



BIRCH BAY WATER & SEWER DISTRICT

INFORMATIONAL REPORT



7096 Point Whitehorn Road • Birch Bay, WA 98230
360-371-7100 • office@bbwsd.com
April 2025

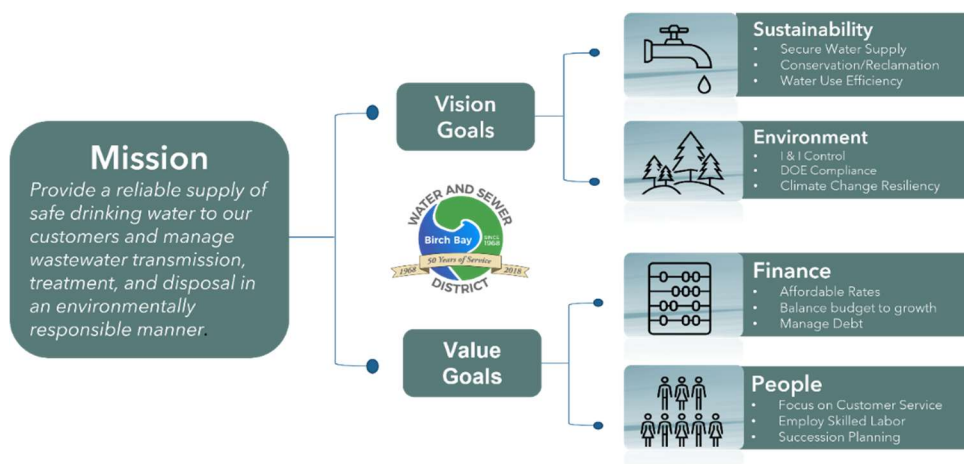
Birch Bay Water & Sewer District

Overview

Birch Bay Water and Sewer District is a special purpose district providing water and wastewater services to about 8,500 connections in northwest Whatcom County. Although unincorporated, most of the District's water and sewer service areas fall within an Urban Growth Area. Formed in 1968, the District operates as a municipal government under Chapter 57 Revised Code of Washington. An elected three-member Board of Commissioners provides policy guidance to the District's General Manager, who is responsible for planning and managing daily operations and implementing improvements as approved by the Board. The District's organization consists of 15 full-time employees. The District contracts for certain engineering and other services. The District's administrative office, water and sewer operations headquarters, and 1.45 MGD wastewater treatment plant (WWTP) are located on a 60-acre site abutting Birch Bay State Park near Point Whitehorn on the south end of Birch Bay. Key facilities in the District's water system include three reservoirs, four booster pumps, and about 70 miles of water mains. The District's current water supply consists of groundwater delivered under a long-term contract with the City of Blaine. To enhance reliability and provide for growth, the District is pursuing additional groundwater rights jointly with Blaine. In addition to the WWTP, the District's wastewater system consists of about 50 miles of pipe, with 900 manholes and 11 pump stations. The District's WWTP employs a conventional activated sludge process with primary clarifiers and surface aerators, using UV for disinfection. Service contracts provide for the disposal of biosolids by means of a short haul to a land application operation on private property under a DOE "Beneficial Use Facility" permit. The District's outfall lies 1500 feet off Point Whitehorn near the Georgia Strait in 50 feet of salt water. For a more detailed view of Birch Bay Water & Sewer District history please see our Story Map <https://bbwsd.com/storymap/>.

Mission

Provide a reliable supply of safe drinking water to our customers and manage wastewater transmission, treatment, and disposal in an environmentally responsible manner.



Water supply

By the 1950s the Birch Bay area citizens started recognizing that the growing population would soon outpace the City of Blaine's two wells that were drilled in the 1920s. After the District was formed in 1968, three wells were added to the City of Blaine's original two wells, along with a storage capacity of three reservoirs. In 1989 the City of Blaine's Ground Water Management Area was designated by the Department of Ecology and plans were put into place to protect potable water. The City of Blaine (City) & Birch Bay Water Sewer District (District) Wholesale Water Supply Contract (Contract) began on April 2, 2002, after years of the District purchasing water from the City.

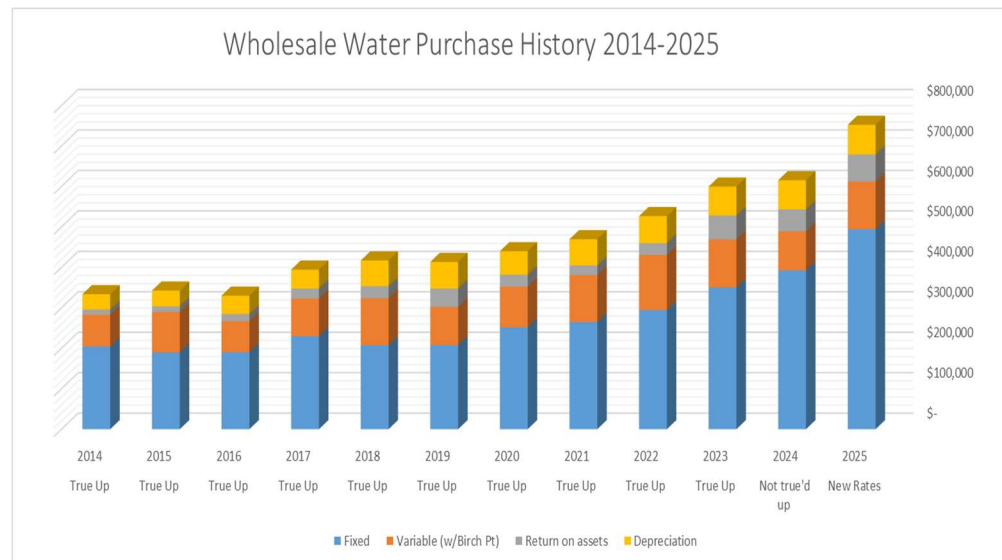
The City supplies drinking water from eight active wells to two Contract customers and approximately 4,000 retail customer connections. The District is the City's largest Contract customer and typically accounts for slightly more than half of the City's annual total water demand volume. The District has approximately 8,500 retail customer connections.

The Contract has been amended several times however it is important to look at the original Contract intent. The Contract establishes a mechanism for the City to be informed of the District's estimated water needs in an annual notice which contains a five-year projection of Estimated Maximum Day Demand (MGD) and an Estimated Annual Quantity (AFY). The Contract creates a methodology for calculating the rates for water supply services to be paid by the District. That rate-setting methodology is outlined in an appendix to the contract and is based on the City's budget. Briefly, the methodology defines fixed costs and variable costs; as well as supply costs and distribution costs among others. The methodology then defines how the rates will be set such as the Variable Distribution Costs (ex-operating supplies) are Volume divided by Production. More complexly, the Fixed and Variable Supply Costs are a function of the Contract Demand divided by the Ultimate Capacity. The original contract also creates a retrospective cost reconciliation "True Up" of those budgeted rates to the actual expenses incurred by the City and actual usage of water by the District. The contract was to be in effect for 30 years plus three ten-year extensions to add 30 additional years were optional.

An important aspect of the Contract is the security of water rights for both the City and the District. As background, the waters of the state of WA belong to the public and can't be owned by any individual or group. Instead, a person or group may be granted a right to use a volume of water, for a defined purpose, in a specific place (Dept of Ecology). The City's water rights were granted or "certificated" with its entire service area in mind, including the District service. Generally, a water right pertains to the land where the water is beneficially used. While the District's use of the City's water rights does not confer ownership, the City's ability to unilaterally terminate service to the District is subject to approval by the Department of Health and in the event of a change application, by the Department of Ecology. Agency approval is not likely to occur over the District's objection, particularly if the District does not have a replacement water source. In summary, the Contract has the security of water rights for both the City and the District because any attempted unilateral change to the City's water rights would face significant regulatory and legal hurdles, and would most likely result in a reduction of the City's certificated water rights.

Lastly, the original contract limits financial interfund operating transfers from the City's water utility operating fund to other City departmental funds to only reimbursements for the costs of providing

administrative and general services in support of operation and maintenance of the Water Supply System.



Amendment #1 (May 27, 2008)

- New Supply opportunity of first refusal
- Increase Installed Capacity from 3.19 mgd to 3.995 mgd
- Implement a Regional Connect Charge
- Coordinate supply system – annual meeting

Amendment #2 (August 6, 2010)

- Ultimate capacity is 7.5168 mgd for maximum day production
- Contract maximum day demand is 3.73 mgd
- Fixed Supply Costs are allocated based on Contract Demand as a percentage of Ultimate Capacity
- Share records on the Water Supply System, pumping data, storage levels, etc

Amendment #3 (December 26, 2013)

- Delay Fixed Supply Cost allocation change in Amendment #2 to December 31, 2015
- Amendment #4 (April 12, 2016)
- Delay again the Fixed Supply Cost allocation in the prior two amendments to December 31, 2017

Amendment #4 (April 22, 2016)

- Extend the contract by ten (10) years
- Executes the first of three, (10) ten-year extensions

- Original contract end date was thirty years past 4/2/2002 or 4/2/2032 and is extended to 4/2/2042, negotiations can begin 20 years prior to the end date and need to finish 10 years prior to the end date

DRAFT Amendment #5 – not finalized

- Update the Fixed Supply Cost allocation from the City's water budget to the Fixed Charge based on Contract Demand as a percentage of Ultimate Capacity

Historically, the City and the District prefer to stay involved together in the City's well-field operation and maintenance together as a partnership, meeting monthly and discussing challenges. Some of the partnership work is accomplished through a separate contract for task orders. Staying involved avoids short-term water supply shortages. The District has a long history of collaborating with the City, on preventative measures that are cost-effective and reliable. Similarly, the District continues to closely review the City's True-Up Reconciliation annually as well as analyze the Wholesale Rates the City sets during budgeting.



Wastewater Treatment

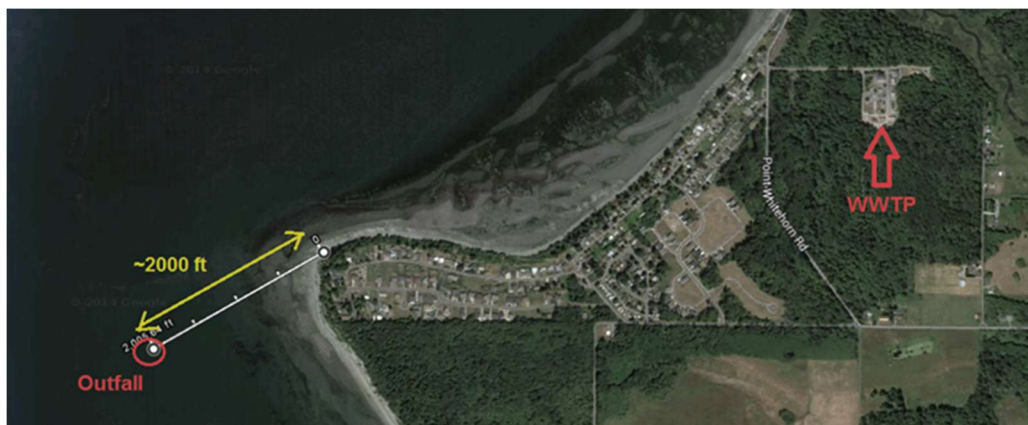
The District owns and operates a secondary (activated sludge) wastewater treatment plant (WWTP) with a capacity to treat a maximum monthly average daily flow of 1.44 million gallons per day (MGD). The plant was designed and constructed in the mid-1970s with start-up on December 7, 1976.

Several modifications have occurred over the years. Recent upgrades included a new headworks facility with 3 mm rotating drum screens and a vortex grit removal system in 2013 and a new fine bubble diffuser system with new blowers for the aeration basins in 2016. Operational upgrades from 2020-2024 were effective to reduce nutrients and provide additional Total Inorganic Nitrogen (TIN) removal.



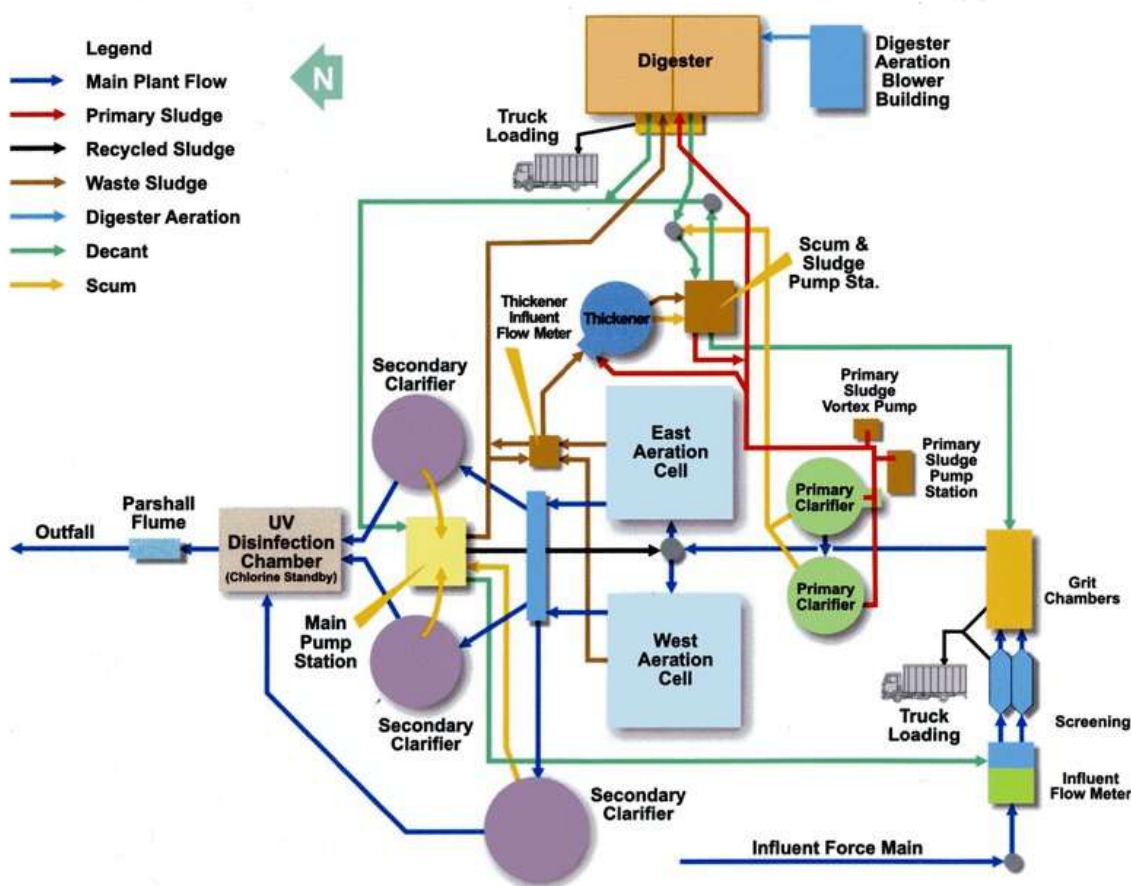
The District plant has an excellent performance and compliance history with one of the most consistent award records in the entire Washington State: 22 annual Outstanding Treatment Plant awards since 1999, and 15 awards in the last 16 years.

The wastewater treatment plant outfall is located about 2000 ft west of Point Whitehorn, on the southern end of Birch Bay. The outfall utilizes a 6-nozzle outlet-diffusion system to thoroughly mix the discharge into the fast-moving waters of Georgia Strait. None of the nutrient and dissolved oxygen (DO) studies have found the area around the BBWSD plant's discharge to be oxygen deficient in any manner. It was encouraging to note that back in 2001 the multi-year shellfish ban in the Point Whitehorn area was lifted primarily as a result of the excellent performance of the treatment plant.



As noted previously, several studies have shown that not only is there no low Dissolved Oxygen (DO) issues, but that DO water quality in the Strait of Georgia is of Extraordinary Quality, including the 2014 report “Sound and the Straits Dissolved Oxygen Assessment: Impacts of Current and Future Human Nitrogen Sources and Climate Change through 2070 (Roberts, et al., 2014).

BBWSD’s Wastewater Treatment Plant utilizes an activated sludge process to remove pollutants. Typical WWTP processes and components, such as a screening facility, grit removal, clarifiers, aeration basins, and related auxiliary processes and equipment, are included within the BBWSD WWTP. The WWTP process outline is shown below:



2016, the WWTP rating was increased from 1.28 MGD and 2000/2000 mg/l BOD/TSS, to 1.44 MGD and 2400/2500 mg/l BOD/TSS due to an upgraded headworks facility and the installation of three new high-capacity blowers and fine bubble diffusers in both aeration basins.

The District treated an average of over 310 million gallons of wastewater per year for the last 12 years. Since 2008, the WWTP had an average BOD removal rate of 93% with an average effluent BOD of 12 mg/l. The average TSS removal rate has been 94.3%, with an annual effluent TSS of 12 mg/l. From 2014 to 2020, the Average TIN concentration has been 25.2 mg/l with an average effluent ammonia concentration of ~ 4.6 mg/l. Ammonia typically peaks during the summer months (tourist season) with heavy loading.

Outfall inspections and mixing zone studies have found the outfall to be in good condition, with excellent mixing, high dilution ratios, and “no reasonable potential” to exceed any water quality standards for any pollutants. Acute & Chronic toxicity tests conducted on the WWTP’s effluent in 2011 and 2018 indicated a full 100% survival rate of aquatic organisms.

Archaeology

The District has been protecting archaeological resources within our service area by following regulatory mandates and our internal processes to meet all State and local laws that protect archaeological resources on public and private lands.

In the 1970s during the sewer system construction project, Western Washington State College was brought in for “recommendations for salvage archaeological operations.” While some archaeology had occurred in the Birch Bay area before sewer construction, this was the most extensive report to date. It seems to have been performed to the standards of the time.

Force Main Replacement Project – The Blaine WWTP project and the WSDOT Port Angeles Graving Docks project greatly changed the importance of archaeology on construction projects. Executive Order 05-05 was a direct offshoot of these incidents. While the District had started consulting with the Lummi Nation, 05-05 implemented a required process. The District acquired a permit to replace the force main “within the previously disturbed material”. While there were several issues during construction, the project was completed successfully.

Automated Meter Replacement Project – This project required the District to “touch” every single meter within the District. The District, in consultation with DAHP and the Lummi Nation, developed a cultural resource management plan to provide guidance to staff and a process through which regular maintenance tasks are conducted and emergencies are managed.

During regular maintenance tasks, the District retains an archaeological monitor for all work within a 300 ft buffer from the shoreline. The District also contacts an archaeologist if working in an area that is known in the Cultural Resource Management Plan to be sensitive. A Pre-Work consultation letter is sent to DAHP and Lummi Nation at least 48 hours before the work will be sent. Of course, there is no way to predict or adequately plan for an emergency failure of water or sewer facilities (lines, pipes, connections, wells, hydrants, pumps, etc), and in that event stabilization of the system and addressing the damage requires immediate attention. Once that is completed, then at the earliest time the District will undergo a situation assessment and consultation with the entities for archaeological inspection.

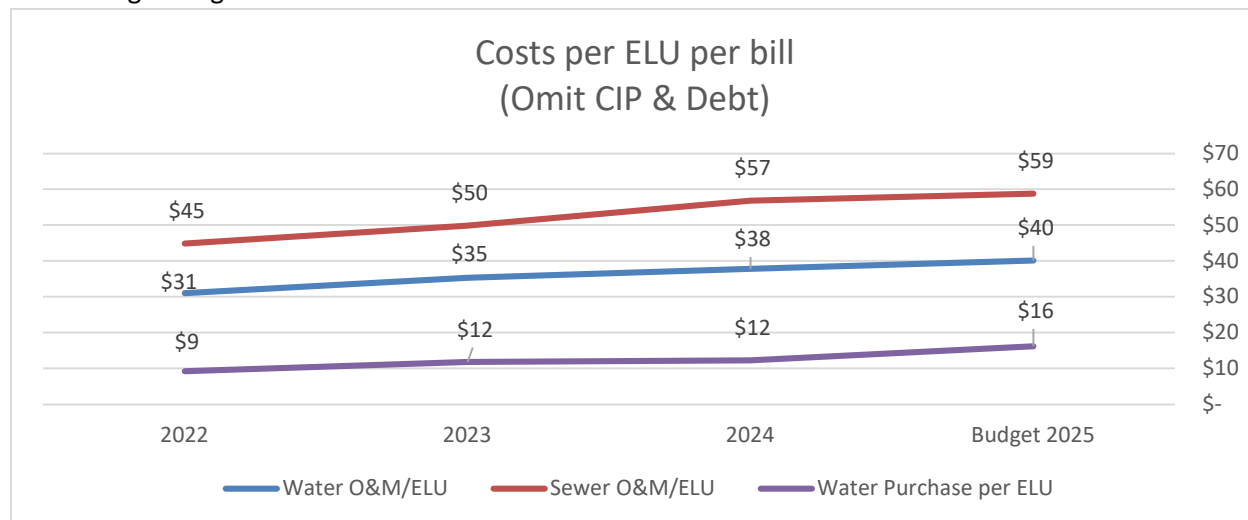
In addition to following State and Federal law regarding Cultural Resources, the District recognizes the importance of these resources and strives to ensure the Lummi Nation’s continued trust in safeguarding this important resource. The Cultural Resource Management Plan is the District’s guidebook for these actions. In addition, the District has an on-call contract with Drayton Archaeology for assistance as needed. The District has committed to ongoing education for employees on archaeology and cultural resource identification.

Where we are today

The District establishes Goals during the annual budgeting process each fall. Those goals are supported and monitored through Performance Measures. Goals are established by each department to bring focus on how we operate and maintain our system. The District uses Performance Measures to carry out the goals.



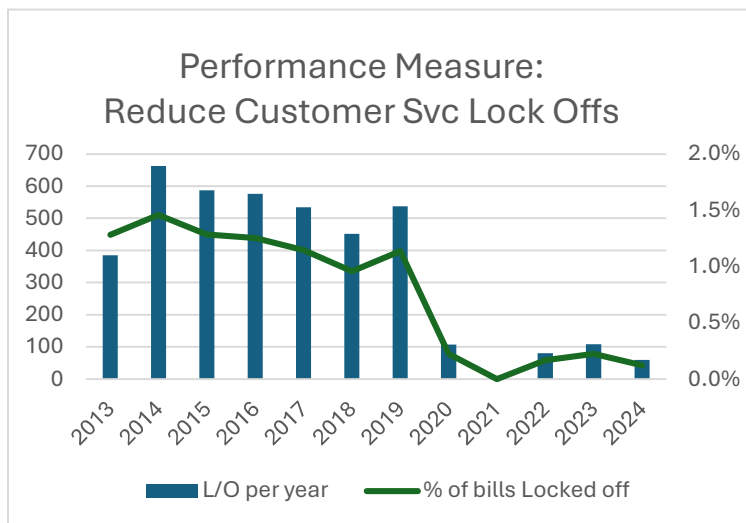
One Performance Measure we use is to calculate operations and maintenance costs per equivalent living unit (ELU). This gives us a high-level graphical view of our ability to constrain costs over time as the District is growing.



Water Use Efficiency is another Performance Measure, accounting for all water losses and educating the public on conservation. The District recently upgraded to Automated Meter Reading, which has leak detection (continuous usage over twenty-four hours). The District now can proactively find leaks faster and notify customers to prevent water loss and costly home repairs.

With the installation of automated meter reading in 2019, leak detection has increased significantly. Before 2019 we had an average of 129 high usage notifications to customers and disruptive to their lives. After implementing an Automated Meter Reading system, we can now monitor our system and it will send high usage alerts between billing cycles and notify customers they may have a possible leak.

The Districts' goal is to provide essential services without interruption to our customers. Locked-off accounts take a lot of staff time and the added fees to return service is expensive to customers. In 2017 the Board of Commissioners began an initiative to reduce customer lock-offs and this year we were able to reduce that number significantly. Through the pandemic from March 2020 through March 2022, locking off delinquent accounts was suspended. When the District returned to customer lock-offs for nonpayment, the Board of Commissioners piloted a three-bill delinquency for lock-off, rather than the historical two-bill. The data collected on delinquent accounts during this time frame has shown that with a little extra time, accounts were being brought current and the need to lock off accounts dropped. District staff personally call and email the customer at risk of lock-off and remind them of the payment due date as well as supply local financial assistance resources such as The Opportunity Council and the Community Assistance Program of Blaine (CAP). The District and the CAP have enjoyed a partnership of over twelve years as the District collects customer donations and remits to the CAP for BBWSD customer financial assistance.



In 2024, the District was appointed to the State of WA Dept of Health water/sewer utility Financial Affordability Committee, an effort funded by the State Legislature in 2024 to explore the feasibility of creating a statewide financial assistance program and also to review the current cost burden of water/sewer rates statewide. The District is committed to maintaining rate affordability while providing quality service, it maintains the second-to-lowest water & sewer utility rates in Whatcom County. The Affordability Committee will be issuing a report to the Legislature in June 2025.

Birch Bay Water and Sewer District is committed to keeping reasonable rates for the essential services we provide. The responsibility to provide access to water and sewer services is balanced by the District's need to fund improvements to infrastructure and to safely operate while respecting applicable laws and regulations. "Universal access to safe, reliable, and affordable water services is a human right that addresses public health and sanitation needs that are fundamental to modern society."¹

Annual budgets are created factoring in inflation, capital improvement projects, and the cost of maintaining operations and maintenance. Revenue requirements are then used to set the rates for customers. The District maintains a ten-year revenue requirements plan and constantly updates it during annual budgeting.

The District has implemented a tiered pricing structure for water usage to allow for additional use at a lower rate while charging a higher rate for higher use to encourage conservation.

In 2018, the District created a Rate Affordability analysis that considers local information and the financial burden on low-income customers. An annual comparison of rates in Whatcom County is helpful to understand how the District rates compare to others. We analyze affordability in one way by looking at the bi-monthly rates including 400 cf of water use, the average use for a family of 4.

Municipality	1				# hours worked (HM)	3				
	2020 Median Household Income (US Census)	2020 Poverty Rate (US Census)	2% of MHI	4.5% of MHI		2023 Municipality Rates	Water	Sewer	Tax	Total
Lake Whatcom WSD	\$ 56,198	20.0%	\$ 93.66	\$ 210.74	13	Lake Whatcom WSD	\$ 100.43	\$ 92.40	\$ -	\$ 192.83
Blaine	\$ 72,772	9.3%	\$ 121.29	\$ 272.90	12	Blaine	\$ 30.09	\$ 124.28	\$ 13.89	\$ 168.26
Ferndale	\$ 62,852	14.4%	\$ 104.75	\$ 235.70	11	Ferndale	\$ 51.50	\$ 94.70	\$ 13.16	\$ 159.36
Everson 1	\$ 59,650	13.7%	\$ 99.42	\$ 223.69	8	Everson	\$ 32.05	\$ 84.00	\$ 6.96	\$ 123.01
Bellingham	\$ 56,198	20.0%	\$ 93.66	\$ 210.74	8	Bellingham	\$ 53.66	\$ 48.02	\$ 14.30	\$ 115.98
Lynden	\$ 70,308	6.3%	\$ 117.18	\$ 263.66	8	Lynden	\$ 49.11	\$ 53.84	\$ 8.75	\$ 111.70
Nooksack 1	\$ 67,813	8.2%	\$ 113.02	\$ 254.30	7	Nooksack	\$ 35.07	\$ 53.93	\$ 7.74	\$ 96.74
Birch Bay	\$ 63,157	13.0%	\$ 105.26	\$ 236.84	6	Birch Bay	\$ 39.74	\$ 42.68	\$ -	\$ 82.42
Sumas 1	\$ 57,930	9.7%	\$ 96.55	\$ 217.24	5	Sumas	\$ 12.06	\$ 60.61	\$ -	\$ 72.67
County Average	\$ 62,986	12.7%	\$ 104.98	\$ 236.20	9	County Average	\$ 44.86	\$ 72.72	\$ 7.20	\$ 124.77
US Average	\$ 64,994	11.6%	\$ 108.32	\$ 243.73	8	US Average 2	\$ 45.44	\$ 66.20	\$ -	\$ 111.64
1. DataUSA										
2. National average rates was from the US Municipal Water & Wastewater Utility Rate Index 2021, Bluefield Research										

1. Blue highlight: The first affordability measure we examined was whether rates were less than 4.5% of Median Household Income (MHI) from the US Census (2020). MHI is one general affordability method but misses examining the low-income affordability.
2. Green highlight: The ratio "HM" represents the hours needed to work at minimum wage to afford the cost of water and sewer. The minimum wage used was \$14.49/hr. There seems to be variability in this nationally, AWWA Water Science 2019 calculated 10.1 hours nationally to pay for monthly basic water and sewer services; using the US Average rates our calculation was 8.0 hours. Teodoro (2018) suggests 8 hours as a rule of thumb to guide policy considerations.
3. Orange highlight: Local rate comparisons at 800 cf usage per month.

¹ Eric Rothstein, Stacey Isaac Berahzer, Joe Crea,, and Michael Matichich. "Affordability and Equity Considerations for Rate-Setting", *Journal AWWA* Sept 2021 pp 37-47

Water Use Efficiency

Conservation- Saving Water Lowers Rates

The District has embraced Water conservation for over 25 years to keep water and sewer rates economical. It may be hard to believe, but the less water delivered, the better it is for the District and its customers.

The idea behind conservation is that saving water saves the District money that would be needed to build new water supply and wastewater treatment infrastructure. As customers' needs rise and aging installations require replacement construction, the less the size or capacity needed, the less the cost. Such construction is typically measured in millions of dollars and is often built to last 50-100 years. The cost of adding new supply, delivery, collection, and treatment projects far exceeds the cost of building the current facilities, especially when the project is required to meet the single highest day of the year's demand. Every water supply system and sewer treatment plant is built to provide the maximum day demand. Lowering the maximum day demand saves significant dollars.

Water conservation not only lowers the rate of your water and sewer bill, but it also helps to preserve and protect our environment and our limited resources.

Wastewater Compliance

BBWSD is committed to protecting our environment and continually seeks to improve our processes to meet or exceed the rigorous standards put in place by the Department of Ecology. In 2016 improvements were made to the aerators which showed that the plant could operate utilizing a single aeration basin for 6 months or more out of the year. That led to the belief that there may be capacity within the existing plant for denitrification. In 2018 the NPDES Permit requirements were changed and the need to reduce nutrients from our system became a primary focus.

After several theories and lots of data evaluation, this led to the consultation with engineering consultant Allison Esvelt, of Esvelt Environmental Engineering, who has extensive experience with nutrient removal. It was recommended that a re-routed RAS (Return Activated Sludge) line into the Primary Clarifier would provide a carbon source for the denitrification process. With these recommendations, a trial was put in place in May 2019. The TIN testing in June 2019 showed a dramatic 66% decrease in effluent TIN.

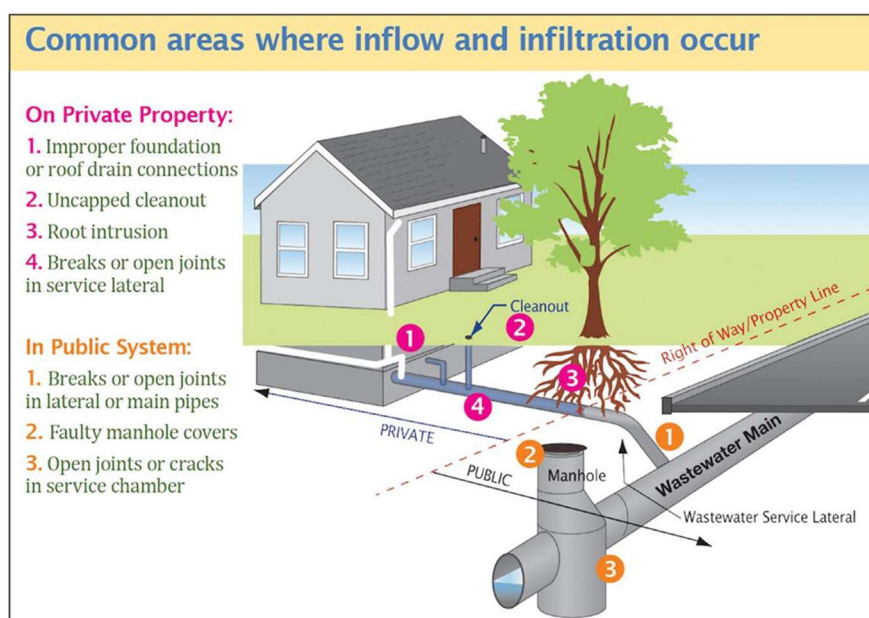


Inflow & Infiltration (I&I) Reduction

The District has implemented proactive measures to reduce I&I by reaching out to local RV Parks and Resorts, which have a history of excessive flooding. Field Inspector, sends reminder letters to all RV Parks in the District asking them to check sewer caps to ensure they are in place and tight. He will schedule appointments to visit maintenance personnel to help locate all sewer connections and shut off valves to be ready for heavy rains.

Manhole monitoring system - A manhole sensor has been installed adjacent to known problem areas. The sensors show a direct rain response quickly and staff can notify customers in the area immediately. We have also sealed the bolts on manhole coverings to prevent leaks from surface water.

District-wide communications focusing on I & I prevention have been mailed to all customers. We want customers to be aware of where I&I can come from and actions that they can take to prevent it.



Financial Management

The District's financial management is core to the continuation of services. Long ago, the District adopted financial management policies to promote financial health and stability over time. Two strong commitments outlined in the policies were a fair balanced rate structure that supports the cost to provide water and wastewater services, and a commitment to establish an integrated capital improvement program. The District does not receive any tax revenue and relies solely on the water and sewer rate revenue, from ratepayers, and General Facility Connection Charges (GFCs).

As a municipality, we must adhere to transparent practices and be audited every two years by the WA State Auditor Office. Annual Financial reports are submitted for review and comments. Annual Reports are public records that can be found on the State Auditor website. The recent ten years of District

audits are clean and the Finance Director was appointed to the State of WA Auditor's Office Local Government Advisory Committee to represent all Water and Sewer Districts in the State. This Committee ensures the effective implementation of national accounting rules as well as the implementation of State of WA legislative interests.

Financial Policies set by the Board of Commissioners guide the District to maintain sound financial practices to build a foundation for the continuity of services and supply for the Birch Bay area. The financial management policy requires annual budgeting that includes a 10-year revenue requirement model forecast. The "model" projects the annual rate increase needed, on a level basis, to meet all operating and capital funding requirements over the ten years, while moderating the need for large rate adjustments in a single year.

Capital Improvement projects (CIP) are identified through the District Comprehensive Plan process which follows the County Comprehensive Plan process every 10 years. CIP projects shall consist only of efforts appropriate for capitalization. The General Manager shall manage at the CIP project level such that current year CIP Budget expenditures are less than or equal to the Current Year Budget for each CIP project.

The District Comprehensive Plan also helps to establish GFC (general facility charge) rates by utilizing Whatcom County's expected growth rates for the Birch Bay area. Each year the District looks at actual growth to establish priorities and expansion projects. The funding of expansion projects is calculated in GFC rates. Those rates are paid by new customers connecting to our system and not established customers.

In 2016, the District adopted a Debt Policy to help ensure that all debt is issued both prudently and cost-effectively. The Debt Policy sets forth comprehensive guidelines for the issuance and management of all financings of the District. The Washington Public Treasurer's Association office awarded the District's Debt Policy a certificate of excellence for its thoroughness and transparent actions.

The Debt Policy established the type of debt instruments that may be utilized by the District. Public Works Board Loans are one of those instruments, that offer very low interest rates to fund public infrastructure construction and rehabilitation projects. These loans do not require a tax assessment from property owners in the District, saving our customers from additional taxes.

In 2019, the District sought advice from the Financial Consulting firm, Raftellis, to conduct a Financial Policy Review. The purpose of the financial policy review was to assess:

- A. The adequacy of the District's cash position considering factors such as projected service territory growth and potential operating risks such as climate-induced water demand variability or not meeting expected population growth assumptions.
- B. Whether the District's current and projected use of debt financing is appropriate considering factors such as intergenerational rate equity between current and existing customers, potential capital improvement program (CIP) financing strategies, and legally mandated debt service coverage requirements.

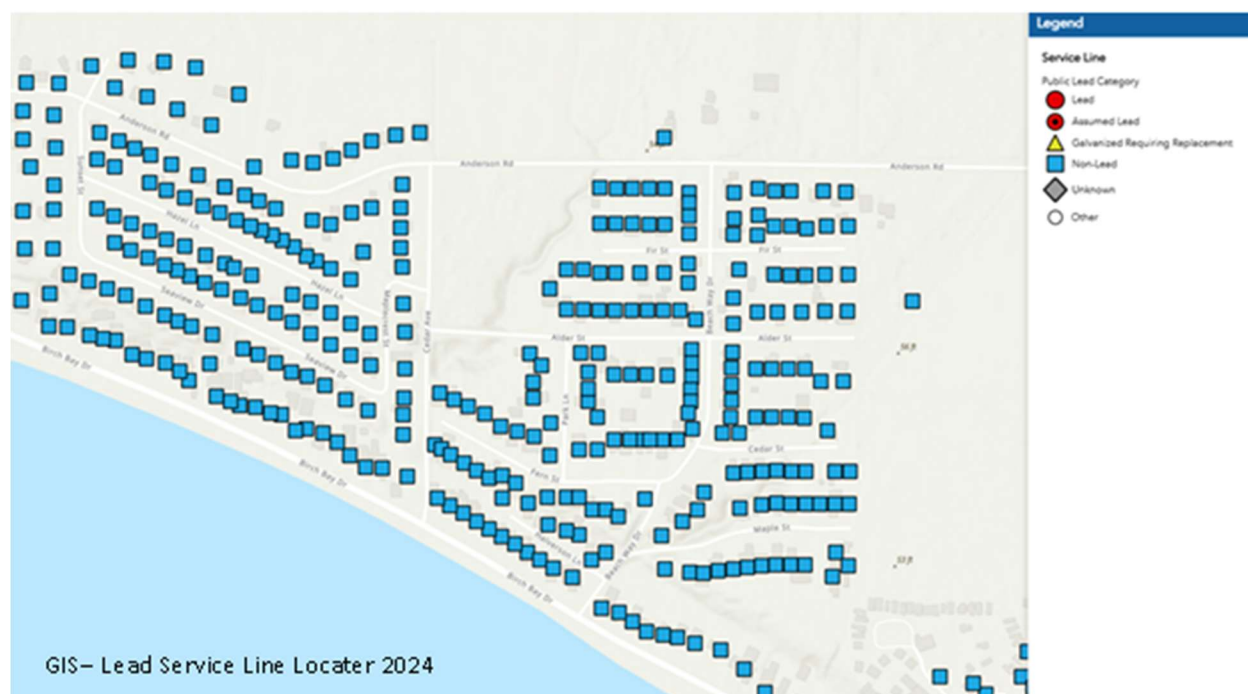
The review of the District's Financial Policies concluded that the District has detailed financial policies regarding virtually every aspect of the financial management process including budgeting, the use of debt financing, and cash reserves. They provide among the most comprehensive and useful financial management guidelines that Raftelis has ever observed for any similar-sized utility.

The review of cash reserves concluded that assuming that the District's customer account growth and rate increase projections occur, its current cash position is more than adequate to mitigate the risk of climate-induced revenue volatility and any reasonably plausible operating emergency such as the inability to collect rate revenues over a multi-month period.

Growing With Technology Infrastructure

In 2018 the District secured \$1.5 million from the Public Works Board to upgrade and install automated, remote read meters District-wide. This project finished under budget and schedule in 2021. The Automated Meter Reading (AMR) has increased our ability to find water leakage quickly. Leak notices reach customers within days if not hours. This also streamlines our reading process, with more accuracy and frees up staff time.

Along with the AMR project came ArcGIS. The ArcGIS is a cloud-based mapping and analysis solution program. The District is currently mapping all assets in the area. This will allow us to find and locate equipment quickly in an emergency. We will eventually be able to connect with County Emergency Services for rapid response during emergencies.



Future

District Personnel and Succession Planning

Even though the District has a rough value of \$65 million in capital improvements since its creation, the District's Board of Commissioners and Personnel are the District's highest investment. Without the day-to-day operation and long-term maintenance provided by the personnel, the infrastructure would lose value very quickly. This importance of District personnel is also seen in the District's annual budget. Personnel costs are typically 60% of the yearly outlay of Operations & Maintenance costs. Maintaining the quality of the personnel is one of the District's highest priorities.

The District has historically done a good job of retaining employees. This is evidenced by the collective "years of service" of the current employees, which provides the District with a very experienced workforce. The average years of service are currently 12. Methods employed by the District to achieve this have been mutually beneficial employee contract negotiations and an atmosphere of respect in the workplace.

Board of Commissioners: Succession planning for Commissioners is a difficult task given they are elected positions for six-year terms. The six-year terms have one Board member position open every two years, which does allow for overlap. Turnover of Board members is out of the control of the District, so the District needs to be able to accommodate the turnover. Plans that the District has put in place to accommodate turnover include having the following documents assembled and ready for New Commissioners and available for existing Commissioners to review as necessary:

1. Commissioner Handbook – intended to be a helpful guide
 - Title 57 RCW
 - MRSC "Getting into Office"
 - MRSC "Knowing the territory"
 - Protocol Manual
 - Adopted Policies
 - District Code
2. Small Board's Roberts Rules
3. Water Service Map
4. Sewer Service Map
5. Chart of Accounts
6. Current Budget and historical
7. Comprehensive Plans
8. Financial Reports

Staffing: For most District positions, an overlap period between the incoming and outgoing positions is highly desirable as it allows a speedier way for the incoming position to gain insight into the day-to-day methods employed by the District.

The District has developed several documents to assist in succession planning;

- Workforce data gaps analysis – assists in identifying needs when hiring
- Future potential organization chart – tries to anticipate what positions might be needed
- Existing job descriptions
- Job-specific training programs – have consisted of identifying the operational needs including cross-training between water and sewer, and performing periodic check-ins on how an employee is doing.

When filling these operator positions (entry-level), aptitude and soft skills are looked at as much, if not more, than experience.

Consultants: The District relies on several long-term consultants who bring their valuable skills along with their historical knowledge to the benefit of the District. Not saying anything about how long they intend to work, we have asked them to think about succession planning within their firms. This includes keeping more people within the firm familiar with the workings of the District.

Securing Water Rights

In 2020 the Washington State Department of Ecology (DOE) identified the need for an adjudication of water rights in the Nooksack Watershed. Adjudication is a process that brings all water users in a watershed into one court process that permanently determines everyone's legal water rights in that area. The court process leads to full and fair water management by confirming legal rights to use water.

The adjudication process is quite lengthy and is expected to take approximately 10-20 years to complete, but no one knows how long it will take to finalize. Pre-adjudication work started in 2021, and the DOE has filed with the courts recently. The District has a long history of planning for water supply and started strategic planning in 2023 to ensure water rights and supply are secured for the District.

Resiliency

The District has a long history of ensuring resiliency from weather events and planning for natural disasters. Currently, Whatcom County has chosen Birch Bay as one of the areas to further study the effects of compound flooding events and sea level rise. The District is working closely with the County on identifying affected infrastructure and recently the District has reviewed an engineering plan that proposes a future sewer main route up off of Birch Bay Drive to higher grounds.

The District participates in county-sponsored emergency response tabletop exercises as well as maintains procedures for internal staff during a potential emergency.

In 2022 funding was secured through a Public Works Board (PWB) low-interest loan to build a 170,000-gallon water storage tank at the District facilities on Point Whitehorn Rd. This storage tank will increase the amount of water storage in the District water supply and increase the reliability of supply to the

Point Whitehorn area, including the WWTP and District facilities. It will serve as an emergency water supply if the supply line is compromised. The tank is scheduled to be completed by 2027.

In 2023 funding was secured through a PWB low-interest loan to complete a project to increase the reliability and capacity of water supply and address a storage deficiency condition for the Birch Point portion of the District service area.

Birch Bay Incorporation Association Feasibility Study

A group of citizens has formed the Birch Bay Incorporation Association and received funding from Whatcom County to hire a consultant to study the feasibility of incorporating.

The last time this topic had serious effort was in the late 2000's. At that time, Whatcom County funded a study; "Birch Bay Incorporation Study Final Report" dated March 2008. This study stated that there were 3 options for governance of the Birch Bay area:

- 1) Remain an unincorporated area of Whatcom County
- 2) Annex to the City of Blaine, or
- 3) Incorporate as a new City of Birch Bay

The study looked at the third option and gave insight into "Would a City of Birch Bay be financially feasible?" Many assumptions were made to estimate the feasibility question with one of the assumptions being that Birch Bay Water & Sewer District would continue to operate independently from the newly formed city. Additionally, a new city could decide to impose utility taxes on utility services that operate within a city, although that historical study did not assume such a decision.

From a District perspective, the initial question of Birch Bay area local governance does not impact the District one way or the other. Under all 3 of the above scenarios, at least initially, the Birch Bay Water & Sewer District continues to operate as it does today.

If the citizens of Birch Bay decide, pursue, and implement either the 1) incorporate as a new City of Birch Bay or 2) annex to the City of Blaine, there could be changes to the continued operation of the District. The rest of this section looks at what and how those changes could occur.

- 1) **Utility taxes** - Cities are granted the power to implement "utility taxes" on utilities that operate within the city's limits. The Birch Bay Water & Sewer District has the second lowest rates in Whatcom County for providing water and sewer services. Part of the reason our rates are among the lowest is that we do not have a utility tax levied on the income derived from providing those services.
 - The City of Blaine currently collects a 9% utility tax on its water and sewer services, it also collects a 6% utility tax on other utilities that operate within the City of Blaine. Lynden recently increased its utility tax on its water and sewer utilities from 6% to 10%. Many other cities do collect utility taxes on

their utilities (such as the City of Bellingham at approximately 18% on water and 11% on sewer). We assume that if the City of Blaine were to pursue annexation and the assumption of the District, this tax would be imposed on the District services.

- There are statutory limits on the maximum allowable tax rate a city can levy on certain utilities, including electricity, natural gas, and telephone service (RCW 35.21.870). Cities may not exceed this tax rate without obtaining voter approval. However, there is no limit prescribed by state law for taxes levied on water, sewer, or stormwater utilities, which makes those utilities prime candidates for tax increases when cities need to raise additional revenue.
- A new City of Birch Bay has no track record on utility taxes, so it is difficult to know whether they would implement a utility tax and what that amount might be. A new study of “Would a City of Birch Bay be financially feasible” would be needed to be able to judge the possibility. The more feasible a new City would be without assuming a utility tax might provide some comfort that a utility tax would not be needed. However, given the popularity of utility taxes, it is likely that the City of Birch Bay would impose a utility tax on water and sewer services - even if it did not levy a utility tax initially, it could still elect to do so at any time in the future.

2) **Interfund loans** – Unlike Districts, Cities can use Interfund Loans to mitigate cash flow issues in their General Fund. Often Cities have revenue streams that fluctuate during the year and don’t match up with the expenses. Periodically, Cities also incur expenditures and then receive reimbursement from a grant or contract and have a timing issue with their cash flow. Enterprise funds, like a Water & Sewer fund, are highly likely to be used as the revenue source of an Interfund Loan. The enterprise fund is then repaid with principal and interest over time. This practice does not occur in a water and sewer district. The Birch Bay Water & Sewer District has total control over its reserve funds. We can accumulate funds over time to pay for future capital infrastructure projects that we know are needed and know that the funds will be there when we need them. With a City, some of this control over the utility funds is lost.

- A new City of Birch Bay may have short-term cash flow timing issues related to the receipt of property taxes (April and October). However, a new City of Birch Bay, as described in the 2008 Incorporation Study, is solvent (pg28) if the citizens are okay with being taxed at the same level as they currently would pay as part of unincorporated Whatcom County. The Study mentions a “go slow” method of new City startups that could result in reserves being built quickly by delaying the hiring of staff and would limit the need for Interfund Loans (pg 67). Again, as with utility taxes, a new study would be

needed to judge the solvency of a new city and if interfund loans from an enterprise fund would be utilized.

3) **Incorporation or annexation** – Incorporation by a new City of Birch Bay or annexation of the District by the City of Blaine would be a choice the new City or City of Blaine could make.

- Many Cities prefer to own and operate water and sewer services within their city limits. Per RCW 35.13A, a new City or the City of Blaine could propose to assume the portion of the District within the city limits. There could be portions of the District that would be outside of the new City limits and decisions on how these customers would continue to be served would be costly and difficult to determine. The District would still be required to provide service outside of the City. It should be noted, however, that if the portion of the District within the City is equal to or greater than either (1) 60% of the District's service area; or (2) 60% of the assessed valuation of the real property within the District's service area, the City has the authority to assume control of the entire District. Notably, the RCW also allows for the Cities' decision to assume all or a portion of a District (see A) to be subject to a referendum (vote on the portion of the District being assumed) (see B). This could be a difficult and divisive issue for the community to face at any time, particularly shortly after the incorporation.
- The RCW also allows a City to assume a District, or portion of a District, by a contract negotiated between the City and the District. This method is not subject to a voter referendum. This would allow the City and District to come to a mutual agreement and understanding of how the customers outside the proposed incorporation or annexation area would continue to receive service. This method is called out in the City of Blaine and Birch Bay Water and Sewer District's Water Supply Contract as the only method through which the City of Blaine could assume a portion of the District.

If a newly incorporated City of Birch Bay would like to look at assumption of a portion of the District, then "contract negotiation" should be the method used as it is the only method by which the District could ensure continued cost-effective utility service to all our existing customers. As mentioned earlier, this would be a costly and difficult decision to ensure cost-effective services and a mutual agreement should not be assumed.

- A. Per RCW 35.13A.050, the city is required to provide service to the portion of the former district outside city limits only for "the economically useful life" of the facilities serving that area – not indefinitely.
- B. See RCW 35.13A.115. The referendum requirement only applies if a city assumes all or part of the district through a resolution or ordinance. The referendum requirement does not apply if the city assumes jurisdiction through an interlocal agreement.

District comments to Whatcom County 2025 Comprehensive Plan Update

This section is being expanded by David Evans & Associates with comments related to the three property owners interested in being included in the BB UGA and will include the report from DEA re the UGA Alternative areas and future possible Sewer By-Pass route

The Birch Bay Water & Sewer District understands the population growth proposal for the Birch Bay UGA will preliminarily be 2,662 (middle-high) as adopted by the County Council on 3/11/2025

- Historical OFM population growth is 121/yr, 2,420 for 20 yrs
- New connections to the District have averaged 53/yr over the recent five-year period, a review of the recent ten-year period shows 58/yr; slower new constructions
- The District has a written agreement with Whatcom County to coordinate comprehensive planning, meetings occur regularly to review growth and identify infrastructure needs
 - The land capacity analysis shows Birch Bay can accommodate population growth projections with zoning code potential changes that allow middle housing (duplex, triplex, fourplex)
 - A few different property owners have requested to Whatcom County to be included in the Birch Bay Urban Growth Area, the District is identifying infrastructure needs through David Evans & Associates

BIRCH BAY WATER & SEWER DISTRICT										
Review of connection additions by year - through 12/31/2024										
	WATER			TOTAL			SEWER		TOTAL	
YEAR	ELU'S	INCR		ELU'S	METERS	YEAR	ELU'S	INCR	ELU'S	CONN.
2003	229	3.70%		6417	4237	2003	215	3.94%	5669	3408
2004	329	5.13%		6746	4566	2004	296	5.22%	5965	3704
2005	231	3.42%		6977	4797	2005	246	4.12%	6211	3950
2006	125	1.79%		7102	4922	2006	235	3.78%	6446	4185
2007	152	2.14%		7254	5074	2007	156	2.42%	6602	4341
2008	59	0.81%		7313	5133	2008	56	0.85%	6658	4397
2009	41	0.56%		7354	5174	2009	41	0.62%	6699	4438
2010	57	0.78%		7411	5231	2010	53	0.79%	6752	4491
2011	22	0.30%		7433	5253	2011	17	0.25%	6769	4508
2012	34	0.46%		7467	5265	2012	23	0.34%	6792	4541
2013	50	0.67%		7517	5315	2013	33	0.49%	6825	4574
2014	51	0.68%		7568	5366	2014	37	0.54%	6862	4611
2015	57	0.75%		7625	5423	2015	49	0.71%	6911	4660
2016	86	1.13%		7711	5509	2016	67	0.97%	6978	4727
2017	67	0.87%		7778	5576	2017	58	0.83%	7036	4785
2018	72	0.93%		7850	5648	2018	60	0.85%	7096	4845
2019	31	0.39%		7881	5679	2019	27	0.38%	7123	4872
2020	28	0.36%		7909	5707	2020	23	0.32%	7146	4895
2021	29	0.37%		7938	5736	2021	30	0.42%	7176	4925
2022	92	1.16%		8030	5828	2022	76	1.06%	7252	5001
2023	48	0.60%		8078	5876	2023	42	0.58%	7294	5043
2024	70	0.87%		8148	5946	2024	69	0.95%	7363	5112

Birch Bay Water and Sewer District “Service Area Map” with Birch Bay Incorporation Committee
“Proposed City Area”

