



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

REGULAR MEETING
OF THE BOARD OF COMMISSIONERS

AGENDA

July 12, 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. Country Club Pump Station Options – Presentation by BHC Consultants
 - B. Resolution 835 – Updating Master Fees and Charges with Schedule #24
 - C. Resolution 834 – Updating Administrative Code
 - D. North Shore Water Quality Update
 - E. Monthly Budget Analysis
6. OTHER BUSINESS
7. MANAGER'S REPORT
8. PUBLIC COMMENT OPPORTUNITY
9. ADJOURNMENT



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	July 3, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL <i>Patrick Sorensen</i>		
MEETING AGENDA DATE:	July 12, 2017		
AGENDA ITEM NUMBER:	5.A.		
SUBJECT:	Country Club Pump Station Options – Presentation by BHC Consultants		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	1. Installation Options Schematic – Figure 1		
	2. GeoEngineers Permitting Considerations Memo		
	3. GeoEngineers Draft Trenchless Alternatives Letter Report		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

The District requested BHC (and their subconsultant GeoEngineers) to evaluate trenchless alternatives for installation of a gravity sewer main from Country Club Sewer Pump Station to Ranch House Sewer Pump Station thereby eliminating the need for Country Club Sewer Pump Station.

There is adequate elevation drop between the stations for a gravity sewer. However, the challenge is installation of the sewer main 20 to 30 feet below ground surface. Feasibility, risks, and costs of trenchless methods were explored to determine if a gravity sewer main is a viable option.

BHC and GeoEngineers will present their investigation process and findings on the feasibility of installing a gravity sewer main by a trenchless alternative.

Staff and BHC are working on conceptual cost estimates, risk assessments, and permitting assessments for 4 options listed below. Summary information will be presented at the meeting.

1. Replace Pump Station (in the same place)
2. Replace Pump Station (to the southwest)
3. Auger Bore Installation of Gravity Main and Abandon Country Club Sewer Pump Station
4. Horizontal Directional Drilling Installation of Gravity Main and Abandon Country Club Sewer Pump Station

FISCAL IMPACT

Construction costs and risks vary by option. Information will be presented at the meeting.

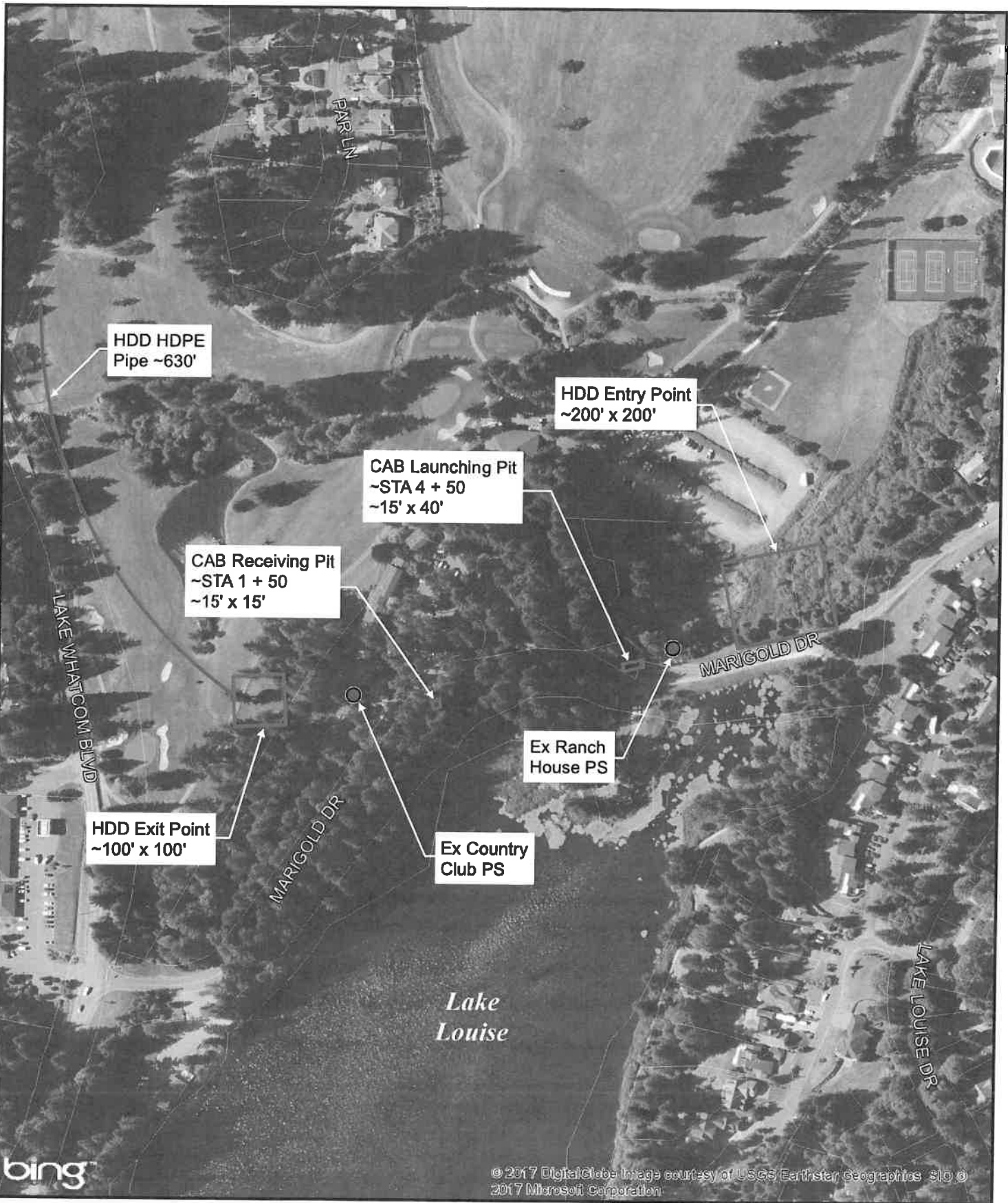
RECOMMENDED BOARD ACTION

See proposed motion.

PROPOSED MOTION

Staff will make a recommendation of the preferred option at the meeting as part of BHC and GeoEngineer's presentation.

Authorize staff to proceed with the Country Club Sewer Pump Station Improvements Project utilizing option _____ as presented.



P:\Projects\Mapas - Generators\Lake Whatcom\15-10482-10010\mxd\fig 1 Country Club PS to Ranch House PS Pipe Conceptual Installation Options Schematic ESX11.mxd 02/02/2017 cloben@bc

GIS Data: Whatcom County.
 This map is a geographic representation based on information available.
 No warranty is made concerning the accuracy, currency, or completeness
 of data depicted on this map.



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Country Club PS to Ranch House PS Pipe Conceptual Installation Options Schematic

Figure

Country Club Sewer PS
 Lake Whatcom Water & Sewer District
 June 2017

004 1

To: Erika Schuyler, PE (BHC Consultants, LLC)
From: Fiona McNair, PWS *FAM*
Date: June 16, 2017
File: 0430-013-00
Subject: Lake Whatcom Water and Sewer District
Country Club Pump Stations and Sewer Line
Permitting Considerations for Design Options

The purpose of this memorandum is to provide a summary of anticipated permitting needs for the Lake Whatcom Water and Sewer District (LWWSD) Country Club Sewer Pump Station Improvements project in the Sudden Valley area of Whatcom County, Washington. Various project design options are being considered, including two alternatives for replacing an existing pump station and two methods for installing a new sewer line.

Table 1 below provides a summary of anticipated permitting requirements for two sewer pump station replacement options and two alternatives for installing a new sewer line.

The most straightforward option from a permitting standpoint is replacement of the pump station in-place. Whatcom County may require shoreline review if a survey indicates that the existing station is within 200 feet of the ordinary high water mark (OHWM) of Lake Louise. Replacement may be categorically exempt from SEPA under WAC 197-11-800(3) (Repair, Remodeling and Maintenance Activities) or WAC 197-11-800 (23) (Utilities). Construction of a new pump station to the southwest of the existing pump station, will likely be considered outside of shoreline jurisdiction (more than 200 feet from OHWM) and not subject to the shoreline master program, unless decommissioning of the old station and hookup to existing sewer lines occurs within shoreline jurisdiction. Whatcom County may require a Critical Areas Assessment of the adjacent stream, to confirm buffers and identify if wetlands are present.

The auger bore method will require some open cut trenching. We have assumed that the majority of disturbance will occur within previously developed/paved areas and that only minor buffer/shoreline impacts may occur. For the horizontal directional drill, excavation of the pilot hole and the pullback process will disturb adjacent wetland and stream areas, requiring permitting by the United States Army Corps of Engineers (USACE) and the Washington Department of Fish and Wildlife (WDFW). A Joint Aquatic Resource Permit Application (JARPA) can be used to apply for a Section 404 permit with the USACE, a HPA with WDFW and a Shoreline Permit with Whatcom County. A SEPA checklist and Whatcom County Shoreline Application would also be required.

TABLE 1. ANTICIPATED PERMITTING REQUIREMENTS

Option	Anticipated Permit/Reviews	Required Documentation	Assumptions
Replace Pump Station (in the same place)	Shoreline permit may be required May be SEPA exempt as maintenance	During a site visit with Erin Paige, Whatcom County Planner, on November 7, 2016, Erin indicated verbally that if work is completed within existing development footprints, and no vegetation is disturbed that a formal critical areas assessment may not be required. Her letter dated, November 15, 2016, suggested submitting a wetland delineation and critical areas assessment report ¹ .	No vegetation other than grass will be disturbed. It has not yet been confirmed if the existing pump station is within shoreline jurisdiction. Andrew Hicks said he thought it was, in an email sent to Bill Hunter on October 21, 2016. A survey will confirm the vertical elevation and horizontal location of the OHWM of Lake Louise.
Replace Pump Station (to the southwest)	Critical Areas Review (as part of the Land Disturbance Permit) SEPA	Whatcom County may require a Critical Areas Assessment of the adjacent stream, to confirm buffers and determine if wetlands are present near the stream.	No vegetation other than grass will be disturbed. No impacts to wetlands, streams or buffers. All work will occur outside the adjacent stream's buffer. Based on preliminary information, we assumed, that the adjacent stream is non-fish-bearing with a 50-foot buffer (not confirmed yet).
Auger Bore	Shoreline Permit (Critical Areas Review will be covered under shoreline review) SEPA	Whatcom County will likely require a Critical Areas Assessment of adjacent streams and wetlands. The OHWM of Lake Louise will be provided by survey. Buffer Mitigation/Restoration Plan	Auger bore will extend approximately 300 feet, in the middle of the alignment, and then open cut trenching will occur at either end to tie into the pump stations. No impacts to wetlands or streams. Some minor buffer impacts may occur.
Horizontal Directional Drilling (HDD)	Shoreline Permit SEPA HPA USACE 404 Permit	Critical Areas Assessment and Mitigation Plan JARPA form and drawings Cultural Resources Report/Survey Biological Evaluation/Assessment	Buffer restoration/mitigation is assumed to occur on-site. Assumes temporary impacts to potential wetlands northeast of the eastern pump station. Assumes temporary impacts to the stream and potential wetlands to the west and southwest of the existing pump station.

Note:

¹ Critical Areas site inspection summary for: CA2016-00451, PRE2016-00048 APN: 370408144343

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June 20, 2017

BHC Consultants, LLC
1601 Fifth Avenue, Suite 500
Seattle, Washington 98101

Attention: Erika Schuyler, PE

Subject: Letter Report
Trenchless Alternative Evaluation
Country Club Sewer Line
Bellingham, Washington
File No. 0430-013-00

INTRODUCTION AND PROJECT UNDERSTANDING

The purpose of this letter report is to provide a general trenchless feasibility discussion for installation of a new sewer line for the Lake Whatcom Water and Sewer District (LWWSO) Country Club Sewer Pump Station Improvements project in the Sudden Valley area of Whatcom County, Washington. The general location of the site is shown in the attached Vicinity Map, Figure 1 and Site and Exploration Plan, Figure 2. Our specific scope of services is described in our proposal presented to BHC Consultants, LLC dated November 8, 2016.

We understand that LWWSO would like to evaluate trenchless alternatives to install an 8-inch-diameter sewer line that would allow gravity flow from the Country Club sewer pump station to the Ranch House sewer pump station in lieu of constructing pump station improvements at the Country Club facility. As currently envisioned, two trenchless installation options are being considered: (1) a crossing about 10 to 30 feet below existing site grades and approximately 600 feet long between the two pump stations; and (2) approximately 300-foot long crossing roughly between stations 1+50 and 4+50 with the remainder of the pipe installed with conventional cut and cover trenching methods. The new pipe would have a uniform gradient between about 2 and 3 percent. We understand that LWWSO prefers that trenchless installation of this pipe diameter and length be completed as a contractor design-build to meet project specifications.

For this discussion, we considered three trenchless installation methods: horizontal directional drilling (HDD), conventional auger boring (CAB) and microtunneling. Based on our experience and discussion with a trenchless contractor, the proposed pipe diameter (8 inches) is too small for a conventional microtunnel operations, and the 600-foot length of the pipe alignment is beyond the typical limits of the CAB method. Therefore, the discussion below focuses on the feasibility of installing the proposed sewer

line along the 600-foot-long alignment using the HDD method of trenchless construction, and along the 300-foot-long segment of the alignment using CAB method of construction.

SITE CONDITIONS

GeoEngineers previously prepared a geotechnical data report (GDR) for the project dated April 14, 2017. The data report included the results of subsurface explorations and description of subsurface soil, bedrock and groundwater conditions encountered, and a site plan showing the explorations relative to the possible pipe alignment. Subsurface soil conditions include fill, alluvium, and undifferentiated glacial deposits within the expected depth of a potential HDD profile. Bedrock was also encountered below the potential HDD profile depth. Groundwater was encountered near the Ranch House pump station at about 7½ feet below ground surface, and deeper along the remainder of the alignment. The soil, bedrock, and groundwater conditions are described in detail in the GDR.

TRENCHLESS INSTALLATION METHODS

Horizontal Directional Drill Method

HDD is a trenchless construction method to install pipelines without the excavation and ground disturbance of a traditional open cut trench. In the HDD process, there are three basic steps to install a pipeline crossing; pilot hole, hole opening (reaming) and pullback. The following sections describe each portion of the HDD process.

Pilot Hole

The first stage of the HDD process consists of directionally drilling a small diameter pilot hole along a predetermined path. During drilling of the pilot hole, directional control is achieved by using a non-rotating drill string with an asymmetrical leading edge that creates a steering bias. The actual path of the pilot hole is evaluated during drilling by a monitoring and control system, which tracks the progress and location of the drilling head. Typically, reasonable construction tolerances for a HDD pilot hole are 5-foot left and right of the design alignment, 2 feet above the design profile, and 10 feet below the design profile.

The pilot hole is typically drilled using a tri-cone rotary bit. Drilling fluid is pumped through the annulus of the drill pipe and helps lubricate the drill stem, suspend and carry the drilled cuttings to the surface, and form a wall cake to keep the hole open and reduce the potential for drilling fluid loss to the formation and potentially seeping to the surface. In soft or loose soil conditions, the contractor may install a small diameter casing (generally 12 to 16 inches) within the entry tangent of the HDD profile to help stabilize this portion of the hole and to provide a reaction force to transfer axial loads to the drill bit.

During pilot hole drilling, inadvertent surface returns may occur as a result of weak soils and the relatively high downhole annular drilling fluid pressures. Causes of high downhole annular drilling fluid pressures include insufficient removal of cuttings, hole collapse, and excessive penetration rates. The annular pressures can be closely monitored during drilling to help identify when the potential for an inadvertent return may be possible.

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Hole Opening (Reaming)

The hole-opening begins once the pilot hole is complete. The pilot hole is enlarged to a diameter that will accommodate the pipeline. The reaming tools are typically attached to the drill pipe string that drilled the pilot hole and are then rotated and pulled back towards the drill rig. The diameter of each pass will increase in incremental steps until the desired diameter is reached, typically 12 inches or 1.5 times larger than the diameter of the product pipe.

To reduce the potential for problems including inadvertent returns, the rate of penetration during the reaming operation should be determined to maximize the removal of cuttings and reduce the induced stress on the surrounding formation. A proper rate of penetration will also reduce over cutting of the drilled hole during the reaming operation. Over cutting, especially in soil formations, can lead to excessive voids that may result in pre- or post-installation ground settlement.

Pullback Process

The last step to complete a successful installation is the pullback of the prefabricated carrier pipe into the enlarged hole. Prior to the beginning of pullback operations, a reinforced pullhead is welded to the leading end of the carrier pipe pull section. A swivel connection is made between the pullhead and the downhole drill pipe string. Typically, a reamer is included in the pullback assembly between the drill pipe string and the swivel to allow additional fluid to be pumped into the hole during pullback. The swivel allows the transfer of the pull load to the carrier pipe while reducing the transfer of rotation and torsion stresses to the carrier pipe.

During pullback, the pull section is typically supported with a combination of roller stands and/or carrier pipe handling equipment (cranes, side booms and/or excavators) to direct the carrier pipe into the hole at the correct angle, to help prevent excessive bending of the carrier pipe, to reduce tension during pullback and to help protect the carrier pipe from being damaged. After the carrier pipe is pulled into place, the installed pipe is typically hydrostatically tested and pigged, and then tied-in to adjacent infrastructure.

Hydraulic Fracture and Inadvertent Returns

Hydraulic fracture is a term typically used to describe the case where the down-hole fluid pressure exceeds the overburden pressure and shear strength of the formation above a drill path. Hydraulic fracture typically occurs when the drill path passes through relatively weak cohesive soils with low shear strength or very loose granular soils. Loose sands and silty sands and soft to medium stiff silts and clays typically have a higher hydraulic fracture potential. Medium dense to dense sands and gravels and very stiff to hard silts and clays typically have a low to moderate hydraulic fracture potential. Unfractured rock, because of its high shear strength, typically has a low potential for hydraulic fracture. HDD installations with greater depth or in formations with higher shear strength may reduce the potential for hydraulic fracturing.

Inadvertent returns occur when the lost drilling fluid emerges at the ground surface. Inadvertent returns have the potential for releasing relatively large volumes of drilling fluid in a short period of time if the fluid pumps are not immediately disengaged. The inadvertent returns can negatively impact sensitive site features such as wetlands, rivers, lakes, and paved roadways.

In practice, inadvertent returns typically occur in close proximity to the entry and exit points where annular pressures are high and soil cover is thin. Inadvertent returns can also occur at locations along a drill path where there are low shear strength soils, the depth of soil cover is thin or along pre-existing fractures or voids. Other locations where inadvertent returns can occur include exploratory boring locations, or along the sides of structures such as piles or utility poles.

Another important factor influencing when and where fluid loss occurs is the HDD contractor's construction procedures. If the contractor chooses to operate with inadequate pump volumes, less than ideal drilling fluid properties, or excessive rates of penetration, the annulus may become blocked through an accumulation of drill cuttings falling out of suspension. If the accumulation creates a blockage downhole, the annulus may become over pressurized, and the HDD contractor could inadvertently create a hydraulic fracture leading to inadvertent returns.

Conventional Auger Boring Method

CAB is also known as horizontal auger boring, or jack and bore. It is a common trenchless installation method used to install pipelines under roadways and railways. Under certain conditions, it can also be used to install pipelines under rivers. This trenchless technology is used to install pipelines ranging between 4 and 72 inches in diameter.

CAB is a trenchless technique in which a steel casing or carrier pipe is pushed into the soil by an auger-boring machine, while also removing the soils within the casing with augers that move from soils from the boring head and out of the casing. Jacking and receiving pits are excavated to the required depth of the pipeline. Hydraulic jacks within the jacking pit propel the augers and casing pipe forward on a set of guide/jacking rails. As the casing pipe is pushed into the soil, a cutting head at the leading edge of the augers excavates the soil. This cutting head can protrude ahead of the casing pipe or can be nested within it. Different cutting heads can be used for various soil conditions. Ideally, the soil conditions are soils that do not run or flow into the cutting head, or are above the groundwater table.

An excavator or clam is used to remove the spoil cuttings from the jacking pit. Other equipment needed to support the auger boring operation will be located outside the jacking and receiving pits. This includes augers and casing pipe of sufficient quantity to complete the bore, a crane to load the augers and pipe into the jacking pit, a clamshell to remove the spoils from the jacking pit, and trucks to haul the excavated soil off-site.

The steering capability of auger boring equipment is very limited. A water level or laser is used to monitor grade. However, surveying is required to monitor line, which may require the removal of the auger flights from the sacrificial pipe. For this reason, line surveying is usually only completed every 20 feet or longer, when new sections of pipe are added to the bore.

Accuracy of a bore depends on ground conditions, initial set-up and skill of the operator. Generally, an accuracy of +/- 1 percent of the length of the bore can be achieved. For example, a 100-foot crossing would be within +/- 1 foot. If greater accuracy is required, steerable pilot systems can be used to guide the auger bore.

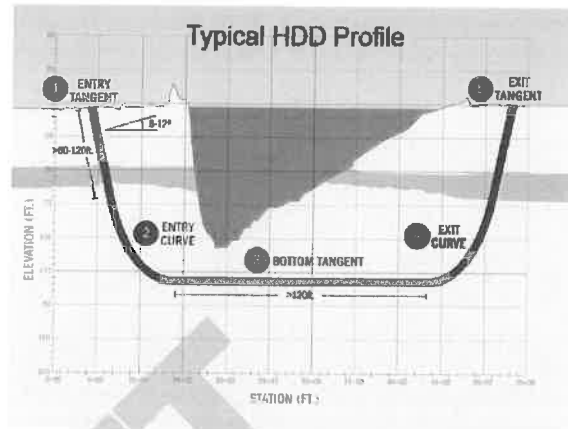
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TRENCHLESS DESIGN AND CONSTRUCTION CONSIDERATIONS

HDD Design and Construction Considerations

HDD Profile Geometry

As depicted in the adjacent graphic, an HDD profile consists of an angled entry tangent (typically between 8 and 12 degrees), a vertical entry curve of specified radius based on the carrier pipe specifications, a flat or inclined straight bottom tangent section, a vertical exit curve, and an angled exit tangent (usually 8 to 10 degrees). Because the connection points proposed for this project are located at depth within the pump stations, the entry and exit tangents and entry and exit curves will be required to be completed on either side of (and outside of) the pump stations. The bottom tangent would be the section of the HDD profile between the two pump stations that will serve as the new sewer line. This fact will require that the entry and exit workspaces be set back from the pump stations. In addition, assuming that pullback stops at the Ranch House pump station, the exit tangent and exit curve sections of the installed carrier pipe will have to be removed or abandoned-in-place after construction. The setback of the entry and exit workspaces is discussed further in the "Temporary Workspaces" section below.



Development of a conceptual HDD plan and profile drawing is recommended to define what an HDD alignment and profile would look like for this site. The plan and profile drawing will also help illustrate the workspace required for an HDD installation.

Because of the elevation difference between the two pump stations, the HDD best management practices dictate that the installation be completed from the lower elevation Ranch House pump station elevation toward the higher elevation Club House pump station (east to west). Drilling from the low side of the HDD alignment is typically recommended to improve drilling fluid circulation and cuttings removal, and to reduce downhole annular drilling fluid pressures at the drill bit. Improved cuttings circulation and lower downhole annular drilling fluid pressures will reduce the risk of hydraulic fracture and inadvertent returns.

Inadvertent Returns

Based on a conceptual-level review of the soil data and our experience on other HDD projects, it is our opinion that there is a moderate to high potential for hydraulic fracture and inadvertent returns at this site. Because Lake Louise is less than 100 feet south of the anticipated alignment, there is a risk that inadvertent returns could migrate to Lake Louise.

Drill Hole Stability

In general, medium dense silty sands and medium stiff to very stiff clay soils were encountered along the anticipated HDD profile in the exploration borings in the middle of the alignment and near the exit point. In these soil types, we do not expect drill hole stability to be an issue. However, loose sand observed near the entry point may be prone to hole collapse if not mitigated.

Grade Control and Obstructions

Obstructions such as gravel and cobble, fill debris, or other hard objects could cause the drill to lose planned grade, especially in loose/soft soils as encountered near the entry point. In addition, steering of the pilot hole cannot follow an exact alignment grade and will vary above and below and right and left of the HDD profile and profile, sometimes by several feet. As such, the final HDD alignment profile will have a non-uniform horizontal alignment, and non-uniform grade or bellies.

It should also be noted that, although bedrock was encountered below the expected drill depth in the site explorations, the actual bedrock surface elevation can be highly variable over short distances and there is a potential that the drill will encounter bedrock. Encountering bedrock, especially at a shallow angle relative to the drill alignment could deflect the drill and make achieving desired grades impossible. As a worst case, an excavation may be required at the bedrock contact location to remove the rock and complete the drill.

Temporary Workspaces

Temporary entry, exit and pipe stringing, and fabrication workspaces are required during HDD construction. The size and location of workspace areas to accommodate the HDD and pipeline tie-in activities are dependent on the available space, right-of-way constraints and the equipment required to complete the HDD installation.

We have assumed that the entry workspace would be located on the northeast side of the alignment and the exit workspace would be located on the southwest side of the alignment, and that those workspaces would need to be setback from the pump stations a certain distance to achieve the planned grade of the pipe between the pump stations.

For this project, we anticipate that the entry point would likely be in a wetland area east of the Ranch House pump station, possibly 100 to 150 feet back from proposed connection point at depth within the pump station. Depending on the equipment the contractor uses to complete the HDD installations, a temporary entry workspace could range from 100 feet wide by 100 feet long to as large as 200 feet wide by 200 feet long. Wetland mitigation, vegetation removal and construction of temporary access roads would be required to construct an entry workspace.

Entry workspace preparation would likely include placement of mats to provide a stable working surface and possibly significant vegetation removal, depending on the final location of the entry workspace. In addition, an access road capable of supporting heavy construction equipment would be required to access the entry workspace. Special permitting for work in wetland areas would likely be required for the entry workspace.

For this project, we anticipate that an exit workspace would measure roughly 75 to 100 feet wide and 50 to 100 feet long. Like the entry workspace, we anticipate that the exit workspace would possibly have to be set back 100 to 150 feet from the proposed connection point at depth within the Club House pump station. This would place the exit workspace within a forested area of the golf course, between a fairway and residential structures. Removal of at least some of the trees would be required to prepare the exit workspace. In addition, an access road would be required between the residential parking area near the pump station, and the exit workspace.

Depending on the proposed carrier pipe specification and how the pipe is delivered to the site, a carrier pipe stringing and fabrication workspace may be required east of the exit workspace. Assuming the worst-case scenario that straight joints of HDPE pipe were to be used, the workspace would likely extend across two fairways of the golf course and possibly butt-up to Lake Whatcom Boulevard. Some temporary disruption in these areas should be anticipated where the pipe cannot be deflected to fully avoid conflicts.

Conventional Auger Boring Design and Construction Considerations

Conventional Auger Boring Design Alignment and Profile

We evaluated a conceptual CAB alignment beginning at station 4+50 (the Ranch House side) and ending at station 1+50 (see Figure 2). This alignment crosses one roadway and a forested area. As currently envisioned, the profile would begin at an elevation of approximately 325 feet at station 4+50, slope upward at approximately 3 percent, and end at an elevation of approximately 335 feet at station 1+50. Based on borings completed in the area (see Figure 2), soils encountered at the elevations of the conceptual auger bore profile consist of very stiff silty clay or medium dense sand. Because the soils encountered in the boring consisted of fill and undifferentiated glacial deposits, there is a risk that there could be cobbles and boulders within these soils as discussed below.

Conventional Auger Boring Workspace/Excavations

Launching and receiving pits are required for installation of the auger bore. Typically, the launching pit, which houses the jacking frame and hydraulic jacking system, measures about 15 feet wide by 40 feet long. Receiving pits can vary in size, but typically measure about 15 feet wide by 15 feet long. For this site, we envision the launching pit being located within a paved/gravel shoulder of the Marigold Drive at Station 4+50 and the receiving pit located within a forested area near station 1+50. We anticipate that sufficient area is present for situating workspaces for a CAB installation; however, additional site reconnaissance would be required to verify this assumption.

Based on the planned pipe profile and existing site grades, we anticipate that the launching and receiving pits will be approximately 25 feet deep and 20 feet deep, respectively. Engineered shoring will be required for both excavations. In addition, shoring for the launching pit will have to be designed for traffic surcharge loading.

Grade Control and Obstructions

CAB installations can typically maintain a relative high quality of grade control as compared to the HDD trenchless method. CAB are commonly used for water and sewer line applications, and are capable of achieving the typical grade tolerance of such projects.

Although our borings did not encounter cobbles or boulders, glacial soils such as those encountered beneath the fill at the site typically contain cobble and even boulder-sized materials. In addition, only one boring (Boring B-2 in Figure 2) was completed within this segment of the alignment. As such, there is a risk that a cobble or boulder that could halt forward progress of the CAB could be encountered. Additional borings would be required to further quantify this risk. A cobble approximately $\frac{1}{3}$ the casing diameter may be sufficient to halt progress of the auger. An oversized casing could be installed that would allow for the augers to ingest cobbles, and also allow for manned entry to break up obstructions, if needed.

Groundwater Considerations

Groundwater is of significant concern for CAB installations. High groundwater levels, particularly in sandy soils, can be problematic for CAB installations. During our geotechnical investigation at the site groundwater was encountered at 12 feet, 25 feet and 7½ feet in borings B-1, B-2 and B-3, respectively. Based on a review of the boring logs, it appears that this groundwater is either perched groundwater sitting atop silty or clayey soils at the site (B-1 and B-2) or part of the localized groundwater within the alluvial soils (B-3). A CAB that encounters relatively clean sand with little fines that is saturated will be prone to flowing into the casing. Saturated sandy soils will also be prone to caving within excavations completed for the launching and receiving pits. Additional subsurface investigation may be appropriate to better understand groundwater and its potential effects on the CAB method of installation, especially in the eastern end of the pipe alignment.

CONCLUSIONS AND RECOMMENDATIONS

Horizontal Directional Drilling Installation

Based on our evaluation as presented herein, it is our opinion that a 600-foot-long HDD installation at this site may be feasible. However, there are significant challenges that should be considered before HDD is selected for design and construction:

1. There is likely a moderate to high risk of drilling fluid surface release to Lake Louise. A more detailed hydraulic fracture and drilling fluid surface release analysis would be required to quantify this risk.
2. Drill hole stability may be a concern on the east end of a conceptual HDD profile.
3. The HDD method of construction does not allow for a precise and consistent alignment and grade to be maintained. The effects of alignment and non-uniform grade changes or bellies in the installed pipe on the project is outside of our area of expertise.
4. Workspaces will be required to be set back from both pump stations, possibly 100 feet or more. Development of a conceptual HDD alignment and profile design taking into account the proposed carrier pipe specifications would be required to fully evaluate the potential location of workspaces.
5. Special permitting and agreements with the golf course landowner would likely be required to situate the entry, exit and pipe stringing and fabrication workspaces.

Based on discussions with the HDD contractor, who reviewed the geotechnical data report and conducted a brief site visit, a rough cost of \$180 per foot would be appropriate for preliminary planning of an HDD option, which would include mobilization, drilling, and installation of HDPE pipe, but does not include excavation and dewatering that may be required.

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Conventional Auger Boring Installation

Based on our evaluation as presented herein, it is our opinion that a 300-foot-long CAB installation at this site may be feasible. However, additional subsurface exploration and feasibility analysis is recommended to verify this preliminary conclusion. Specifically, we recommend the following:

- Complete two additional borings, one near the conceptual launching pit and one near the conceptual receiving pit to characterize soils along the auger bore alignment. The borings should extend to a minimum of 10 feet beneath the anticipated floor of the launching and receiving pits.
- Install piezometers in the two recommended additional borings to obtain accurate groundwater levels at the site.
- Conduct a site reconnaissance by a qualified trenchless specialist to evaluate surface conditions relative to workspace, site access and other factors that may affect CAB feasibility.
- Conduct a more thorough feasibility study based on the findings of the additional borings and groundwater monitoring. The feasibility study should include developing a conceptual plan and profile drawings.
- Based on discussions with a CAB contractor, who reviewed the geotechnical data report and conducted a brief site visit, rough cost estimates ranging between about \$300 to \$400 per foot (depending on guidance methods used) would be appropriate for preliminary planning of a CAB option, which would include mobilization, drilling, and installation of HDPE pipe, but does not include excavation and dewatering that may be required.

Trenchless Feasibility

As discussed above, it is our opinion that both a 600-foot HDD and a 300-foot CAB may be feasible. However, there are several considerations as noted above that require further investigation and analysis to evaluate. As such, the feasibility conclusions presented herein are preliminary and subject to change upon collection and review of additional data. If the LWWS would like to further evaluate trenchless feasibility, we recommend conducting a more thorough trenchless feasibility evaluation of the HDD and CAB options. GeoEngineers can provide a scope and fee for a detailed trenchless feasibility evaluation upon request.

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

Report Use and Reliance

This report has been prepared for BHC Consultants, LLC. GeoEngineers structures its services to meet the specific needs of its clients. No party other than BHC Consultants, LLC and Lake Whatcom Water and Sewer District may rely on the product of our services unless we agree to such reliance in advance and in writing. Within the limitations of the agreed scope of services for the Project, and its schedule and budget, our services have been executed in accordance with our Agreement with the Client dated October 11, 2016 and generally accepted geotechnical practices in this area at the time this report was prepared. We do not authorize, and will not be responsible for, the use of this report for any purposes or Projects other than those identified in this report.

¹ Developed based on material provided by GBA, GeoProfessional Business Association; www.geoprofessional.org.

If changes to the Project or property occur after the date of this report, GeoEngineers cannot be responsible for any consequences of such changes in relation to this report unless we have been given the opportunity to review our interpretations and recommendations in the context of such changes. Based on that review, we can provide written modifications or confirmation, as appropriate.

Information Provided by Others

GeoEngineers has relied upon certain data or information provided or compiled by others in the performance of our services. Although we use sources that we reasonably believe to be trustworthy, GeoEngineers cannot warrant or guarantee the accuracy or completeness of information provided or compiled by others.

Conditions Can Change

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as construction on or adjacent to the site, new information or technology that becomes available subsequent to the report date, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. If more than a few months have passed since issuance of our report or work product, or if any of the described events may have occurred, please contact GeoEngineers before applying this report for its intended purpose so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Professional Judgment

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) rely on professional judgment and opinion to a greater extent than other engineering and natural science disciplines, where more precise and/or readily observable data may exist. To help clients better understand how this difference pertains to its services, GeoEngineers includes these explanatory "limitations" provisions in its reports. Please confer with GeoEngineers if you need to know how these "Report Limitations and Guidelines for Use" apply to your Project or site.

Sincerely,
GeoEngineers, Inc.

Sean W. Cool, PE
Associate

SWC:BCR:tlh

Attachments:

Figure 1. Vicinity Map

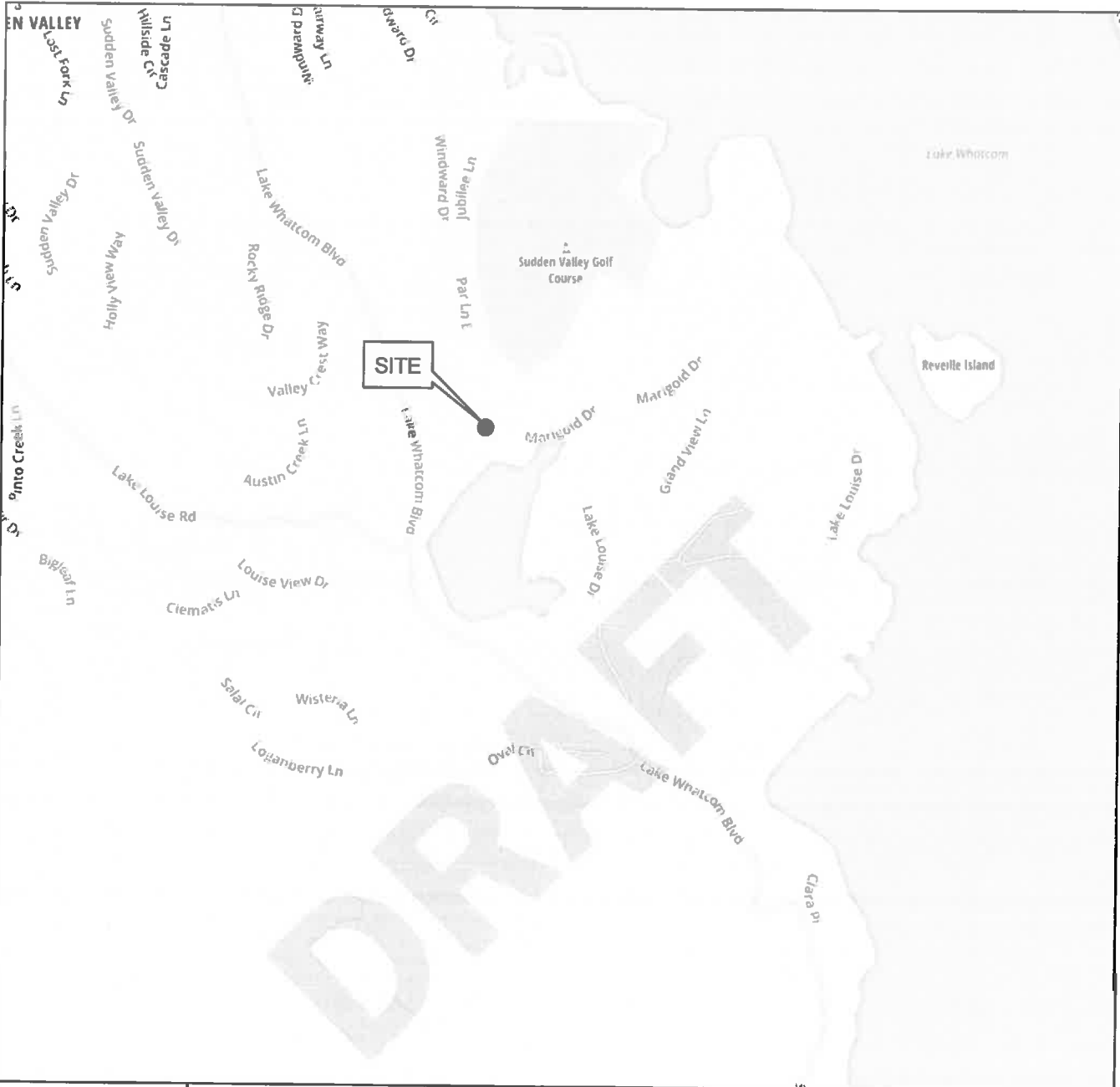
Figure 2. Site and Exploration Plan

One copy submitted

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

016

W:\Projects\04300131\GIS\MXD\043001300_F1_VicinityMap.mxd Data Exported: 04/14/17 by treagh



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 UTM Zone 10N

Vicinity Map	
Country Club Sewer Pump Station Improvements Bellingham, Washington	
	Figure 1



Legend

○ B-1 Approximate boring location

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for planning purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot assume any liability and contact of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: BHC Consultants Site Plan



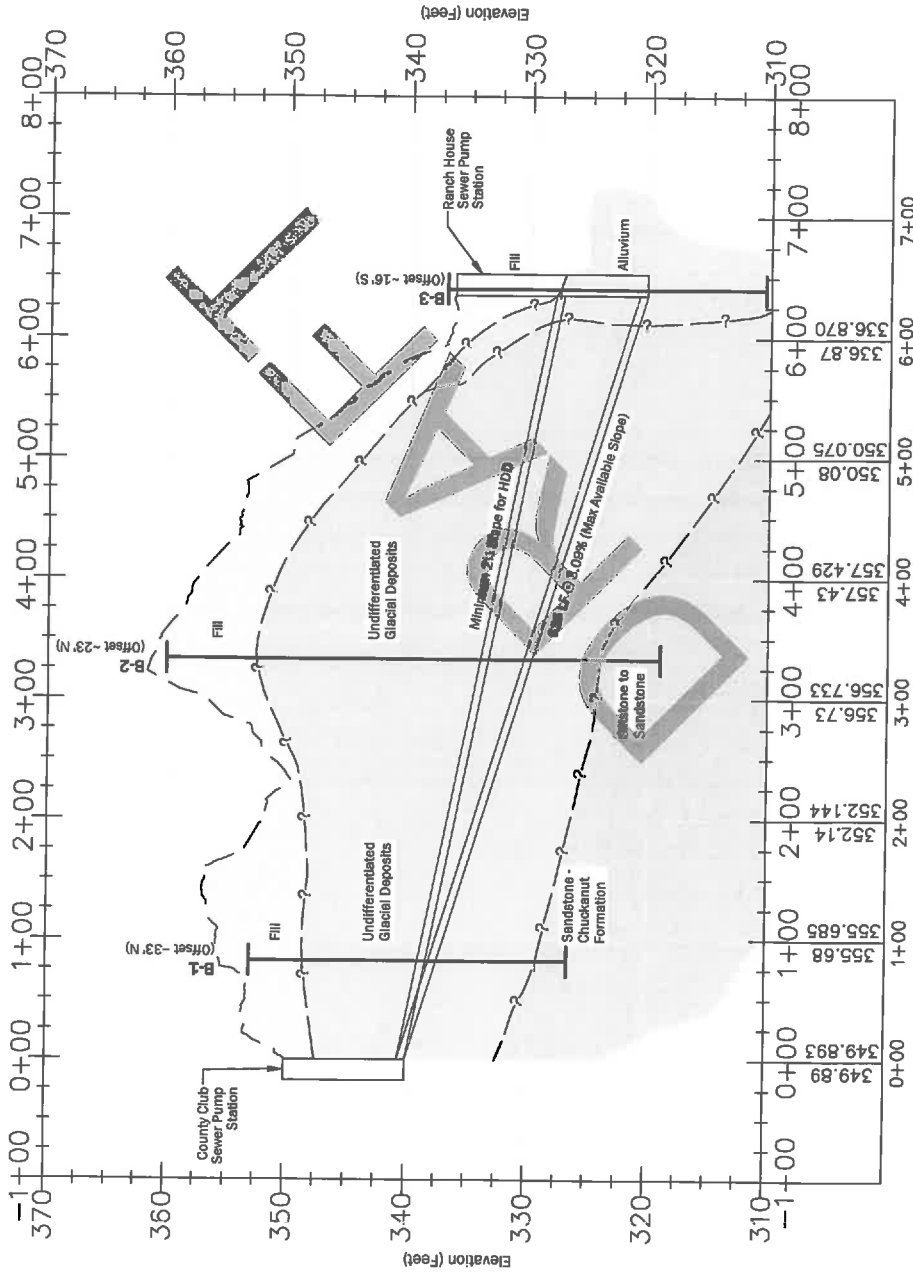
Not to Scale

Site and Exploration Plan

Country Club Sewer Pump Station Improvements
Bellingham, Washington



Figure 2



Legend

- (Symbol) Boring
- (Symbol) Inferred Soil Contact
- (Symbol) Fill
- (Symbol) Undifferentiated Glacial Deposits
- (Symbol) Alluvium
- (Symbol) Sandstone Chuckanut Formation
- (Symbol) Sandstone to Sandstone

Horizontal Scale in Feet
 0 100
 0 10
 Vertical Scale in Feet
 Vertical Exaggeration: 10X

Notes:
 1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
 2. This figure is for informational purposes only; it is intended to assist in the identification of features discussed in a related document. Data were gathered from sources as listed in this figure. The data sources do not guarantee the accuracy of the information presented in this figure. Any updates to the data since the publication of this figure may have been made. This information is provided as a reference only and should not be used as the basis for any design or construction. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.
 Datum: MVD 88, unless otherwise noted.

Cross Section

Country Club Sewer Pump Station Improvements
 Bellingham, Washington

GEOENGINEERS

Figure 3



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	July 3, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL <i>Patrick Sorensen</i>		
MEETING AGENDA DATE:	July 12, 2017		
AGENDA ITEM NUMBER:	5.B.		
SUBJECT:	Resolution 835 - Updating Master Fees and Charges with Schedule #24		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____	1. Resolution 835		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="" type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

The Master Fees and Charges Schedule has been updated to show the General Facilities Charge increases adopted at the June 14, 2017 meeting. The fees will increase by 2.5% on January 1st of each year beginning in 2018 and continuing through December of 2021.

FISCAL IMPACT

RECOMMENDED BOARD ACTION

Discuss/consider Resolution 835.

PROPOSED MOTION

To adopt Resolution 835 Master Fees and Charges Schedule #24 as presented.

LAKE WHATCOM WATER AND SEWER DISTRICT

RESOLUTION NO. 835

A Resolution of the Board of Commissioners
Updating the Master Fees and Charges with Schedule #24

WHEREAS, Lake Whatcom Water and Sewer District ("District") needs to periodically update its Master Fees and Charges Schedule ("Schedule"); and

WHEREAS, on June 14, 2017, pursuant to a report from its financial consultant, the Board of Commissioners approved water and sewer General Facilities Charge increases beginning on January 1, 2018, and increasing by 2.5% each year through January 1, 2021; and

WHEREAS, a new Schedule (Schedule #24) incorporates the aforementioned increases in General Facilities Charges; and

WHEREAS, the District Board desires to update the Master Fees and Charges Schedule to include General Facilities Charge increases effective January 1, 2018, through January 1, 2021, as shown on Schedule #24; and

WHEREAS, the foregoing recitals are a material part of this Resolution;

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The District adopts Schedule #24, which reflects an increase in General Facilities Charges effective January 1, 2018, through January 1, 2021, as shown on Schedule #24. Schedule #24 is attached hereto and incorporated herein in full by this reference.
2. Schedule #24 replaces Schedule #23 as the operative Master Fees and Charges Schedule for the District.
3. Any resolutions or parts of resolutions in conflict herewith are hereby repealed insofar as they conflict with the provisions of this Resolution.
4. If any section, subsection, sentence, clause or phrase of this Resolution is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution. The Board hereby declares that it would have passed this code and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases has been declared invalid or unconstitutional.
5. This Resolution shall be effective immediately.

ADOPTED by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a Regular Meeting thereof, on July 12, 2017

Laura Weide, Board President

Todd Citron, Board Secretary

John Carter, Commissioner

Curtis Casey, Commissioner

Bruce R. Ford, Commissioner

Approved as to form, District Legal Counsel

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

Item	Administrative Fees	Fee/Charge	Reference
1.	Equipment Charge, Hourly		
	Air Compressor—Ingersol/Rand 185 CFM Diesel	\$20.00	Resolution 798
	Backhoe – John Deere 580D	\$45.00	
	Boom Truck – 6,000 Pound	\$30.00	
	Combination Vacuum/Flush Truck	\$100.00	
	Sewer Camera Van	\$75.00	
	Dump Truck – 2-Yard	\$25.00	
	Dump Truck – 5-Yard	\$45.00	
	Equipment Trailer – 14,000 Pound	\$15.00	
	Flush Truck	\$65.00	
	Portable Engine Pump – 600 gpm @130-Feet	\$40.00	
	Portable Generator – 75 kw	\$45.00	
	Portable Generator – 250 kw	\$85.00	
	Tanker Truck – 3,000 Gallon	\$75.00	
Tool Truck	\$20.00		
2.	Information Reproduction		
	Digital Recording - Board Meeting	\$35.00	Resolution 680
	Document – standard size – less than 10 pages	No charge	Resolution 680
	Document – standard size –more than 10 pages	.15 per page	Resolution 717
	Document – non-standard size – deposit	\$50.00	Resolution 680
	Document – non standard size – reproduction	Cost	Resolution 680
3.	Labor, Hourly		
	Accounting Clerk	\$34.00	Resolution 798 Direct Labor Costs
	Accounts Payable/Payroll	\$38.00	
	Accounts Receivable	\$38.00	
	Administrative Assistant	\$46.00	
	Construction Engineer	\$53.00	
	District Engineer	\$71.00	
	Engineering Technician	\$42.00	
	Finance Manager	\$62.00	
	General Manager	\$80.00	
	Maintenance Electrician	\$53.00	
	Maintenance Supervisor	\$57.00	
	Maintenance Worker	\$42.00	
	Utility Systems Support Specialist	\$42.00	
Water Treatment Plant Operator	\$46.00		
	Wilson Engineering Consultation - Current hourly rate + 10%		Resolution 798
4.	Document Recording Fees		
	Document Recording	\$105.00	Resolution 753
	Lien Record/Release	\$150.00	Resolution 756
	Transfer, real estate closing	\$30.00	Resolution 806
	Segregation of assessment, equivalent residential units and water/sewer permits	\$100.00	Resolution 819
	Assessment transfer	\$250.00	Resolution 680
5.	Payment return item	\$25.00	Resolution 820

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

Item	Billing – SEWER SERVICE	Fee/Charge	Reference
<i>Regular Customer Charge Per Billing Cycle - Sewer</i>			
6.	Effective January 1, 2015		
	Billing Cycle Charge	\$148.03	Resolution 806
	Account Charge	\$7.03	
	Volume Charge per dwelling unit	\$141.00	
	Low Income Senior/Disabled Rate 40% Discount	\$88.82	
Effective January 1, 2016			
7.	Billing Cycle Charge	\$151.74	Resolution 806
	Account Charge	\$7.21	
	Volume Charge per dwelling unit	\$144.53	
	Low Income Senior/Disabled Rate 40% Discount	\$91.04	
	Effective January 1, 2017		
8.	Billing Cycle Charge	\$155.53	Resolution 806
	Account Charge	\$7.39	
	Volume Charge per dwelling unit	\$148.14	
	Low Income Senior/Disabled Rate 40% Discount	\$93.32	
	Effective January 1, 2018		
9.	Billing Cycle Charge	\$159.42	Resolution 806
	Account Charge	\$7.57	
	Volume Charge per dwelling unit	\$151.85	
	Low Income Senior/Disabled Rate 40% Discount	\$95.65	
	Effective January 1, 2019		
10.	Billing Cycle Charge	\$163.40	Resolution 806
	Account Charge	\$7.76	
	Volume Charge per dwelling unit	\$155.64	
	Low Income Senior/Disabled Rate 40% Discount	\$98.04	
	11.	Late Fee – One late fee per account per year refundable with General Manager's approval.	
12.	Bulk sewage disposal	\$100.00 + 0.0018/gallon	Latest actual bill from COB

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

Item	Billing – WATER SALES	Fee/Charge	Reference
<i>Regular Customer Charge Per billing cycle – up to 600 cubic feet of water</i>			
13.	5/8 x 3/4 Inch Meter		
	Effective January 1, 2015	\$52.68	Resolution 806
	Low Income Senior/Disabled Rate	\$31.61	
	Effective January 1, 2016	\$57.29	
	Low Income Senior/Disabled Rate	\$34.37	
	Effective January 1, 2017	\$62.31	
	Low Income Senior/Disabled Rate	\$37.39	
	Effective January 1, 2018	\$67.60	
	Low Income Senior/Disabled Rate	\$40.56	
	Effective January 1, 2019	\$70.31	
Low Income Senior/Disabled Rate	\$42.19		
14.	1 Inch Meter		
	Effective January 1, 2015	\$69.88	Resolution 806
	Effective January 1, 2016	\$75.99	
	Effective January 1, 2017	\$82.64	
	Effective January 1, 2018	\$89.67	
	Effective January 1, 2019	\$93.25	
15.	1½ Inch Meter		
	Effective January 1, 2015	\$96.40	Resolution 806
	Effective January 1, 2016	\$104.83	
	Effective January 1, 2017	\$114.00	
	Effective January 1, 2018	\$123.69	
	Effective January 1, 2019	\$128.64	
16.	2 Inch Meter		
	Effective January 1, 2015	\$133.19	Resolution 806
	Effective January 1, 2016	\$144.84	
	Effective January 1, 2017	\$157.52	
	Effective January 1, 2018	\$170.91	
	Effective January 1, 2019	\$177.74	
17.	3 Inch Meter		
	Effective January 1, 2015	\$263.40	Resolution 806
	Effective January 1, 2016	\$286.45	
	Effective January 1, 2017	\$311.51	
	Effective January 1, 2018	\$337.99	
	Effective January 1, 2019	\$351.51	
18.	Usage Over 600 Cubic Feet		
	Effective January 1, 2015	\$7.48	Resolution 806
	Effective January 1, 2016	\$8.13	
	Effective January 1, 2017	\$8.85	
	Effective January 1, 2018	\$9.60	
	Effective January 1, 2019	\$9.98	
	Low Income Senior/Disabled Rate	40% Discount	
19.	Usage Over 2,500 Cubic Feet		
	Effective January 1, 2015	\$9.35	Resolution 806
	Effective January 1, 2016	\$10.17	

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

	Effective January 1, 2017	\$11.06	
	Effective January 1, 2018	\$12.00	
	Effective January 1, 2019	\$12.48	
20.	Late Fee – One late fee per account per year with General Manager’s approval.	10% of past due utility services balance	Resolution 766 RCW 57.08.081(3)

Item	Miscellaneous Water Charges	Fee/Charge	Reference
21.	Water Interruption - Voluntary		
	With Billing Suspension		
	Lock curb stop valve		
	During normal business hours	\$150.00	Resolution 661
	Outside normal business hours	\$175.00	
	With billing suspension		
	Unlock curb stop valve		
	During normal business hours	No charge	Resolution 661
	Outside normal business hours	\$150.00	
22.	Without Billing Suspension		Resolution 661
	Lock curb stop valve	\$50.00	
	Unlock curb stop valve		
	During normal business hours	No charge	Resolution 661
	Outside normal business hours	\$150.00	
23.	Water interruption - Involuntary		
	Delinquent Account - Lock curb stop valve	\$50.00	
	Unlock curb stop valve		
	During normal business hours	No charge	
	Outside normal business hours	\$150.00	
24.	Water interruption - Other		Resolution 661
	Failure to comply with emergency order	Same as above	
	Failure to eliminate cross connection	Same as above	
	Failure to repair leak	Same as above	
	Request of agency/higher authority	No charge	
	Visible leak in vacant building or Disaster	No charge	
25.	Unauthorized Lock Removal Fee		
	When customer cuts or removes lock from meter without District authorization.	\$150.00	Resolution 726
26.	Damaged Meter		
	If meter damaged by the customer	Material & labor to repair meter + \$150.00	Resolution 726
27.	Clear obstructed water meter after request to customer to remove is refused	\$50.00	Board meeting 11/10/99
28.	Hydrant meter, fire hose, fittings		
	Equipment rental – single continuous use	\$35.00	Board meeting 11/10/99
	Bulk water purchase with hydrant meter	\$0.0357/cf	Resolution 696

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

Item	Developer Extension Agreements	Fee/Charge	Reference
29.	Initial Fees		
	Application – Good for 60 days	\$300.00	Resolution 680
	Conformance Deposit	\$1,000.00	Resolution 680
	General Administration	\$750.00	Resolution 680
30.	Final Design Review		
	District Engineer	Cost + 2%	Resolution 680
31.	Design Review and Inspection*		
	Initial Deposit	\$5,000.00	Resolution 680
	Supplemental Deposit	\$2,000.00	Resolution 680
32.	Contract noncompliance	Cost + 2%	Board Meeting 5/14/97
33.	Latecomers Reimbursement Agreements, Reimbursement processing	\$185.00 per connection	Board Meeting 6/10/09 + Resolution 753
34.	Special Agreements	Cost + 2%	Board Meeting 5/14/97
35.	Third Party Claims	Cost + 2%	
36.	Time Extension		
	Before expiration date	\$250.00	
	After expiration date	\$750.00	

*The name of this fee was changed from Facilities Inspection to Design Review and Inspection deposit. Reference April 11, 2007 Minutes

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

Item	Permitting				Fee/Charge	Reference
37.	Water Permit					
Water General Facilities & Installation	Meter Size	Continuous Flow Rating (GPM)	Meter Capacity Ratio	Connection Fee	Installation	Resolution 835 Effective 1/1/2018
	5/8 x 3/4	15	1	\$5,742.00	\$700.00	
	1"	30	2	\$11,484.00		
	1.5"	75	5	\$28,710.00		
	2"	120	8	\$45,935.00	\$4,200.00	
	3" Compound	330	22	\$126,322.00		
	4" Compound	440	29.33	\$168,411.00		
Water General Facilities & Installation	Meter Size	Continuous Flow Rating (GPM)	Meter Capacity Ratio	Connection Fee	Installation	Resolution 835 Effective 1/1/2019
	5/8 x 3/4	15	1	\$5,885.00	\$700.00	
	1"	30	2	\$11,771.00		
	1.5"	75	5	\$29,427.00		
	2"	120	8	\$47,084.00	\$4,200.00	
	3" Compound	330	22	\$129,480.00		
	4" Compound	440	29.33	\$172,621.00		
Water General Facilities & Installation	Meter Size	Continuous Flow Rating (GPM)	Meter Capacity Ratio	Connection Fee	Installation	Resolution 835 Effective 1/1/2020
	5/8 x 3/4	15	1	\$6,033.00	\$700.00	
	1"	30	2	\$12,065.00		
	1.5"	75	5	\$30,163.00		
	2"	120	8	\$48,261.00	\$4,200.00	
	3" Compound	330	22	\$132,717.00		
	4" Compound	440	29.33	\$176,936.00		
Water General Facilities & Installation	Meter Size	Continuous Flow Rating (GPM)	Meter Capacity Ratio	Connection Fee	Installation	Resolution 835 Effective 1/1/2021
	5/8 x 3/4	15	1	\$6,183.00	\$700.00	
	1"	30	2	\$12,367.00		
	1.5"	75	5	\$30,917.00		
	2"	120	8	\$49,467.00	\$4,200.00	
	3" Compound	330	22	\$136,035.00		
	4" Compound	440	29.33	\$181,360.00		
38.	Permit administration and processing				\$40.00	Board Meeting 1/30/03
	Initial Water Inspection				\$25.00	Resolution 667
	Subsequent Water Inspection				\$75.00	Board Meeting 8/16/96
39.	Water Permit – Special Charges					
	Agate Heights Water Latecomer's Fee – Class A				\$9,860.38	Expires 3/15/2017
	Agate Heights Water Latecomer's Fee – Class B				\$2,129.12	Expires 3/15/2017
	Blaine Water Main Extension Latecomer's (North Shore)				\$10,910.00	Expires 8/25/2024
	Columbus Street Water Latecomer's Fee (Geneva)				\$528.50	Expires 3/24/2018
	Coronado Heights Phase 2 Water				\$1,627.58	Expires 3/24/2018
	North Shore and Eagleridge/COB Reimbursement				\$300.00	6/10/88 Agreement

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

	South Geneva Class A Water		\$17,088.97	Expires 7/22/2026
	South Geneva Class B Water		\$5,981.14	Expires 7/22/2026
40.	Sewer Permit			
Sewer General Facilities	Meter Size	Meter Capacity Ratio	Connection	Installation
	5/8 x 3/4	1	\$5,201.00	Done by Owner's Bonded Side Sewer Contractor
	1"	2	\$10,402.00	
	1.5"	5	\$26,005.00	
	2"	8	\$41,608.00	
	3" Compound	22	\$114,422.00	
	4" Compound	29.33	\$152,545.33	
Sewer General Facilities	Meter Size	Meter Capacity Ratio	Connection	
	5/8 x 3/4	1	\$7,726.00	Done by Owner's Bonded Side Sewer Contractor
	1"	2	\$15,452.00	
	1.5"	5	\$38,631.00	
	2"	8	\$61,809.00	
	3" Compound	22	\$169,975.00	
	4" Compound	29.33	\$226,607.00	
Sewer General Facilities	Meter Size	Meter Capacity Ratio	Connection	
	5/8 x 3/4	1	\$7,919.00	Done by Owner's Bonded Side Sewer Contractor
	1"	2	\$15,839.00	
	1.5"	5	\$39,596.00	
	2"	8	\$63,354.00	
	3" Compound	22	\$174,224.00	
	4" Compound	29.33	\$232,273.00	
Sewer General Facilities	Meter Size	Meter Capacity Ratio	Connection	
	5/8 x 3/4	1	\$8,117.00	Done by Owner's Bonded Side Sewer Contractor
	1"	2	\$16,235.00	
	1.5"	5	\$40,586.00	
	2"	8	\$64,938.00	
	3" Compound	22	\$178,580.00	
	4" Compound	29.33	\$238,079.00	
Sewer General Facilities	Meter Size	Meter Capacity Ratio	Connection	
	5/8 x 3/4	1	\$8,320.00	Done by Owner's Bonded Side Sewer Contractor
	1"	2	\$16,640.00	
	1.5"	5	\$41,601.00	
	2"	8	\$66,562.00	
	3" Compound	22	\$183,044.00	
	4" Compound	29.33	\$244,031.00	
41.	Service Installation – If District installed stub exists		\$755.00	
	Permit Processing		\$40.00	
	Initial Sewer Inspection		\$75.00	
	Subsequent Sewer Inspection		\$100.00	
42.	Sewer Permit – Special Charges			
	Agate Heights Sewer Latecomer's Fee		\$1,077.46	Expires 3/13/2016
	Bergen Sewer Latecomer's Fee		\$4,195.67	Expires 7/24/2018

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

	Edgewood Long Plat Sewer	\$4,102.00	Expires 2/24/2019	
	Lakewood/Grand Blvd Special Benefit Fee	\$6,000.00	District Funded	
	La Salle Sewer Extension	\$4,761.73	Expires 7/13/2021	
	South Geneva Class A Sewer	\$22,406.50	Expires 7/22/2026	
	South Geneva Class A Sewer Vault	\$1,704.55	Expires 7/22/2026	
	Sunny Cove Court Sewer	\$1,077.46	Expires 3/13/2016	
	ULID #18 Latecomers Fee – see table, below	See table	Resolution 672	
43.	Other Sewer Charges			
	Grinder Pump Installation – Customer own/maintain	\$150.00	Resolution 645	
	Review waiver of claim agreements for customer owned side sewers with less than 2% slope	\$50.00	Resolution 645	
	Unauthorized Connection to Sewer			
	Investigation, testing, inspection	\$500.00	Resolution 645	
	Repair and correction	Cost + 2%	Resolution 645	
	Disconnect monitoring/enforcement after 90 days	\$25.00/day	Board Meeting 8/29/03	
	Voluntary sewer service interruption			
	Permit to install two-way clean out	Permit processing & inspection fee		
	Suspend billing – insert plug into side sewer	\$250.00	Resolution 709	
	Resume billing/remove plug /business hours	No charge		
Resume billing/remove plug/after business hrs	\$150.00			
44. ULID #18 LATECOMER FEE				
Year	Equivalent to Assessment	Latecomer Penalty	Total	Reference
2016	\$2,792.78	\$3,714.40	\$6,507.18	Resolution 672
2017	\$2,792.78	\$3,979.71	\$6,772.49	
2018	\$2,792.78	\$4,245.03	\$7,037.81	
2019	\$2,792.78	\$4,510.34	\$7,303.12	
2020	\$2,792.78	\$4,775.65	\$7,568.43	
2021	\$2,792.78	\$5,040.97	\$7,833.75	
2022	\$2,792.78	\$5,306.28	\$8,099.06	
<p>NOTE: As described in Resolution 672, ULID #18 Latecomer Charges were created to put parcels not assessed on the same footing as those that were assessed for the ULID. Assessed parcels could, and many did, prepay their assessments. To provide the same opportunity for non-assesed parcels, prepayment of ULID 18 Latecomer Charges will also be accepted. Therefore, paid in full ULID Latecomer Charges satisfy the ULID Latecomer Charges permanently.</p>				

MASTER FEES AND CHARGES
SCHEDULE #24
Effective date July 12, 2017 (Resolution 835)

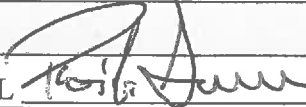
45. VIOLATIONS of Administrative Code		Resolution No. 798
Labor	Staff hourly rates – See page 2	
Equipment use	Hourly rate – See page 2	
Materials	Cost of materials used	
Attorney's Fees and Expenses	Reimburse District's Costs	
Administrative Fee	10% of total expenses	
<p>Any person who violates any provision of the Administrative Code shall be liable to the District for any expense, loss, damage, cost of inspection or cost of correction incurred by the District by reason of such violation, including any expenses and attorney fees incurred by the District in collecting from such person of such loss, damage, expense, cost of inspection or cost of correction, plus an administrative fee equal to 10% of the total expenses. (Reference: Administrative Code Section 3.3.1 Liability to District)</p>		

31



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	July 3, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Bill Hunter	MANAGER APPROVAL 		
MEETING AGENDA DATE:	July 12, 2017		
AGENDA ITEM NUMBER:	5.C.		
SUBJECT:	Resolution 834 – Updating Administrative Code		
LIST DOCUMENTS PROVIDED ⇨ NUMBER OF PAGES INCLUDING AGENDA BILL:	1. Resolution 834 Updating Administrative Code		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="" type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

During the course of business, staff finds various items in the Administrative Code that should be clarified, updated, or changed. This resolution addresses the following topics:

1. **Low Income Senior/Disabled Water and Sewer Rates.** Minor updates from Bob regarding annual notices to all customers and upon initiating service. Clarification that discounted rates can only be applied to accounts with 1 ERU. Conversely, accounts with multiple ERU, such as condominiums, are not eligible because there is no practical way to apply a discount on a single condo unit that shares a meter with other condo units.
2. **Utility Bill Reconciliation Back Billing.** Adds a new policy based on recent billing reconciliation board actions.
3. **Emergency Public Works and Purchases.** Adds a policy that outlines the process staff uses to address emergency situations. Also adds a definition for “Emergency”.
4. **Meter Installation.** Updates policy to reflect existing district practices where 1 meter serves multiple equivalent residential units, such as duplexes, condominiums, schools, camps, etc. It also updates the policy to allow larger meter installations for fire sprinkler systems, but only requires a connection charge as if the fire sprinkler system was not installed.
5. **Sewer Connection Required Sewer Connections.** Updates the code to address situations where a structure does not have any internal plumbing (Boy Scout Cabin), but might have water service to an outdoor spigot. Adds definition for “Plumbing Fixture”.
6. **Disconnection of Side Sewer.** Clarifies that sewer service laterals are capped as close as possible to the sewer main.

FISCAL IMPACT

None.

RECOMMENDED BOARD ACTION

See proposed motion.

PROPOSED MOTION

Adoption Resolution 834 amending the District's Administrative Code as presented.

**LAKE WHATCOM WATER AND SEWER DISTRICT
RESOLUTION NO. 834**

A Resolution of the Board of Commissioners
Amending the District Administrative Code and
Amending District Resolution Nos. 146, 242A, 785, and 833

WHEREAS, the Lake Whatcom Water & Sewer District (“District”) periodically reviews and updates the District Administrative Code to establish new policies, and to undertake revisions and clarifications of existing policies; and

WHEREAS, District Administrative Code updates are also undertaken to maintain consistency among District policies and procedures and conformance with State law; and

WHEREAS, the District Board now wishes to amend portions of the District Administrative Code for the aforementioned reasons; and

WHEREAS, the final amended language that will be inserted into the District Administrative Code is attached hereto as Exhibit A; and

WHEREAS, District Resolution Nos. 146, 242A, 785, and 833 are amended by this Resolution; and

WHEREAS, the foregoing recitals are a materials part of this Resolution;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington as follows:

Section 1. The District Administrative Code is hereby amended to include the following new subsections in section 2.10, Water and Sewer Service Billing:

2.10.9 Low Income Senior/Disabled Water and Sewer Rates

As authorized by RCW 57.08.014 and Resolution No. 807, the Lake Whatcom Water and Sewer District offers uniformly reduced rates across the service area to qualified low-income seniors and disabled customers for water and sewer utilities provided by the District. Notification of such reduced rates will be provided to all persons serviced by the District annually, and upon initiating service. Eligible customers must:

1. Have an individual account serving one (1) equivalent residential unit (an account serving multiple equivalent residential units such as duplexes, multi-family, or condominium is not eligible);
2. Be the property owner and reside in the residence where the discount rate(s) are applied;

3. Provide Property Tax Exemption documentation from the Whatcom County Assessor's Office;
4. Agree that the application is public record and subject to public disclosure, waive any claim of confidentiality in any information provided and to release Lake Whatcom Water and Sewer District, and its employees, agents, offices, and Commissioners from any liability or claims which might arise from the disclosure of such information to any other party or entity; and
5. Agree that the discounted rate will commence on the next billing date after the application is approved and only continue for the time period when such rates are listed and set forth in the current Master Fees and Charges Schedule.

[Resolution Nos. 807, 834]

2.10.10 Utility Billing Reconciliation Back Billing

Upon discovery of unauthorized water or sewer connection(s) to the District system, the District shall send written notice of the unauthorized connection(s) to the property owner of the property benefiting from such connection(s) along with any applicable invoices described in subsection 1 and 2 below.

1. Monthly Service Fees. Along with the aforementioned written notice, the District shall send to the property owner an invoice for service received from the unauthorized water or sewer connection(s) for the time period such connection(s) was in place, up to a maximum of six (6) months back from the date the notice is sent. Said property owner shall be required to promptly reimburse the District for such water or sewer service received for the term in the invoice, and shall commence paying for such service going forward, at regular District rates in place at the time service is provided.
2. Connection Charges. Along with the aforementioned written notice, the District shall send to the property owner a second invoice for connection charges for the unauthorized water or sewer connection(s). The connection charges for the unauthorized connection(s) shall be in the amount of the connection charge in place at the time of the notice, or the time payment is received, whichever is greater. Notwithstanding the foregoing, the District will not collect connection charges for unauthorized water or sewer connection(s) that have been in place for more than six (6) years from the date of the written notice to the property owner, unless the District had no reason to know of the existence of the unauthorized connection(s), in which case the connection charges must be paid regardless of how long the unauthorized connection(s) was in place.

At the discretion of the General Manager, a payment plan may be established for the required reimbursement for the monthly service fees and connection charges for unauthorized connections discovered by the District, in accordance with this section.

[Resolution No. 834]

Section 2. The District Administrative Code is hereby amended to insert the following as a new subsection 2.17.4, and to renumber the existing subsection 2.17.4 (Public Works Contracts) as 2.17.5, and to renumber each successive section in section 2.17 as the next higher number in chronological order.

2.17.4 Emergency Public Works and Purchases

1. Declaration of Emergency. If an emergency exists, the Board of Commissioners, General Manager, District Engineer / Assistant General Manager, or Finance Manager, will issue a written declaration that an emergency exists, waiving competitive bidding requirements, and award all necessary contracts to address the emergency. If a federal or state emergency has been declared, the Board of Commissioners should pass a resolution acknowledging the declaration.
2. Emergency Board of Commissioner Meetings. Per RCW 42.30.070, emergency meetings are exempt from the normal 24-hour special meeting notice requirements of the Open Public Meetings Act.
3. Public Record of Emergency Contracts. Per RCW 39.04.280, if an emergency contract is awarded without competitive bidding, the Board of Commissioners or its designee must enter a written finding of an emergency into the public record no later than two (2) weeks following the contract award.
4. Once the emergency situation has been stabilized, the District will proceed with additional work or repairs using its normal Public Works Contract policies.

[Resolution No. 834]

Section 3. Subsection 2.17.4 of the District Administrative Code and Resolution No. 833 are hereby amended to include the following underlined text and to delete the following struck-through text:

2.17.45 Public Works Contracts

Definitions

a) "Contract" means a contract in writing for the execution of a public work for a fixed or determinable amount duly awarded after advertisement and competitive bid, or a contract awarded under the small works roster process set forth herein. [Resolution No. 833]

b) "Emergency" as defined by RCW 39.04.280 means any unforeseen circumstance beyond the control of the municipality that either present a real, immediate danger to the property performance of essential functions, or will likely result in material loss or damage to property, bodily injury, or loss of live if immediate action is not taken. This includes declared federal or state disasters, as well as local agency-declared disasters.
[Resolution No. 834]

~~b~~ c) "Public Work" means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the District or with public funds. All public works, including maintenance when performed by contract shall comply with Chapter 39.12 RCW. [Resolution No. 833]

Section 4. The District Administrative Code is hereby amended to insert the following as a new subsection 3.1.43, and to renumber the existing subsection 3.1.43 (Point of Delivery) as 3.1.44, and to renumber each successive definition in section 3.1 as the next higher number in chronological order.

3.1.43 Plumbing Fixture

A receptacle or device that is connected to a water supply system or discharges to a drainage system or both. Such receptacles or devices require a supply of water; or discharge liquid waste or liquid-borne solid waste; or require a supply of water and discharge waste to a drainage system. (Source: *2012 International Plumbing Code*).

[Resolution No. 834]

Section 5. Subsection 3.5.4 of the District Administrative Code is hereby amended to delete the following struck-through text:

3.5.4 Water Meter Size

The Master Fees and Charges Schedule includes the current charges for a standard residential service installation. Charges for service installations larger than 5/8"x3/4" meters shall be on an actual cost basis. The meter fee ~~portion of the water service connection~~ charges shall be the actual cost of purchasing and installing the meter.

[Resolution No. 834]

Section 6. Subsection 4.3.3 of the District Administrative Code and Resolution Nos. 242A and 785 are hereby amended to include the following underlined text and to delete the following struck-through text:

4.3.3 Meter Installation

All water services shall be metered and the District shall deliver water to users only through meters owned by the District. ~~A separate~~ At least one water meter shall be installed for each ~~structure~~ land parcel receiving water, whether it is contains a single family residence, multiple family residence, commercial structure(s), or industrial structure(s). The District shall determine the size of the meter to be installed in each instance using the Uniform Plumbing Code and AWWA "Sizing Water Service Lines" (see Section 3.1.27), except that single family residential services also needing standby fire protection shall be sized based upon the required fire flow as determined by the county fire marshal or a qualified District approved fire system professional. The connection charge for a single-family residence with standby fire protection shall be based on the meter size required before adding fire flows. Charges for water service installations shall be in accordance with Section 3.5.4. Meters shall be of the type specified by the District's Construction Standards and Details and shall be installed by the District. A flow test shall be performed by the District at the time of meter installation to insure no restrictions to water flow are present. [Resolution Nos. 242A, 785, 834]

Section 7. The second paragraph of subsection 5.1.3 of the District Administrative Code ("Sewer Connection Required") and Resolution No. 785 are hereby amended to include the following underlined text and to delete the following struck-through text:

The owner of each lot or parcel located within the District's boundaries, upon which lot or parcel there is situated any building or structure ~~for human occupancy or use~~ with interior plumbing fixtures that discharge liquid waste or liquid-borne solid waste, and said lot or parcel is capable of being served by the District's public sewer in accordance with this section, shall install suitable toilet facilities therein and shall connect such facilities, together with all other facilities in use therein which results in the existence of sewage, to the public sewer system, at his/her own expense.
[Resolution Nos. 785, 834]

Section 8. Subsection 5.6.6 of the District Administrative Code and Resolution No. 146 are hereby amended to include the following underlined text and to delete the following struck-through text:

5.6.6 Disconnection of Side Sewer

No structure may be disconnected from a side sewer, and no side sewer may be disconnected from a public sewer, for any reason without prior written notification to, and approval of, the District. No approval shall be given unless the disconnection is permitted under this Code and other applicable rules and regulations and satisfactory protection is given by the owner or his contractor to the public sewers and sewer works of the District, including, but not limited to, the satisfactory capping of the side sewer or public sewer. Sewer service charges for any structure disconnected, or to be disconnected, shall continue until such disconnection is approved by the District, and the side sewer or service lateral is capped ~~or otherwise protected~~ to the satisfaction of the manager. The Service Lateral pipe shall be capped as close as possible to the Sewer Main and the end of the abandoned Side Sewer pipe completely filled with concrete for a minimum of length of 12-inches. The District must inspect the capping before it is covered. [Resolution Nos. 146, 834]

Section 9. BE IT FURTHER RESOLVED that any resolutions or parts of resolutions in conflict herewith are hereby repealed insofar as they conflict with the provisions of this Resolution.

Section 10. If any section, subsection, sentence, clause or phrase of this Resolution is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution. The Board hereby declares that it would have passed this code and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases has been declared invalid or unconstitutional.

Section 11. This Resolution shall be effective immediately.

ADOPTED by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a Regular Meeting thereof, on the 12th day of July, 2017.

John Carter, Commissioner

Curtis Casey, Commissioner

Todd Citron, Commissioner

Laura Weide, Commissioner

Bruce R. Ford, Commissioner

Approved as to form:

Robert A. Carmichael, District legal counsel

EXHIBIT A

2.10.9 Low Income Senior/Disabled Water and Sewer Rates

As authorized by RCW 57.08.014 and Resolution No. 807, the Lake Whatcom Water and Sewer District offers uniformly reduced rates across the service area to qualified low-income seniors and disabled customers for water and sewer utilities provided by the District. Notification of such reduced rates will be provided to all persons serviced by the District annually, and upon initiating service. Eligible customers must:

6. Have an individual account serving one (1) equivalent residential unit (an account serving multiple equivalent residential units such as duplexes, multi-family, or condominium is not eligible);
7. Be the property owner and reside in the residence where the discount rate(s) are applied;
8. Provide Property Tax Exemption documentation from the Whatcom County Assessor's Office;
9. Agree that the application is public record and subject to public disclosure, waive any claim of confidentiality in any information provided and to release Lake Whatcom Water and Sewer District, and its employees, agents, offices, and Commissioners from any liability or claims which might arise from the disclosure of such information to any other party or entity; and
10. Agree that the discounted rate will commence on the next billing date after the application is approved and only continue for the time period when such rates are listed and set forth in the current Master Fees and Charges Schedule.

[Resolution Nos. 807, 834]

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Upon discovery of unauthorized water or sewer connection(s) to the District system, the District shall send written notice of the unauthorized connection(s) to the property owner of the property benefiting from such connection(s) along with any applicable invoices described in subsection 1 and 2 below.

3. Monthly Service Fees. Along with the aforementioned written notice, the District shall send to the property owner an invoice for service received from the unauthorized water or sewer connection(s) for the time period such connection(s) was in place, up to a maximum of six (6) months back from the date the notice is sent. Said property owner shall be required to promptly reimburse the District for such water or sewer service received for the term in the invoice, and shall commence paying for such service going forward, at regular District rates in place at the time service is provided.
4. Connection Charges. Along with the aforementioned written notice, the District shall send to the property owner a second invoice for connection charges for the unauthorized water or sewer connection(s). The connection charges for the

unauthorized connection(s) shall be in the amount of the connection charge in place at the time of the notice, or the time payment is received, whichever is greater. Notwithstanding the foregoing, the District will not collect connection charges for unauthorized water or sewer connection(s) that have been in place for more than six (6) years from the date of the written notice to the property owner, unless the District had no reason to know of the existence of the unauthorized connection(s), in which case the connection charges must be paid regardless of how long the unauthorized connection(s) was in place.

At the discretion of the General Manager, a payment plan may be established for the required reimbursement for the monthly service fees and connection charges for unauthorized connections discovered by the District, in accordance with this section.

[Resolution No. 834]

2.17.4 Emergency Public Works and Purchases

5. Declaration of Emergency. If an emergency exists, the Board of Commissioners, General Manager, District Engineer / Assistant General Manager, or Finance Manager, will issue a written declaration that an emergency exists, waiving competitive bidding requirements, and award all necessary contracts to address the emergency. If a federal or state emergency has been declared, the Board of Commissioners should pass a resolution acknowledging the declaration.
6. Emergency Board of Commissioner Meetings. Per RCW 42.30.070, emergency meetings are exempt from the normal 24-hour special meeting notice requirements of the Open Public Meetings Act.
7. Public Record of Emergency Contracts. Per RCW 39.04.280, if an emergency contract is awarded without competitive bidding, the Board of Commissioners or its designee must enter a written finding of an emergency into the public record no later than two (2) weeks following the contract award.
8. Once the emergency situation has been stabilized, the District will proceed with additional work or repairs using its normal Public Works Contract policies.

[Resolution No. 834]

2.17.5 Public Works Contracts

Definitions

- a) "Contract" means a contract in writing for the execution of a public work for a fixed or determinable amount duly awarded after advertisement and competitive bid, or a contract awarded under the small works roster process set forth herein. [Resolution No. 833]
- b) "Emergency" as defined by RCW 39.04.280 means any unforeseen circumstance beyond the control of the municipality that either present a real, immediate danger to the property performance of essential functions, or will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken. This includes declared federal or state disasters, as well as local agency-

declared disasters. [Resolution No. 834]

- c) "Public Work" means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the District or with public funds. All public works, including maintenance when performed by contract shall comply with Chapter 39.12 RCW. [Resolution No. 833]

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3.5.4 Water Meter Size

The Master Fees and Charges Schedule includes the current charges for a standard residential service installation. Charges for service installations larger than 5/8"x3/4" meters shall be on an actual cost basis. The meter fee charges shall be the actual cost of purchasing and installing the meter. [Resolution No. 834]

4.3.3 Meter Installation

All water services shall be metered and the District shall deliver water to users only through meters owned by the District. At least one water meter shall be installed for each land parcel receiving water, whether it contains a single family residence, multiple family residence, commercial structure(s), or industrial structure(s). The District shall determine the size of the meter to be installed in each instance using the Uniform Plumbing Code and AWWA "Sizing Water Service Lines" (see Section 3.1.27), except that single family residential services also needing standby fire protection shall be sized based upon the required fire flow as determined by the county fire marshal or a qualified District approved fire system professional. The connection charge for a single-family residence with standby fire protection shall be based on the meter size required before adding fire flows. Charges for water service installations shall be in accordance with Section 3.5.4. Meters shall be of the type specified by the District's Construction Standards and Details and shall be installed by the District. A flow test shall be performed by the District at the time of meter installation to insure no restrictions to water flow are present.

[Resolution Nos. 242A, 785, 834]

5.1.3 Sewer Connection Required – second paragraph:

The owner of each lot or parcel located within the District's boundaries, upon which lot or parcel there is situated any building or structure with interior plumbing fixtures that discharge liquid waste or liquid-borne solid waste, and said lot or parcel is capable of being served by the District's public sewer in accordance with this section, shall install

suitable toilet facilities therein and shall connect such facilities, together with all other facilities in use therein which results in the existence of sewage, to the public sewer system, at his/her own expense.

[Resolution Nos. 785, 834]

5.6.6 Disconnection of Side Sewer

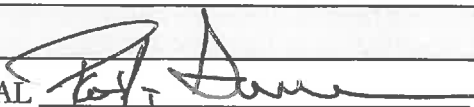
No structure may be disconnected from a side sewer, and no side sewer may be disconnected from a public sewer, for any reason without prior written notification to, and approval of, the District. No approval shall be given unless the disconnection is permitted under this Code and other applicable rules and regulations and satisfactory protection is given by the owner or his contractor to the public sewers and sewer works of the District, including, but not limited to, the satisfactory capping of the side sewer or public sewer. Sewer service charges for any structure disconnected, or to be disconnected, shall continue until such disconnection is approved by the District, and the side sewer or service lateral is capped to the satisfaction of the manager. The Service Lateral pipe shall be capped as close as possible to the Sewer Main and the end of the abandoned Side Sewer pipe completely filled with concrete for a minimum of length of 12-inches. The District must inspect the capping before it is covered.

[Resolution Nos. 146, 834]



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	June 29, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL 		
MEETING AGENDA DATE:	July 12, 2017		
AGENDA ITEM NUMBER:	5.D.		
SUBJECT:	North Shore Water Quality Update Place Marker		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	1.		
	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

This represents a place marker in the agenda to discuss the status of the revised Herrera North Shore Water Quality Report.

FISCAL IMPACT

Not applicable at this time.

RECOMMENDED BOARD ACTION

None at this time.

PROPOSED MOTION

None at this time.



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	July 3, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Debi Denton	MANAGER APPROVAL <i>Debi Denton</i>		
MEETING AGENDA DATE:	July 12, 2017		
AGENDA ITEM NUMBER:	5.E.		
SUBJECT:	Monthly Budget Analysis		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	Monthly Budget Analysis through 6/30/2017		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

Information only

FISCAL IMPACT

n/a

RECOMMENDED BOARD ACTION

n/a

PROPOSED MOTION

n/a



LAKE WHATCOM WATER AND SEWER

INVESTMENTS/CASH AS OF 06/30/2017

Cash	\$ 746,634	0.40%
LGIP	\$ 1,006,137	0.87%

		PAR VALUE		YIELD
FNMA - ProEquity	Callable 10/2017	\$ 1,000,000	Jul-18	1.00%
FICO - ProEquity	Non-Callable	\$ 440,000	Aug-18	0.91%
FICO - ProEquity	Non-Callable	\$ 375,000	Dec-18	0.90%
FICO - ProEquity	Non-Callable	\$ 250,000	Dec-18	0.90%
FFCB - ProEquity	Callable 10/2017	\$ 500,000	Oct-19	1.44%
FFCB - ProEquity	Callable 8/2017	\$ 750,000	Aug-20	1.10%

US Bank	\$ 3,315,000	
TOTAL	\$ 5,067,771	



LAKE WHATCOM WATER AND SEWER FUND SUMMARY 2017

	401	420	425	426	431	440	450	459	TOTAL
	OPERATING	SYSTEM REINVESTMENT	SEWER/STORM WATER CONTINGENCY	WATER CONTINGENCY	2016 BOND PROJECTS	DWSRF PROJECTS	DEBT SERVICE	2009 BOND RESERVE (RESTRICTED)	
2017 REVENUES AND TRANSFERS IN	3,090,276	281,536	104,958	-	300,000	404,862	159,048	4,935	4,345,415
2017 EXPENDITURES AND TRANSFERS OUT	(2,715,870)	(280,923)	(226,987)	-	(1,763)	(714,502)	(181,860)	(705)	(4,122,710)
CASH/INVESTMENTS 2016 CARRYOVER	1,980,328	-	878,723	440,000	98,444	661,352	22,980	763,229	4,845,066
MONTH END BALANCE	\$2,354,734	\$613	\$756,694	\$440,000	\$396,681	\$351,512	\$78	\$767,469	\$5,067,771
ALLOCATED TO OPERATING RESERVES	-\$900,000								-\$900,000
	\$1,554,734								\$4,287,771



MONTHLY BUDGET ANALYSIS

Description

Budget
2017

YTD
6/30/2017
50%

OPERATING FUND - 401

REVENUES

401-333-97-00	FEMA Aug 2015 Storm Assistance	-	14,280	
401-343-40-10	Water Sales Metered (8.75% base rate increase) *	2,279,985	1,024,190	45%
401-343-41-10	Permits Operation portion (10 new connection permits)	30,000	7,319	24%
401-343-50-11	Sewer Service Residential (2.5% rate increase) *	3,844,032	1,932,664	50%
401-343-50-19	Sewer Service Other	5,000	1,727	35%
401-343-81-10	Combined Fees	30,000	12,377	41%
401-359-90-00	Late fees	50,000	28,376	57%
401-361-11-00	Investment Interest	1,500	1,041	69%
401-361-40-00-80	ULID #18 Interest	15,000	15,047	100%
401-368-10-00-80	ULID #18 Principal	40,000	50,874	127%
401-369-10-00	Sale of scrap metal and surplus	2,500	223	9%
401-369-10-01	Miscellaneous	-	2,158	
TOTAL REVENUES		6,298,017	3,090,276	49%

* Per Resolution 820 effective 11/9/2015
Scheduled annual rate increase

	Description	Budget	YTD
MONTHLY BUDGET ANALYSIS		2017	6/30/2017
OPERATING FUND - 401			50%
EXPENDITURES			
401-53X-10-10	Admin Payroll (2.4% cola plus step increases - 2017)	639,252	317,732
401-53X-10-20	Admin Personnel Benefits (Medical, Retirement etc)	268,830	120,712
401-53X-10-31	Gen Admin Supplies	25,000	10,709
401-53X-10-31-01	Meetings/Team building	1,500	1,419
401-53X-10-40	Web pay/Bank Fees (WA Fed; Xpress, Chase)	20,000	12,056
	Interlocal - Lake Whatcom Management Program 5,000		
	Interlocal - Invasive Species 50,000		
	Interlocal - Lake Whatcom Tributary Monitor 10,000		
401-534-10-41-00	Water Quality Assurance Programs (TOTAL)	65,000	5,316
	County Auditor Filing Fees (Simplifile)	4,500	
	Data Bar (Statement processing)	21,000	
	Answering Service	1,700	
	Data Pro (Time clock system)	1,500	
	BIAS Financial Software	20,000	
	Web Check services	5,000	
	WA State Auditor	22,000	
	CPA (Internal audit and Financial statements)	6,000	
	Docuware/Web site maintenance and upgrade	5,000	
	Legal Counsel	60,000	
	3D - Computer support	20,000	
	Watchguard	1,000	
	Building security	1,500	
	Building custodial	7,700	
	Pest control	600	
	Landscaping service	5,500	
	South Whatcom Fire (hydrant maintenance)	2,000	
	GE Scada System Software Maintenance - Operations	7,500	
	Wilson Engineering	7,000	
	Camera Van Software	1,500	
	SCADA/PLC Support - Engineering/Operations	5,000	
	Cartograph - Engineering/Operations	8,000	
	Auto Desk (DLT) - Engineering	1,000	
	GIS Partnership	1,000	
	Rockwell - Engineering/Operations	500	
	IT Pipes	1,500	
	ESRI - ARC GIS	1,500	
	Innovyze - Engineering	2,500	
	Master Meter	2,000	
	Generator Load Testing	22,000	
	Cyberlock software	1,000	
	Whatcom Co Emergency Management	20,000	
	Misc (Bid notices etc.)	3,000	
401-53X-10-41-01	Professional Services (TOTAL)	270,000	202,190
401-53X-10-42	Communication	50,000	26,685
401-53X-10-45	Admin Lease	2,000	920
401-53X-10-46	Property Insurance	138,000	-
401-53X-10-49	Admin Misc.	1,000	84
401-53X-10-49-01	Memberships/Dues	15,000	13,878
401-53X-10-49-02	WA State Dept of Revenue Taxes/Permits	208,000	93,193
401-53X-40-43	Training & Travel	35,000	11,903
401-53X-40-43-01	Tuition reimbursement	1,000	-
401-53X-50-31	Maintenance Supplies	180,000	70,704
401-53X-50-48	Operations Repair/Maint	130,000	123,117
401-53X-50-49	Insurance Claims	5,000	-
401-53X-60-41	Operations Contracted	9,000	2,108
401-534-60-47	Water City of Bellingham	40,000	15,185
401-535-60-47	Sewer City of Bellingham Treatment Fee	615,000	368,942
401-53X-80-10	Operations Payroll (2.4% cola plus step increases - 2017)	951,544	457,414
401-53X-80-20	Operations Personnel Benefits (Medical, Retirement etc)	414,930	194,518
401-53X-80-32	Fuel	20,000	10,951
401-53X-80-35	Safety Supplies	10,000	6,418
401-53X-80-35-01	Safety Supplies Boots	2,500	352
401-53X-80-35-02	Emergency Preparedness	10,000	
401-53X-80-47	General Utilities	208,000	114,133
401-53X-80-48	Laundry	4,000	2,096

	Description	Budget	YTD
	MONTHLY BUDGET ANALYSIS	2017	6/30/2017
	OPERATING EXPENDITURES	4,340,556	2,182,735
TRANSFERS	Transfers Out to System Reinvestment Fund 420	1,588,000	274,087
	Transfers Out to Sewer Contingency Reserve Fund 425	100,000	100,000
	Transfers Out to 2009 Bond Debt Service Fund 450	890,172	159,048
	TOTAL EXPENDITURES	6,928,728	2,715,870
OPERATING FUND	OPERATING REVENUES	6,298,017	3,090,276
	EXPENDITURES	(6,928,728)	(2,716,870)
	CASH/INVESTMENTS BALANCE CARRYOVER	1,750,000	1,880,328
	RATE STABILIZATION RESERVES	(800,000)	(800,000)
	CASH/INVESTMENTS BALANCE	319,289	1,554,734

	Description	Budget	YTD
MONTHLY BUDGET ANALYSIS		2017	6/30/2017
SYSTEM REINVESTMENT FUND - 420			
420-333-66-00-00	North Shore Consolidation Feasibility Study		12,418
420-343-40-19-21	DEA Permits	-	(601)
420-343-40-19-22	DEA Permits		-
420-343-41-20-00	Permits Capital Portion (10 new connection permits)	70,000	(4,368)
420-343-50-20-00	Latecomer Fees	-	-
420-397-10-00-01	Transfers In from Operating Fund 401	1,598,000	274,087
	TOTAL REVENUES	1,668,000	281,536
420-534-10-41-21	DEA 16-01		834
	Active Projects to be completed in 2017	777,500	
	C13-06 Sewer Air Vac Valve Replacement		966
	C 14-07 Lowe Sewer PS VFD	3,450	-
	C 15-04 Reservoir Site Security	5,000	1,863
	C15-06B Whatcom Falls Manhole Repair	17,350	250
	C16-03 Marina-Tomb Stationary Generator	6,785	1,232
	C 16-05 Water System Plan Update	100,000	85,882
	C 16-06 Replace SCADA Hardware	2,670	
	C 16-10 Little Strawberry Water Leak on bridge	10,000	
	C 16-11 Country Club Sewer Pump Station	632,245	12,307
	New 2017 Capital Projects (see CIP detail - 2017)	890,500	
	C 17-01 Tool truck	65,000	
	C 17-02 Admin staff vehicle	26,000	25,231
	C 17-03 Locator/Meter reading van	28,000	
	C 17-04 New Admin Server	15,000	
	C 17-05 Geneva Pump Station pre-design and permits	100,000	39,829
	C 17-05 Geneva Pump Station design and bidding	100,000	
	Par Pump Station pre-design and permits	100,000	
	Par Pump Station design and bidding	100,000	
	C 17-06 Strawberry Canyon Back up Generator	20,000	17,199
	C 17-07 Beaver and Flat Car Level Transmitter Replacement	50,000	
	C 17-08 Install Ball Check Valves	10,000	
	C 17-09 CMOM	25,000	
	C 17-10 Eagleridge Fire Pump Control Upgrade - Scope and estimate	5,000	
	C 17-10 Eagleridge Fire Pump Control Upgrade Construction	35,000	
	C 17-11 Replace SWWTP Booster Station Roof	30,000	12,898
	C 17-12 Mechanical Staff gauge for SWWTP Clearwell	4,000	
	C 17-13 Eagleridge Booster station controls	50,000	
	C 17-14 SWWTP Floor coating	5,000	12,732
	C 17-15 SWWTP pumps and turbidimeter	7,500	1,180
	C 17-16 Water System rehab and replacement projects	40,000	5,822
	Water meter replacements	110,000	82,698
	TOTAL EXPENDITURES	1,668,000	280,823
SYSTEM REINVESTMENT FUND	REVENUES	1,668,000	281,536
	EXPENDITURES	(1,668,000)	(280,823)
	CASH/INVESTMENTS BALANCE CARRYOVER	-	-
	CASH/INVESTMENTS BALANCE	-	813

	Description	Budget	YTD
MONTHLY BUDGET ANALYSIS		2017	6/30/2017
SEWER/STORM WATER CONTINGENCY FUND - 425			
425-361-11-00	Investment Interest	3,750	4,958
425-397-10-00	Transfers In from Operating Fund 401	100,000	100,000
	TOTAL REVENUES	103,750	104,958
425-535-10-42	Investment Service Charges	200	127
425-594-38-63			
	C 16-07 North Shore Sampling	75,000	64,950
	C 16-12 Cedar Hills Storm Drain Relocate (Wilson Eng)	135,000	161,910
	TOTAL EXPENDITURES	210,200	226,987
SEWER/STORM WATER CONTINGENCY FUND			
	REVENUES	103,750	104,958
	EXPENDITURES	(210,200)	(226,987)
	CASH/INVESTMENTS BALANCE CARRYOVER	887,000	878,723
	CASH/INVESTMENTS BALANCE (CAPITAL RESERVES SEWER)	780,550	756,694
WATER CONTINGENCY FUND - 426			
426-361-11-00	Investment Interest	2,500	
	TOTAL REVENUES	2,500	-
426-594-38-64	Machinery/Equipment		
	TOTAL EXPENDITURES	-	-
WATER CONTINGENCY FUND			
	REVENUES	2,500	-
	EXPENDITURES	-	-
	CASH/INVESTMENTS BALANCE CARRYOVER	440,000	440,000
	CASH/INVESTMENTS BALANCE (CAPITAL RESERVES WATER)	442,500	440,000

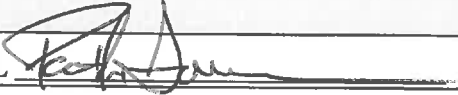
	Description	Budget	YTD
	MONTHLY BUDGET ANALYSIS	2017	6/30/2017
2016 CAPITAL BOND PROJECTS FUND - 431			
RESTRICTED			
	Transfers In from Fund 440		300,000
	TOTAL REVENUES	-	300,000
431-594-38-63	Strawberry Point Pump Station C14-05	156,923	1,763
	TOTAL EXPENDITURES	156,923	1,763
CAPITAL BOND PROJECTS FUND	REVENUES	-	300,000
	EXPENDITURES	(156,923)	(1,763)
	CASH/INVESTMENTS BALANCE CARRYOVER	156,923	98,444
	CASH/INVESTMENTS BALANCE	-	396,681
DWSRF PROJECTS FUND - 440			
440-391-70-46-41	Geneva AC Mains	-	
440-391-70-46-42	Division 22 Reservoir	229,950	404,662
440-397-10-41	Transfers in from Operating Fund 401	-	
	TOTAL REVENUES	229,950	404,662
440-594-34-62-40	Division 22 Reservoir	1,058,100	414,502
440-594-34-62-41	Geneva AC Mains		
	Transfers Out to Fund 431		300,000
	TOTAL EXPENDITURES	1,058,100	714,502
DWSRF PROJECTS FUND	REVENUES	229,950	404,662
	EXPENDITURES	(1,058,100)	(714,502)
	CASH/INVESTMENTS BALANCE CARRYOVER	828,150	681,352
	CASH/INVESTMENTS BALANCE	-	351,512
Expenditures offset by draws as projects progress.			

	Description	Budget	YTD
MONTHLY BUDGET ANALYSIS		2017	6/30/2017
DEBT SERVICE FUND - 450			
450-397-10-00	Transfers In from Operating Fund 401	890,172	159,048
	TOTAL REVENUES	890,172	159,048
450-535-10-41-50	Bond Admin Fee	100	
450-591-34-77-41	Principal Geneva AC Mains	43,023	
450-591-34-77-42	Principal Div 22 Reservoir	119,937	
450-591-34-77-73	Principal Loan 064	47,252	47,252
450-591-35-72-50	Principal Bond 2009	265,000	
450-591-35-72-51	Principal Bond 2016	125,000	
450-592-34-83-41	Interest Geneva AC Mains	14,923	
450-592-34-83-42	Interest Div 22 Reservoir	34,182	
450-592-34-83-73	Interest Loan 064	5,670	5,670
450-592-35-83-50	Interest Bond 2009	30,900	15,450
450-592-35-83-51	Interest Bond 2016	227,175	113,588
	TOTAL EXPENDITURES	913,162	181,960
DEBT SERVICE FUND	REVENUES	890,172	159,048
	EXPENDITURES	(913,162)	(181,960)
	CASH/INVESTMENTS BALANCE CARRYOVER	22,990	22,990
	CASH/INVESTMENTS BALANCE	-	78
BONDS RESERVE FUND - 460			
RESTRICTED			
460-361-11-00	Investment Interest	3,850	4,935
	TOTAL REVENUES	3,850	4,935
460-535-10-41	Investment Service Charges	200	705
	TOTAL EXPENDITURES	200	705
BONDS RESERVE FUND (RESTRICTED)	REVENUES	3,850	4,935
	EXPENDITURES	(200)	(705)
	CASH/INVESTMENTS BALANCE CARRYOVER	773,200	783,229
	CASH/INVESTMENTS BALANCE	776,850	787,459



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	July 3, 2017		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL 		
MEETING AGENDA DATE:	July 12, 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	FORMAL ACTION/ MOTION	INFORMATIONAL/ OTHER
	<input type="checkbox"/>	<input type="checkbox"/>	<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

July 12, 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 July 17, 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, July 26, 2017** at 8:00 a.m.
- **Employee Staff Meeting:** The next staff meeting is set for **Thursday, July 13, 2017 at 8:00 a.m.** in the Board Room. Because Commissioner Weide is out of the area a volunteer is requested to attend.
- **Employee Safety Committee Meeting:** The next meeting is set for **July 13, 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 **July 11, 2017 at 6:15 p.m.**
- **Whatcom Water District's Caucus Meeting:** The next Caucus meeting is set for **July 19, 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.
- **Water Consolidation Study Follow-up:** FYI. As discussed previously staff will be making a presentation to the Board at the August 10 meeting regarding background and policy issues associated with the North Shore Water Consolidation Study. We want to help frame the topical and policy issues for discussion. This is a beginning.

Also, FYI, I have attached a very recent string of email discussion regarding the question pertaining to public water and allowing higher density. This was a point of discussion at the

June 20 public hearing. Please follow the discussion between Melanie, Bob Carmichael, and planning representatives from Whatcom County and WDOE.

- **General Manager Annual Evaluation:** It is that time of year again. As in the past I will forward to you all a copy of last year's evaluation and the narrative form we have been using. My anniversary date is August 1.

- **Out of Area & Meeting Changes RemInder:**
 - Commissioner Weide will be unavailable for the June 28 and July 12 meetings.
 - Commissioner Carter will be unavailable for the June 28 meeting but will be back for the July 28 meeting.
 - The August 9, 6:30 p.m. meeting has been tentatively moved to August 10 at 6:30 p.m.
 - Reminder, the September 27, 8:00 a.m. meeting has been 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.

Patrick Sorensen

From: Hood, Steve (ECY) <shoo461@ECY.WA.GOV>
Sent: Friday, June 30, 2017 12:05 PM
To: Melanie Mankamyler; Cykler, Kasey (ECY)
Cc: Smith, Buck (ECY); Allen, Douglas R. (ECY); Fogelsong, Clare G.; Patrick Sorensen; Bill Hunter
Subject: RE: Whatcom County Zoning - Now 5 acres?

Thanks for following up. And pass my thanks on to Bob and Simi as well.

From: Melanie Mankamyler [mailto:mmankamyler@wilsonengineering.com]
Sent: Friday, June 30, 2017 11:22 AM
To: Hood, Steve (ECY) <shoo461@ECY.WA.GOV>; Cykler, Kasey (ECY) <KIGN461@ECY.WA.GOV>
Cc: Smith, Buck (ECY) <JSMI461@ECY.WA.GOV>; Allen, Douglas R. (ECY) <DOUA461@ECY.WA.GOV>; Fogelsong, Clare G. <cfogelsong@cob.org>; Patrick Sorensen <patrick.sorensen@lwwsd.org>; Bill Hunter <bill.hunter@lwwsd.org>
Subject: Fwd: Whatcom County Zoning - Now 5 acres?

Steve and Kasey:

I am following up on an email Steve sent about a year and a half ago regarding the potential impact of a water main extension on the density of development. The topic was brought up at the June 20th public meeting on the North Shore Water Systems Consolidation Study, and I sought clarification from experts in the matter.

Both Mark Personious and Bob Carmichael (attorney for LWWS D) confirmed that the Rural Residential Overlay allowing higher density development with public water only applies to areas designated Rural Neighborhoods in the Comp Plan, and the North Shore area of Lake Whatcom is not a designated Rural Neighborhood. Therefore, public water will not change the allowable density of a subdivision along the North Shore. Both emails are attached below.

Let me know if you have any questions.

Have a great weekend!

Melanie

----- Forwarded message -----

From: Mark Personious <MPersoni@co.whatcom.wa.us>
Date: Fri, Jun 30, 2017 at 10:06 AM
Subject: RE: Whatcom County Zoning - Now 5 acres?
To: Bob Carmichael <Bob@carmichaelclark.com>, Melanie Mankamyler <mmankamyler@wilsonengineering.com>
Cc: Gary Stoyka <GStoyka@co.whatcom.wa.us>, Bill Hunter <bill.hunter@lwwsd.org>, Patrick Sorensen <patrick.sorensen@lwwsd.org>, Simi Jain <sjain@carmichaelclark.com>

Melanie,

Mr. Carmichael's and Ms. Jain's analysis of the County's zoning regulations is correct. Parcels abutting Northshore Drive from the Bellingham city limits to the end of Northshore Drive (near the Lake Whatcom Park) are zoned Rural (R5A). These parcels are also designated Rural in the County's Comprehensive Plan—not Rural Neighborhood. The Rural Residential Overlay only applies in the Rural Neighborhood Comp Plan designation and therefore would not apply to properties along the North Shore. The Rural (R5A) zone district has a maximum gross density of one dwelling unit per five acres regardless of the water source.

The extension of public water would not increase the density along Northshore Drive from a zoning standpoint (i.e., not authorize creation of additional new lots). Substandard lots within the Lake Whatcom Watershed are subject to lot consolidation requirements of WCC 20.83.070. However, the extension of water may allow for development on existing small undeveloped parcels that may not otherwise be developed currently because of well water constraints (either because of septic and well setback or separation requirements and/or the Hirst decision). Some of these small parcels—those determined to be legal lots of record—still may not be developable without public water and/or sewer because they couldn't meet the setback/separation requirements for a well and septic system. As of today (subject to any legislative actions on the Hirst decision) an extension of public water or sewer could also facilitate subdivisions on those parcels that are 10 acres or greater in size.

Sincerely,

Mark Personius

Assistant Director



Whatcom County Planning & Development Services

5280 Northwest Drive

Bellingham, WA 98226

P. 360.778.5950

Disclaimer: The information contained in all correspondence with a government entity may be disclosable to third party requesters under the Public Records Act (RCW 42.56).

From: Bob Carmichael [mailto:Bob@CarmichaelClark.com]
Sent: Tuesday, June 27, 2017 5:21 PM
To: Melanie Mankamyer; Mark Personius
Cc: Gary Stoyka; Bill Hunter; Patrick Sorensen; Simi Jain
Subject: RE: Whatcom County Zoning - Now 5 acres?

Melanie,

Steve Hood's statement about additional density potential in the R5A zone around Lake Whatcom if public water becomes available is incorrect. Steve's conclusion probably came from looking at the legend of the county comprehensive plan land use map which notes:

R5A*; RR5A* - Rural Residential Overlay

- Title 20 20.32.252

Steve probably did not realize that the above asterisks referred only to those R5A or RR5A designations which are shown with asterisks on the county comprehensive plan map and intended to signify a rural neighborhood designation. The R5A shown on the county comprehensive plan map around Lake Whatcom does not have an asterisk and is therefore not part of the Rural Residential Overlay designation. A few relatively small areas around the county do have an R5A* or RR5A* comprehensive plan designation, and these areas are the overlay areas.

Further proof that the R5A zone around Lake Whatcom is not part of the rural residential density overlay area is in the Rural residential density overlay section of the zoning code (WCC 20.32.252). There it clearly states that the density overlay only applies to area in the RR-2A or RR-5A zone and designated as rural neighborhood in the comprehensive plan. The R5A around Lake Whatcom has none of these designations.

Simi and I both looked at this and both of us think it is pretty clear that the density enhancements possible for the Rural Residential Overlay designation does not apply to the R5A zoning in the Northshore area of Lake Whatcom, or anywhere around Lake Whatcom for that matter.

Bob

Robert A. Carmichael | Attorney

bob@CarmichaelClark.com

060

Carmichael Clark, PS

1700 D Street P. 360 647 1500

Bellingham, WA F. 360 647 1501

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If you receive this communication in error, please call immediately 360-647-1500 and return this e-mail to Carmichael Clark, PS at the above e-mail address and delete from your files. Thank you.

From: Melanie Mankamyer [<mailto:mmankamyer@wilsonengineering.com>]
Sent: Tuesday, June 27, 2017 9:59 AM
To: Mark Personius <MPersoni@co.whatcom.wa.us>
Cc: Gary Stoyka <GStoyka@co.whatcom.wa.us>; Bill Hunter <bill.hunter@lwwsd.org>; Patrick Sorensen <patrick.sorensen@lwwsd.org>; Bob Carmichael <Bob@CarmichaelClark.com>
Subject: Fwd: Whatcom County Zoning - Now 5 acres?

Hi Mark:

Lake Whatcom Water and Sewer District is investigating the feasibility of consolidating its two water systems on North Shore (Eagleridge and Agate Heights) and possibly extending water to the end of Northshore Rd. We had our first public meeting last week and the biggest concern was that providing public water to this area would promote growth and increase development.

Below is an email I received from Steve Hood after a water rights meeting with several DOE staff members last year. It seems to imply that public water would allow higher density development if the surrounding properties were less than 5-acres prior to 2011. If I am reading it correctly, though, this only applies to areas designated as a "rural neighborhood" in the County's Comp Plan, and looking at Map 2-1 from the Comp Plan, the north shore of Lake Whatcom is not designated a "rural neighborhood".

Would you be able to confirm that making public water available on the North Shore will not affect the density of development allowed? Call me if you have questions.

Thanks,

Melanie

--

Melanie Mankamyler, PE

Wilson Engineering, LLC

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Bellingham, WA 98225

Ph: (360) 733-6100 x227

www.wilsonengineering.com

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----- Forwarded message -----

From: **Hood, Steve (ECY)** <shoo461@ecy.wa.gov>

Date: Thu, Feb 4, 2016 at 12:20 PM

Subject: Whatcom County Zoning - Now 5 acres?

To: "Smith, Buck (ECY)" <JSMI461@ecy.wa.gov>, "Cykler, Kasey (ECY)" <KIGN461@ecy.wa.gov>,

"Allen, Douglas R. (ECY)" <DOUA461@ecy.wa.gov>

Cc: Clare Fogelson <cfogelson@cob.org>, Melanie Mankamyler <mmankamyler@wilsonengineering.com>,

"Patrick Sorensen (patrick.sorensen@lwgsd.org)" <patrick.sorensen@lwgsd.org>

Below is a clip of the map currently in use by the county planning department. It doesn't say in the legend that the hatched area is the area where Rural Residential Overlay applies. But it is. That means that for the R5A in this area WCC 20.32.252 applies. It is quoted below but basically means if a parcel that was downzoned in 2011, is surrounded by already more dense development they can match that density. But the underlying zoning is on new per 5 acres. But to figure out where it might be more dense you would need information that the Planning Department did not have at the time of the code development. I recall them being asked if they could provide maps when it was under discussion and they threw up their hands and said if someone wants to take advantage the burden would be on them to demonstrate they met the requirements.

Sources

Code at

<http://www.codepublishing.com/WA/WhatcomCounty/html/WhatcomCounty20/WhatcomCounty2032.html>

20.32.252 Rural residential density overlay.

In certain areas delineated on the official zoning map in the RR-2A or RR-5A zone, and designated as a rural neighborhood in the Comprehensive Plan, a density overlay may be applied in order to permit densities consistent with surrounding development and the established rural character of the area.

(1) Eligibility. Eligibility for the density overlay is limited to lots that meet the following:

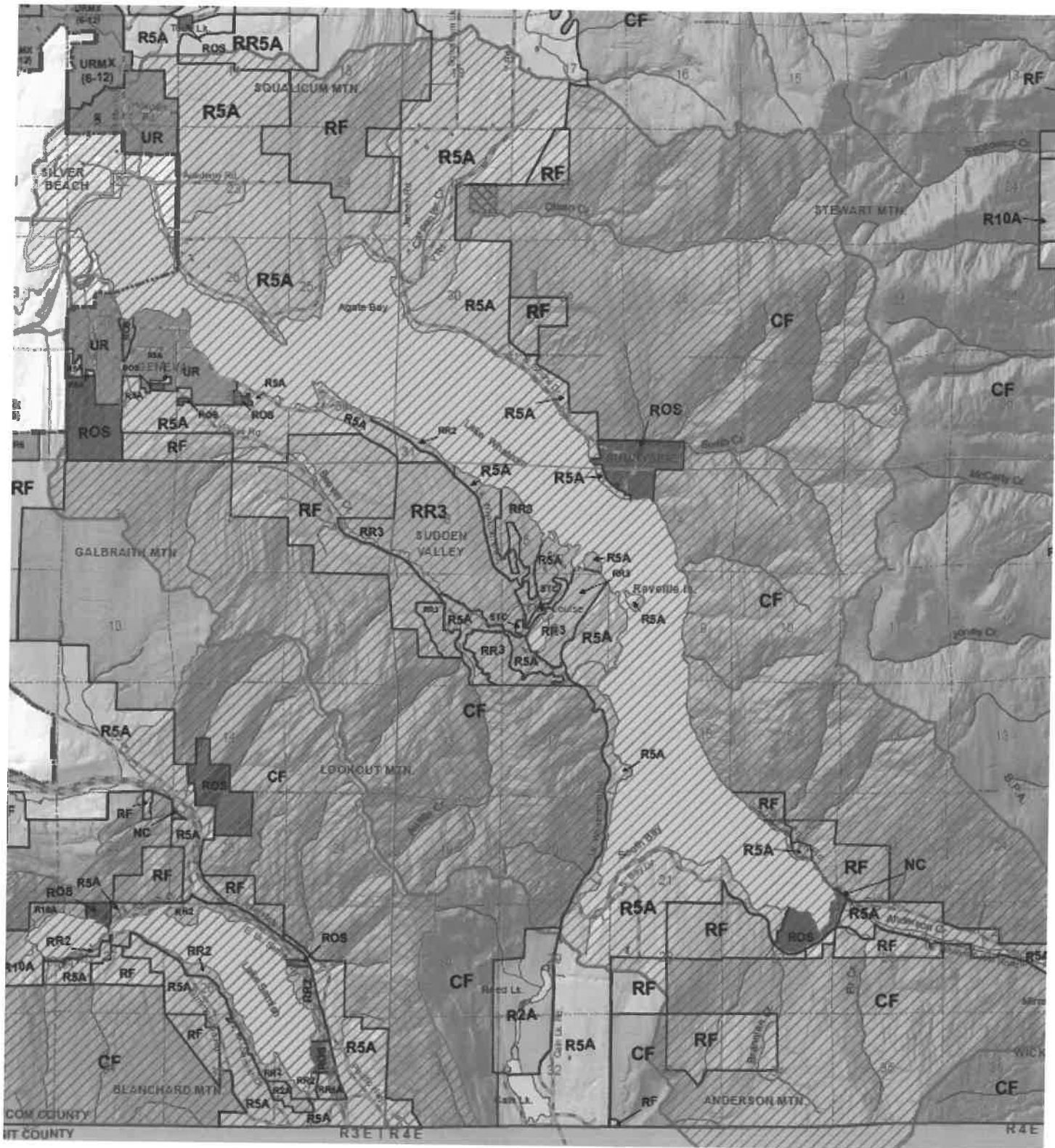
(a) Public water must be available; and

(b) At least 70 percent of lots wholly or partially within 500 feet of the subject lot's outer boundary must have contained a residence and been under five acres in size on May 22, 2011.

(2) Calculation. Within this overlay the permitted minimum lot size for a lot is equivalent to the mean lot size of all lots that contained a residence on June 1, 2011, and are wholly or partially within 500 feet of the lot's outer boundaries, or one acre, whichever is greater. This calculation is subject to the following:

(a) No lots within a city, urban growth area, or LAMIRD (rural community, rural tourism, or rural business Comprehensive Plan designation) may be included in the mean lot size calculation; and

(b) Lot sizes existing on or before May 22, 2011, shall be used in the mean lot size calculation. (Ord. 2012-032 § 2 Exh. B, 2012; Ord. 2011-043 Exh. A, 2011; Ord. 2011-013 § 2 Exh. B, 2011).



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