



**Thurston County**  
*Utility Consolidation  
Feasibility Study*

April 2020



April 17, 2020

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**Subject: Utility Consolidation Feasibility Study**

Dear Ms. Nejati:

HDR Engineering, Inc. (HDR) is pleased to present the report on the Utility Consolidation Feasibility Study conducted for Thurston County (County). The goal of this project is to study the feasibility of consolidating the County's utilities into one utility or some combination of utilities. The focus of this study is on the potential legal constraints, practicality, and potential other impacts to ratepayers.

We appreciate the assistance provided by County staff in the development of this study. More importantly, we appreciate the opportunity to work with the County's staff on this project.

Sincerely yours,  
HDR Engineering, Inc.

Kevin Lorentzen  
Senior Financial Analyst



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# Executive Summary

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Thurston County (the County) retained HDR Engineering Inc. (HDR) to help determine if it is feasible for the County to combine water and sewer utilities into a smaller set of utilities. This report provides a detailed discussion of the findings and conclusion of this work.

This project had several areas of study identified by the County as factors in determining the feasibility of combining utilities. These areas are: management/administration, operation and maintenance, budget and accounting, rates and charges, regulatory, and legal.

After considering the key issues, it is evident that the County can combine the utilities in several ways depending on its goals and objectives. There are a number of benefits that are apparent to combining utilities. Chief among these benefits is the efficiencies gained from a management/administrative as well as a budget and accounting perspective. From these aspects combining the utilities will simplify or reduce duplicative tasks. The utilities are operated by the same management structure and operated by the same utilities staff. To maintain the separation of the utilities actually takes additional effort. This effort is in the form of establishing budget and accounting reports, and allocating labor and expenses to each utility.

From a rate perspective, the County can choose to charge all customers the same rate or charge a different rate as determined appropriate by the Board of County Commissioners.

Research was conducted to find other utilities who had multiple water and/or multiple sewer systems to explore how they managed those systems. The research found that some utilities charge individual rates per system while other utilities charge the same rate to all water and sewer customers. A few utilities were contacted to inquire what challenges they faced with combining their water or sewer systems. The respondents did not indicate significant difficulties when combining their utilities.

Based on these considerations the County can consolidate its utilities in any way it sees appropriate. Though this report shows the obstacles to consolidation, the County should gauge the value of the benefits from the consolidation.



# 1 Introduction

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Thurston County (County) retained HDR, Inc. (HDR) to evaluate the feasibility of combining, or reorganizing, its utilities into a smaller set of utilities. The County has several water and sewer utilities that are operated as independent systems with their own funds and individual rates and charges. While these utilities are independent from one another, they are managed and operated by the same management team and operated and maintained by the same staff. The principal idea behind combining these utilities is that it would create management and operating efficiencies beneficial to ratepayers. It is important to note that it may be feasible to combine the utilities but, for other reasons, still might not make practical sense.

## 1.1 Background

The County owns and operates three water utilities and four sewer utilities. The County has either acquired or built these utilities since the 1970s when the County developed the Olympic View Large On-Site Wastewater Treatment System to service the Olympic View area. In addition to developing the Olympic View sewer system the County acquired the Tamoshan water and sewer utilities in the 1970s from the original developer and acquired the Boston Harbor water utility in the 1980s. In the early 1990s the County built the Boston Harbor sewer system and wastewater treatment plant to address septic system pollution to Puget Sound. In the mid-1990s the County built water and sewer utilities and a wastewater treatment plant to serve the Grand Mound area. While each of the water utilities are associated geographically with a related sewer system, the four utility service areas are geographically isolated from one another with no interconnections.

The County first established its Utility Department in 1971 through resolution and later reorganized it under the Department of Public Works. Resolution 4196 declared the County's intention to purchase, acquire, construct, or accept water and sewer systems in Thurston County.

The County's Boston Harbor and Grand Mound utilities were largely acquired or built with funding from utility local improvement districts (ULIDs). A ULID is a type of local improvement district (LID) used to fund utility improvements. LIDs are essentially funding mechanisms that exist to pay for improvements to infrastructure that directly impact localized property owners. LIDs are used to tax or charge those property owners who benefit from the improvements.

Understanding what it means to combine utilities is the focus of this study. There are many degrees of combining utilities: physically connecting them, merging water rights, combining various funds, and charging a single rate to like customers of each system. However, considering the geographic separation of the utility service areas, merging utilities or water rights is not practicable for Thurston County. Even if all of the degrees of combining utilities were possible, the question is whether it meets the County's goals and objectives, makes financial sense, simplifies the County's approach to managing the various systems, and provides a benefit to customers.

## 1.2 Key Considerations

The direction from the County was to research if its utilities could be combined to form a lesser number than the seven utilities it currently has today. Many possible scenarios exist that have several benefits and drawbacks with possible legal implications. The considerations explored in this analysis are:

- ✓ Management/administration
- ✓ Operation and maintenance
- ✓ Budgeting and accounting
- ✓ Rates and charges
- ✓ Regulatory
- ✓ Legal

Each of the above topics is discussed in more detail in the following sections of this report.



## 2 Utility Management

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Water and sewer utilities are complicated systems and proper management is critical to public health. Several aspects of utilities require skilled personnel to run them safely and properly. The Utilities Operations Group of the County's Water Resources Division has several professional staff members who specialize in the operation and management of utilities. Currently the Utilities Operations Group, supported by the Water Resources Technical Services Group, has nine full-time equivalent (FTE) employees who span the management and operations of all of the systems.

### 2.1 Management and Administration

The County's utilities are managed and administered by one group within the County. In 1971 the County created the Utility Department with the mission to manage water and sewer utilities under the County's control. Since 1971 the County has developed or acquired several utilities and today the County has seven utilities: three water systems, and four sewer systems. Each of these systems is geographically isolated but they are all managed by the County's Public Works Department/Water Resources Division.

Administratively combining utilities will present some efficiencies assuming that some reporting or other administrative tasks could be eliminated when combining utilities. The County performs several administrative tasks for each utility such as preparation of a budget, financial reporting, and development of water system plans and sewer general plans. One area that should be explored is the indirect costs associated with legal, budgeting, accounting and other shared internal functions.

Operating the County's utilities as separate entities requires additional effort from a budgeting and accounting perspective. Currently there are a total of ten funds associated with operations of the seven utilities, which means ten balanced budgets must be produced each biennium. In addition, there are currently two debt service funds.

One aspect of a potential consolidation would be the merger of certain utility funds with appropriate similar funds; i.e., water with water and sewer with sewer. As mentioned previously there are a set of funds for each of the three water utilities and four sewer utilities. Generally, utilities will have several funds that are used to finance various aspects of operating a water or sewer utility. Operating funds are usually unrestricted funds that can be spent on any utility expenditures. There are also restricted funds that can limit what can be spent. Examples of a restricted fund are capital reserve or debt service reserve funds.

Current funds established for the operations of the utilities include the following:

- 4200 – Boston Harbor Sewer & Water Operations
- 4210 – Boston Harbor Reserve Water and Sewer
- 4300 – Tamoshan Sewer Operations

- 4400 – Tamoshan Water Operations
- 4420 – Tamoshan Reserve Water & Sewer
- 4340 – Grand Mound Sewer Operations
- 4350 – Grand Mound Water Operations
- 4440 – Grand Mound Reserve Sewer
- 4450 – Grand Mound Reserve Water
- 4410 – Olympic View

## 2.2 Operations and Maintenance

The County has several employees who have the specialized skills and abilities required to properly maintain its utilities. Boston Harbor, Tamoshan and Olympic View generate a limited amount of revenue and could not alone support full-time personnel to provide for all the necessary utility functions such as plant operations, maintenance personnel, finance, and a general manager. The County acquired the Boston Harbor water system in 1986–87 because it was not being operated properly and presented health and safety issues to its customers.

Despite all the utilities sharing in operational resources, having seven separate utilities presents some added logistical difficulties. Because staff are not dedicated to particular utilities the County must administer a job or utility allocation system. This requires management and staff to either code their time each day to the utility for which they performed work, or management estimates the amount of their time they work on each system. Even though funding and administrative lines can be eliminated, the County may find that allocating costs among systems may still be an advantage to track specific costs among the various water and sewer utilities.



## 3 Regulatory Considerations

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The County water and sewer utilities are directly and indirectly regulated by multiple entities, including Washington State entities such as the State Auditor’s Office (SAO), Department of Health (DOH), and Department of Ecology (Ecology).

**“...shall have full jurisdiction and authority to manage, regulate, and control it. Except as provided in subsection (3) of this section, every County shall have full jurisdiction and authority to fix, alter, regulate, and control the rates and charges”**

### 3.1 State of Washington

The County is directly regulated by the County Board of Commissioners (BoCC). Revised Code of Washington (RCW) Title 36 governs counties and 36 RCW Chapter 94 contains the parts specifically related to water and sewer utilities. A few sections of note within 36 RCW Chapter 94 are:

*RCW 36.94.130 Adoption of rules and regulations, states - The board of county commissioners may adopt by resolution reasonable rules and regulations governing the construction, maintenance, operation, use, connection and service of the system of sewerage and/or water.*

*RCW 36.94.140 - “Authority of county to operate system - Rates and charges, fixing of - Factors to be considered - Assistance for low-income persons: states in part: (1) Every county, in the operation of a system of sewerage and/or water, shall have full jurisdiction and authority to manage, regulate, and control it. Except as provided in subsection (3) of this section, every county shall have full jurisdiction and authority to fix, alter, regulate, and control the rates and charges for the service and facilities to those to whom such service and facilities are available, and to levy charges for connection to the system.*

*...(3) The rate a county may charge under this section for storm or surface water sewer systems or the portion of the rate allocable to the storm or surface water sewer system of combined sanitary sewage and storm or surface water sewer systems shall be reduced by a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system. Rainwater harvesting systems shall be properly sized to utilize the available roof surface of the building. The jurisdiction shall consider rate reductions in excess of ten percent dependent upon the amount of rainwater harvested.”*

Within the RCW giving the regulatory authority to the BoCC are several chapters and sections that provide the bounds of the BoCC’s authority. The BoCC sets rules and regulations through the adoption of ordinances and resolutions. Ordinances are changes, additions, or deletions to the municipal code, while resolutions are generally not permanent regulations or laws. For example, a budget is usually adopted by resolution because it involves only one to two years, is not technically a law, and does not need to be repealed. A budget can also be adopted by ordinance, which means it is entered into the municipal code, is technically law, and must be repealed at the next budget cycle. For the water and sewer utilities, Thurston County Code

sections 15.09, 15.10, 15.11 and 15.12, adopted by ordinance govern the utilities. Code section 15.12 establishes the rates. A revision of Thurston County code is in process to shift the establishment of rates into a resolution rather than an ordinance.

## 3.2 State Auditor's Office (SAO)

The SAO audits the County's financial statements annually to verify they are in compliance with Budgeting, Accounting and Reporting System (BARS) and Governmental Accounting Standards Board (GASB). The SAO may issue findings if the financial reports are not in compliance or if there are irregularities with its financial reports. Because the SAO audits the County's financial reports, it is seen as the authority for determining whether combining funds is possible. From the SAO's perspective there are legal requirements for funds but no set limits on how many there should be.

HDR reviewed the BARS Manual and contacted the SAO directly to confirm whether there were any potential restrictions for combining the County's utilities. The SAO's initial response was as follows:

*...discussing any potential local [sic], bond covenants, contractual obligations or ordinance restrictions with legal counsel as our office is not authorized to provide legal advice. However, aside from those potential restrictions listed, there are no other restrictions against combining the funds and using other identification codes to separately identify the systems.*

Relevant sections of the BARS Generally Accepted Accounting Principles (GAAP) Manual that the SAO provided to support its opinion are listed below:

- **BARS 3.1.1.40:** *“Enterprise Funds – may be used to report any activity for which a fee is charged to eternal users for goods or services.”*
- **BARS 3.1.1.50:** *“Governments should establish and maintain those funds required by law and sound financial administration. Only the minimum number of funds consistent with legal and operating requirements should be established. Using numerous funds results in inflexibility, undue complexity and inefficient financial administration.  
  
Local governments should periodically undertake a comprehensive evaluation of their fund structure to ensure that individual funds that became superfluous are eliminated from accounting and reporting.”*
- **BARS 3.9.6.40:** *“Prior to establishing a new fund, a review of existing state laws and regulation should be conducted to ensure the legality of using this fund classification. Careful consideration must also be given to defining the specific activity to include in the fund, specific cost objectives associated with providing the service, development of pricing rates and budgetary concerns.”*

BARS 3.1.1.50 specifically advocates for combining similar funds like the County's multiple water and sewer funds to eliminate undue complexity.

The initial SAO's opinion was conveyed by HDR to the County in a meeting discussing initial findings and conclusions of this study. At that meeting, the County asked for further clarification, specifically related to revenue already collected for operating revenue and

connection fees, also known as General Facility Charges (GFCs). The County's specific question was: Can the County immediately pool existing utility fund balances into a combined fund to be used for the combined utility? Below is the clarifying question that HDR sent to the SAO and its response.

**Question 1:** *Can the County immediately move all their water utility fund balances into one fund and use those funds on the system as a whole regardless of where they were collected? The County was under the impression that they would have to use funds collected prior to the funds being combined on the system they were collected.*

**Answer 1:** *If there are restrictions related to some of the funds collected, this would be applicable regardless of the fund the dollars are in. Otherwise, one fund may benefit another.*

Given the SAO's response to the clarifying question, HDR's interpretation is:

- Yes, revenue can be pooled and used for a consolidated utility if the revenue is unrestricted. The County's general counsel should also consider this approach and provide an independent interpretation.

Revenue the utility collects mainly falls into two categories: restricted revenue and unrestricted revenue. As the name implies, restricted revenues are restricted for use on specific purposes. Unrestricted revenues are not intended for a specific purpose and may be used for general or undefined purposes.

Rate revenue is a charge for a service collected from utility customers which is generally unrestricted. This would be the case for the County unless the County has specific language in its code, ordinances or resolutions otherwise restricting the use of that revenue.

### 3.3 Department of Health (DOH)

DOH has regulatory authority over the County's water utilities. The County must meet the regulatory requirements administered and enforced by DOH. HDR contacted DOH and asked if it anticipated any issues with the County combining its utilities under one entity. Kay Rottell, Assistant Regional Manager of DOH, said it had no issues related to consolidation from a fund and rate perspective, but DOH did say in an email that it:

*...would still consider these systems [h]as [sic] separate water systems under the regulations. We have requested water system plans (Part Bs) that are system specific for Grand Mound and Boston Harbor. Boston Harbor is currently serving connections outside[sic] [sic] its approved service area so needs to update its WSP. You could then maintain small water system management programs (SWSMPs) for Tamoshan and Frye Cove Park. All systems are required to plan under WAC 246-290-100 or -105.*

Given this statement, it appears that the County will not be able to consolidate its individual water systems into one single system. DOH also said it would not recommend combining the water and sewer utilities into one fund. However, this does not preclude the County from combining the water systems into a single enterprise fund, or the sewer systems into a single enterprise fund, for the purposes of budgeting and accounting.

### 3.4 Department of Ecology (Ecology)

Similar to DOH's role for water systems, Ecology administers and enforces regulations pertaining to wastewater systems. HDR contacted Ecology to ask if it had any input or saw inherent barriers for the County to combine its sewer utilities into one entity. Greg Zentner, Water Quality Project Manager, responded in a phone conversation that when the County develops its General Sewer Plan each isolated system should be presented separately but may combine them in one document. He also said that Ecology had no objections to combining funds or rates of the different systems.

Ecology also manages water rights. Consolidating water rights was not extensively explored because there is no apparent benefit or reason for them to be combined in the County's case. Additionally, the stated policy for consolidating water rights says:

*Ecology will only issue a consolidated amendment after determining that, in lieu of meeting the conditions required for an amendment under RCW 90.44.100:*

- a) *The well from which water for the right established under the exemption is withdrawn taps the same body of public ground water as the well for the valid right to withdraw public ground water.*

Because the water systems are not in the general vicinity of each other the current water rights do not share the same body of public groundwater and would not be allowed to be combined.



## 4 Comparable Utilities

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Washington State has more than 5,000 utilities, many of which are small, privately owned utilities that serve a small development or community that previously did not have water or sewer service. These small, private utilities often struggle to maintain health and safety standards because of their small size. Any public utility that is an authorized Satellite Management Agency (SMA) can acquire these failing systems and bring them up to health and safety standards, but counties must acquire them if no other qualified utility will.

### 4.1 Counties

A review of the counties in Washington were reviewed to find situations similar to the County's having several separate systems and, based on the review, only three counties were found that had multiple systems.

#### 4.1.1 Grays Harbor County

Grays Harbor County owns and operates five utilities: three water and two sewer. Each system has its own balanced operating fund. Grays Harbor County completed an SMA plan and submitted it to DOH in 2016. The SMA plan documents Grays Harbor County's management plan for each of the water systems it currently owns and operates. Each utility has individual rates and its SMA states that Grays Harbor County will track expenses separately and develop cost-based rates for each.

#### 4.1.2 Yakima County

Yakima County owns and operates 27 water systems and 3 wastewater systems. Yakima County is currently in the process of conducting an SMA plan for DOH. Each of the water and sewer systems has its own individualized rates as well as budgets individually for all systems. Some utilities are as small as having \$1,000 in revenue to some larger with more than \$3 million in revenue.

#### 4.1.3 Kitsap County

Kitsap County owns and operates four sewer systems. Until 2010 these systems had different rates. After 2010 sewer rates were consolidated into rates for residential, multifamily, commercial, or industrial and restaurant that encompass all of the four systems. Current budget and other financial reporting shows a consolidated sewer utility. Kitsap County Public Works staff indicate that the transition to consolidated rates was made in order to maintain equity throughout its service areas. Keeping its multiple systems, some with very small customer bases, on separate rate structures could mean that some customers would pay extremely higher rates than others. Moving to a single rate structure avoided this issue.

## 4.2 Other Publicly Owned Entities

There are several forms of publicly owned water and sewer system in Washington State: City- and Town-Owned, County-Owned, Water and Sewer Districts, and Public Utility Districts (PUDs). Each of these types of utilities is regulated by elected officials. Similarly, each of these utility types is indirectly regulated by the same agencies, such as DOH, Ecology, and the SAO. From the SAO's perspective there is no real difference between a County-Owned Utility, a PUD, or any other form of utility; they all are subject to the same rules and standards under BARS and GASB. DOH and Ecology also do not have different requirements for public utilities based on the State law through which the utility gets its authority, be it a County or a PUD.

Like the County, PUDs often have several systems that are geographically isolated and not interconnected. There are 27 PUDs in Washington State and 14 of them own and operate multiple water and/or sewer systems. Many of the 14 PUDs charge the same rates for all of their different systems, and for financial reporting purposes have one water and one sewer utility. The following PUDs were chosen for review because they, like the County, have multiple water and/or sewer systems.

### 4.2.1 Thurston County PUD

Thurston County PUD owns more than 300 water systems in six counties, far more than any other municipal water utility in Washington State. Thurston County PUD actively acquires new utilities on a frequent basis and these utilities are rolled up under a single fund that applies to all water systems. Its budget and financial statements represent all of the water systems as a single entity. When a system is acquired, the PUD transitions the rate structure of that system to the PUD's consolidated rate structure typically over a two or three year period. In 2017, the PUD purchased 140 water systems, all with differing rate structures. It has plans to migrate the rates for each of these water systems to its single, consolidated rate by the end of 2020, except for customers outside of the County, who are on separate rate structures.

### 4.2.2 Jefferson County PUD

Jefferson County PUD owns and operates nine water systems and four sewer systems. Jefferson County PUD's water rates are the same for all water customers regardless of which system the customer belongs to. However, the sewer rates are not the same among the sewer systems. Jefferson County PUD reports both water and sewer as one entity for its budget and audited financial reports. PUD staff indicate that they are not aware of any legal issues that posed a challenge when its systems were consolidated. The PUD pooled cash reserves immediately and without restriction. As a part of the consolidation, water rates were merged over a six year period. The primary reason for transitioning to a consolidated rate was cost savings.

### 4.2.3 Clallam County PUD

Clallam County PUD has six water systems and four sewer systems. Unlike the other PUDs mentioned previously, Clallam County PUD lists the rates individually by system. Many of the rates among the different systems are the same but a few are not. It is not clear why some of

the systems have the same rates and others do not, but it is likely that the PUD has determined there are cost differences for some systems and not for others. For financial reporting purposes Clallam County combines its utilities by type: water into one and sewer into another.

### 4.3 Satellite Management Agencies (SMAs)

SMAs are entities authorized by DOH to own and/or manage and operate public water systems. Dozens of SMAs are currently approved by DOH including Thurston County (SMA No. 134). As an SMA the County may at a time in the future take on the management and operations of other water systems. The County's position is that it would not act as an SMA unless the water system was owned by the County.



## 5 Road Map to Consolidation

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The process and timeline for consolidating the County's utilities should be done in an incremental fashion, providing decision points where the County or policymakers can decide to either continue or abandon the utility consolidation. Undertaking this process will take time and resources to complete. The timing of the consolidation should be the same regardless of the chosen structure of the consolidation.

### 5.1 Timeline

There are many tasks to accomplish before combining these utilities. To allow ample time to complete these tasks it is proposed the target date for the official consolidation be in 2023-24. The budget process is driven by statutory deadlines for the necessary steps to complete a budget. There are two relevant statutory deadlines around which the consolidation should be coordinated:

- **July (second Monday):** Written request to County officials and department heads for detailed and itemized estimates of probable revenue from sources other than taxations and expenditures for the next fiscal year.
- **September (first Tuesday):** County files preliminary budget with County Board of Commissioners.

Assuming that the consolidation were to happen in conjunction with the 2023–24 biennial budget, time is of the essence to complete necessary steps to consolidate the utilities. A breakdown of the steps and decision points is provided below. Specific dates will be determined by the County's budget timeline:

1. At the conclusion of this study the County weighs potential benefits and drawbacks of consolidation of any kind and decides to move forward, delay, or stop the consolidation process. BoCC briefing held to authorize proceeding. (Summer 2020)
2. Issue RFP and select consultant for conducting cost-of-service studies for each water and sewer system. (October 2020 – January 2021)
3. Work with the existing Utility Advisory Committees (UACs) to educate them on the rate-setting process and inform them of the potential consolidation and gain their support. (Ongoing during consolidation process).
4. Review the results of the cost-of-service study (Spring 2021), and then:
  - a. Decide if consolidation is still in the interest of the County and utility ratepayers
  - b. Use the data provided by the cost-of-service and other available data to help decide the optimal organization of the consolidated utilities.
5. Establish a rate transition plan for the proposed consolidated utilities (Spring 2021).

6. Present the findings and recommendations of the consolidation project to the County Board of Commissioners and seek its guidance in conjunction with the UACs (Spring/Summer 2021).
7. Conduct public outreach to inform utility customers of the planned reorganization (Spring/Summer 2021).
8. BoCC briefing on public outreach efforts, transition plans, etc. Get final authorization to move forward with preparing budgets for consolidated utilities. (Fall 2021)
9. Define funds and their structure to support the proposed organization of the consolidated utilities (Fall/Winter 2021).
10. Establish budget for the proposed new fund structure (Spring/Summer 2022).
11. Submit the budget to the Auditor prior to the September 2022 deadline.
12. Hold required budget hearing prior to budget adoption.
13. Adopt a rate transition plan prior to or at the same time as the budget adoption.
14. Adopt the budget based on County budget adoption timeline.
15. Adopt a resolution disbanding the individual UACs and establishing a joint UAC for the consolidated utilities.

Consolidation on a lengthened timeline (2023-24 biennium) allows sufficient time to develop detailed budgets and plans, conduct stakeholder outreach, obtain necessary BoCC authorizations and implement any necessary code and/or policy changes.

## 5.2 Rates

Charging a common rate or postage stamp (like the USPS, charging a single rate for all 1<sup>st</sup> class mail) rate across independent systems has both positive and negative aspects. Some utilities with multiple isolated utilities have used postage stamp rates while others have maintained individual rates. Having postage stamp rates is not exclusive to having multiple utilities under one fund. The County can have rates that vary by area or system and customer type, combined in a single fund, as long as they are approved by the County Board of Commissioners.

A cost-of-service analysis is recommended when making significant changes to a utility's rates. Utilities use cost-of-service analyses to equitably distribute their costs among customer classes. The results of the cost-of-service analysis are then used to establish rate schedules for those customer classes. Customer classes are usually determined by the customer type, such as residential, multifamily, or commercial. However, customer classes can also be expanded to include an area or independent system for a cost-of-service analysis. Conducting a cost-of-service analysis at that level would provide important information regarding cost differences between customer classes and individual systems. The key importance for a cost-of-service analysis is the quality of the data and the ability to allocate costs between customers. If material differences were found between the different systems the rates could be designed in such a manner that would correct for the difference. There are a variety of reasons why one water system may have material differences in cost to another. Some of these include:

- **Elevation:** A utility cost that usually creates a disparity between customers is pumping costs. Water customers at higher elevations generally are more costly to service because they have to pump water to those higher elevations. Conversely, sewer systems with significant elevation changes may incur electrical and facility costs to pump wastewater back to the treatment plant. To correct for this cost difference utilities may have different rates for zones within their service area or have a special charge, sometimes called a pumping surcharge.
- **Capital:** Where the utility is in its life cycle may cause one system to be more costly to operate on a per customer basis than another. Older systems may be more prone to main breaks or treatment plant failures, resulting in higher cost of renewal and replacement. Some of the utilities reviewed had system-specific components of their rates for capital costs. One way utilities deal with this issue is to spread the capital costs evenly across all systems and customers with the acknowledgement that one day their systems will also need capital improvements and, in the long run, even out any short-term inequities.
- **System design/regulatory requirements:** System design may be a reason that cost differences between utilities exist. A mechanical wastewater treatment plant might have higher operating costs on a per customer basis than a lagoon-type treatment facility. Further, where a utility discharges its effluent may require different levels of treatment, resulting in higher operational costs.

There are a variety of reasons that one system might have a higher cost per customer than another but these differences can be found and addressed in cost-of-service and rate design analyses.

In reviewing several utilities for this project it was found that some utilities had postage stamp rates and others did not. It is unclear why one utility might have postage stamp rates, and another have different rates for all of its customers. A factor may have been that the utility found significant cost disparity between systems but this was not found in the course of this study.

HDR recommends analyzing each system prior to moving to a “postage stamp” rate or consolidating utilities to determine if there are systemic and material cost differences between the systems.

A cost-of-service analysis could be conducted to make sure that individual rates are determined fairly and prevent cross-subsidization among the systems. A few of the utilities surveyed had set base rates and then additional rates to account for capital costs.

The County has owned the utilities for some time and the systems are not believed to be deficient or known to need significant investment. In the event that the County acquired another water or sewer system that was significantly deficient and needed large investment to bring it up to County standards, that funding should be borne by the deficient system’s ratepayers. Once the system is up to standards the rates could then be transitioned to the County’s postage stamp rate.

## 5.2.1 Rate Structures

The County’s current rates for the water system have the same overall structure but different charges. As shown on the following table, the base charge for Boston Harbor and Grand Mound are the most similar for the water utility and Tamoshan is the farthest out of line from the other two. In all, the base charges are fairly close to one another. The sewer charges were similarly out of line with Tamoshan having the greatest rate level variance from the other utilities. When making significant rate adjustments it is advisable to transition over a number of years to prevent excessive rate shock.

Rates by System		Current Rates
<b>Water</b>		
<b>Tamoshan</b>		
Base charge		\$79.98
\$/1,000 gallons		2.67
<b>Boston Harbor</b>		
Base charge		\$40.97
\$/1,000 gallons		2.69
<b>Grand Mound</b>		
Base charge		\$44.72
\$/1,000 gallons		2.56
<b>Sewer (\$/EDU/mo.)</b>		
<b>Tamoshan</b>		\$140.64
<b>Boston Harbor</b>		109.58
<b>Grand Mound</b>		92.15
<b>Olympic View</b>		105.53

An option the County can consider for setting its rates is to establish a base charge that represents common operations and maintenance and then an additional charge that represents each system’s particular capital needs. The idea behind this type of rate structure is that the basic operations and maintenance from system to system is largely the same and the real difference in cost between systems is the capital requirements. Under this example the base charge would change at the same rate for every system but the capital charge would change depending on the specific system’s capital needs. The following table provides an example of a rate consolidation for illustrative purposes only.

Water Utility Rate Structure with Separate Capital Charge			
	Tamoshan	Boston Harbor	Grand Mound
<b>Base charge</b>	\$33.54	\$33.54	\$33.54
<b>Capital charge</b>	46.44	7.43	11.18
<b>Total charge</b>	\$79.98	\$40.97	\$44.72
<b>\$/1,000 gallons</b>	\$2.77	\$2.77	\$2.77

Sewer Utility Rate Structure with Separate Capital Charge				
	Tamoshan	Boston Harbor	Grand Mound	Olympic View
<b>Base charge</b>	\$69.11	\$69.11	\$69.11	\$69.11
<b>Capital charge</b>	71.53	40.47	23.04	36.42
<b>Total charge</b>	\$140.64	\$109.58	\$92.15	\$105.53

This same structure can be used with debt service in addition to, or in place of, the capital charge.

### 5.2.2 Postage Stamp Rate Transition

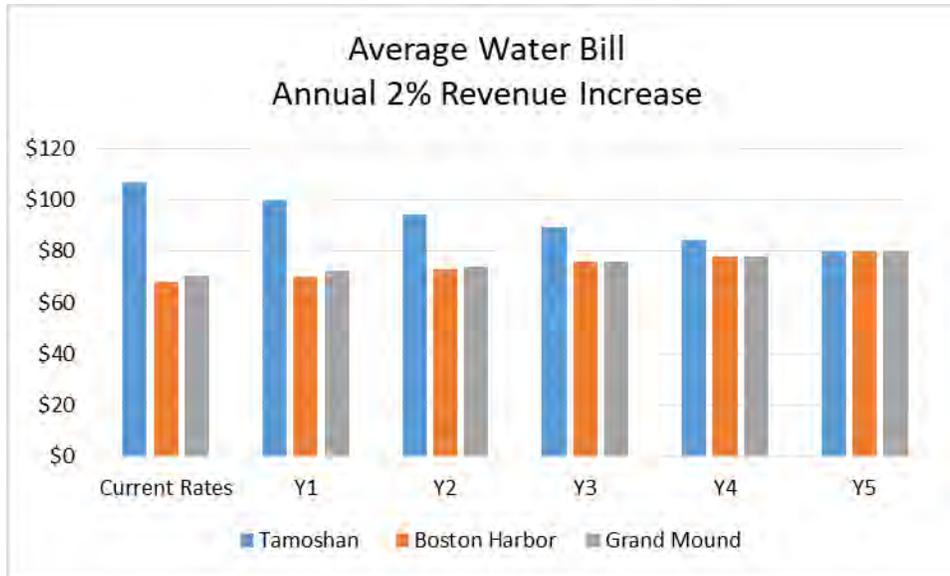
The following table provides a potential rate transition plan for the County's rates moving to a postage stamp rate. In situations where significant rate adjustments are desired it is beneficial to phase those changes in over time to allow administration time to acclimate allowing efficiencies to materialize as well as minimize customer rate shock. For the water example the variable water charge was set to the same rate in year 1 and then over the five-year period the base charges were brought into line with one another. Again, this example is for illustrative purposes only. The County will need to complete a cost-of-service study to determine the appropriate transition to postage stamp rates over the defined period.

Rate Transition Plan to Postage Stamp Rates						
	Current Rates	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Water</b>						
<b>Tamoshan</b>						
Base charge	\$79.98	\$73.98	\$67.78	\$60.31	\$54.47	\$48.44
\$/100 Cubic Feet	2.67	2.71	2.89	3.06	3.12	3.19
<b>Boston Harbor</b>						
Base charge	\$40.97	\$43.20	\$44.47	\$45.72	\$47.06	\$48.44
\$/100 Cubic Feet	2.69	2.71	2.89	3.06	3.12	3.19
<b>Grand Mound</b>						
Base charge	\$44.72	\$45.72	\$45.72	\$45.72	\$47.06	\$48.44
\$/100 Cubic Feet	2.56	2.71	2.89	3.06	3.12	3.19
<b>Sewer (\$/EDU/mo.)</b>						
<b>Tamoshan</b>	\$140.64	\$134.31	\$128.27	\$122.50	\$116.98	\$109.55
<b>Boston Harbor</b>	109.58	109.58	109.58	109.58	109.58	109.55
<b>Grand Mound</b>	92.15	95.56	99.00	102.46	105.95	109.55
<b>Olympic View</b>	105.53	105.53	105.53	105.53	105.95	109.55

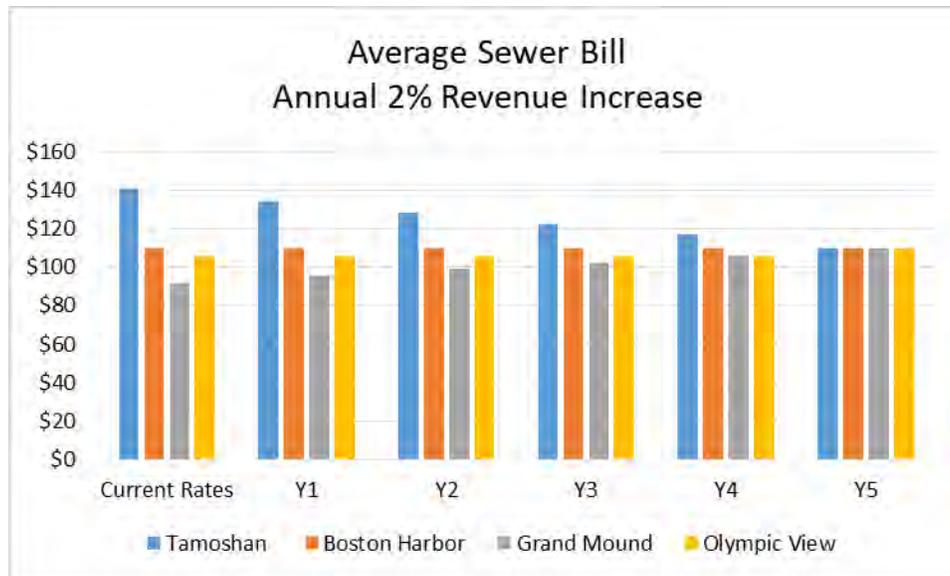
### 5.2.3 Customer Impacts

Customer impact to a postage stamp rate for all of the County utility customers depends largely on the time frame of the transition period. There is a correlation between the impact to the customer and the length of the transition period. A longer transition period results in less impacts to customers, on an annual basis. The example provided was completed over a 5-year period with a goal of keeping increases to any customer of a system to less than 4.0 percent annually. As mentioned earlier, Tamoshan’s water and sewer rate is the farthest from the average. The change in a systems’ rate impacts the overall system based on the number of customers the system has. For example, a change in the Grand Mound rate has a larger relative impact than a change in the Tamoshan rate.

The current water rates (2020) when calculated as a weighted averaged are \$46.36 for the base rate, and \$2.59 per 1,000 gallons for the consumption charge. Assuming an average of 10,000 gallons per month consumption, the weighted average water bill among the three systems is \$72.27.



At the current rate levels, the sewer utility charges a flat rate per equivalent dwelling unit. The weighted average rate across all the sewer systems is \$102.02 per month.



### 5.3 General Facility Charges (GFCs)

The County currently has a charge for each individual systems called General Facility Charge. This charge is very similar to what would be considered a connection charge. A connection charge is paid by new customers connecting to the system or when a customer otherwise increases their capacity. A connection charge is intended to make growth pay for growth by paying back existing customers for the investment already made in the system as well as pay for future system expansions as would be needed to serve new connections.

County staff has stated that the GFCs are essentially buy-in charges for new customers. A buy-in charge is half of what could constitute a connection fee. In the context of a connection fee, a buy-in charge is intended to reimburse existing customers for the capacity available for new connections.

The other half of the connection charge is for future capacity improvements needed to increase capacity for new connections.

The County anticipates continued growth in the Grand Mound water and sewer system while little to no growth is anticipated in the other systems. The concern is by combining rates the built out systems will be unfairly funding Grand Mound expansions needed for new customers. Charging a connection charge would mitigate this problem by having new connections pay for system expansions rather than being paid for by rate payers.

The authority to charge a Connection charge is provided in RCW 36.94.140. That RCW specifies for factors that should be considered when establishing a fee but does not say how the fee should be calculated. There are Federal Supreme Court decisions that guide how connection charges should be calculated. The Nollan/Dolan test or doctrine was established in light of these Supreme Court decisions. The Nollan/Dolan test says a charge applied to a property similar to a connection charge should be proportional to customers benefit and there be a logical nexus between the charge and the benefit of the charge. These Court decisions have shaped the generally accepted connection fee methodology over time into what is commonly used in water and sewer utilities today. The result of a properly calculated connection fee is a maximum allowable fee. Connection charges should be recalculated periodically to account for the expanding system and known future capacity improvements. Connection charges are generally updated every five to ten years with annual cost adjustments to account for inflation in the interim years.

## 5.4 Consolidation of Utility Funds

The County currently has the following 12 enterprise funds listed in its 2020 budget for Boston Harbor, Grand Mound, Tamoshan, and Olympic View Utilities:

- Boston Harbor Reserve
- Boston Harbor Water/Sewer
- Grand Mound Sewer
- Grand Mound Debt Service (will be retired in 2021-22 budget cycle)
- Grand Mound Wastewater Capital Reserve
- Grand Mound Water Capital Reserve
- Grand Mound Water
- Tamoshan Reserve
- Tamoshan Water
- Tamoshan/Beverly Beach Debt Service (will be retired in 2023)
- Tamoshan/Beverly Beach Sewer
- Olympic View Sewer

The County's funds for its water and sewer utilities can be classified into three types: an operating fund, capital fund, and debt service fund. These basic types of funds are appropriate and typical for municipal utilities. There are two outliers to this general approach; these are that

Boston Harbor's funds are combined for both the water and sewer utilities and Olympic View does not have a capital fund.

The County currently has different funds for each of its separate water and sewer systems. Part of the purpose of this report is to determine if funds can or should be combined. The SAO is responsible for ensuring that public entities including counties, cities, PUDs, or other public utilities are accurate and transparent in reporting their financial position adhering to GAAP, GASB, and other accounting and financial reporting standards. There are three main types of funds: government fund, proprietary fund, and fiduciary fund. The County's utilities are all in enterprise funds, which are a type of proprietary fund. The BARS manual (3.1) says, "...an enterprise fund should be used to report an *activity* for which a fee is charged to an external customer." The use of the term *activity* is not precisely defined in the BARS manual and leaves room for flexibility or interpretation. An activity may be a utility service, water service, or sewer service.

The County acquired a few utilities because those systems presented health and safety risks to their customers. For those utilities, the County established LIDs to fund the repairs needed for those systems. Additionally, for Grand Mound, an LID was established to fund the original construction of water and sewer services. In the process of creating these LIDs specific funds were created for those LIDs to hold the funds collected from customers within the LIDs and payment of the debt from the LID. The County created all of its LIDs more than 20 years ago; they have since retired all the debt and are no longer necessary; however, fees charged to new customers in each system vary depending on whether the customer is within the boundary of the LID or outside of the boundary..

There are two debt issues outstanding at this time, one for Grand Mound and another for Tamoshan/Beverly Beach. The Grand Mound debt will be paid back in 2021-22 budget cycle so will not be a factor in the consolidation. The Tamoshan/Beverly Beach debt is expected to be paid off during the 2023-24 budget cycle which coincides with the consolidation target date. A possible solution to deal with this issue, assuming the amount is not material, is to pay off the debt ahead of the scheduled payment so it does not interfere with the consolidation. If the remaining debt is a material amount, it could be added to the appropriate system's rates to account for the debt service until the debt is retired and then that component would be removed. It is important to read the bond documents or loan agreements to make sure all legal requirements are being followed during the repayment period. If the County chooses to combine its utilities it would be wise to maintain the ability to separate the systems within its system of accounts.

## 5.5 Benefits and Drawbacks

This report is not an exhaustive examination of the managerial and operational aspects of the County's utilities. The County should consider how combining utilities would reduce workload or effort. A survey of staff and how their work would be impacted by a consolidation would be useful to determine if efficiencies can be achieved.

### 5.5.1 Benefits

There are many reasons why combining utilities could make sense. Having a larger customer base helps to insulate individual customers against the volatile cost of operating the utilities by system. Much like insurance, the cost is spread among more ratepayers, reducing the impact on individual ratepayers. This is particularly true for capital funding, which is a major expense in the operation of any water or sewer system. Utilities often go through cycles of capital investment, requiring large funding for a few years and then less in subsequent years. In theory, these cycles can be planned or managed among the various systems so that capital funding is smoothed from year to year, eliminating the often volatile nature of capital needs. Additionally, the combined utility may be stronger financially and one example could be in reducing borrowing costs when debt is used to fund capital projects. The same can be said for utility management and operational tasks. Currently staff split time among the seven utilities as needed and, if one system requires more attention, more staff time would be allocated to that utility, raising the cost to the utility's ratepayers.

### 5.5.2 Drawbacks

Assuming that the funds are combined and rates are to be set equally among the various systems, it is also possible that one or more systems may be systemically more costly to operate and maintain than another. This scenario depends on system design; for example, one system could cover an area where service area elevation changes dramatically increase the pumping cost of either water or wastewater. Another aspect may be that a treatment plant may be more costly to run based on plant design or regulatory conditions.

Utility customers may also perceive that they are unfairly subsidizing others, whether true or not. What is "fair" to a customer is likely to be relative to the rate impact of the customer. If a customer's rates are going up due to rate consolidation, they will probably feel it is unfair. An argument can be made for and against consolidated rates from a "fairness" perspective. A commodity should roughly equal the cost to produce it which may lean towards individual rates. However is it fair that a commodity like water or sewer service be significantly different depending on where one lives within an area? This issue may arise when rates are merged because some system's rate will have to rise more than others to bring them to the same level. Because the County has standing (permanent) UACs for Boston Harbor and Tamoshan, there is already an organized group of individuals that will need to weigh in on the discussion of consolidation.

## 5.6 Future Use of Utility Advisory Committee (UAC)

A UAC is a group of citizens that reviews policy or other issues and then provides recommendations to the County Board of Commissioners. However, for most UACs their recommendations are not binding and are not required to be followed by the County Board of Commissioners. UACs of some form or another are used at many utilities in several different ways. UACs are sometimes standing committees and sometimes they are created or convened for a specific purpose and dismissed when that purpose has been fulfilled. UACs are not required under Washington State law. A standing UAC can provide a benefit to the

management and Commissioners because they may be able to provide insightful recommendations to the Commissioners. The Thurston County Municipal Code does not mention UACs. However, Resolution 9993, adopted in 1992, adopts principles of governance and management for Thurston County Utility Operations. Part of this resolution enables local communities to establish UACs. This resolution states:

*Thurston County will allow each utility customer community to formulate and rely upon a structure of governance to provide input regarding the operations of their Community Utility. This structure may involve designating a utility committee, reliance on the homeowners association, independent elections, or some combination of all of these and /or other options. In forming these “governance” structures, the County will ensure that representation of all community interests are protected, that decision will be allowed to be made without undue and cumbersome process and that the utilities are managed and operated in a professional, cost effective and efficient manner. Once formalized, these governance structures shall be adopted by the Board of Commissioners and shall be transmitted to all customers.*

In 1994, after this resolution was adopted, two utility operating agreements were signed, formally establishing UACs for Boston Harbor and the Tamoshan community. A resolution such as 9993 can be overridden, passing another resolution on the same subject. One factor in this issue is signed agreements between the County and Boston Harbor and Tamoshan that adopted their UACs. Because these agreements are not resolutions or ordinances it is unclear if they are legally binding.

Additionally, Resolution 10102 established the countywide policy to provide for public participation in budgets and works programs for the development of plans and regulations that will be presented to the County Board of Commissioners for adoption. This resolution seems to further support the need for a UAC of some type for the combined utilities.

More than one UAC can exist within a utility. For example, Kitsap County does not have a UAC but it does have four community councils/citizens’ advisory committees that represent specific areas and weigh in on several topics, including utilities. Having multiple UACs by area can work because they are generally an advisory body and decision making is still done by the County Board of Commissioners.

The County can handle the UACs in terms of consolidated utilities in several ways. The County could choose to:

- Disband the UACs and forgo UACs in the consolidated utilities.
- Disband the UACs and create a new UAC to cover all service areas.
- Combine the UACs and as members of the committee’s terms expire not fill them until the appropriate size is attained. Commission members can be chosen by area and/or at large.

Disbanding the UACs seems to be contrary to past County Board of Commissioner resolutions regarding the involvement of the community with utility operations. Disbanding and/or creating a UAC would have to be done with a resolution passed by the County Board of Commissioners

superseding Resolution 9993. Combining utilities would similarly require passage of a resolution negating previous resolutions.

The existing UACs are in a unique position to understand the utility issues and many of the facets of consolidating the utilities. Involving the UACs would benefit the consolidation process greatly, especially if they learn and communicate back to their areas how consolidation would benefit the utility customers as a whole.



## 6 Conclusions and Recommendations

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### Summary

The County may choose from several possible configurations to reorganize its utilities. Ultimately the County should choose a configuration that it decides is the best to achieve its goals and objectives. Legally the County can combine the utilities into any number or configuration of funds it decides is appropriate.

Combining the utilities into one or some variation does not mean that individual system rates should be the same or remain different. The County has the authority to charge its customers any rate it decides is appropriate, as long as it is supported by a comprehensive analysis and reflects the County's goals and objectives. Utilities that have multiple systems sometimes decide that their water or sewer systems provide the same service and are essentially one and everyone should pay the same rate, regardless of their location, as Thurston County PUD has decided. Other utilities that also have multiple water and sewer utilities have decided that their rates will be based on the cost of the local system.

There are a few aspects where the County cannot combine the utilities, such as water rights and engineering system plans. The water systems are not interconnected and likely will never be connected and the same goes for the sewer utilities. The utilities can be combined from a fund and management perspective even though they are not connected or have different water rights.

Some municipalities operate their water and sewer utilities as one entity. While the County might technically be able to combine water and sewer into one entity, HDR does not recommend combining two different kinds of utilities (water and sewer) under one fund. Generally accepted rate-making practices dictate that a utility should stand on its own with no cross-subsidies and having more than one type of utility in the same fund, water or sewer in this case, can complicate this issue and is not recommended.

### Recommendations

Combining utilities is one method to eliminate redundant tasks that are required with running multiple separate utilities. Ideally the water utilities can be combined into one entity and the sewer utilities can be combined into another. This would simplify a great deal of administrative tasks while keeping water and sewer separate, which should be self-supporting without cross-subsidies. This configuration is commonly used by many utilities across Washington and the country. The County should conduct a cost-of-service analysis or other analysis of its systems to determine if there are cost differences between the water systems as well as the sewer systems to establish if it would be appropriate to establish postage stamp rates or another rate configuration.

The UACs should be involved in the consolidation process so that they are fully aware of the benefits of consolidation and can support that effort. To avoid controversy it may be wise to keep the UACs intact and separate as they are currently. Other utilities have UACs that

represent more than one region of their utilities. This is possible because the UACs are ultimately an advisory committee to the County Board of Commissioners and the BoCC can consider each UAC recommendation and choose what is best for the utility at large. The resolutions governing UACs give communities the option of forming a UAC; this authority is also available to Grand Mound, which does not have a UAC. Given the language of the resolutions it appears that the County cannot simply create a UAC for Grand Mound but it can cultivate support in the Grand Mound community for the formation of a UAC representing Grand Mound.