



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

REGULAR MEETING  
OF THE BOARD OF COMMISSIONERS

AGENDA

*October 26, 2016*

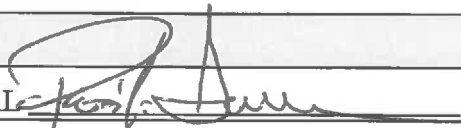
8:00 a.m. – Regular Session

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. North Shore Water Quality Testing-Task 4 Presentation by Herrera Environmental Consultants
  - B. Summary of Existing District Projects
6. OTHER BUSINESS
7. MANAGER'S REPORT
8. PUBLIC COMMENT OPPORTUNITY
9. ADJOURNMENT



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

|                           |  |
|---------------------------|--|
| DATE SUBMITTED:           | October 19, 2016   |
| TO BOARD OF COMMISSIONERS |  |
| FROM: Patrick Sorensen    | MANAGER APPROVAL   |
| MEETING AGENDA DATE:      | October 26, 2016   |
| AGENDA ITEM NUMBER:       | 5.A.   |
| SUBJECT:                  | North Shore Water Quality Testing – Task 4 Presentation By Herrera Environmental Consultants   |
| LIST DOCUMENTS PROVIDED ⇒ | 1. Copy of Previously Approved L.W. North Shore Water Quality Testing Scope of Work - Herrera Consulting   |
| 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 checked="" type="checkbox"/> |

#### **BACKGROUND / EXPLANATION OF IMPACT**

On July 27, 2016 the Board of Commissioners approved a scope of work and a cost estimate of \$18,052.00 with Herrera Environmental Consultants. Herrera was directed to prepare a scope of work and cost estimate to prepare a Sampling and Analysis Plan (SAP) for determining if onsite sewage system (OSS) leachate is a source of fecal coliform bacteria and phosphorus pollution in Lake Whatcom. This original scope of work included discussion, activities, assumptions, and deliverables for 5 specific tasks. A copy of the previously approved scope of work describing each task is included for your recollection.

The first 3 tasks have been completed by Herrera. A copy of the proposed sampling and analysis methods (SAP) based upon the workshop (Task 3) held on October 3 will be emailed to the Board on Monday October 24<sup>th</sup>; it is not ready as of this date. This represents Task 4. Rob Zisette will present the SAP at your meeting and take questions.

#### **FISCAL IMPACT**

To date the District has committed to expending the following:

- \$18,052.00 – Original Scope of Work to prepare & present Sampling and Analysis Plan (SAP)
- \$1,000.00 – Authorized by the General Manager to have consultant prepare and organize workshop. In the initially approved scope of work this preparatory work by consultant was not included. As staff got into the preparation to the workshop we

realized that we just did not have time in-house to organize this activity. Consultant was asked pick up this work.

- Within the upcoming SAP the consultant will include the proposed cost to conducting the testing program.

**RECOMMENDED BOARD ACTION**

To review and comment proposed SAP.

**PROPOSED MOTION**

To provide comment and direction to staff, and authorize expenditure of the proposed SAP.

## **SCOPE OF WORK**

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### **LAKE WHATCOM NORTH SHORE WATER QUALITY TESTING**

On June 29, 2016, Lake Whatcom Water and Sewer District (LWWSD) authorized Herrera Environmental Consultants (Herrera) to prepare a scope of work and cost estimate to prepare a Sampling and Analysis Plan (SAP) for determining if onsite sewage system (OSS) leachate is a source of fecal coliform bacteria and phosphorus pollution in Lake Whatcom. Herrera will review existing information, outline the SAP, attend a workshop and meetings, and prepare the draft and final SAP.

This scope of work includes a discussion of the activities, assumptions, deliverables, and a schedule associated with this project:

- Task 1.0 - Review Information
- Task 2.0 - Outline SAP
- Task 3.0 - Attend Workshop
- Task 4.0 - Prepare SAP
- Task 5.0 - Project Management and Meetings.

The schedule assumes that Herrera receives notice to proceed on the project by July 28, 2016.

#### **Task 1.0 - Review Background Information**

Herrera will conduct a cursory review of existing conditions of Lake Whatcom and OSS in the study area, and recent and current monitoring by others to understand and how the project SAP could supplement existing efforts and avoid duplication of work. This information will include:

- Lake conditions of fecal coliform bacteria and phosphorus loadings based on the total maximum daily load (TMDL) studies and implementation plan
- OSS conditions based on information and data recently compiled by Wilson Engineering for LWWSD
- OSS inspection and maintenance practices by Whatcom County
- Lake monitoring by LWWSD, Whatcom County, and City of Bellingham.

Herrera will review literature on sanitary sewage source investigation methods that may be used as a model for the project SAP. Herrera will use literature review findings previously performed by Herrera for various microbial source tracking studies, and update it with additional information obtained by researching online sources of information that are specific to monitoring OSS impacts on lakes.

Herrera will conduct a cursory review of literature on OSS impacts to lake water quality. Online sources of information will be summarized review will include examples of case studies of OSS

impacts to lake water quality, and management practices and policies for OSS located near lakes used for drinking water supply.

#### **Assumptions**

- LWWSO will provide Herrera with information and contacts for review of recent and current lake monitoring programs and pollutant sources, and OSS conditions and inspection/maintenance practices.

#### **Deliverables and Schedule**

- Literature review will be completed by August 12, 2016; the review findings will be summarized in the SAP outline (Task 2.0)

#### **Task 2.0 – Outline SAP**

Herrera will prepare an annotated outline of the project SAP summarizing results of the information review (Task 1.0), and outlining the recommended sampling and analysis methods for determining if onsite sewage systems are a source of pollution to Lake Whatcom. Methods for detecting sewage contamination of lake water range from simple field and laboratory tests of indicator chemicals or bacteria, to complex molecular methods analyzing the DNA of fecal bacteria or viruses. Herrera has evaluated all of the available methods for multiple projects and most recently recommended field testing with a fluorometer to measure low concentrations of optical brighteners for detecting OSS contamination of streams draining to Hood Canal. Herrera's principal investigator originally used fluorometer testing in 1981 to locate failing OSS units along the shoreline of Pine Lake in Sammamish, Washington. Field fluorometers have since been developed that accurately measure low concentrations of optical brighteners by measuring a specific wavelength and employing methods to correct interferences from natural substances in surface waters. Herrera will compare advantages of the two instruments from Turner Designs: AquaFluor handheld fluorometer (0.5 ppm detection limit of grab samples) and the Cyclops-7 submersible sensor (0.6 ppb detection limit with long-term data logging at higher cost). Herrera will also investigate the potential for detecting optical brighteners by renting a flow-through fluorometer.

The sampling design of optical brighteners and/or other indicator parameters will be developed based on designs of successful investigations that target locations and periods of maximum sewage discharge to the lake. It is recommended that monitoring be conducted at many nearshore locations within and outside areas of suspected discharge based on findings of the OSS analysis. Monitoring should be conducted when maximum discharge is expected, such as Saturday morning when laundry detergents are in high use, and following storm events when shallow groundwater discharge to the lake is high. It is anticipated that monitoring would be conducted on one or two days in the late fall of 2016.

An alternative monitoring approach will be considered that includes dye testing of individual OSS units. Green dye would be added to a system and observed in the lake or temporary well points installed near the shoreline. This monitoring may be conducted as an alternative to

nearshore monitoring of optical brighteners or other indicator parameters, or to verify that a specific OSS is responsible for the positive detection of indicator parameters.

The annotated outline will also describe the data analysis and statistical procedures for evaluating the collected data, and assess the confidence level of conclusions obtained from the alternative sampling designs. A cost estimate and preliminary schedule to implement the SAP will be included in the annotated outline.

**Assumptions**

- Background information will be summarized in a separate document to be included as an appendix of the SAP
- Recommended sampling analysis procedures will be briefly outlined

**Deliverables and Schedule**

- SAP outline in electronic format by September 2, 2016

**Task 3.0 – Attend Workshop**

Herrera will attend a workshop with the District Board of Commissioners and other stakeholders to summarize preliminary research and coordinate completion of the SAP. Herrera's principal investigator will present research findings and recommendations outlined for Task 2 at a workshop to be scheduled by LWWS.

**Assumptions**

- Workshop will be approximately 2 hours long to include a presentation and open discussion of the SAP outline
- Herrera's principal investigator will attend the workshop in Bellingham
- Herrera will not prepare a summary of the workshop activities

**Deliverables and Schedule**

- 10 Present the SAP outline at one, 2-hour workshop by September 16, 2016

**Task 4.0 – Prepare SAP**

Herrera will finalize the sampling and analysis methods based on the workshop (Task 3.0) and prepare a draft SAP for review by LWWS and other select stakeholders. Herrera will prepare a final SAP that addresses review comments and discussions at a meeting with the District Board of Commissioners (Task 5.0). The plan will be prepared following Herrera's rigorous QA/QC process that includes reviews by a technical specialist, editor, project manager, and principal-in-charge.

**Assumptions**

- LWWSO will provide one set of written comments on the draft SAP within 2 weeks of receiving the draft SAP

**Deliverables and Schedule**

- Draft SAP in electronic format by October 7, 2016
- Final SAP by November 4, 2016

**Task 5.0 – Project Management and Meetings**

Herrera will be responsible for ongoing contract administration of this project, including preparing monthly invoices and brief progress reports, as well as coordination of work efforts with the designated client point of contact (Patrick Sorensen). Herrera's project manager and contract manager will have phone and e-mail contact with LWWSO on an as-needed basis.

Herrera's principal investigator will attend a meeting with the District Board of Commissioners to present and discuss the draft SAP. Herrera's principal investigator will attend a public meeting to present the final SAP to the Lake Whatcom Cooperative Management Program (LWWSO, City of Bellingham, and Whatcom County).

**Deliverables and Schedule**

- Monthly progress reports and invoices.



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

|                              |   |   |   |
|------------------------------|---|---|---|
| DATE SUBMITTED:              | October 18, 2016                                      |   |   |
| TO BOARD OF COMMISSIONERS    |   |   |   |
| FROM: Bill Hunter and Staff  | MANAGER APPROVAL <i>[Signature]</i>                   |   |   |
| MEETING AGENDA DATE:         | October 26, 2016                                      |   |   |
| AGENDA ITEM NUMBER:          | 5.B.  |   |   |
| SUBJECT:                     | Summary of Existing District Projects                 |   |   |
| LIST DOCUMENTS PROVIDED<br>⇒ | 1. October 2016 Summary of Existing District Projects |   |   |
| NUMBER OF PAGES              | 2.  |   |   |
| INCLUDING AGENDA BILL:       | 3.  |   |   |
| TYPE OF ACTION REQUESTED     | RESOLUTION<br><input type="checkbox"/>                | FORMAL ACTION/<br>MOTION <input type="checkbox"/> | INFORMATIONAL/<br>OTHER <input checked="" type="checkbox"/> |

#### **BACKGROUND / EXPLANATION OF IMPACT**

Staff presentation of Summary of Existing District Projects and priorities.

#### **FISCAL IMPACT**

Not applicable at this time.

#### **RECOMMENDED BOARD ACTION**

Review and discuss

#### **PROPOSED MOTION**

Not applicable at this time.



# LAKE WHATCOM WATER AND SEWER DISTRICT

## Summary of Existing District Projects

| Meeting Date   | Effective Date           |                         | Prepared by                |                           |
|--|--------------------------|-------------------------|----------------------------|---------------------------|
| October 26, 2016                                     | October 20, 2016         |                         | LE/BH                      |                           |
| Status of Water and System Capacities                |                          |                         |                            |                           |
|  | South Shore<br>ID# 95910 | Eagleridge<br>ID #08118 | Agate Heights<br>ID# 52957 | Johnson Well<br>ID# 04782 |
| DOH Approved #                                       | 3935                     | 85                      | 54                         | 2                         |
| Connected ERUs                                       | 3807                     | 68                      | 44                         | 2                         |
| Remaining Capacity (ERUs)                            | 130                      | 17                      | 10                         | 0                         |
| Commitments – Not yet connected                      |                          |                         |                            |                           |
| Permitted ERUs Under Construction                    | 10                       | 0                       | 0                          | 0                         |
| Pre-paid Connection Certificates and Expired Permits | 11                       | 2                       | 5                          | 0                         |
| Water Availabilities (trailing 12 months)            | 18                       | 0                       | 0                          | 0                         |
| Subtotal   | 39                       | 2                       | 5                          | 0                         |
|  |                          |                         |                            |                           |
| Available ERUs                                       | 89                       | 15                      | 5                          | 0                         |

### \*\*Completed Capital Projects in 2016\*\*

|        |  |
|--------|--|
| C1207  | Reservoir Overflow Drains to Daylight                        |
| C1402  | Geneva Area A/C Mains  |
| C1412  | Facility Improvements  |
| C1502  | Sudden Valley Water Treatment Plant Spare Acidification Unit |
| C1503  | SWWTP Clear well Overflow                                    |
| C1601  | General Engineering Services                                 |
| C1609  | Sudden Valley Sewer Pump Station Emergency Repairs           |
| C1604a | LWB/Airport Isolation Valve                                  |
| C1604b | Detention Basin Gate Valve Extension                         |
| C1608  | SVCA Culvert Replacements                                    |

### \*\*State Required Report Status\*\*

| Reporting | Name of Report & Preparer                               | Completed                           |                                     |                                     |                                     |                                     |                                     | When Due                                   |
|-----------|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| MONTHLY   | Chlorination Report<br>Agate Heights (Kevin)            | Jan                                 | Feb                                 | Mar                                 | Apr                                 | May                                 | June                                | Postmarked by<br>10 <sup>th</sup> of month |
|           |   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |  |
|           | Surface Water Treatment<br>Rule Report (SWWTP) (Kevin)  | July                                | Aug                                 | Sept                                | Oct                                 | Nov                                 | Dec                                 | Postmarked by<br>10 <sup>th</sup> of month |
|           |   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |  |
|           | Department of Revenue<br>(Debi)                         | Jan                                 | Feb                                 | Mar                                 | Apr                                 | May                                 | June                                | Due end of<br>following month              |
|           |   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |  |
| ANNUALLY  | Community Right to Know<br>(Hazardous Materials) (Rich) | January 25, 2016                    |                                     |                                     |                                     |                                     |                                     | Due by March 31st                          |
|           | WA State Cross Connection<br>Report (Rich)              | May 5, 2016                         |                                     |                                     |                                     |                                     |                                     | Due Annually<br>May                        |
|           | OSHA 300 Log (Rich)                                     | Completed January 27, 2016          |                                     |                                     |                                     |                                     |                                     | Due by Feb 1st                             |

| <b>**State Required Report Status**</b> |   |                     |   |
|---|---|---------------------|---|
| <b>Reporting</b>                        | <b>Name of Report &amp; Preparer</b>              | <b>Completed</b>    | <b>When Due</b>   |
| <b>ANNUALLY</b>                         | Water Use Efficiency Performance Report (Kevin)   | June 30, 2016       | Due by July 1st   |
|   | Consumer Confidence Reports (Kevin)               | May 2016            | <ul style="list-style-type: none"> <li>• Geneva- 5/16</li> <li>• Sudden Valley 5/16</li> <li>• Eagleridge – 5/16</li> <li>• Agate Hghts – 5/16</li> </ul> |
|   | Hazardous Waste Activity Report (Rich)            | February 29, 2016   | Due by March 31st   |
|   | Report Number of Sewer ERUs to City of Bellingham | Completed 1/15/2016 | Due by January 15th   |
| <b>OTHER</b>                            | CPR/First Aid Training (Rich)                     | Completed 6/10/2015 | Due Biennially Next Due 2017  |
|   | Flagging Card Training (Rich)                     | Completed 8/3/2016  | Due Triennially Next Due 2019   |

## **SAFETY PROGRAM SUMMARY**

*Completed by Rich Munson*

| Summary of Annual Safety Training  |                  |             |            |      |
|--|------------------|-------------|------------|------|
|  | Enrollments      | Completions | % Complete |      |
| Engineering - Managers   | 34               | 34          | 100%       |      |
| Engineering - Staff  | 19               | 19          | 100%       |      |
| Field Crew   | 182              | 182         | 100%       |      |
| Field Crew - Managers  | 26               | 26          | 100%       |      |
| Office Managers  | 20               | 11          | 55%        |      |
| Office - Staff   | 48               | 48          | 100%       |      |
| Weekly Crew Safety Meetings  |                  |             |            |      |
| Safety meetings for the field crew take place every Tuesday or Wednesday at 5:00 p.m.  |                  |             |            |      |
| Dates of Safety Committee Meetings   |                  |             |            |      |
| January 14, 2016   | October 13, 2016 |             |            |      |
| February 11, 2016  |                  |             |            |      |
| March 9, 2016  |                  |             |            |      |
| April 11, 2016   |                  |             |            |      |
| May 12, 2016   |                  |             |            |      |
| June 9, 2016   |                  |             |            |      |
| Summary of Work-Related Injuries & Illnesses   |                  |             |            |      |
| Year   | 2016             | 2015        | 2014       | 2013 |
| Total Number of Work Related Injuries<br>Defined as a work related injury or illness that results in: <ul style="list-style-type: none"><li>• Death</li><li>• Medical treatment beyond first aid</li><li>• Loss of consciousness</li><li>• Significant injury or illness diagnosed by a licensed health care professional</li><li>• Days away from work (off work)</li><li>• Restricted work or job transfer</li></ul> | 0                | 1           | 1          | 11   |
| Total Number of Work Related Injuries<br>Defined as a work related injury or illness that results in:  | 0                | 1           | 1          | 11   |

|   |   |   |   |    |
|---|---|---|---|----|
| <ul style="list-style-type: none"> <li>• Death</li> <li>• Medical treatment beyond first aid</li> <li>• Loss of consciousness</li> <li>• Significant injury or illness diagnosed by a licensed health care professional</li> <li>• Days away from work (off work)</li> <li>• Restricted work or job transfer</li> </ul> |   |   |   |    |
| Total Number of Days of Job Transfer or Restriction<br>(Light duty or other medical restriction)  | 0 | 0 | 0 | 5  |
| Total Number of Days Away From Work<br>(At home, in hospital, not at work)  | 0 | 0 | 0 | 13 |

| <b>Developer Extension Agreements</b>  |   |   |           |
|--|---|---|-----------|
| <b>D1601</b>   | <b>Geneva Woods Developer Extension Agreement</b>                   |   |           |
| SCOPE  | Water and sewer improvements for 6 water and sewer connections.     |   |           |
| SIGN DATE  | 7/27/2016   | EXPIRATION DATE   | 7/27/2019 |
| Prior to Commencing Construction   |   | Prior to Final Acceptance   |           |
| <input type="checkbox"/> 1. District Engineer approves design<br><input type="checkbox"/> 2. Reimbursement of District Engineer review costs<br><input type="checkbox"/> 3. Copy of insurance policy<br><input type="checkbox"/> 4. Pay guarantee deposit<br><input type="checkbox"/> 5. Copies of recorded easement<br><input type="checkbox"/> 6. Copies of permits<br><input type="checkbox"/> 7. Pay conformance deposit<br><input type="checkbox"/> 8. Payment and performance bond<br><input type="checkbox"/> 9. Pay 25% general facilities fees<br><input type="checkbox"/> 10. Pays initial facilities inspection deposit<br><input type="checkbox"/> 11. District issue Notice to Proceed w/Construction   |   | <input type="checkbox"/> 1. District inspects & approves facilities as complete.<br><input type="checkbox"/> 2. Record drawings<br><input type="checkbox"/> 3. Easements and title insurance<br><input type="checkbox"/> 4. Maintenance Bond<br><input type="checkbox"/> 5. Bill of Sale<br><input type="checkbox"/> 6. Latecomers Fees<br><input type="checkbox"/> 7. Supplemental, processing, or administrative fees<br><input type="checkbox"/> 8. Deliver water meters to District |           |
| Tasks/Notes:   |   |   |           |
| <ul style="list-style-type: none"> <li>• 4/11/2016 Board approves DEA Application for 5 lots.</li> <li>• 4/14/2016 District Legal Counsel reviewing master developer extension agreement prior to delivering to the developer.</li> <li>• 5/25/2016 Board approved addition of 6<sup>th</sup> lot to DEA. Staff and Legal Counsel preparing DEA documents.</li> <li>• 7/14/2016 Plans received from developer.</li> <li>• 7/28/2016 DEA executed and recorded at Auditor's office</li> <li>• 7/28/2016 Plans transmitted to Wilson for review and comment.</li> <li>• 8/1/2016 Wilson completed fire flow analysis – no issues. About 3030 GPM fire flow available after improvements.</li> <li>• 8/16/2016 District received revised plans from developer.</li> <li>• 8/17/2016 Wilson reviews plans and requests copy of proposed easements for review.</li> <li>• 8/22/2016 District returns plan review comments and easement comments to developer.</li> <li>• 9/7/2016 Draft easements are good to record. Returned originals to developer for recording.</li> </ul> |   |   |           |
| <b>D1602</b>   | <b>Mc Guire Fire Hydrant DEA – Agate Heights Road</b>               |   |           |
| SCOPE  | Install new hydrant for fire protection at end of existing 8" main. |   |           |
| SIGN DATE  |   | EXPIRATION DATE   |           |
| Prior to Commencing Construction   |   | Prior to Final Acceptance   |           |
| <input type="checkbox"/> 1. District Engineer approves design<br><input type="checkbox"/> 2. Reimbursement of District Engineer review costs<br><input type="checkbox"/> 3. Copy of insurance policy<br><input type="checkbox"/> 4. Pay guarantee deposit<br><input type="checkbox"/> 5. Copies of recorded easement<br><input type="checkbox"/> 6. Copies of permits<br><input type="checkbox"/> 7. Pay conformance deposit<br><input type="checkbox"/> 8. Payment and performance bond<br><input type="checkbox"/> 9. Pay 25% general facilities fees<br><input type="checkbox"/> 10. Pays initial facilities inspection deposit<br><input type="checkbox"/> 11. District issue Notice to Proceed w/Construction   |   | <input type="checkbox"/> 1. District inspects & approves facilities as complete.<br><input type="checkbox"/> 2. Record drawings<br><input type="checkbox"/> 3. Easements and title insurance<br><input type="checkbox"/> 4. Maintenance Bond<br><input type="checkbox"/> 5. Bill of Sale<br><input type="checkbox"/> 6. Latecomers Fees<br><input type="checkbox"/> 7. Supplemental, processing, or administrative fees<br><input type="checkbox"/> 8. Deliver water meters to District |           |

**Tasks/Notes:**

- 8/16/2016 Board approves DEA
- 10/10/2016 Meet developer on-site. Developer notices existing fire hydrant 150 feet away.
- 10/11/2016 Developer requests cancellation of DEA. Existing hydrant is close enough for Whatcom County Fire Marshall.
- Staff will refund deposit.
- Developer forfeits \$300.00 Application Fee and \$750.00 Processing Fee.

# Lake Whatcom Water & Sewer District

## Capital Improvement Projects Staff Report

### C1214 Dead End Blow Offs

*Install blow offs at water main dead ends.*

#### 01 Administration

- 11/28/2012 Crews researching and inspecting dead end mains. Compiling list of dead ends with proposed installation sketches.
- 1/5/2016 Staff and field crew researched, compiled, and prioritized a list of approximately 32 sites that need modifications. The top 15 sites are scheduled and budgeted to be completed in 2016. Work will be performed by District crews.
- 3/1/2016 Installation of fire hydrant stortz adapters in vicinity of Geneva School complete.
- 8/9/2016 Crews completed work at 2 locations. (Alder Ct. and Arrow Root Pl.)

### C1306 LLR Sewer Air-Vac Valve Replacement

*Replace iron/steel air-vac valves with nylon valves.*

#### 01 Administration

- 4/3/2013 Staff solicited quotes from local suppliers. Ordered and received 9 valves from HD Supply (low quote). There are a total of 14 valves on the force main. Remaining 5 valves will be budgeted and purchased in 2014. Crews will begin installing new valves this spring.
- 10/2/2013 Crews have replaced a couple valves that failed on other forcemains using this inventory.

### C1401 Division 22 Reservoir

*Add new Division 22 Reservoir. Funded by DWSRF Loan. Loan Amount = \$994,850 at 1.5% for 20 years + 4 years for construction.*

#### 04 Predesign and Permitting

- 10/2/2013 DWSRF loan contract will be executed by State on 10/8/2013. Staff will work with Grey and Osborne to prepare scope of work and fee. Scope/fee will be presented to Board tentatively at 11/13/2013 meeting for review/approval.
- 11/6/2013 Loan contract is executed. Execution date was 10/9/2013.
- 1/29/2014 Board approved scope of work and fee for Predesign work.
- 2/4/2014 Staff and G&O compiling AE agreement and exhibits for execution.
- 3/6/2014 Signed AE agreements received from consultant. District attorney doing final review. Agreements will then be executed by Patrick.
- 4/1/2014 G&O and staff had project kick-off meeting. G&O compiling list of information/data to begin predesign work. Topo survey will begin in a couple weeks.
- 5/7/2014 Consultant has performed topographic/boundary survey. Staff compiling water system data needed for consultants predesign work.
- 8/5/2014 G&O working on reservoir sizing after receiving water system data/info from staff. DOH cultural review in progress.
- 8/23/2014 Published Notice to the Public of Intent to Request Release of Funds in Bellingham Herald. This is required as part of the cultural review process. Have to wait 30 days before beginning test pits or geotechnical borings.
- 9/23/2014 Predesign progress meeting with G&O and District staff. Staff reviewed first 3 chapters of predesign report. G&O will update few minor items and continue final predesign tasks. Set goal to present predesign report to at 1st Board meeting in November.
- 3/3/2015 Staff provided G&O remaining data and info in February to complete the predesign report. G&O is scheduled to make a presentation to the Board at the 3/25/2015 meeting.

- 3/25/2015 G&O presented predesign report to board. There was overall consensus with the plan. Staff and G&O will proceed with permitting and coordination with SCVA.
- 4/30/2015 District submitted pre-application meeting packet to Whatcom County. Pre-App meeting scheduled for 11am on 5/21/2015.
- 5/21/2015 Pre-Application Meeting at Whatcom County - 11am. District and G&O attended. Reviewed permitting requirements with County staff.
- 6/1/2015 Received County's Pre-Application Meeting Findings. Staff and G&O working on Conditional Use Permit application. Staff will coordinate with County for onsite critical areas review (look for wetlands).
- 7/1/2015 Received comments from DOH on project report. G&O and staff will respond to comments. G&O and staff are working on the conditional use permit application.
- 7/29/2015 Conditional Use Permit and Variance Permit applications submitted to Whatcom County.
- 8/4/2015 Staff working with G&O on scope of work for next project phase - detailed design, plans, specs, estimates, and bidding.
- 9/2/2015 Whatcom County is processing Condition Use and Variance Permit application.
- 9/2/2015 G&O working to address DOH project report comments.
- 10/8/2015 County still processing CUP and Variance permits. G&O is working with State DOH to address minor comments on pre-design report.
- 12/9/2015 Hearing for CUP and Variance at 130pm in County Council Chambers.
- 12/30/2015 A Memorandum in Support of CUP and Variance Applications and a Declaration by G&O were submitted to the Whatcom County Hearing Examiner. The documents were prepared by Bob Carmichael with assistance from G&O and District staff.

## **07 Design thru Bidding**

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- 9/30/2015 2nd Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 11/3/2015 G&O working on updated construction cost estimates and steel vs concrete technical memorandum.
- 11/24/2015 Technical memo review at Board meeting. Verified steel reservoir as original decided in the pre-design report is still the preferred alternative.
- 12/2/2015 G&O working on detailed design and plans.
- 1/5/2016 G&O continues development of detailed plans and specs.
- 2/5/2016 50% plan review with G&O and District staff/crew.
- 2/25/2016 G&O submitted revised pre-design report with updated ERU tables and responses to DOH review comments. G&O working on detailed plans and specs.
- 3/29/2016 90% plan and spec review done. Plans submitted to DOH for review. G&O working on final documents.
- 3/31/2016 Conference call with DOH indicates pre-design report for requested capacity will be approved. DOH is working on approval letter.
- 4/6/2016 G&O working on final documents. Pending completion of Commerce Dept and DOH reviews, bid advertisement dates will be set.
- 5/5/2016 1st Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 5/12/2016 Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 5/18/2016 Pre-bid meeting 10am
- 6/2/2016 Bid Opening 11am
- 6/8/2016 Tentative Contract Award at Board Meeting

## **10 Construction**

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- 8/8/2016 Contractor has begun construction work. Trees have been cut. Timber will be delivered to Sudden Valley. Contractor will remove stumps this week.
- 9/8/2016 Contractor has excavated down to footing subgrade. Geotechnical engineer reviewed site conditions. Contractor working on ring-wall footings.
- 10/17/2016 Concrete ring wall and asphalt floor pad complete. Contractor beginning to layout steel floor panels.

## **C1405 Strawberry Pt. Sewer PS Improvements**

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*Replace Strawberry Point Sewer Pump Station.*

## 02 Predesign

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- 2/4/2014 Staff and RH2 working on scope of work and fee estimate. Scope/fee will be on the 2/12/2014 Board meeting agenda.
- 2/12/2014 Board authorizes phase 1 - predesign work.
- 2/26/2014 Board authorizes a revision to phase 1 not-to-exceed amount.
- 3/6/2014 Signed AE agreements received from consultant. District attorney doing final review. Agreements will then be executed by Patrick.
- 3/6/2014 Staff collecting technical information for RH2 to begin preliminary design.
- 4/2/2014 RH2 reviewing pump station run time data for last couple years. Staff to provide detailed on/off data for selected key dates.
- 5/7/2014 Topographic survey is done. RH2 continuing predesign work.
- 8/5/2014 County pre-application submitted. Waiting to hear back from County on meeting date.
- 8/12/2014 RH2 to meet with District crew to go thru design criteria. Information will be documented in pre-design report which is in progress.
- 9/24/2014 RH2 presents predesign report to Board of Commissioners. Staff and RH2 will continue with project as described in predesign report.
- 10/15/2014 RH2 and District staff meet with County Public Works Roads and Stormwater department heads. Meeting was to coordinate county road/stormwater projects with District's pump station project.
- 10/29/2014 RH2 submits substantial shoreline development permit to county.
- 11/25/2014 As part of the shoreline permitting process, County sent notices out to properties within 1000 feet of project. Written comments are due December 26, 2014.

## 05 Design

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- 12/10/2014 Board of Commissioners authorize GM to execute contract amendment with RH2 for design phase.
- 12/11/2014 Contract amendment executed with RH2 for design phase.
- 1/28/2015 RH2 working thru detailed design, plans and specs with District staff.
- 3/4/2015 Shorelines permit hearing. Hearing examiner will approved the permits. RH2 working on detailed design. 60-percent review plans will be ready 3-18-2015 for staff.
- 3/26/2015 Staff met with RH2 to review 60% plans and specs. RH2 will make some minor revisions and submit preliminary plans to County engineering as part of the right-of-way encroachment permit application. RH2 is proceeding with detailed design with the target of advertising for bids mid-April.
- 4/27/2015 District staff reviewed 90% plans and specs.
- 5/1/2015 Advertisement for Bids published in Bellingham Herald and Seattle DJC.
- 5/13/2015 Non-Mandatory Pre-Bid Meeting at 2pm.
- 5/19/2015 Bid Opening - 1pm
- 5/27/2015 Bid prices came in too high. Board rejected all bids. Staff will make some value engineering revisions and rebid January 2016.
- 7/1/2015 Staff reviewing RH2 draft agreement amendment for value engineering and rebid in 2016.
- 8/4/2015 Agreement amendment in process of being executed. Design revisions will begin soon.
- 11/3/2015 District is reviewing updated plans.

## 08 Redesign and Rebid

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- 8/11/2015 Advertisement for Bids published in Bellingham Herald.
- 9/2/2015 RH2 site design to eliminate need for temporary shoring.
- 10/8/2015 RH2 submitted revised plans to District for review.
- 12/2/2015 District reviewed plans. RH2 finalizing plans and bid documents to be ready to advertise January 2016.
- 1/6/2016 Advertisement for Bids published in Bellingham Herald
- 2/3/2016 Non-mandatory pre-bid meeting at 2pm at District office.
- 2/10/2016 Bid opening at 105pm at District office
- 2/24/2016 Contract awarded to Tiger construction at board meeting
- 2/29/2016 Notice of Intent to award issued to contractor. Bonds, insurance, and contract are in process of being executed.

## 09 Services During Construction

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8/9/2016 RH2 providing construction contract admin support and inspection as needed.

## 10 Construction

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3/31/2016 Pre-construction meeting with RH2, Tiger Construction, and District Staff.  
4/6/2016 District staff reviewing submittals and requests for information from Tiger.  
5/3/2016 Submittal reviews complete. Pumps have been ordered. Contractor ordering materials.  
6/2/2016 Tiger onsite setting up temporary bypass pump system. System testing to follow.  
8/9/2016 Contractor is starting work on electrical systems. Startup scheduled for September 8th.  
9/8/2016 Contractor ready to begin startup. We are waiting for PSE to schedule a date for new power drop for we can proceed with startup.  
10/5/2016 New pump station put into service. Contractor finishing site work and demobilizing equipment.  
10/17/2016 District and RH2 perform punch list inspection.

## C1407 Lowe Sewer PS VFD

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*Replace rotophase with VFD.*

### 01 Administration

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1/5/2015 Staff obtaining quotes for VFD's from vendor. District electrician reviewing electrical panel space requirements and proposed VFD dimensions.  
1/22/2015 VFD's received by District. District crew will install in pump station.

## C1504 Reservoir Site Security

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*Install site security system as 1 reservoir site. Pilot project to evaluate equipment, configuration, and telemetry options.*

### 01 Administration

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5/4/2015 District staff have done initial research on available security camera systems and motion detection. List of equipment and options is in development. Initial pilot site will be the SVWTP.

## C1505 Reservoir Condition Assessment

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*Reservoir condition and seismic assessment. Summarize state of District's reservoirs, evaluate seismic risks, and determine future capital improvements and priorities.*

### 01 Administration

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8/4/2015 Staff developing Request for Proposals for qualified seismic structural condition assessment of steel reservoirs.  
8/19/2015 Request for Proposal published in Bellingham Herald and Seattle Daily Journal of Commerce. Two engineering firms have toured the sites to date.  
9/2/2015 Two engineering firms toured reservoirs to date. There are at least 5 interested firms.  
9/16/2015 Proposals due at 4pm.  
10/8/2015 District received proposals from 5 firms. Staff selection committee will meet 1pm 10/15/2015 to discuss and score proposals.  
10/28/2015 Board selects BHC Consultants LLC for the Reservoir Seismic Vulnerability Assessment.  
11/3/2015 Staff working BHC to develop scope/fee



- 12/2/2015 Board authorized scope and fee at last board meeting. Staff is working to execute the AE agreement with BHC and begin work.
- 12/15/2015 BHC site visit for inspection and measurements of structural components of reservoirs.
- 1/7/2016 District staff and BHC could not determine thickness of concrete ring wall foundations at 3 reservoirs in SV by excavation. The District does not have as-built or shop drawings for those reservoirs. Seismic calculations are based on knowing or assuming foundation dimensions. Rather than assume dimensions, District staff has contracted with Geotest to measure foundation wall thicknesses using ground penetrating radar. District crews will provide excavation pits.
- 2/4/2016 BHC working on seismic report. They have all the information and data needed to complete the report.
- 2/17/2016 BHC submitted review draft of seismic study to staff for review. Staff is reviewing draft.
- 8/2/2016 District returned review comments to BHC. BHC beginning final revisions on report.
- 10/19/2016 BHC completing report. Should have final report finished and ready to present to Board in November.

## **C1506B 2015 Sewer System Rehab**

*Recurring annual project that aims to rehabilitate or replace aging sewer system mains and manholes, and search for inflow and infiltration. Work includes smoke testing, manhole and main repairs.  
C1506B = Whatcom Falls Manhole.*

### **01 Administration**

- 3/19/2015 Staff, Wilson, and City of Bellingham met onsite to review project objectives. The manhole located near the entrance of Whatcom Fall park is severely corroded by H2S from the District LLRI outfall. The manole is made of brick and need to be replaced.
- 3/26/2015 District executes task order with Wilson to assist with developing detailed plans and notes for the manhole replacement. District staff will advertise, and contract the work, as well as perform contract administration. Wilson will provide technical assistance/submittal review as needed.
- 3/31/2015 Staff working on a solution to get old-Flat Car sewer pump station going. Flow must be diverted from the LLRI in order to install the new manhole at Whatcom Falls park later this summer.
- 4/1/2015 Wilson proceeding with topo and manhole structure survey and design.
- 5/4/2015 District staff, Wilson, and City have been coordinating for replacement of Whatcom Falls Park manhole replacement.
- 8/4/2015 Wilson finalizing plans, details, and notes for submittal to City of Bellingham for review and approval.
- 9/2/2015 Bellingham is requiring formal project submittal for review. Staff and Wilson are preparing application and documents for submittal to City. Project will not be ready for construction this year.
- 1/5/2016 District staff working with City operations Department to review manhole rehabilitation plans and specs.
- 4/6/2016 Wilson is refining design to accomodate temporary bypass pumping that will be needed during construction.
- 4/18/2016 Plans have been accepted by City and are in review.

### **10 Construction**

- 8/9/2016 Contractor is building pre-cast manhole. Submittals are in progress. Work tentativley to begin later half of August.
- 9/8/2016 New manhole has been installed. New District forcemain alignment has been installed. Contractor working on backfilling excavation and site restoration.
- 10/6/2016 Punch list inspection with City, District, and Contractor. Two minor items noted: Contractor needs to redo the asphalt patch and regrade around manhole rim to accommodate City mowers.

## **C1602 Cartegraph Software Upgrade**

*Upgrade operations and maintenance system software. Upgrade existing Cartegraph system.*

#### **01 Administration**

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- 2/4/2016 Cartegraph working on setting up test database. Test database should be online week of 2/8/2016.
- 3/2/2016 Staff working with Cartegraph to integrate system onto District server infrastructure.
- 4/6/2016 Staff working with 3d Computers (IT consultant) to get infrastructure ready for cartegraph deployment.
- 4/26/2016 Cartegraph integration finished. Test database loaded.
- 5/3/2016 Staff and Cartegraph coordinating and scheduling training.
- 8/9/2016 Staff getting system ready for final database conversion. Go live target date is beginning of September. All staff training and implementation will start in September. Key staff are being trained to be trainers.
- 9/8/2016 Current database sent to cartegraph for final conversion to go live with new system. Go live date schedule for 9-12/2016. Staff training will begin week of 9-2-2016.
- 10/17/2016 System updated to current Summer 2016 version. Staff is proficient with Requests. Staff is now starting to utilize Tasks, Labor, Equipment, etc.

### **C1603 Marina-Tomb Stationary Generator**

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*Install stationary emergency backup generator to serve both Marina and Tomb sewer pump stations.*

#### **01 Administration**

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- 4/5/2016 Issued purchase order to RH2 to assist District with sizing and selecting stationary generator from GSA. Scope also includes PLC programming to incorporate generator alarms.
- 4/6/2016 Staff coordinating with SVCA on site requirements, landscaping, screening, etc.
- 4/12/2016 District staff met onsite with SVCA staff to coordinate location, siting, and screening of stationary generator.
- 4/28/2016 RH2 finished sizing generator. Recommended generator size is 100kw. District staff is selecting generator, components, and options for purchase through GSA.
- 6/2/2016 Staff finalizing generator options and quote with GSA vendor.
- 8/4/2016 Generator and transfer switch ordered. Scheduled arrive in about 2 months.
- 10/10/2016 Generator delivered to site.
- 10/18/2016 Staff obtained permit from County for concrete slab. Crews installed transfer switch on electrical rack. Crews preparing to start on excavation and concrete forms.

### **C1605 Water System Plan Update**

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*Update District's Water System Plan. Current edition expires 3-15-2017.*

#### **01 Administration**

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- 4/6/2016 Selection of consultant is part of the general engineering services RFQ.
- 5/3/2016 State DOH would like to meet with the District and consultant to coordinate the water system plan update prior to beginning work. The intent is to coordinate the scope of work for the plan update.
- 8/16/2016 Meeting with Wilson and DOH to coordination scope of work. Wilson developing scope and fee for

task order.

- 9/8/2016 Wilson developed scope of work after coordination with District staff and DOH. Scope/fee will be present at next board meeting for approval.
- 9/20/2016 Task Order with Wilson Engineering executed. Wilson will start work soon.

## **C1606 Replace SCADA Workstation Hardware**

*Replace computer hardware the runs SCADA system at shop and SVWTP.*

### **01 Administration**

- 2/4/2016 Hardware has been ordered and received. Staff working on configuration and setup of new hardware.
- 2/29/2016 Integration of the 1st of 4 replacement computers is done. Staff is in process of integrating other machines.

## **C1607 Northshore Water Quality Sampling**

*Water quality sampling plan to evaluate impact of existing onsite sewage disposal system at the end of Northshore road.*

### **01 Administration**

- 3/30/2016 Request for Proposals advertised in Seattle Daily Journal of Commerce
- 4/28/2016 Request for Proposal advertised in Seattle Daily Journal of Commerce
- 5/1/2016 Request for Proposals advertised in Bellingham Herald
- 5/24/2016 Proposals due 4pm. Received one proposal.
- 7/27/2016 Agreement with consultant has been executed.
- 9/8/2016 Staff received preliminary draft plan from consultant and will share with board
- 10/3/2016 Workshop with County and City to review draft sampling plan.
- 10/19/2016 Consultant working on sampling plan revisions based on workshop comments with City and County.

## **C1610 Little Strawberry Water Leak on Bridge**

*Water main has small leak. Leak is in a section of main that is mounted to a bridge on Little Strawberry.*

### **01 Administration**

- 4/6/2016 Staff evaluating alternatives to get within reach of pipe to find and repair leak.

## **C1611 Country Club Sewer Pump Station**

*Rehabilitation of Country Club Sewer Pump Station.*

### **01 Administration**

- 4/6/2016 Selection of consultant is in conjunction with general engineering services RFQ.
- 8/9/2016 Staff working with BHC to develop scope of work
- 9/8/2016 AE agreement finalized and being routed for execution. Scope/fee was approved by board on 8/31/2016. Work to begin as soon as agreement is executed.

## 02 Predesign

- 10/11/2016 Held predesign meeting with BHC and District staff. BHC beginning preliminary design.

## 03 Permitting

- 10/20/2016 Pre-Application meeting with Whatcom County to review anticipated permitting requirements.

# C1612 Cedar Hills Water Main Relocate

*Relocate water main for Whatcom County. County is installing stormwater treatment systems to remove phosphorus.*

## 01 Administration

- 4/6/2016 Staff coordinating with County and Wilson to relocate water main to accomodate stormwater treatment system.
- 5/3/2016 District working with County to execute an interlocal agreement to establish cost sharing terms. Agreement will be similar to recent Cable Street reconstruction project.
- 5/25/2016 Board authorizes interlocal agreement with County and fund project using the storm/sewer contingency fund.
- 6/2/2016 Staff coordinating with County and Wilson as needed.

## 10 Construction

- 8/9/2016 Water utility relocated are done. County contractor is now working on the storm water filter systems.
- 9/8/2016 Contractor still working on stormwater facilities.

# C1613 Northshore Water System Consolidation

*DOH water system consolidation feasibility grant to explore opportunity to consolidate small water systems.*

## 01 Administration

- 4/6/2016 District received notice that grant funding was approved for the feasibility study. Staff coordinating with DOH for grant contracts.
- 8/9/2016 Staff working with Wilson on a task order scope of work.
- 9/8/2016 Task order scope/fee approved by board on 8/31/2016. Once task order has been executed, Wilson will begin work.
- 10/19/2016 Wilson working on study.

**Number of Projects**      **17**



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

|   |  |   |   |
|---|--|---|---|
| DATE SUBMITTED:   | October 18, 2016                         |   |   |
| TO BOARD OF COMMISSIONERS   |  |   |   |
| FROM: Patrick Sorensen  | MANAGER APPROVAL <i>Patrick Sorensen</i> |   |   |
| MEETING AGENDA DATE:  | October 26, 2016                         |   |   |
| AGENDA ITEM NUMBER:   | 7.0                                      |   |   |
| SUBJECT:  | Manager's Report                         |   |   |
| LIST DOCUMENTS PROVIDED ⇨<br>NUMBER OF PAGES<br>INCLUDING AGENDA BILL:<br>_____ | 1. Manager's Report                      |   |   |
|   | 2.                                       |   |   |
|   | 3.                                       |   |   |
| TYPE OF ACTION REQUESTED  | RESOLUTION<br><input type="checkbox"/>   | FORMAL ACTION/<br>MOTION <input type="checkbox"/> | INFORMATIONAL/<br>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**

**October 26, 2016**

**Board Meeting**

**8:00 a.m.**

### **Important Upcoming Dates:**

- **Meetings Associated with the Lake Whatcom Management Program:**
  - **Policy Group Meeting:** The next scheduled meeting is set for **Monday, November 21, 2016** at 3:00 p.m. in the City of Bellingham's Fireplace Room located in the bottom floor of the Municipal Court Building at 625 Halleck Street. The Fireplace Room is located next to the City's Information Technology Office on the east side of the Court Building. The December 19 meeting has been canceled.
  - **Management Meeting:** The date for the next meeting with the Mayor and County Executive has not been set at this time.
- **Next Regular Board Meeting:** The next regular meeting will be held on **Wednesday, November 9, 2016** at 6:30 p.m.
- **Employee Staff Meeting:** The next staff meeting is set for **Tuesday, November 15, 2016** 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 **November 15, 2016** 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 & Brew in Tulalip off I-5 at 6:15 p.m. on **November 8, 2016**.
- **Whatcom Water District's Caucus Meeting:** The next Caucus meeting is set for **November 16, 2016** 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.