

King Co

**Survey Response Form for Participation in Department of Ecology's Wastewater Regionalization Study**

Please answer the questions that apply to your specific situation. Not all questions will apply to all participants. Use as much space as is needed, and send the form to Dan Filip at [dfil461@ecy.wa.gov](mailto:dfil461@ecy.wa.gov) as soon as possible. When Ecology completes the final report on regionalization, the report will be provided to the Legislature. Call Dan Filip at 360.407.6509 or David Dunn at 360.407.6503 if you have any questions.

Community of: King County Wastewater Treatment Division  
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**A. Partnership**

**1. What is the nature of your regional partnership (or regional "opportunity")?**

King County acts as a wholesaler providing wastewater treatment services to local sewer agencies. The local agency acts as a retailer collecting sewage for delivery to county conveyance facilities. Each local agency reports the number of ERUs or residential customer equivalents billed for each quarter and the County bills the local agency based on this information. In turn, the local sewer agency bills the customer for the cost of the local collection system and the County's wastewater treatment services. King County has contracts or sewage disposal agreements with 34 local sewer agencies, including municipalities, water and sewer districts, and the Muckleshoot Indian Tribe. Many of these agreements were initially executed in the 1960s and have been subsequently amended.

**• Who are the partners?**

The table below lists the local sewer agencies or participants served by the King County Wastewater Treatment Division and the percentage of customer based each agency represents. It also shows the number of single family units and residential customer equivalents (commercial) units reported by each participant for 2008.

2008 RCE's by Local Sewer Agency				
Cities	Single Family Residential	RCEs	Total	Percentage of Total (%)
Algona	1,010	293	1,303	0.18
Auburn	10,646	14,595	25,241	3.57

Bellevue	33,082	28,372	61,454	8.69
Black Diamond	779	265	1,045	0.15
Bothell	4,237	3,840	8,077	1.14
Brier	1,510	352	1,862	0.26
Carnation	405	233	639	0.09
Issaquah	4,373	4,828	9,201	1.30
Kent	11,501	25,163	36,665	5.19
Kirkland	8,532	6,200	14,732	2.08
Lake Forest Park	3,329	618	3,946	0.56
Mercer Island	7,039	1,570	8,609	1.22
Pacific	1,377	1,017	2,394	0.34
Redmond	12,483	16,261	28,744	4.07
Renton	13,420	15,757	29,177	4.13
Seattle	137,770	151,762	289,531	40.96
Tukwila	858	6,956	7,813	1.11
<b>Subtotal</b>	<b>252,349</b>	<b>278,081</b>	<b>530,430</b>	<b>75.04</b>
<b>Districts</b>				
Alderwood Water and Wastewater District	22,773	12,283	35,056	4.96
Cedar River Water and Sewer District	3,856	1,389	5,245	0.74
Coal Creek Utility District	2,647	815	3,462	0.49
Cross Valley Water District		349	349	0.05
Highlands Sewer District	106	0	106	0.01
Lakehaven Utility District	865	7	871	0.12
Northeast Sammamish Sewer and Water District	4,569	165	4,734	0.67
Northshore Utility District	18,028	10,232	28,261	4.00
Olympic View Water and Sewer District	190	0	190	0.03
Ronald Wastewater District	14,864	5,589	20,453	2.89
Sammamish Plateau Water and Sewer District	8,877	4,395	13,272	1.88
Skyway Water and Sewer District	3,754	1,192	4,946	0.70
Soos Creek Water and Sewer District	28,310	5,619	33,929	4.80
Valley View Sewer District	6,842	8,856	15,698	2.22
Vashon Sewer District	362	447	809	0.11
Woodinville Water District	2,168	3,377	5,545	0.78
<b>Subtotal</b>	<b>118,209</b>	<b>54,716</b>	<b>172,925</b>	<b>24.46</b>
<b>Other Customers</b>				
Cedar Grove Compost		305	305	0.04
Muckleshoot Indian Tribe	63	10	73	0.01
Shorewood Apartments		358	358	0.05
Sea-Kent Highlands Landfill		299	299	0.04
KC SW Landfills	0	2,399	2,399	0.34
Others		56	56	0.01
<b>Subtotal</b>	<b>63</b>	<b>3,427</b>	<b>3,490</b>	<b>0.49</b>
<b>Total</b>	<b>370,621</b>	<b>336,224</b>	<b>706,846</b>	<b>100.00</b>

- **How many residents are represented by each regional partner?**  
See table above (over 700,000 residential customer equivalents, which equals about 1.5 million residents).

- **What wastewater infrastructure does each partner own and operate?**

The local agencies (17 cities, 16 local sewer utilities, and 1 Indian tribe) plan, design, construct, operate, and maintain their individual local collection systems that collect wastewater from residences and businesses and transport it to King County's regional system of pipelines, pump stations, tunnels and treatment plants for treatment and disposal. Two customer agencies (Lakehaven and Alderwood) own and operate treatment plants that do not drain to King County's system. King County owns and operates the regional treatment plants, pipelines, pump stations and other related facilities.

- **Which partner(s) sends sewage for treatment? How much sewage?**

The local sewer agencies collect and carry wastewater to the County's regional facilities for conveyance to the regional plants for treatment. In a year with average rainfall, the County's entire system may treat an average of 206 million gallons a day. When the Brightwater treatment facility that is currently under construction comes online in 2011, the system will have the capacity to treat an additional 36 million gallons per day (average wet weather flow, AWWF) initially and up to 54 million gallons (AWWF) a day in 2040.

- **Which partner(s) receives sewage for treatment? How much sewage?**

See above.

- **What fraction of the wastewater from each partner is industrial?**

See above.

**2. Describe the history of your regional partnership. What influenced you to consider regionalization? (e.g., if it was a water quality problem, please describe the history of the problem). When did the regional partnership begin, how was it put in place, and how has it changed over time?**

King County (formerly Municipality of Metropolitan Seattle or Metro) has been providing regional wastewater treatment service for nearly 50 years. A grassroots citizens committee formed in the late 1950s with the vision of creating a regional entity to manage the wastewater pollution problem for the Seattle metropolitan area. As a result of their efforts, in 1958 voters created Metro and developed a regional wastewater treatment system based on watersheds as opposed to political boundaries. Drivers for creating a regional wastewater system included degradation of water quality in Lake Washington and concern about the future of other water bodies in the area, such as Lake Sammamish, Duwamish River, Elliott Bay, and Puget Sound. At this time, there were 28 small sewage treatment plants in operation within the Seattle/King County metropolitan area, and 53 percent of the wastewater was discharged into water bodies without any treatment.

A comprehensive sewage and drainage survey was conducted in 1958 by Brown and Caldwell and recommended that Metro adopt a centralized wastewater system to realize economy of scale benefits of large treatment plants. This survey noted that for a metropolitan area it is economically and operationally beneficial when sewage from the entire area is delivered to a single point or a relatively few points for treatment and disposal.

The Metro Council adopted a comprehensive wastewater disposal and stormwater drainage plan in 1959. This plan became the core planning document for wastewater treatment services in the Lake Washington drainage basin, which includes most of the Seattle/King County region within the Urban Growth Area, a portion of Snohomish County, and a small portion of Pierce County. This plan, as amended and supplemented, continues to serve as King County's adopted Comprehensive Water Pollution Abatement Plan.

In 1961, Metro entered into a series of agreements with local sewer service providers to accept and treat wastewater collected in their local systems. With the startup of the South Treatment Plant in the City of Renton in 1965 and the West Point Treatment Plant in the City of Seattle in 1966, along with the construction of major trunk lines and pump stations needed to convey wastewater to these regional plants, Metro began closing the 28 small treatment plants and eliminating 46 wastewater discharge points into Lake Washington and Lake Sammamish.

In 1994, pursuant to the authority of chapter 36.56 RCW and a special county election held November 3, 1992, King County assumed the rights, powers, functions and obligations of Metro, including operation of Metro's water pollution abatement function. Today, the county's Wastewater Treatment Division (WTD) serves about 1.5 million people within a 420-square-mile service area, which includes most urban areas of King County and parts of south Snohomish County and northeast Pierce County.

King County is responsible for complying with all local, state, and federal regulations that govern the planning, design, construction, operations, and maintenance of its regional wastewater facilities, including meeting the terms and conditions of National Pollutant Discharge Elimination System (NPDES) permits. King County has four NPDES permits for discharging treated wastewater from its regional wastewater system.

**3. How did the Growth Management Act (GMA) influence your decision to form a regional partnership?**

The decision to form a regional wastewater system occurred by public vote in September 1958; the GMA was not in existence at this time.

**4. How does the GMA continue to influence your regional partnership?**

Although the GMA was not a factor in the formation of the regional wastewater system, since its adoption, the GMA has influenced the planning efforts and decisions affecting King County's regional wastewater system.

The GMA calls for counties and cities to develop plans for urban growth to occur in designated urban growth areas. Infrastructure, such as wastewater treatment facilities, must be in place to meet the projected growth of local comprehensive plans. King County is required to ensure wastewater treatment capacity is available for the local agencies it serves in the central Puget Sound region. To fulfill its regional wastewater management function, it is essential for King County to work closely and cooperatively with the local agencies within its wastewater service area to review local comprehensive plans and verify growth and development projections and wastewater capacity needs.

**5. How did your community choose between regionalization and a 'go-it-alone' approach? Please explain (as quantitatively as possible) the reasons such as:**

- **Cost savings**
- **Shared responsibility**
- **More effective environmental protection**
- **Other**

As mentioned previously, the citizens of greater metropolitan Seattle/King County, through a public vote in 1958, chose a regional wastewater treatment system based on natural drainage patterns—watersheds as opposed to political boundaries. According to a report published in 1952 by the Pollution Control Commission, sewer facilities in the Seattle area were developed in a “hodge-podge” manner. The report noted that construction of facilities in this fashion is expensive and predicted that many small treatment plants and trunk sewers will eventually have to be abandoned. During this timeframe, 80 percent of the sewer districts comprised areas less than two square miles and often it was the occurrence of an acute sewer problem that led to the formation of a sewer district. There was little coordination in the area of sewage treatment and the need for some form of centralized wastewater authority was recognized by state, city, county, and sewer district officials, as well as local chambers of commerce, the Municipal League, and other civic organizations.

The lack of coordination, fragmented planning, cost issues, and decline of water quality in Lake Washington and other water bodies in the region served as the main drivers for development of a regional wastewater system versus a “go-it-alone” approach. In addition, there was recognition that sewage and drainage problems of the metropolitan area were not restricted to individual cities and communities or political boundaries. These problems were viewed as area-wide or regional in scope. The idea of decentralization was examined again in 1995 during the planning efforts to develop the Regional Wastewater Services Plan; it was determined once again that a regional system with large central facilities was more cost effective to build and operate than a system with many small plants.

#### **6. What pros and cons does your community see from regionalization?**

Several of these are identified under the final question (#4 under lessons learned). However, an overall “pro” is that the King County experience demonstrates that regionalization can be an effective way to meet large environmental challenges – such as the cleanup of Lake Washington – that are regional in nature. Regionalization facilitates coordinated action from multiple jurisdictions, providing efficiencies from economies of scale and consistency of purpose and communication. The strength of this potential benefit depends on the situation—clearly, regionalization is likely to be more cost-effective when jurisdictions are closer together, more densely populated, and contribute to a common regional problem or issue.

A “con” is the amount of effort (political will, time, and resources) it takes to create and maintain the regional entity. Individual jurisdictions will often have different priorities and positions than the region as a whole. They may be reluctant to relinquish control, or may see some regional decisions or activities affecting other parts of the region more than themselves.

#### **B. Agreements**

##### **1. Describe the inter-local agreements necessary for the regional partnership.**

The sewage disposal agreements between King County and the local sewer agencies accomplish the following which is necessary for the partnership:

- Establishes billing cycles and requires certain information to be reported by the local agencies to the County for billing purposes;
- Obligates the local sewer agencies to deliver and the County to accept all sewage for treatment and disposal;
- Specifies the responsibilities of the district, including the construction, maintenance and operation of local sewerage facilities;
- Requires maintaining certain records; and
- Provides for insurance and liability for damages.

**2. Has the partnership achieved its goals as envisioned at the outset?**

Yes, the initial goal of reducing pollution in Lake Washington has been achieved through the creation of a regional wastewater treatment system. Lake Washington has become one of the cleanest urban lakes in the nation, greatly enhancing the region's environment and overall quality of life. In addition, the continued development, operation and maintenance of the regional system has led to economic development and improved water quality throughout the service area. The high level of wastewater treatment achieved by the regional entity is essential for current and future efforts to protect Puget Sound. The two large treatment plants have consistently received national awards for high levels of performance, and with the construction of the Brightwater Treatment Plant the region is poised to meet water quality protection needs associated with future growth. There will likely always be some disagreement between local agencies and a regional provider on specific issues, but the partnership continues to achieve its overall goals.

**3. Describe the process for initial development and subsequent evolution of your inter-local agreement. What type of time and cost commitments were required to develop the inter-local agreement?**

King County's inter-local agreements or sewage disposal agreements are unique, in that, the Legislature authorized and the voters approved the creation of a metropolitan municipal corporation. It was on this foundation that Metro executed disposal agreements with the initial participants in the 1960s. Since that time, King County has assumed the responsibilities of Metro and the number of participants or local agencies has grown to 34.

It is difficult to estimate the time and cost commitment to develop the disposal agreements. The form of the basic agreement has changed little since the formation of Metro. However, the agreements have been amended to include provisions specific to the local agency and the term of the original agreements have been extended. Significant staff time is needed from both the regional provider and the local sewer agencies to negotiate and implement a sewage disposal agreement. Once implemented, there will be ongoing work required to maintain a good working relationship between the partners.

**4. How do you split the costs (capital costs and operation and replacement costs) between the regional partners?**

Rates for wastewater treatment the King County Wastewater Treatment Division charges to component agencies are uniform throughout the region. They are based on reported residential customer

equivalents, or RCE in a process outlined in the sewage disposal agreements. The capacity charge, the fee charged for new connections to the system, is also based on RCEs and also consistent throughout the region (defined in King County Code). However, the regional entity (the King County Wastewater Treatment Division) bills owners of homes or businesses requiring new hookups directly, rather than component agencies.

**5. How are rates established and administered?**

As specified in the sewage disposal agreements with component agencies, rates for wastewater treatment must be established by June 30 for the following calendar year. The elected County Council is responsible for adopting a rate ordinance each year that specifies the following year's rate (they must pass an ordinance even if the rate does not change). The King County Wastewater Treatment Division (and the Executive branch of government) prepares a rate proposal in the spring for the Council's consideration. Input from the Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC) is considered prior to the Division's proposal to the County Council, and MWPAAC and other stakeholders provide comments to the County Council as they deliberate on the rate. MWPAAC is a formal body comprised of elected officials and staff from component agencies.

**Comment [DF1]:** Frequency of and resolution of disputes??

The division bills the participating local agencies through processes established in the agreements, based on reported RCEs. The local component agencies bill customers, combining fees they pay the division for wastewater treatment with fees they charge for sewer collection. In so doing, the component agencies that provide collection services, not the division, have contact with individual residents and businesses.

The County Council also passes a capacity charge (for new customer connections to the sewer system) each year. The methodology for the capacity charge is specified in County Code – it is set at a level to ensure new customers (new development) pay for the cost of expanding the system to meet the costs of serving new customers. Unlike the basic fee for wastewater treatment, the King County Wastewater Treatment Division bills residents and businesses directly for these fees. Every three years there is a comprehensive review of the capacity charge.

**6. Does the agreement have a specific duration or a scheduled re-negotiation period?**

The sewage disposal agreements typically have 30-50 year terms. Some of the agreements have recently been extended to 2056 and efforts continue to extend the remaining disposal agreements.

**7. How do you ensure that your regional partners are maintaining their systems in order to keep the integrity of your collection and treatment systems?**

The sewage disposal agreements require the local sewer agency to construct, maintain and operate all of the agency's sewerage facilities carrying sewage to the County in accordance with the County's applicable rules and regulations, which are outlined in Section 28.84 of the King County Code. These include requirements such as: certification prior to connection with the county system, design and construction standards, requirements that sewer and storm drains be separate (unless there is a demonstration that combined systems are necessary); types of discharges permitted including rules on industrial waste; restrictions in sewage and industrial waste flow volumes; allowable infiltration; and others. Local systems must also adhere to state and federal regulations.

- The division's size provides the economies of scale to enable sufficient capacity to do things that smaller entities cannot. Adequate operational, policy and planning expertise are helpful when addressing large watershed water quality issues. On the other hand, the division's capacity and effectiveness may result in it receiving less statewide attention or even financial support, relative to smaller individual facilities (who are in need of greater technical assistance or support).
- Economies of scale associated with large regional entities can accrue not just to the utility, but also to state regulators or administrative agencies. For example, the division's large facilities result in fewer NPDES permits to write and administer than would be the case if there were many smaller treatment facilities throughout the region. Having adequate technical capacity available regionally reduces the need for the state to fund such assistance, difficult in lean budget years.
- Communication can be a challenge, particularly over time after the crisis prompting regionalization is alleviated. The regional benefit of King County's wastewater treatment services—in terms of ongoing water quality protection—is not always recognized. Perhaps this is because King County does not bill customers directly, or perhaps it is because the environmental importance of system maintenance and planning for future capacity is taken for granted when there are no significant, visible problems.
- A commitment to regionalization needs to be long term. Because of the high level of capital and fixed costs, it becomes very costly and problematic for individual areas or customers to leave the regional entity as it could create stranded costs. Such long term commitments contribute to the ability to finance operations (e.g., sell bonds).
- Large regional facilities are not always the best approach. For example, the division operates two very small facilities in Vashon and Carnation, which are cost-effective given the location and population density of these areas.

*END*

Please forward via email attachment to Dan Filip at [dfil461@ecy.wa.gov](mailto:dfil461@ecy.wa.gov)