erosion and Sediment Control (1.2%) | 1 | LS | \$ 36,222 | \$ 36,222 |
| d. Distribution Improvements | | | | |
| 8-inch DI Pipe | 7,600 | LF | \$ 65 | \$ 494,000 |
| 12-inch DI Pipe | 12,000 | LF | \$ 75 | \$ 900,000 |
| 8-inch Gate Valve | 10 | EA | \$ 1,500 | \$ 14,250 |
| 12-inch Gate Valve | 15 | EA | \$ 2,500 | \$ 37,500 |
| Hydrant Assembly | 33 | EA | \$ 5,500 | \$ 179,667 |
| Combination Air Release/Vacuum Valve | 5 | EA | \$ 2,500 | \$ 12,500 |
| Blow-off Assembly | 2 | EA | \$ 2,000 | \$ 4,000 |
| Connect to Existing Main | 3 | EA | \$ 2,500 | \$ 7,500 |
| Service Connections (all inclusive; saddles, corpe, meter ass'y, box, line) | | EA | \$ 2,000 | \$ |
| Restoration | 19,600 | LF | \$ 24 | \$ 470,400 |
| Subtotal | | | | \$ 2,119,817 |
| e. Treatment and Pumping Improvements | | | | |
| Building Addition (20'x20' and a bit taller) | 1 | LS | \$ 100,000 | \$ 100,000 |
| Filtronics Model FV-09 Electromedia 1 Fe/Mn Removal System (Equipment only; includes filter, reaction vessels, controls and chem feed equipment) | 1 | LS | \$ 225,000 | \$ 225,000 |
| Filtronics treatment system installation | 1 | LS | \$ 112,500 | \$ 112,500 |
| Booster pump station, duplex skid mount including Controls (Equipment only) | 1 | LS | \$ 33,000 | \$ 33,000 |
| Booster pump station installation | 1 | LS | \$ 16,500 | \$ 16,500 |
| Chlorination and other misc. upgrades | 1 | LS | \$ 25,000 | \$ 25,000 |
| Electrical upgrades | 1 | LS | \$ 35,000 | \$ 35,000 |
| Generator & Tank | 1 | LS | \$ 55,000 | \$ 55,000 |
| Subtotal | | | | \$ 602,000 |
| f. Storage Improvements | | | | |
| Concrete storage tank 185,000 Gallon 30x35 (Installed by supplier, prevailing wages) | 1 | LS | \$ 170,775 | \$ 170,775 |
| Site Preparation and misc. under tank piping etc. | 1 | LS | \$ 85,388 | \$ 85,388 |
| Piping/valving from new tank to existing | 1 | LS | \$ 40,500 | \$ 40,500 |
| Subtotal | | | | \$ 296,663 |
| SUMMARY | | | | |
| Subtotal | | | | \$ 3,522,565 |
| Contingencies | 15% | | | \$ 528,385 |
| Sales Tax | 8.5% | | | \$ 344,331 |
| Preliminary Estimated Construction Costs | | | | \$ 4,395,281 |
| Permitting (Consulting and Permit Fees) | 2.5% | | | \$ 109,880 |
| Topographic Survey | 4% | | | \$ 175,810 |
| Engineering Design | 15% | | | \$ 659,290 |
| Construction Phase Engineering/Inspection | 10% | | | \$ 439,530 |
| Construction Phase Surveying | 3% | | | \$ 131,860 |
| GRAND TOTAL | | | | \$ 5,911,651 |

3. Questionnaire Response Summary

rptNSquestionnaire-Raw Data

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|----|---------------|-------------|-----------|-------------------------------|---------|--------|-------|-------|--|----------------------|---------|----------------|---------------|-------------------------|
| 1 | Single Family | Lake draw | Maybe/D | Reliability, Water Quality | 2 | 3 | 1 | | | Kathy Delbecq | 2135 | Dellesta Dr | | rkdclbecq@comcast.net |
| 2 | Single Family | Shared Well | Maybe/D | | 1 | 4 | 2 | 3 | Connection to sewer with water service? | Alice and Jay Shilha | 3016 | Lakeshore Rd | 360-647-2306 | a.shilhanek@comcast.net |
| 3 | Single Family | Lake draw | Maybe/D | Reliability | 1 | 2 | 3 | | | Alan Bagley | 2844 | Northshore Rd | 360-733-7298 | bulldoglake@comcast.net |
| 4 | Single Family | Well | Maybe/D | Reliability, Water Quality | 1 | | 2 | | | John Waldburger | 2593 | Northshore Rd | | jwaldburger@comcast.net |
| 5 | Single Family | Lake draw | Maybe/D | Reliability, Water Quality | 2 | 3 | 4 | 1 | Want to protect water quality in Lake | Michael Picco | 2106 | Dellesta Dr | 360-929-1831 | mikepicco@yahoo.com |
| 6 | Single Family | Lake draw | Maybe/D | Reliability | 1 | 3 | 2 | | Need more specific cost information | Ed Shannon | 1745 | Edgewater Ln | | ed@lazy-a.com |
| 7 | Single Family | Lake draw | Yes | Water Quality | 1 | 2 | 3 | | | Will & Karen Johnso | 2587 | Northshore Rd | 360-303-8042 | gatorjms@comcast.net |
| 8 | Single Family | Shared Well | Yes | Reliability, Water Quality, | 1 | 3 | 2 | | | Jason Sims | 3100 | Edgewood Ln | 360-739-3353 | simsjason@comcast.net |
| 9 | Single Family | Lake draw | Yes | Reliability, Water Quality | 1 | 3 | 2 | | | Evan Keating | 2297 | Northshore Rd | 408-309-7017 | evankeating@yahoo.com |
| 10 | Single Family | Shared Well | Yes | Water Quality | 1 | 3 | 2 | | | Carole & Ron Evans | 2098 | Northshore Rd | 360-319-1769 | carole77@comcast.net |
| 11 | Single Family | Lake draw | Yes | Water Quality | 2 | 1 | 3 | | | | | | | |
| 12 | Vacant | none | Yes | Other, Reliability, Water Q | 1 | 2 | 3 | 4 | Timing | Steve & Laura Ward | 2840 | Northshore Rd | 206-595-5234 | Laurelueward@gmail.com |
| 13 | Single Family | Well | Yes | Reliability | 1 | 2 | 3 | | Currently haul water 1-5x/week (300gal) | Kevin & Diane Form | 3181 | Lakeshore Rd | 360-733-7789 | formfam@a.com |
| 14 | Single Family | Shared Well | Yes | Reliability, Water Quality | 1 | | | | Cost is high, may disincntivize project | | | | | |
| 15 | Single Family | Lake draw | Yes | Reliability | 2 | 2 | 2 | | | Robert Bornstein | 3152 | Northshore Rd | | robertandjanice@comcast |
| 16 | Single Family | Lake draw | Yes | Reliability | 2 | 2 | 2 | | | Peter Dobey | 3175 | Northshore Rd | 360-778-2047 | peterdobey@comcast.net |
| 17 | Single Family | no entry | Yes | Fire/Safety, Reliability, Wat | | | | 1 | Ease of process | David C. Morse, III | 2176 | Dellesta Dr | 360-319-1257 | dmorse@blytheinc.com |
| 18 | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat | | | | 1 | fire protection | Sherri Vander Yacht | 2079 | Northshore Rd | 360-815-4656 | jeffsherrri@comcast.net |
| 19 | Vacant | none | Yes | Fire/Safety, Reliability, Wat | | | | 1 | fire protection | Jeff Vander Yacht | 2079 | Northshore Rd | 360-815-4196 | jvanderyacht@PSEsurvey. |
| 20 | Vacant | none | Yes | Fire/Safety, Reliability, Wat | | | | 1 | fire protection | Jeff Vander Yacht | 2087 | Northshore Rd | 360-815-4196 | jvanderyacht@PSEsurvey. |
| 21 | Single Family | Shared Well | Yes | Other, Water Quality | 2 | 2 | 2 | | Responsibility in maintaining lights in pump houses during winter (2 wells serving 4 houses) | Dr. M Attygalla | 3330 | Sunny Cove Ct | 360-933-4625 | mallika19@icloud.com |
| 22 | Single Family | Lake draw | Yes | Water Quality | 1 | 2 | 2 | | | William W. Winter | 2138 | Dellesta Dr | 360-733-0149 | winterbilli@comcast.net |
| 23 | Other | Lake draw | Yes | Reliability, Water Quality | | | | 1 | Monitored supply | Peter Telfer | 2152 | Dellesta Dr | 360-671-9872 | peterterfer48@gmail.com |
| 24 | Single Family | Well | Yes | Reliability, Water Quality | 1 | 2 | 3 | | will there be a latecomers schedule? | Darrell Visser | 3099 | Edgewood Ln | 360-815-1602 | darrellvisser@gmail.com |
| 25 | Single Family | Lake draw | Yes | Reliability | 1 | 3 | 2 | | | Steve & Rhonda Lo | 1715 | Edgewater Ln | | lowrysteve@comcast.net |
| 26 | Single Family | Lake draw | Yes | Water Quality | 2 | 1 | 3 | | mailing address: 2301 Stickney Island Rd, Everson | Robin Hoefler (Pears | 3203 | Northshore Rd | 360-966-2467; | hoefermr@aol.com |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|----|---------------|-------------|-----------|-------------|---------|-----|----|-------|-------|---|-------------------|---------|----------------|--------------|-------------------------|
| 27 | Single Family | Lake draw | No | | | | | | | Water line will encourage building, more traffic on Northshore Rd, more pollution | C. La Nois | 2063 | Northshore Rd | 360-223-1978 | |
| 28 | Single Family | Other | No | | | | | | | | | | | | |
| 29 | Single Family | Lake draw | No | | | | | | | Water line will cause more building, more traffic and more pollution in the Lake | Hope Lawrenson | 2066 | Dellesta Dr | 360-733-2727 | 2cat10@gmail.com |
| 30 | Single Family | Lake draw | No | | | | | | | I'm afraid that a water line would cause more building on the lake which would pollute the lake more | Claire Banjanin | 2064 | Dellesta Dr | 360-734-1826 | cbanjanin@comcast.net |
| 31 | Single Family | Lake draw | No | | | | | | | | Stan La Nois | 2063 | Northshore Rd | 360-820-1313 | sjanois@comcast.net |
| 32 | Single Family | Well | No | | | | | | | | Dave Grunhurd | 2637 | Northshore Rd | 360-671-6568 | dgrunhurd@gmail.com |
| 33 | Single Family | Shared Well | No | | | | | | | | | | | | |
| 34 | Single Family | Lake draw | No | | | | | | | | Steve Adelstein | 1721 | Edgewater Ln | 360-676-9591 | |
| 35 | Single Family | Lake draw | No | Fire/Safety | 1 | 4 | 3 | 2 | | pay for fire protection in property tax | Karen & Tom Evich | 2051 | Northshore Rd | 360-671-1354 | karenevich@comcast.net |
| 36 | Single Family | Lake draw | No | | | | | | | please use website for information about this project | | | | | |
| 37 | Single Family | Well | No | Other | 1 | 1 | 2 | 3 | | 3-Construction on Northshore; 4-Who paid for this study?; 5-How much will our taxes go up?; 6-Where is the additional water going to come from? | Nate Marino | 2878 | Lazer Ln | 360-220-7860 | nate@threepalmsdesigns. |
| 38 | Single Family | Well | No | | | | | | | (1/2 owner) | Cecelia Thomas | 2582 | Northshore Rd | 360-733-2663 | celiethomas@operapopol |
| 39 | Single Family | Well | No | | | | | | | Not interested | | | | | hyshe@yahoo.com |
| 40 | Single Family | no entry | No | | | | | | | No interest | Cristi Lysne | 2472 | Northshore Rd | 360-756-2717 | garylysne@msn.com |
| 41 | Single Family | Lake draw | No | | | | | | | if line in Northshore there will be more sprawl and consequently more lake pollution | Milan Banjanin | 2064 | Dellesta Dr | 360-734-1826 | |
| 42 | Single Family | Lake draw | No | | | | | | | | Paul Hovnanian | 3120 | Northshore Rd | | paul@hovnanian.com |
| 43 | Single Family | Lake draw | No | | | | | | | | | | | | |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|----|---------------|--------------|-----------|-------------|---------|--------|-------|-------|--|---------------------|---------|------------------------|--------------|--------------------------|
| 44 | Single Family | Well | No | | | | | | This is another opportunity to take state \$, study something that isn't a problem to keep Wilson Engineering in business, and then force it on a small group of landowners who have already gone to the expense of putting in a private water source because there was no public water available. Now you push a project that will cost these owners another \$40,000. If the County wants to take over the Lake, why not just buy everyone out at fair market value... | Del Wolf | 1854 | Northshore Rd | 360-734-4309 | |
| 45 | Single Family | Well | No | | | | | | This District should have brought water to us 50 years ago when many of us met with the District at the Agate Bay fire house and talked of water | Stan Wolf | 1862 | Northshore Rd | | |
| 46 | Single Family | Well | No | | | | | | This question is misleading. A public water system under current zoning cannot state "water quality" as a benefit. Please be clear when reporting this survey that it is flawed, biased and narrowly addresses a very complex issue. | Fred Miller | 3229 | Northshore Rd | 360-671-2365 | fredmiller20@comcast.net |
| 47 | Single Family | Lake draw | No | | | | | | | | | | | |
| 52 | Single Family | Shared Well | No | | 2 | 2 | 2 | 2 | | Stew Ellison | 1807 | Northshore Rd | | |
| 53 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | | | | | |
| 54 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | Summer place only- Property Taxes and Sewer Charges are already prohibitive | Gaylon Vander Yach | 340 | maberry loop lyden 982 | 354-3185 | |
| 55 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | William Cox | 2661 | Northshore Rd | 360-778-1586 | willcox@comcast.net |
| 56 | Other | Lake draw | No | | 2 | 2 | 2 | 2 | | SIMS | 23242 | Bassett Rd. | 360-856-6318 | alwaysaproblemjan@yaho |
| 57 | Other | Other | No | | 2 | 2 | 2 | 2 | I have just spent \$18,000 to put in a rain catchment system for our new house | Gordan Sullious | 2641 | Birchbay Lynden Rd 982 | 364-3171 | |
| 58 | Single Family | Water System | No | | 2 | 2 | 2 | 2 | Suggest new ??? Dig their own wells | Anthony & Lee Ashe | 3364 | Topaz Ct. | | |
| 59 | Single Family | Water System | No | | 2 | 2 | 2 | 2 | We could use a small boost of water in July and August for some of our owners. I am the current system manager | Lorraine A. Bierman | 2722 | Willow lane | 360-224-1549 | |
| 60 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | David & Deborah L. | 2653 | Northshore Rd | 783-9094 | |

| ID | CurrentUse | WaterSource | Connect | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|----|---------------|-------------|---------|-------------|---------|-----|----|-------|-------|--|---------------------|---------|----------------|--------------|-------------------------|
| 61 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | We recently spent considerable \$\$ in putting a UV cleansing and filtration and the water is perfect. Everyone else on N.shore has no doubt and done the same and many people have had to drill wells at considerable expense. This proposed water extension is not needed and should be a non-starter. Sorry, but we do not need the service or extra expense. | Dave Nicholes | 2583 | Northshore Rd | 360-961-3951 | davethejudge@comcast.n |
| 62 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | Cost to hook up would be too much to make financial sense. We have excellent water with own well. | Ann Rushing | 31846 | | 3602205259 | karlem.kuntz@comcast.co |
| 63 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | | Frank & Alida Bowe | 2466 | Northshore Rd | 733-8218 | |
| 64 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | | | | | | |
| 65 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | More access to water will spur more development of houses | | | | | |
| 66 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | | Tiller | 2181 | Northshore Rd | | |
| 67 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | Not interested even if the service is available | Steve Lackey | 2173 | Northshore Rd | 360-756-6915 | stevelackey2@gmail.com |
| 68 | Single Family | Shared Well | No | | 2 | 2 | 2 | 2 | | | Alicia & Jess Cantu | 3362 | Topaz Ct | 360-223-0697 | isomerz@msn.com |
| 69 | Single Family | Shared Well | No | | 2 | 2 | 2 | 2 | | No, we do not want to connect. Why should we? We have great water and low bills | | 2129 | Dellesta Dr | | |
| 70 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | Own Water rights to lake.. Culligam system of filter and UV treatment | | | | | |
| 71 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | | Lorry Zeies | 1449 | Edgewater Ln | 360-734-8766 | jziels@comcast.net |
| 72 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | We own water rights to lake. | John Mumma | 3169 | Agate Bay | 733-4651 | j.mumma@omast.net |
| 73 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | | Philip & Judy Andre | 2790 | Northshore Rd | 360-319-0546 | ladyolakew@gmail.com |
| 74 | Single Family | Lake draw | No | | 2 | 2 | 2 | 2 | | | | | | | |
| 75 | Single Family | Well | No | | 2 | 2 | 2 | 2 | | If you really care about the wter quality, extend the sewer main. I have a good well and a septic system. I would pay for sewer before paying for a new water source | Chris Vazquez | 2802 | Northshore rd | 360-393-7272 | backin1972@gmail.com |
| 76 | Single Family | Shared Well | No | | 2 | 2 | 2 | 2 | | | | | | | |
| 77 | Single Family | Shared Well | No | | | | | | | | | | | | |
| 78 | Other | Other | No | | | | | | | | | | | | |
| 79 | Single Family | Well | No | | | | | | | | | | | | |
| 80 | Single Family | Well | No | | | | | | | | Michael Tarró | 3046 | Northshore rd | 360-671-8500 | |

| ID | Current Use | Water Source | Connect | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|----|---------------|----------------|---------|---------------------------------|---------|-----|----|-------|-------|-------|---|--------------------------|---------------------|--------------|--------------------------|
| 81 | Single Family | Well | No | | 1 | | | 1 | | | Daniel & Helen Che | 1950 Northshore Rd | Northshore Rd | 360-510-2720 | linfenchuan3@yahoo.com |
| 82 | Single Family | Lake draw | No | | 1 | | | 1 | | | Rick Lingbloom | 2609 Northshore Rd | Northshore Rd | | r.lingbloom@comcast.net |
| 83 | Single Family | Shared Well | No | | | | | | | | We are on your list. | | | | |
| 84 | Single Family | Lake draw | No | | | | | | | | Jeff Daus | 3129 Sheridan Trail | | | |
| 85 | Single Family | Shared Well | No | | | | | | | | Carl Walton | 2055 Northshore Rd | Northshore Rd | 360-733-8912 | canwalton3@aol.com |
| 86 | Single Family | Lake draw | No | | | | | | | | Because of the way our house is situated, hooking up to a water line that comes off of N.Shore Rd. would be extremely expensive | | | | |
| 87 | Single Family | Well | No | | | | | | | | Steve Pratum | 2619 Northshore Rd | Northshore Rd | | stevepratum@gmail.com |
| 88 | Single Family | Well | No | | | | | | | | Reliable water available currently. Will not pay for additional system | | | | |
| 89 | Single Family | Lake draw | No | | | | | | | | Terribly expensive dumb idea. No way. Opens the lake to more development which we do not need. Protect the watershed | | | | |
| 90 | Single Family | Well | No | | | | | | | | William Canhill | 3049 Lakeshore Rd | Lakeshore Rd | 360-756-7513 | wcahill@aoh.com |
| 91 | Single Family | Well | No | | | | | | | | David Babbitt | 2484 Northshore Rd | Northshore Rd | | david@agatebayconstruc |
| 92 | Single Family | Lake draw | No | | | | | | | | I can't think of anything that would hurt the water shed- increasing ability to develop more houses, etc in such a fragile ecosystem. Terrible! | | | | |
| 93 | Single Family | Lake draw | No | | | | | 1 | | | Duane H. Johnson | 2577 Northshore Rd | Northshore Rd | 360-303-2143 | dudod@juno.com |
| 94 | Single Family | Lake draw | No | | | | | | | | Gordon & Maude D | 2359 Northshore Rd | Northshore Rd | 360-734-4544 | |
| 95 | Single Family | Lake draw | No | | | | | | | | Ann & Jake Hardy | 2417 Northshore Rd | Northshore Rd | | havdyae@comcast.net |
| 96 | Other | Shared Well | Yes | Reliability, Water Quality, 1 | | | | | | | Donald A. Miller | 3850 Washington st #1205 | Washington st #1205 | 941-538-1655 | |
| 97 | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat 2 | 1 | | | 3 | | | Jeff Frere | 3295 Northshore Rd | Northshore Rd | 360-920-5434 | rosedawgz@gmail.com |
| 98 | Single Family | Well and share | Yes | Other, Reliability | | | | | 1 | | Rory Bradt | 2696 Northshore Rd | Northshore Rd | 425-210-0878 | rorybradt@gmail.com |
| 99 | Other | Other | Yes | Fire/Safety, Reliability, Wat 2 | 2 | | | 3 | 4 | | Gail Wasilewski | 1865 Vineyard PL | Vineyard PL | | gailwazci@comcast.net |
| ## | Other | Other | Yes | Fire/Safety, Reliability, Wat 2 | 2 | | | 3 | 4 | | John Wasilewski | 1865 Vineyard PL | Vineyard PL | | john@mantleindustries.co |
| ## | Vacant | | Yes | Water Quantity | | | | | 1 | | Jeff Yacht | 2079 Northshore Rd | Northshore Rd | 360-815-4196 | |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|-----------|-------------------------------|---------|-----|----|-------|-------|--|----------------------|---------|-----------------------|--------------|---------------------------|
| ### | Single Family | Lake draw | Yes | Reliability, Water Quality | 2 | 4 | 3 | 1 | | How soon installation? | Tim and heslie Farri | 2133 | Northshore Rd | 360-961-3570 | LKFarris4@gmail.com |
| ### | Single Family | Shared Well | Yes | Fire/Safety, Reliability, Wat | 1 | | | | | | Kevin Sluys | 2076 | Dellesta Dr | 360-510-6722 | ksluys@gmail.com |
| ### | Vacant | Well | Yes | Reliability, Water Quality, | 1 | 3 | 2 | | | I think the city of Bellingham needs more affordable, buildable lots that do not require large fees for permitting. Costs for connecting to utilities needs to be more affordable for city residents | Kimberly Barron | 533 | 37th st | 360-739-9506 | northshorevet@msn.com |
| ### | Single Family | Water System | Yes | Water Quality | 1 | 4 | 3 | 2 | | | | | | | |
| ### | Vacant | Well | Yes | Reliability, Water Quality | 1 | 2 | 3 | | | I support the project. I may build on this property and availability of a reliable spource of water ould simplify matters | Christine Valentine | 125 | Elkenburg st unit 1 | sout | christinevalentne@frouite |
| ### | Vacant | Shared Well | Yes | Reliability, Water Quality, | 1 | | | | | I have two buildable lots. I think it would be good to upgrade to stand well system | Donald Miller | 3850 | Washington Street | | |
| ### | Other | Lake draw | Yes | Reliability, Water Quality | 1 | 3 | 2 | | | Recreation lot | Steve Kunnap | 4281 | James St | 360-733-1943 | |
| ### | Other | Other | Yes | Fire/Safety, Reliability, Wat | 2 | 2 | 3 | | | Soon to build 2017-2018. My wife and I are eager to build on our land. This house is to become our primary residence and we hope to get connected to city water as this would be an answer to the prayer | Rafael A Recto | 164 | Robles Way #124 | 707-246-4339 | Recto@comcast.net |
| ### | Other | Shared Well | Yes | Other | 1 | | | | | Recreation visit. Shared well can't connect to. | Bruce Longstreth | 1803 | Northshore Rd | 360-319-6881 | bbngsteth@mujjatgroup.c |
| ### | Single Family | Well | Yes | Relibility, Water Quality, | 3 | 1 | 2 | | | | Christy Sorenson | 3191 | Lakeshore Rd | 360-319-8659 | csorenson@vanhofhepaci |
| ### | Single Family | Lake draw | Yes | Reliability, Water Quality | 2 | 3 | 1 | | | I am eager to connect to public water | David Engst | 3108 | Agate Bay lane | 360-510-2842 | csi247@gmail.com |
| ### | Single Family | Lake draw | Yes | Reliability, Water Quality | 1 | 3 | 2 | | | | Robert Hannum | 2643 | Northshore Rd | 360-671-2533 | ichora@comcast.com |
| ### | Single Family | Lake draw | Yes | Other, Reliability | 2 | 3 | 1 | | | Improved water pressure. Question: We are already on city sewer so doesn't that mean we pay for water (even though we don't receive it)? | Keith Vander Griend | 1733 | Edgewater Ln | 360-676-0776 | kvanderriend@comcast.n |
| ### | Single Family | Water System | Yes | Fire/Safety, Reliability, Wat | 1 | 3 | 2 | | | Connected to lake whatcom water and sewer | | | | | |
| ### | Single Family | Lake draw | Yes | Reliability, Water Quality | 1 | 3 | 2 | | | | Robin Wong | 2335 | Northshore Rd | 360-223-7297 | robinthu@comcast.net |
| ### | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat | 2 | | | | | | Robert Olson | 3362 | East Badgen Everson | 360-927-3292 | bolson3505@gmail.com |
| ### | Single Family | Water System | Yes | Fire/Safety, Reliability, Wat | | | 1 | | | Already Connected | | | | | |
| ### | Vacant | Well | Yes | Fire/Safety, Water Quality | | | 2 | | | | Pamp Maiers | 850 | PO Box 850 Moses lake | 509-765-5885 | |
| ### | Single Family | Lake draw | Yes | Reliability, Water Quality | 2 | 1 | 3 | | | | Mark Zarzycki | 286 | Briar Rd | | zarzyck@hotmail.com |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|-----------|--|---------|-----|----|-------|-------|---|--------------------|---------|-------------------|--------------|---------------------------|
| ### | Single Family | Other | Yes | Reliability, Water Quality | | | | | 2 | Using rain water harvesting system. Cost won't matter, just want better water | Robert Walker | 1853 | Northshore Rd | 360-739-8343 | rwalker@mbcollision.com |
| ### | Single Family | Shared Well | Yes | Reliability, Water Quality, Reliability, Water Quality | 1 | 2 | 3 | 4 | | | Chris Rink | 2368 | Northshore Rd | 360-393-3586 | crinkpepsurvey.com |
| ### | Single Family | Shared Well | Yes | Reliability, Water Quality | 1 | | | | | | Chris Knauff | 3326 | Sunny Cove CT | 360-739-3403 | chrisknauff@gmail.com |
| ### | Single Family | Well | Yes | Reliability, Water Quality | 1 | 2 | 3 | | | Generally in favor of this plan. Please note the name change: address for notifications | Northshore Road LL | 2815 | Russell Street | 360-758-2111 | fdfelicity@gmail.com |
| ### | Single Family | Shared Well | Yes | Fire/Safety, Reliability, Wat | 2 | 1 | 3 | | | water source is lake whatcom water via city of bellingham. Pay same rate as city residents. Does the city of bellingham want to bring us in direct line? | Paul K. Glasser | 3095 | Edgewood Ln | 360-656-6699 | pkglasser@comcast.net |
| ### | Single Family | Water System | Yes | Fire/Safety, Other, Reliability | | | | | | | Roger Despain | 1716 | Golden court | 360-820-9121 | |
| ### | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat | | | | | | Quality monitored water supply and fire protection are very basic services. I would like to have them. | Peter Telfer | 2152 | Dellesta Dr | 360-671-9872 | peterterfer48@gmail.com |
| ### | Single Family | Well | Yes | Fire/Safety, Reliability, Wat | 2 | 3 | 1 | 4 | | If public water becomes available it is very likely that we will connect | Stephen Hutchens | 2090 | Northshore Rd | 360-201-0098 | sphutchens@yahoo.com |
| ### | Other | Well | Yes | Reliability, Water Quality | 1 | 3 | 2 | | | Depends on cost. Current service from lake whatcom water and sewer dist is great. Not interested in having our cost go up | Whatcom county fo | 3373 | Mt. Baker highway | 360-778-5850 | mmcfarla@co.whatcom.w |
| ### | Single Family | Water System | Maybe/D | | | | | | | | | | | | |
| ### | Single Family | Lake draw | Maybe/D | | 2 | | | | | We have a "water right" to draw out of the lake but have filter maintenance costs. We would evaluate these costs compared to purchase and hookup costs of public water system | Chris Hilleary | 1857 | Northshore Rd | 360-319-9311 | chilleary@aerotechgolfsha |
| ### | Single Family | Water System | Maybe/D | | | | | | | Depends on rates | John & Dorie Micha | 1720 | Eagleridge Drive | 360-734-9819 | jmache1@comcast.net |
| ### | Single Family | Shared Well | Maybe/D | | 1 | 2 | 3 | | | | Bruce & Kathy Wils | 3091 | E. 21ST pl | | bknjwilson@hotmail.com |
| ### | Single Family | Shared Well | Maybe/D | Fire/Safety, Reliability, Wat | 1 | 2 | 3 | | | | Vincent Williams | 1010 | Lonetree ct | 360-933-4150 | vince@hivestfoods.com |

| ID | CurrentUse | WaterSource | Connect | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|---------|---------------------------------|---------|-----|----|-------|-------|---|----------------------|---------|----------------|--------------|--------------------------|
| ### | Single Family | Water System | Maybe/D | Other, Water Quality | 1 | 3 | 2 | | | | Sullivan | 3237 | Eagleridge way | 360-603-4258 | maureen.sullivan270@gm |
| ### | Single Family | Lake draw | Maybe/D | | 1 | 2 | 3 | | | Current rates are too high. The burden placed on homeowners to protect, preserve and pay significantly for water is pointless when engine powered watercraft and boats are allowed in the water sources. I am sick by the lack of ownership by those entrusted to protect our water source but don't by continuing to allow oil/gas/electric into our water source. | | | | | |
| ### | Single Family | Well | Maybe/D | Reliability, Water Quality | 2 | 2 | 2 | | | Depends on cost | Joe Baldwin | 3042 | Northshore Rd | 360-305-4504 | jbatosc@yahoo.com |
| ### | Single Family | Well | Maybe/D | Reliability, Water Quality | 2 | 2 | 2 | | | Would be more interested with sewer | Bruce Kwe | 3048 | Lakeshore Rd | | |
| ### | Single Family | Lake draw | Maybe/D | Water Quality | 2 | 1 | 3 | 4 | | Rain water water source. Depends on amount of digging/land/road distribution to install | Rochelle Stroup | 2413 | Northshore Rd | 360-733-4297 | |
| ### | Single Family | Other | Maybe/D | Reliability | 1 | 4 | 3 | 2 | | | | | | | |
| ### | Single Family | Shared Well | Maybe/D | | | | | | | Depends on cost. Why do I have a need or motivation? My well has a lot of water. I could stop using my water softner but I see no other advantage. | Geoff Latimer | 3322 | Sunny Cove Ct | | geofflatimer@comcast.net |
| ### | Single Family | Shared Well | Maybe/D | Reliability, Water Quality | 1 | 3 | 2 | | | Depnds on cost | Mark Daniels | 3011 | Lakeshore Rd | 360-305-0261 | markdaniels1@me.com |
| ### | Single Family | Lake draw | Maybe/D | | | | | | | More water means more development which will affect the lake adversely | | | | | |
| ### | Single Family | Well | Maybe/D | Fire/Safety, Other, Reliability | | | | | | we are interested but only if we would be allowed to keep water rights to our individual well. We moved here from rural Clark county and had both our own well and county water. We were very satisfied with that arrangement. | William/lois freebor | 2633 | Northshore Rd | 360-671-0066 | |
| ### | Single Family | Lake draw | Maybe/D | | | | | | | Already connected to lake whatcom water and very satisfied. | James Volkman | 3239 | Northshore Rd | 360-392-0459 | propwashvs@gmail.com |
| ### | Single Family | Water System | Maybe/D | | | | | | | | | | | | |
| ### | Single Family | Shared Well | Maybe/D | Fire/Safety, Reliability, Wat | 1 | 3 | 2 | | | I am concerned that providing water services would allow for more development and potential impact on lake whatcom will have more people, houses and runoff. | Marc Fairbanks | 3060 | E. 21st Pl | 360-927-8021 | marc.fairbanks@gmail.co |
| ### | Single Family | Well | Maybe/D | | 1 | 2 | 3 | | | Not motivated. Depends on cost | Brincer Cantrell | 3319 | Sunny Cove Ct | 206-849-2287 | bcn@bridgecantrell.com |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay Fe | Water | Other | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|-----------|---------------------------------|---------|--------|-------|-------|---------------------|---------|-------------------|--------------|--------------------------|
| ### | Single Family | Lake draw | Maybe/D | Reliability | 1 | | | | John Hewitt | 1849 | Northshore Rd | 360-305-0440 | jhewitte@alpha.com |
| ### | Single Family | Water System | Maybe/D | | | | | | John Gardiner | 3196 | Steller CT | 360-739-7456 | gonzadoczi@hotmail.com |
| ### | Single Family | Well | Maybe/D | | 1 | 3 | 3 | | Kevin Bedlington | 2640 | Northshore Rd | 360-920-1556 | ktbedlington@comcast.net |
| ### | Single Family | Well | Maybe/D | Other | 2 | | 2 | | Elle Hughes | 3325 | Agate Heights Rd | 360-441-7222 | elliehughes@comcast.net |
| ### | Single Family | Lake draw | Maybe/D | | | | | | Bart Smith | 3277 | Northshore Rd | 808-351-4988 | |
| ### | Single Family | Shared Well | Maybe/D | Fire/Safety, Other, Reliability | 1 | 2 | 3 | 4 | Brady and chep titr | 3144 | Edgewood Ln | 805-796-0517 | |
| ### | Single Family | Lake draw | Maybe/D | Water Quality | 2 | 3 | 1 | | Brent Belsler | 1835 | Northshore Rd | | 5belslers@comcast.net |
| ### | Single Family | Shared Well | Maybe/D | Water Quality, Water Quan | 1 | | | | Stephen Brigham | 3143 | Edgewater Ln | 360-593-9402 | brigham38@hotmail.com |
| ### | Single Family | Well | Maybe/D | Fire/Safety, Other | 1 | 2 | 3 | 4 | Roger Bourm | 2644 | Northshore Rd | 360-739-5624 | bourm@aol.com |
| ### | Single Family | Well | Maybe/D | Reliability | 1 | 2 | 3 | 4 | Ron Lovell | 2976 | Northshore Rd | 360-734-6929 | k8lovel@icloud.com |
| ### | Single Family | Lake draw | Maybe/D | Fire/Safety, Reliability, Wat | 2 | | 2 | | Dave Lunde | 2078 | Dellesta Dr | 360-733-3202 | ds_lunde@yahoo.com |
| ### | Single Family | Lake draw | Maybe/D | Reliability | 2 | 3 | 1 | | Seabury McGown | 2084 | Dellesta Dr | 756-7912 | |
| ### | Single Family | Lake draw | Maybe/D | Reliability, Water Quality | 1 | 3 | 2 | | Pete Kremen | 3283 | Northshore Rd | 360-734-3802 | pkremen@comcast.com |
| ### | Single Family | Water System | Maybe/D | | | | | | Kim | 3227 | eagleridge way | 360-756-2388 | |
| ### | Single Family | Water System | Maybe/D | | | | | | G new Sted | 3212 | eagleridge way dr | 671-5113 | gnewsted@comcast.net |

Notes

Depends on upfront cost and long term cost, complexity of install

I assume that I am connected to a 'district' water (potable) supply. That who gets my check every two

Depends on cost. I currently have a sewer connection but was forced to sign a no contest agreement in order to receive a sewer permit. I appealed the process and was told by the board that I will not be forced to connect to a future water system. I would like to know if your position on this matter is still the same?

Quality/Quantity? It's the same damn water, its just the city is doing testing and adding chemicals. You guys have a bigger well

Want it free. Wouldn't sewer lines makes more sense in the lake whatcom region? The purity of the lake is an issue. Also replacement of the old septic tanks is very costly. I would rather hook up to that.

Cost

Cost

Like to have house a backup. Depends. I am presently hooked to your sewer, may be the cost in the northshore rd system I could retain well for sprinkler system

Would you run the sewer to the end

Cost

cost

Does not apply

I have no problem on consolidating water system unless??? Money is required. I am not willing to have my water rates rise to fund this effort as LWUSD rates are already high

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|-----------|-------------------------------|---------|--------|-------|-------|---|-----------------------|---------|-------------------------|--------------|-------------------------|
| ### | Single Family | Don't know | No Idea | | | | | | | Maureen Osen | 3224 | eagleridge way | 360-922-7953 | m.osen@comcast.net |
| ### | Single Family | Water System | NA | | | | | | Already on system . Concerned our quality will go down or lessen out water pressure. Is this more about greed and leftist control of our natural resources? | Dana Patrick Downs | 3343 | Agate heights rd | 360-325-3480 | |
| ### | Single Family | Water System | NA | | | | | | Having options. | Rick Porter | 1713 | Balden Ct. | | Rosannaportier@aol.com |
| ### | Vacant | Well | Maybe/D | Other, Reliability | 2 | 2 | 2 | 2 | Will there be a LID fee? if one chooses not to connect will there still be changes? Willit be less costly to connect when line is put in? | Cathy Brooking/Pet | 2600 | Northshore Rd | 360-733-2978 | petandem@gmail.com |
| ### | Single Family | Well | Maybe/D | Other, Reliability | 2 | 2 | 2 | 2 | Depends on cost. | Cathy Brooking/Pet | 2600 | Northshore Rd | 360-733-2978 | petandem@gmail.com |
| ### | Single Family | Lake draw | Maybe/D | Reliability | 1 | | | | Depends on cost. | Keith Mayo | 3926 | Forest Beach Dr. NW, GI | 253-905-0547 | mayok@earthlink.net |
| ### | Single Family | Shared Well | Maybe/D | Reliability, Water Quantity | 1 | 3 | 2 | 4 | Depends on cost. | Craig Manos | 3165 | Lakeshore Rd | 360-223-8063 | craigmanos@yahoo.com |
| ### | Single Family | Lake draw | Maybe/D | | 2 | 2 | 2 | | Depends on cost. | Calvin & Doloris Ball | 2605 | Northshore Rd | 360-734-2473 | |
| ### | Single Family | Lake draw | Maybe/D | Fire/Safety, Reliability, Wat | 1 | 2 | 3 | | Depends on cost to join and connect. Sufficient federal and state grants would be needed to make it financially feasible to join. | Michael T. Sello | 2309 | Northshore Rd | 360-733-9121 | mseilos59@comcast.net |
| ### | Single Family | Lake draw | Maybe/D | Fire/Safety, Reliability | 1 | | 2 | | Occupy house two months per year. Interested w/reservations. Motivated by prospect of less maintenance. | Dan Jurgenson | 1762 | Northshore Rd | 360-676-1019 | |
| ### | Single Family | Lake draw | Yes | Other, Reliability, Water Q | 1 | 2 | 3 | | Very interested. | Dan Rosser | 2105 | Northshore Rd | 360-739-9939 | |
| ### | Single Family | Well | Yes | Reliability, Water Quality | 3 | 1 | 2 | | Able to continue lake draw for grounds/garden? | Chris Brueske | 2724 | Willow Ln. | | cbrueske@comcast.net |
| ### | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat | 1 | 2 | 3 | 4 | | Brian Patterson | 2157 | Northshore Rd | 360-820-5409 | alberni11@gmail.com |
| ### | Vacant | Well | Yes | Reliability, Water Quality | 1 | | | | Water System: Northshore Water & Septic/Solar Acres. Interested but depends on cost. | Susan Miner | 3171 | Edgewood Ln | 360-671-7289 | susanmike76@comcast.net |
| ### | Single Family | Well | Yes | Reliability, Water Quantity | 1 | 3 | 2 | | Need more info. Too expensive. | Paul Zosel | 2719 | Willow Ln | | pjzose@openaccess.org |
| ### | Single Family | Water System | Maybe/D | Reliability, Water Quantity | 2 | 1 | 3 | | It is too expensive for us who have spent much for a water system- pump, filters, etc. | Robert Benner | 1741 | Edgewater Ln | 360-734-3452 | benner1741@yahoo.com |
| ### | Single Family | Lake draw | No | | | | | | We have water rights from DOE. We have zero interest in the public water system. | Larry Ziels | 1749 | Edgewater Ln | 360-734-8766 | jziels@comcast.net |
| ### | Single Family | Lake draw | No | | | | | | We have an expensive system providing water and tested regularly. | Alexander | 2109 | Northshore Rd | 360-647-8276 | |
| ### | Single Family | Lake draw | No | | | | | | | | | | | |

| ID | Current Use | Water Source | Connect | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|--------------|---------|--------------------------------|---------|-----|----|-------|-------|--|---------------------|---------|----------------|--------------|-----------------------------|
| ### | Single Family | Shared Well | No | | | | | | | Our shared well costs are significantly reduced compared to others on your LWWSD system. | Loran Zenovian | 2588 | Northshore Rd | 360-255-1098 | zenovianloran@gmail.com |
| ### | Single Family | Shared Well | No | | | | | | | Went to public meeting-the cost to bring a public water supply down Northshore is just too high. The DOH wants to consolidate small water systems, sure, but we are not on a small water system, we are on a well. | | | | | |
| ### | Single Family | Lake draw | No | | | | | | | | William Knudsen | 1798 | Northshore rd | 360-671-8260 | wgknudsen@gmail.com |
| ### | Single Family | Lake draw | No | | 1 | | | | | | John Herds | 2112 | Dellesta Dr | | |
| ### | Single Family | Lake draw | No | | | | | | | | John N. Connell | 3307 | Northshore Rd | 360-739-8864 | johnshq@comcast.net |
| ### | Single Family | Well | No | | | | | | | | Ron Eriksen | 2171 | Dellesta Dr | 360-527-1542 | |
| ### | Single Family | Lake draw | No | | | | | | | | Denis McGuire | 2355 | Northshore Rd | 360-933-4297 | |
| ### | Not Indicated | Lake draw | No | | | | | | | | Michael Cheng | 3360 | Opal Terrace | | metcheng@yahoo.com |
| ### | Single Family | Water System | NA | Water Quality | 1 | | | | | Water System: Agate Heights | | | | | |
| ### | Single Family | Water System | NA | | | | | | | Water System: Eagleridge. Already on public water system! | | | | | |
| ### | Single Family | Water System | Maybe/D | Water Quality | 3 | 1 | 2 | | | Water System: Eagleridge | Mark Hoffmann | 1761 | Aquila Ct | 360-756-1367 | hoffer1@gmail.com |
| ### | Single Family | Lake draw | Yes | Water Quality | | | 1 | | | | F&M Baily | 2165 | Dellesta Dr | 306(?)647-08 | fbaily@bmgm.com |
| ### | Single Family | Water System | Maybe/D | Fire/Safety, Reliability, Wat | 1 | 2 | 3 | | | Water System: North Shore Ridge | Robert Oltarzewski | 3075 | E. 21st Place | 360-738-3422 | roco@openaccess.org |
| ### | Single Family | Lake draw | No | | | | | | | | Marvin Marston | 1729 | Edgewater Ln | 360-734-8143 | mmarston8143@msn.com |
| ### | Single Family | Lake draw | Maybe/D | Reliability, Water Quality | 1 | | 2 | | | Water System: Dellesta Water Association | Craig & Lydia Coope | 2141 | Dellesta Dr | 360-738-1786 | c_e_c@comcast.net/dlcoo |
| ### | Vacant | No Response | No | | | | | | | Extending water systems would cause more development in the watershed, further degrading the water quality of Lake Whatcom. We are opposed to this water system plan. Please protect our lake. | Joan Van Gasken | 5630 | East Rd | 398-0331 | |
| ### | Vacant | Other: None | Yes | Fire/Safety, Reliability, Wat. | 1 | | | | | I am highly in favor. My property has room for a well, but currently there is a moratorium on new wells. | Ray Bowen | 17729 | 13th NW | 206-660-7546 | rabo@triplebcorp.com |
| ### | Single Family | Shared Well | Maybe/D | Reliability, Water Quality, | | | | 1 | | Dependent upon whether we will be granted legal access for withdrawals from our shared well if we pursue a building permit. As it stands, now following Hirst v. Whatcom County, permitted access/withdrawals are barred. Thank you for your time! | Stephanie Manzo | 1811 | Eldridge Ave | 607-742-5698 | stephanieannmanzo@gmail.com |

| ID | CurrentUse | WaterSource | Connect t | Motivation? | Overall | Pay | Fe | Water | Other | Notes | Name | address | Address Street | Phone | email |
|-----|---------------|-----------------|-----------|-------------------------------|---------|-----|----|-------|-------|---|---------------------|---------|-------------------------|--------------|-------------------------|
| ### | Single Family | Lake draw | Yes | Fire/Safety, Reliability | 1 | | | 2 | | Vacation house, occupied part time. | R.A. Brocklebank | 2163 | Dellesta Dr | 738-8030/604 | brocklebank@shaw.ca |
| ### | Single Family | Shared Well | Maybe/D | Reliability, Water Quality, | 1 | | | 2 | | Cost is everything. I would not spend even \$5,000 to then pay \$100/month for water I get out of my well for \$15. | Jason Sims | 3100 | Edgewood Ln | 360-739-3353 | simsjason@comcast.net |
| ### | Single Family | Lake draw | Maybe/D | Fire/Safety, Reliability, Wat | 1 | 3 | 2 | 4 | | How limited will water usage be? | Doug Bixel/Bixel Fa | 2060 | Dellesta Dr | 360-734-0694 | bixel9@comcast.net |
| ### | Single Family | Lake draw | No | | | | | | | This duplicates our response submitted at the 6/20 meeting. Customers responding at both the meeting and now to this mailed survey could well distort your survey results. Beware of invalid conclusions! | Brent Walker | 3141 | Agate Bay Ln | 360-676-5575 | brentw@cbwholesale.com |
| ### | Single Family | Lake draw | No | | 1 | | | 2 | | | Jim Kaemingk | 2149 | Northshore Rd | 360-224-5465 | jim@jimk.net |
| ### | Single Family | Water System | Maybe/D | Water Quality | 1 | | | | | Water System: LWWSD. Depends on if there are advantages. Current service is fine. | Walter Michelutti | 2316 | Agate Heights Ln | | |
| ### | Single Family | Water System | Maybe/D | | | | | 1 | | | | | | | |
| ### | Single Family | Well/Lake draw | Yes | Reliability, Water Quantity | 1 | | | 1 | | | William & Cynthia H | 3078 | Northshore Rd | | |
| ### | Vacant | Other: NA | No | | | | | | | Three households share this lot. It is too small to build on. We each wanted to have more space. | William & Cynthia H | 3078 | Northshore Rd | | |
| ### | Single Family | Shared Well | Yes | Reliability, Water Quality, | 1 | 2 | | 3 | | | Address | | PO Box 31715, Bellingh | | |
| ### | Single Family | Lake draw | Yes | Fire/Safety, Reliability, Wat | 2 | 3 | | 1 | 4 | Ability to continue drawing water from lake for landscaping, etc. | Jack Westford | 1837 | Northshore Rd | 360-733-5858 | nwestford@gmail.com |
| ### | Single Family | Well/Lake draw | Yes | Reliability, Water Quality | 1 | 3 | | 2 | | I think a sewer line should be put in as well if feasible. Name withheld-I don't trust the county's intentions. | M.J. Cudmore | 6651 | Tideview Rd, Sooke, BC, | 250-532-2921 | mjc.tideview@icloud.com |
| ### | Vacant | Other: No sourc | Yes | Fire/Safety, Reliability | 1 | | | 2 | | Immediacy. We support this water system expansion. | | | | | |
| 49 | Single Family | Lake draw | No | | | | | | | If a water line is put in, will we be required to hook up? Extending sewer service on the N. Shore Rd is better for Lake health. | Kris Ungren | 2095 | Northshore Rd | 360-734-2701 | suebear02@comcast.net |
| 50 | Single Family | Lake draw | No | | | | | | | I am very opposed to this water system expansion. | Don Boyer | 2695 | Northshore Rd | 206-719-7446 | don.boyer@comcast.net |
| 51 | Single Family | Lake draw | No | | 2 | 2 | | 2 | | | Charles Walter | 1737 | Edgewater Ln | 360-201-4187 | chwalter53@gmail.com |
| 48 | Single Family | Agate Heights | Yes | Other | 1 | | | | | Current system provides low pressure and high mineral content | Troy Degroot | 3372 | Coral Ln | | ifynavy@comcast.net |



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

| | | | |
|---|---|---|---|
| DATE SUBMITTED: | August 2, 2017 | | |
| TO BOARD OF COMMISSIONERS | | | |
| FROM: Patrick Sorensen | MANAGER APPROVAL <u><i>Patrick Sorensen</i></u> | | |
| MEETING AGENDA DATE: | August 9, 2017 | | |
| AGENDA ITEM NUMBER: | 7.0 | | |
| SUBJECT: | Manager's Report | | |
| LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____ | 1. Manager's Report | | |
| | 2. | | |
| | 3. | | |
| TYPE OF ACTION REQUESTED | RESOLUTION <input type="checkbox"/> | FORMAL ACTION/ MOTION <input type="checkbox"/> | INFORMATIONAL/ OTHER <input checked="" type="checkbox"/> |

BACKGROUND / EXPLANATION OF IMPACT

Updated information from the General Manager in advance of the Board meeting.

FISCAL IMPACT

None

RECOMMENDED BOARD ACTION

None required.

PROPOSED MOTION

None

General Manager Comments

Wednesday

August 9, 2017

Regular Meeting

6:30 p.m.

Important Upcoming Dates:

- **Meetings Associated with the Lake Whatcom Management Program:**
 - **Policy Group Meeting:** Reminder: The next meeting is scheduled for October 16, 2017 at 3:00 p.m. downstairs at the Municipal Court Building in the conference room.
 - **Management Meeting:** There is not a meeting scheduled at this time.
- **Next Regular Board Meeting:** The next regular meeting will be held on **Wednesday, August 30, 2017** at 8:00 a.m.
- **Employee Staff Meeting:** The next staff meeting is set for **Thursday, August 10, 2017 at 8:00 a.m.** in the Board Room. Commissioner Weide is scheduled to attend this meeting.
- **Employee Safety Committee Meeting:** The next meeting is set for **August 10, 2017 at 9:00 a.m.** in the small conference room.
- **Washington Association of Sewer & Water Districts (WASWD) Section III Meeting:** The next Section III meeting will be held at Bob's Burger and Brew in Tulalip on **August 8, 2017** at 6:15 p.m.
- **Whatcom Water District's Caucus Meeting:** The next Caucus meeting is set for **August 16, 2017** at 1:00 p.m. in the Board Room.

Other:

- **Committee Meeting Reports as Needed:** This is a place holder for Board and staff members to report on recent committee meetings, such as the Lake Whatcom Policy Group, since the last Board Meeting.
- **Date of Fall 2017 WASWD Conference:** Reminder, the Fall Conference will be September 27 - 29 in Wenatchee. The conference ends on Friday at noon.

- **Upcoming Important Agenda Topics:**

Northshore Water Quality Report Policy Discussion - As discussed previously the final report has been sent to the Mayor, County Executive, the Councils, WDOE and WDOH representatives, and appropriate City and County staff. A presentation on the findings will be presented to the L.W. City & County staff Data Meeting on September 14 (at a time in the afternoon) by Rob Zisette. This is an important group of City and County staff who play a major role in policy recommendation to the Councils. In addition, Rob is also tentatively scheduled to make a similar presentation to the Lake Whatcom Policy Group on October 16. In light of these upcoming presentations we will discuss things regarding these meetings at the August 30 Board Meeting.

- **Out of Area & Meeting Changes RemInder:**

- I will be missing the September 13 Board meeting. I am going to be at an Insurance Pool related conference in California from September 12 through the 15th. In addition I will be taking a few days off on vacation returning to the office on the 20th.
- The September 27, 8:00 a.m. meeting was moved to the 26th at 8:00 a.m. The 27th conflicts with the Fall WASWD Water & Sewer Conference.
- Please remember to notify staff and the rest of the Board of any anticipated Board meeting absences through the rest of 2017.



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

| | | | |
|------------------------------|--|--|--|
| DATE SUBMITTED: | August 2, 2017 | | |
| TO BOARD OF COMMISSIONERS | | | |
| FROM: Staff | MANAGER APPROVAL _____ | | |
| MEETING AGENDA DATE: | August 9, 2017 | | |
| AGENDA ITEM NUMBER: | 4 | | |
| SUBJECT: | Consent Agenda | | |
| LIST DOCUMENTS PROVIDED ⇒ | 1. See list below | | |
| NUMBER OF PAGES | 2. | | |
| INCLUDING AGENDA BILL: | 3. | | |
| TYPE OF ACTION REQUESTED | RESOLUTION <input type="checkbox"/> | FORMAL ACTION/ MOTION <input checked="" type="checkbox"/> | INFORMATIONAL/ OTHER <input type="checkbox"/> |

BACKGROUND/EXPLANATION

- Accounts Payable Vouchers totaling \$xx,xxx.xx
- Payroll for Pay Period #16 (7/15/2017 through 7/28/2017) totaling \$44,624.56
- Payroll Benefits for Pay Period #15 totaling \$49,292.02
- Second Quarter 2017 Unemployment and L & I Payroll taxes totaling \$8,307.05
- Minutes for the July 26, 2017 meeting

PAYROLL

CHECK REGISTER

Lake Whatcom W-S District
MCAG #: 2330

08/03/2017 To: 08/03/2017

Time: 12:24:40 Date: 08/01/2017
Page: 1

| Trans | Date | Type | Acct # | Chk # | Claimant | Amount | Memo |
|-------|------------|---------|--------|-------|----------|----------|-------------------------------|
| 2513 | 08/03/2017 | Payroll | 5 | EFT | | 3,048.94 | 07/15/2017 - 07/28/2017 PR 16 |
| 2514 | 08/03/2017 | Payroll | 5 | EFT | | 2,615.65 | 07/15/2017 - 07/28/2017 PR 16 |
| 2515 | 08/03/2017 | Payroll | 5 | EFT | | 2,226.02 | 07/15/2017 - 07/28/2017 PR 16 |
| 2516 | 08/03/2017 | Payroll | 5 | EFT | | 3,074.72 | 07/15/2017 - 07/28/2017 PR 16 |
| 2517 | 08/03/2017 | Payroll | 5 | EFT | | 5,718.06 | 07/15/2017 - 07/28/2017 PR 16 |
| 2518 | 08/03/2017 | Payroll | 5 | EFT | | 1,273.90 | 07/15/2017 - 07/28/2017 PR 16 |
| 2520 | 08/03/2017 | Payroll | 5 | EFT | | 1,533.78 | 07/15/2017 - 07/28/2017 PR 16 |
| 2521 | 08/03/2017 | Payroll | 5 | EFT | | 2,628.89 | 07/15/2017 - 07/28/2017 PR 16 |
| 2522 | 08/03/2017 | Payroll | 5 | EFT | | 629.55 | 07/15/2017 - 07/28/2017 PR 16 |
| 2523 | 08/03/2017 | Payroll | 5 | EFT | | 3,171.98 | 07/15/2017 - 07/28/2017 PR 16 |
| 2524 | 08/03/2017 | Payroll | 5 | EFT | | 1,653.61 | 07/15/2017 - 07/28/2017 PR 16 |
| 2525 | 08/03/2017 | Payroll | 5 | EFT | | 1,793.82 | 07/15/2017 - 07/28/2017 PR 16 |
| 2527 | 08/03/2017 | Payroll | 5 | EFT | | 2,273.27 | 07/15/2017 - 07/28/2017 PR 16 |
| 2528 | 08/03/2017 | Payroll | 5 | EFT | | 1,435.21 | 07/15/2017 - 07/28/2017 PR 16 |
| 2529 | 08/03/2017 | Payroll | 5 | EFT | | 1,767.13 | 07/15/2017 - 07/28/2017 PR 16 |
| 2530 | 08/03/2017 | Payroll | 5 | EFT | | 3,810.48 | 07/15/2017 - 07/28/2017 PR 16 |
| 2531 | 08/03/2017 | Payroll | 5 | EFT | | 2,252.21 | 07/15/2017 - 07/28/2017 PR 16 |
| 2519 | 08/03/2017 | Payroll | 5 | 6878 | | 1,249.62 | 07/15/2017 - 07/28/2017 PR 16 |
| 2526 | 08/03/2017 | Payroll | 5 | 6879 | | 2,467.72 | 07/15/2017 - 07/28/2017 PR 16 |

401 Operating Fund

44,624.56

44,624.56 Payroll: 44,624.56

I do hereby certify, under penalty of perjury, that the above is an unpaid, just, and due obligation as described herein, and that I am authorized to certify this claim.

Sign  Date 18-028958-P57:-7VDL

Board Authorization - As the duly elected board for this district we have reviewed the claims listed and approve the payment with our signatures below.

Commissioner

Commissioner

Commissioner

Commissioner

Commissioner

BENEFITS

CHECK REGISTER

Lake Whatcom W-S District
MCAG #: 2330

08/03/2017 To: 08/03/2017

Time: 08:57:45 Date: 08/02/2017

Page: 1

| Trans | Date | Type | Acct # | Chk # | Claimant | Amount | Memo |
|--------------------|------------|---------|--------|-------|--|-----------|--|
| 2537 | 08/03/2017 | Payroll | 5 | EFT | UNITED STATES TREASURY | 18,421.78 | 941 Deposit for Pay Cycle(s) 07/20/2017 - 07/20/2017; 941 Deposit for Pay Cycle(s) 08/03/2017 - 08/03/2017 |
| 2538 | 08/03/2017 | Payroll | 5 | 6880 | AFLAC | 120.75 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - AFLAC Pre-Tax |
| 2539 | 08/03/2017 | Payroll | 5 | 6881 | AFSCME LOCAL | 369.27 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - Union Dues; Pay Cycle(s) 08/03/2017 To 08/03/2017 - Union Fund |
| 2540 | 08/03/2017 | Payroll | 5 | 6882 | DEPARTMENT OF RETIREMENT SYSTEMS | 3,041.00 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - DCP |
| 2541 | 08/03/2017 | Payroll | 5 | 6883 | HRA VEBA TRUST (PAYEE) | 540.00 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - VEBA |
| 2542 | 08/03/2017 | Payroll | 5 | 6884 | VANTAGEPOINT TRANSFER AGENTS - 306798 | 588.00 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - ICMA |
| 2543 | 08/03/2017 | Payroll | 5 | 6885 | WA ST PUBLIC EMP RET PLAN 2 | 10,905.63 | Pay Cycle(s) 07/20/2017 To 07/20/2017 - PERS 2; Pay Cycle(s) 08/03/2017 To 08/03/2017 - PERS 2 |
| 2544 | 08/03/2017 | Payroll | 5 | 6886 | WA ST PUBLIC EMP RET PLAN 3 | 1,419.86 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - PERS 3 |
| 2545 | 08/03/2017 | Payroll | 5 | 6887 | WA ST SUPPORT ENFORCEMENT REGISTRY | 208.34 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - SUP ENF |
| 2546 | 08/03/2017 | Payroll | 5 | 6888 | WASHINGTON STATE HEALTH CARE AUTHORITY | 13,677.39 | Pay Cycle(s) 08/03/2017 To 08/03/2017 - PEBB Medical; Pay Cycle(s) 08/03/2017 To 08/03/2017 - PEBB ADD LTD; Pay Cycle(s) 08/03/2017 To 08/03/2017 - PEBB SMK Surcharge |
| 401 Operating Fund | | | | | | 49,292.02 | |
| | | | | | | 49,292.02 | Payroll: 49,292.02 |

BENEFITS

CHECK REGISTER

Lake Whatcom W-S District
MCAG #: 2330

08/03/2017 To: 08/03/2017

Time: 08:57:45 Date: 08/02/2017

Page: 2

| Trans | Date | Type | Acct # | Chk # | Claimant | Amount | Memo |
|-------|------|------|--------|-------|----------|--------|------|
|-------|------|------|--------|-------|----------|--------|------|

I do hereby certify, under penalty of perjury, that the above is an unpaid, just, and due obligation as described herein, and that I am authorized to certify this claim.



Sign _____ Date 08-02-17 A08:01 01

Board Authorization - As the duly elected board for this district we have reviewed the claims listed and approve the payment with our signatures below.

Commisioner

Commisioner

Commisioner

Commisioner

Commisioner

CHECK REGISTER

BENEFITS Payroll Taxes 2nd Qtr 2017

Lake Whatcom W-S District
MCAG #: 2330


07/28/2017 To: 07/28/2017

Time: 12:12:39 Date: 07/28/2017

Page: 1

| Trans | Date | Type | Acct # | Chk # | Claimant | Amount | Memo |
|--------------------|------------|---------|--------|-------|--------------------------------|-------------------|-------------------------------------|
| 2492 | 07/28/2017 | Payroll | 5 | 6876 | WA ST DEPT OF EMPLOYMENT SECUR | 1,375.94 | 2ND Quarter 04/01/2017 - 06/30/2017 |
| 2493 | 07/28/2017 | Payroll | 5 | 6877 | WA ST DEPT OF LABOR AND IND | 6,931.11 | 2ND Quarter 04/01/2017 - 06/30/2017 |
| 401 Operating Fund | | | | | | 8,307.05 | |
| | | | | | | 8,307.05 Payroll: | 8,307.05 |

I do hereby certify, under penalty of perjury, that the above is an unpaid, just, and due obligation as described herein, and that I am authorized to certify this claim.

Sign  Date 7-31-17

Board Authorization - As the duly elected board for this district we have reviewed the claims listed and approve the payment with our signatures below.

Commissioner

Commissioner

Commissioner

Commissioner

Commissioner

Lake Whatcom Water and Sewer District
Regular Session of the Board of Commissioners
July 26, 2017

Board President Laura Weide called the Regular Session to order at 8:00 a.m. Other District representatives present included Commissioners Todd Citron, Curtis Casey, Bruce R. Ford, and John Carter, General Manager Patrick Sorensen, District Engineer Bill Hunter, consulting engineer Melanie Mankamyer, Recording Secretary Lyn Edwards and Rachael Hope. Staff members Kevin Cook, Rich Munson and Randy Craker were also present. There were no members of the public present.

- Consent Agenda

- Action Taken

- Casey moved, Ford seconded, approval of:

- Accounts Payable Vouchers totaling \$135,488.33
 - Payroll for Pay Period #15 (7/1/2017 through 7/14/2017) totaling \$40,211.30
 - Payroll Benefits for Pay Period #15 totaling \$44,807.31
 - Minutes for the July 12, 2017 Meeting

- Motion passed.

- Customer Request - Kuschnereit

Sorensen explained that the Kuschnereits' own an approximately 3 acre vacant residential parcel at 975 Kings View Lane located within the District's boundaries. The property is at least 1,000 feet from the nearest District infrastructure. Due to the *Hirst* decision, it is not feasible for the property to use well water at this time. The Kuschnereits' have requested a permit from Whatcom County to use a rainwater catchment system and need a denial of service letter from the District to proceed. In their letter, the Kuschnereits' state that it would be a financial burden for them to connect and therefore do not want to sign a covenant binding their property to future water/sewer service. Discussion followed.

- Action Taken

- Citron moved, Carter seconded, to deny the request for a waiver from signing a Covenant binding their property for future water/sewer service. Motion passed.

- Country Club Sewage Pump Station – Staff Recommendation

Hunter stated that at the July 12th meeting BHC and Geo Engineers presented four alternative designs for replacement of the Country Club Sewer Pump Station. Staff was directed to evaluate the alternatives and make a recommendation. Based on information gathered and evaluated to date, staff's recommendation is to pursue Alternate 3 – Horizontal Direction Drilling (HDD); install a gravity pipe and eliminate the pump station contingent on results from a soil hydraulic fracturing analysis using soil sample data collected from recent boring test pits.

Geo Engineers can estimate drilling fluid pressures that the soil profile is likely to handle before developing a fracture to the surface. A factor of safety can be estimated to better understand and evaluate the risk of hydraulic fracture. The analysis is also a valuable piece of information to use during construction. Staff has a high confidence level that the HDD method will be able to install a gravity pipe at a slope sufficient to maintain self-cleaning wastewater flow velocities. The risks can be substantially minimized and managed by performing several more exploratory test borings and completing the soil hydraulic fracturing analysis.

Staff recommends authorizing an amendment to the engineering agreement to complete a soil hydraulic fracturing analysis. Concurrently, BHC and staff will begin working on a scope of work