



# 2022 Bellevue Utilities Business Profile



A Nationally Accredited Public Utility Agency

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Bellevue Utilities  
450 110<sup>th</sup> Avenue NE  
Bellevue, WA 98004

[utilities.bellevuewa.gov](http://utilities.bellevuewa.gov)

## City Phone Numbers

General Information.....	425-452-6932
City Recycling Information.....	425-452-6932
Customer Service/Billing.....	425-452-6973
Drinking Water Quality.....	425-452-6192
Engineering.....	425-452-6977
Permit Center (Utilities).....	425-452-4187
Stream Team Volunteers.....	425-452-5200
Utilities Maintenance & 24-Hour Emergencies.....	425-452-7840
Flooding, Water Main Breaks, No Water, Sewer Overflows, Pollutant Spills	

## Non-city Phone Numbers

Factoria Transfer Station.....	206-477-4466
Household Hazardous Waste .....	206-296-4692
Republic Services.....	425-452-4762
Recycling, Organics, Yard Waste, and Garbage	



Bellevue Utilities provides high-quality, essential services that customers rely on every day—drinking water, wastewater, storm and surface water, and solid waste. We take pride in making sure these services are dependable, a good value for the money, and delivered with the customer in mind.

**We're ready to help 24 hours a day.** Our employees are on call to respond to emergencies 24 hours a day. If customers experience flooding, a water main break, sewer overflow, or need to report a pollutant spill, they can call Utilities Operations and Maintenance at 425-452-7840 any time.

**Customers give us a high satisfaction rating.**

Our satisfaction rating with customers remains high, based on the city's annual surveys. In 2021, 87% of those surveyed were very satisfied or satisfied with our services.

**We use advanced technologies to deliver the best customer service.**

Advances in technology are changing the way that Bellevue Utilities serves our customers. This year we've added new Smart Water Meters to Bellevue. These new meters can alert you automatically if you have a water leak in your home. They also enable you to proactively control your water usage.

**We are a nationally accredited agency.**

Our practices meet or exceed national standards. When 139 of our industry-standard practices were compared with agencies nationwide, we achieved a 100 percent compliance rating. Since 2004, we have held accreditation from the American Public Works Association (APWA).

**Our rates are competitive with other cities.**

While we pass on wholesale costs from Cascade (for drinking water) and King County (for sewage treatment) to our customers, our rates for water, wastewater (sewer), and storm and surface water are comparable with utility costs in neighboring cities.

**We are financially stable and have a high bond rating.**

Bellevue Utilities has an Aa1 bond rating, the highest bond rating possible for a utility our size. This rating is from Moody's Investors Service, one of the three largest national bond rating agencies.

We have many challenges before us, such as aging infrastructure, meeting growth demands, and keeping rates low while maintaining a high quality of service and investing for the future. However, we are working to meet these challenges and will continue to provide excellent utility services that our customers can count on each day in homes and businesses across the city.

*Nav Ota, Utilities Director*

The mission of Bellevue Utilities is to actively support public health and safety, quality neighborhoods, and a healthy and sustainable environment and economy by effectively managing:

- Drinking Water
- Wastewater
- Storm and Surface Water
- Solid Waste

**Bellevue Utilities is a financially self-supporting enterprise operating as a department within the City of Bellevue.**

We are comprised of four lines of business: Drinking Water, Wastewater, Storm and Surface Water, and Solid Waste. Each utility service is a stand-alone business operating within the city and must be financially sustainable.

**Our services are critical to human health and safety needs, yet are largely unseen.**

Much of our infrastructure—water, wastewater, and stormwater systems—is underground, supporting the city’s economic engine.

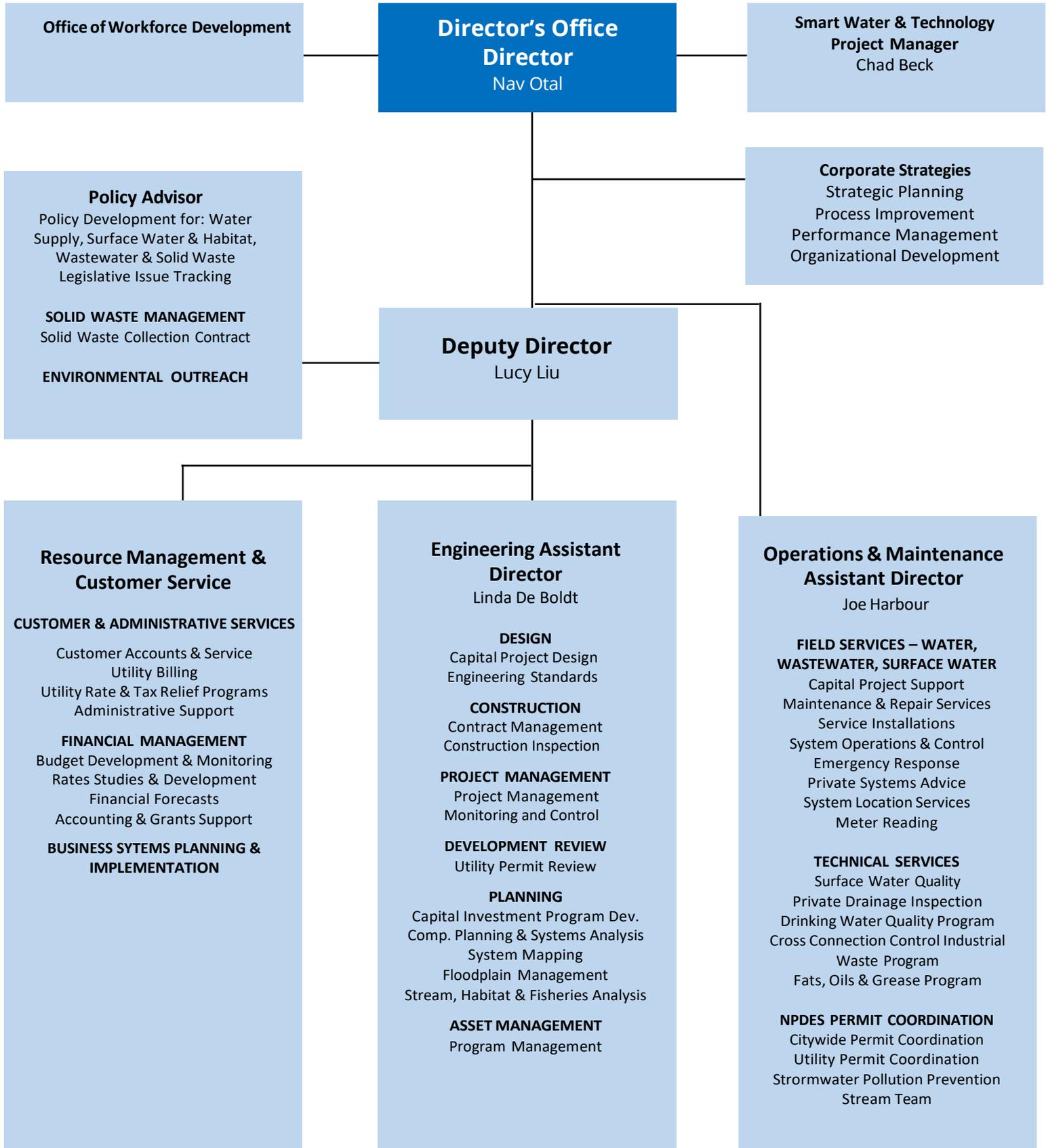
**Our services are both immediate and exceptionally long-range.**

- We provide customer service 24 hours a day, year-round
- We are at your service—Utilities comes to your home or business
- Because of the long lives of utility systems, our planning horizon extends 75-to-100 years

**Our systems are getting old and increases in maintenance and capital investment are inevitable.**

- System failures are on the rise
- Robust maintenance programs can extend infrastructure life and minimize life-cycle costs
- Utilities future capital investment will focus largely on the renewal and replacement of aging infrastructure

The City Council’s investments, financial policies, and consistent commitment have placed Bellevue Utilities in a solid financial position. As a result, utility rates are competitive with our neighboring communities and should be even more competitive in the future.



The Utilities Department has 175 employees. Members of the Executive Team are:



**Nav Otal — Director**

Nav Otal has over 30 years of experience in utilities management, finance, and research and development. Prior to becoming Director in 2011, she was Deputy Director of Bellevue Utilities for six years. Nav has been with the City of Bellevue since 1993 and has worked in operations, budget development, fiscal and strategic planning, and policy development. Prior to coming to the city, Nav worked as a researcher in cancer endocrinology. Nav holds a BS degree in Biochemistry and a master’s in Business Administration. She is a member of the American Water Works Association (AWWA), the Association of Metropolitan Water Agencies (AMWA), and the Smart Water Network (SWAN).



**Lucy Liu — Deputy Director**

Lucy Liu has 29 years of financial and managerial-based experience. Lucy has been with the city for 20 years, working as Tax Division Manager and Utilities Assistant Director of the Resource Management and Customer Service (RMCS) division before becoming Utilities Deputy Director in 2021. She is also a former revenue auditor for the Washington State Department of Revenue. In the private sector, Lucy worked as a senior tax manager and consultant. Lucy has a BA degree in Business Administration with an Accounting Concentration from the University of Washington. She is a Certified Public Accountant, Chartered Global Management Accountant.



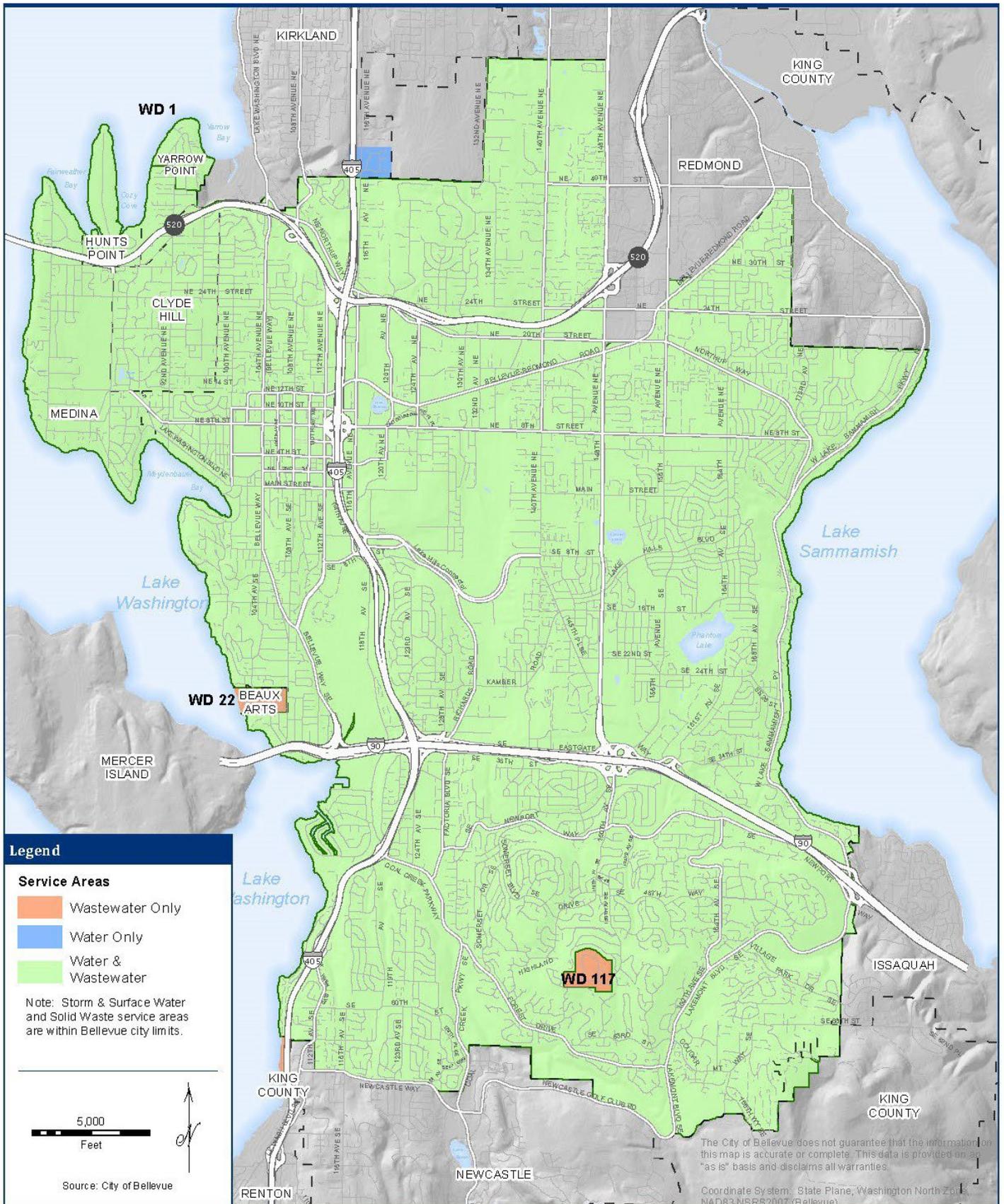
**Linda De Boldt — Assistant Director, Engineering**

Linda De Boldt has 38 years of experience in public works leadership and engineering. She joined Bellevue Utilities in early 2018 as the Assistant Director for Engineering. Prior to coming to Bellevue, Linda served as the Public Works Director for the City of Redmond as well as the Deputy Director of Seattle Public Utilities. Her work experience has focused on capital project delivery, operations and maintenance of public infrastructure, environmental stewardship, and organizational development. Linda is a 1983 graduate from the University of Washington with a Bachelor of Science in Civil Engineering and is a registered professional engineer in Washington State. Linda is also an active member of the American Public Works Association.



**Joe Harbour — Assistant Director, Operations & Maintenance**

Joe Harbour has over 36 years of utilities experience, working for the Cities of Pullman, Seattle and Bellevue. Since joining Bellevue Utilities in 1996, Joe has worked in a wide variety of capacities, from water, wastewater, surface water and streets maintenance and operations; to managing Utilities drinking water quality, cross-connection, industrial waste and emergency management programs. He holds a BA from Washington State University in Political Science/Public Administration and has been an active member of the American Water Works Association since 2004.



### Mission Statement

Provide a reliable supply of safe, secure, high-quality drinking water that meets all the community's water needs in an environmentally responsible manner.

### Key Challenges

- Bellevue Utilities drinking water infrastructure is aging and most of the system is well past its midlife. Utilities has a strategic asset management plan in place to repair or replace failing components that includes a 75-year financial plan and rate model to minimize system failures and mitigate future rate spikes.
- Drinking water for the City of Bellevue is purchased from Cascade Water Alliance (Cascade). Water supply costs are established by Cascade. Water supply is the single largest cost driver for the water utility.
- State and federal water quality mandates are becoming more stringent.
- Investment is needed to build facilities that provide capacity for Bellevue's expected growth.

#### System

- 40,000+ water connections
- 608 miles of water main pipes
- 24 water reservoirs with a total storage of 41.5 million gallons
- 21 pump stations
- 73 pressure zones
- 5,900+ fire hydrants

#### Employees

- 72

#### 2022 Operating Budget Without Reserves

- \$67.4 million

### Cascade Water Alliance

Bellevue's drinking water comes from the Cedar River and Tolt River watersheds in the Cascade Mountains. It is purchased from Cascade Water Alliance, an organization that provides water to Bellevue and six other cities and water districts in the Puget Sound region. To ensure that members have water for the future, Cascade plans to develop new water supplies and connect regional systems. In 2010, Cascade and Puget Sound Energy finalized the purchase of Lake Tapps in Pierce County. During the next 20-50 years, Cascade plans to develop a new municipal water supply while managing the lake for recreation and enhancing fish habitat in the White River.

### Smart Water Meter Program

Bellevue Utilities is changing all customer water meters to new Smart Water Meters. The new meters allow customers to monitor their water use in near real-time and detect leaks in their home plumbing more quickly. The new meters will wirelessly transmit customer water usage data, so meter readers will no longer need to visit homes. A new online portal lets customers connect to their water use information, receive potential leak alerts, and more.

## Mission Statement

Provide a reliable wastewater disposal system that ensures public health and safety, and protects the environment.

## Key Challenges

- Bellevue Utilities wastewater infrastructure is aging, and most of the system is well past its midlife. Utilities has a strategic asset management plan in place to repair or replace failing components that includes a 75-year financial plan and rate model, to minimize system failures and mitigate future rate spikes.
- The full cost to repair or replace the aging sewer mains, especially in-lake submerged wastewater pipes (also known as lake lines), will be substantial.
- The city of Bellevue contracts with King County for treatment and disposal of wastewater. The cost of wastewater treatment services is established by King County. These costs are the single largest cost center for the sewer utility.



### System

- 13,000+ maintenance holes
- 517 miles of mainline pipes
- 128 miles of lateral pipes connecting mainline pipes to customer-side sewers
- 47 pump and flush stations
- 34 major connections to King County wastewater system

### Employees

- 52

### 2022 Operating Budget Without Reserves

- \$68.0 million

## Growth in Bellevue

Bellevue is essentially built out and will not require significant new utility extensions. Most remaining undeveloped property is in the service area's southeast corner, where localized sewer extensions will be needed.

Similarly to the drinking water system, Bellevue's wastewater system will be impacted by multifamily and commercial growth in the downtown area and new development projects expected in the Bel-Red corridor, which was rezoned for higher density. Periodic Wastewater System Plan updates monitor redevelopment progress and forecasts to ensure infrastructure will be in place to support planned growth as it happens.

## Mission Statement

Provide a storm and surface water system that controls damage from storms, protects surface water quality, supports fish and wildlife habitat, and protects the environment.

## Key Challenges

- Infrastructure is aging and most of the system is well past its midlife. Utilities has a strategic asset management plan in place to repair or replace failing components that include a 75-year financial plan and rate model to minimize system failures and mitigate future rate spikes.
- The storm and surface water system is a combination of private and public systems. These systems, over half of which are private, work together to convey stormwater, control flooding, and protect water quality. Utilities establishes the standards for private property owners to develop and manage their systems to comply with local, state, and federal regulations and to protect surface water.
- Compliance with the city’s National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit, a Federal Clean Water Act mandate that affects programs citywide, has significant impacts on the way the city does business, on city expenses, and on private development costs.



Stormwater flows off streets and sidewalks, enters storm drains, and flows, without treatment, into streams, lakes, and wetlands.

### System

- 92 miles of open streams
- 864 acres of protected wetlands
- 21,953 public storm drains
- 406 miles of pipes
- 86 miles of open ditches
- 11 city-owned regional detention facilities
- 350+ city-owned flow control facilities
- 900+ privately-owned detention facilities

### Employees

- 50

### 2022 Operating Budget Without Reserves

- \$28.7 million

## Protecting Waterways, Reducing flooding

Bellevue’s storm and surface water utility was established in 1974 — one of the first in the nation. The city’s philosophy emphasizes maintaining and protecting streams, lakes, and wetlands. This is accomplished in large part by requiring runoff controls (for quality and quantity) for new land development to mitigate the impacts of urbanization to the natural and constructed drainage system.

Bellevue adopted a “natural determinants” ordinance in the 1980s, which established significant land use protection and development restrictions on properties with streams, wetlands, steep slopes, and flood plains. Regional runoff control facilities built in the 1970s and 1980s help protect city properties from flooding due to prior development. Water Quality and flow control facilities within the system filter out pollutants and slow the rate of flow of stormwater to reduce flooding.

## Mission Statement

Provide a convenient, unobtrusive solid waste collection system that contributes to a healthy and pleasing cityscape in an environmentally sensitive way.

The city contracts with Republic Services to provide solid waste services to residents and businesses.



## Key Challenges

- Bellevue will work to promote waste prevention, reuse, and recycling strategies in its service area—and throughout the region—to extend the life of Cedar Hills Regional Landfill.
- Bellevue will work with King County to maintain a geographically balanced system of solid waste transfer and disposal facilities.
- Bellevue will work with its partners to ensure the proper handling and disposal of hazardous household products and the use of non-toxic alternatives.

### Customer Accounts

- Over 30,000 single-family residential accounts
- Nearly 2,000 multi-family and commercial accounts

### Employees

- 1

### 2022 Operating Budget Without Reserves

- \$1.4 million

## Republic Services

Republic Services contracts with the city for the collection of solid waste generated in Bellevue. The contract provides garbage, recycling, and organics collection services to single-family, multifamily, and commercial customers, along with city-wide litter control and customer service/billing services.

## Bellevue Utilities

The city manages the solid waste contract with Republic Services and provides outreach, education, and technical assistance to residents and businesses aimed at promoting waste prevention, recycling, and proper disposal of hazardous and moderate-risk wastes. The recycling rates for Bellevue are as follows (2021):

- Single-family (Republic Services only): 63 percent
- Multifamily/Commercial (Republic Services only): 17 percent
- Overall (Republic Services only): 38 percent

## King County

The county provides solid waste planning, transfer, and disposal services under the Solid Waste Interlocal Agreement (ILA). King County's 2019 Comprehensive Solid Waste Management Plan was adopted in November 2019 after being approved by the Washington State Department of Ecology. King County operates the Cedar Hills Regional Landfill and 10 transfer stations and drop box facilities throughout the county, including the Factoria Transfer and Recycling Station located in Bellevue.

### Capital Investment Program

Bellevue’s Capital Investment Program (CIP) is a plan and budget for major public facility improvements that will be implemented over a seven-year period. The CIP for Bellevue Utilities defines investments for three utilities—Water, Wastewater, and Storm and Surface Water. Key drivers for Utilities 2021-2027 CIP are:

- Renewing and replacing aging infrastructure
- Adding system capacity to support anticipated growth
- Preserving the natural environment
- Customer service enhancements

### Aging Infrastructure

Utilities owns, operates, and maintains over \$3.5 billion of infrastructure assets, with over 1,600 miles of pipeline to provide drinking water, wastewater, and storm and surface water services. This infrastructure was primarily constructed from the 1940s through the 1980s, and most of the assets are well past midlife. As the infrastructure ages, it becomes less reliable and more failures occur. As a result, the cost to operate, maintain, rehabilitate, and replace the various assets increases. System renewal is and will continue to be the most significant driver of the Utilities CIP. Utilities has a strategic asset management plan in place to maintain customer service by minimizing system failures and to mitigate future rate spikes through proactive planning focused on optimal system life costs.

### Renewal and Replacement Fund

Recognizing that the cost to replace Utilities aging infrastructure would be significant, the Bellevue City Council established the Renewal and Replacement (R&R) Fund in 1995 for system renewal and replacement as identified in the Utilities CIP. Through proactive planning consistent with Utilities financial policies, funds are accumulated in advance of major expenses to supplement rate revenue. This planning ensures infrastructure replacements can be undertaken when needed, and helps to minimize utility rate impacts and ensure each generation pays an equitable share of costs to maintain the system.

Each utility is in a different stage of system replacement; therefore, the rate increases necessary to fund current capital investments and future system renewal and replacement differ for each utility. By establishing the R&R Fund early and continuing to refine a 75-year financial model, Bellevue Utilities is better prepared to meet increasing infrastructure replacement requirements while maintaining customer service.



The Coal Creek Culvert/Bridge Project created a safer roadway, a pedestrian connection to the Coal Creek trail, and improved salmon habitat through stream restoration. It was awarded the 2015 Project of the Year award in the Environment Category by the Washington State Chapter of the American Public Works Association.

# Capital Investment Program 2021-2027 Drinking Water

## Water System

Over 600 miles of pressurized water pipeline comprise the backbone of Bellevue's water system. Most was built 30- 50 years ago and is past its midlife. About 40 percent of the pipes are asbestos cement (AC), which are wearing out faster than anticipated, with the small diameter AC pipes having the shortest life. The rest of the water system pipes are predominantly ductile or cast iron, with an average expected life of 125 years. Based on failure rates and life cycle assessments, Bellevue Utilities determined that, to maintain system functionality and meet customer service levels for the future, a sustainable replacement rate of 5 miles of water main per year is necessary. Utilities has a program to replace 5 miles of AC water line every year.

Although the water system will not need to expand very much because the city is essentially built out geographically, two areas of the city have been rezoned for higher density development—downtown and the Bel-Red Corridor. Because these two areas are expected to grow in the next 15 years, new water system infrastructure with increased capacity (pipes and reservoir storage) will be needed to meet that anticipated growth.

**Total Estimated Cost for 2021-2027 Drinking Water CIP:  
\$135.1 million**

## What type of projects are needed and why?

- A significant portion of the Drinking Water Utility's 7-year CIP addresses the replacement of aging infrastructure and rehabilitation of systems. Sometimes complete systems do not need replacing, just components. A total of \$125.5 million is budgeted to replace and rehabilitate aging infrastructure.
- The drinking water system is complex. Sometimes gravity is all that is needed to deliver water to residents and businesses. In other areas, pumps are required to move water to reservoirs or directly to customers. To equalize the water pressure through the system, Utilities relies on special devices called Pressure Reducing Valves to ensure that water flows out of the tap with acceptable pressure. Like all mechanical devices, these valves wear out and must be replaced with newer technology. Utilities has budgeted \$6 million for this effort.
- Similarly, reservoirs experience wear and tear and, occasionally, depending on age, require structural retrofitting for earthquakes or demolition where appropriate. With 24 active reservoirs in the system, plus four shared reservoirs in adjacent systems and two decommissioned reservoirs in Bellevue. Utilities is spending \$23.4 million to ensure water is consistently available, even after emergencies, for peak demands and to fight fires.
- New growth brings with it many challenges, including increased water needs. Utilities continues to look at and provide means to satisfy these demands either through expansion of existing storage and supply inlet facilities or by optimizing system operation. The cost is estimated to be \$6.9 million in new or improved infrastructure.



The photos above show the current Pikes Peak Reservoir under construction and a computer-generated image of the new reservoir. The new reservoir will be able to better withstand earthquakes and ensure reliable water supply for the Bridle Trails and Cherry Crest neighborhoods.

# Capital Investment Program

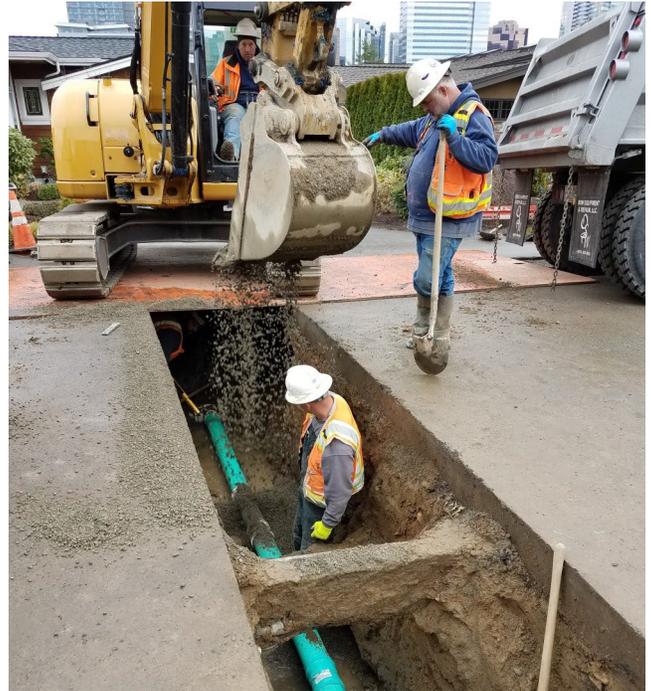
## 2021-2027 Wastewater (Sewer)

### Wastewater System

Bellevue's wastewater system is mainly comprised of pipes and pump stations. Many of these systems are more than halfway through their useful life. Ongoing condition assessments help in planning for replacement of wastewater system assets. Much of the aging major infrastructure will soon need significant repair or replacement.

For the wastewater system, replacement of pipeline infrastructure is only just beginning. In many cases, repair of pipe defects has been and will continue to be a cost-effective way to extend the life of sewer pipes. However, to continue to deliver safe, reliable wastewater service, a significant increase in capital investment for pipeline replacement will be necessary.

Typically, wastewater systems rely on gravity sewers to pass flows to major regional lines ("trunklines"). In some locations, pump stations are needed to lift the sewage to higher levels to again take advantage of gravity flow. For the lake lines, low-pressure flush stations periodically "flush" the sewer lake lines with lake water to keep the lines clean. Pump and flush stations have electrical and mechanical components that must be replaced every 25-40 years. As with the water system, increased system capacity (larger pipes and pump stations) are needed to meet growth in the downtown area and Bel-Red Corridor as these two areas develop to higher density zoning.



The Viewcrest Sanitary Sewer Replacement Project, completed in February of 2018, replaced over a half-mile of sewer pipeline. The improvements were performed as a scheduled upgrade of aging infrastructure.

**Total Estimated Cost for 2021-2027 Wastewater CIP: \$58 million**

### What types of projects are needed and why?

- A major portion of the work for the Wastewater Utility's 7-year CIP addresses replacement of aging infrastructure and rehabilitation of systems. Sewer pump stations needing upgrades or replacement have significant costs associated with them. Utilities has budgeted \$52.6 million for replacement of pipe infrastructure and rehabilitation of systems such as pumping (lift) stations.
- A significant infrastructure project planned is the replacement of wastewater pipelines submerged along the shores of Lake Washington. These lake lines comprise about 14.6 miles of infrastructure and will require replacement starting in 2023. Utilities also owns and operates lake lines in Lake Sammamish; however, replacement is not expected until 2060. Due to the complexity and expense associated with lake line work, Utilities has budgeted \$600,000 for the development of a Lake Washington Sewer Lake Lines Management Plan to inform the scope, schedule, and budget needs for future capital projects.
- Similar to the Water CIP, Wastewater CIP investment is necessary to accommodate future growth within the downtown and Bel-Red corridor. Utilities has budgeted \$70,000 for this work. This cost is reimbursed by new development.

# Capital Investment Program 2021-2027 Storm & Surface Water

2022 Utilities Business Profile

## Storm and Surface Water System

Bellevue's storm and surface water system is comprised of pipes, culverts, ditches, open streams, site specific stormwater control facilities, and large regional stormwater control and water quality facilities. Because much of the infrastructure was built by King County and private developers before the Storm and Surface Water Utility was created in 1974, information is limited regarding the system's condition. The Stormwater Utility is unique in that drainage is a combination of publicly and privately-owned components working together to carry water to lakes, streams, and wetlands.

Annual capital investment increases will be needed to replace infrastructure prior to failure to prevent property damage and protect the environment. To date, infrastructure replacement has consisted primarily of replacing some major culverts in danger of failure and that were known to be barriers to fish migration. Preventing damage from storms is integral to our mission.

## Total Estimated Cost for 2021-2027 Storm and Surface Water CIP: \$42.4 million

### What types of projects are needed and why?

- Flood control is a vital component of Bellevue Utilities' work. The Factoria Boulevard Flood Mitigation Project is a \$12.9 million project, with about \$6.8 million in the current stormwater CIP, funded by the King County Flood Control District. It will ease flooding in the Factoria neighborhood through replacement of a major stormwater pipe on Factoria Boulevard, along with environmental enhancement of the Richards Creek channel in this area. The King County Flood Control District also assists in funding smaller projects throughout the city, with the utility receiving around \$600,000 a year.
- Utilities rehabilitates or replaces defective drainage pipelines and rehabilitates roadside ditches annually in the amount of almost \$1 million. With over 400 miles of piped system alone, this program will continue in perpetuity. The 7-year CIP planning horizon allocates \$13.1 million toward this effort.
- The stream channel modification program works to resolve unstable stream sections on public land to protect banks, in-stream habitat, and sediment movement. The budget for this work is \$3.2 million.
- Nine critical publicly-owned culverts remain as full or partial fish passage barriers. They will be replaced with new designs that allow for fish passage. The budget for this effort is \$1.8 million.
- Bellevue's streams, lakes and wetlands are valued natural resources for our community. As the City grows, we need to protect our waterways. Utilities is developing a 20-year strategic Watershed Management Plan to improve the health of our streams for people and wildlife. Our stormwater planning budget for this major effort and other stormwater studies is budgeted at \$2 million.



The Watershed Management Plan will recommend actions and help the City prioritize projects to improve the health of our streams for people and wildlife. Work began in 2020 on this 20-year Plan, and is anticipated to be complete in late 2022.

## Key Challenges

- Bellevue Utilities services are both immediate and exceptionally long-range. Due to the long lives of our systems, our financial planning horizon extends 75 years.
- Because most of our systems are well past midlife, growth in maintenance and capital investments is inevitable. Capital programs will focus largely on renewal and replacement of aging infrastructure.
- The National Pollutant Discharge Elimination System Permit (NPDES) requirements, authorized by the Clean Water Act to protect surface waters, will have significant long-term impacts on the way the city does business, city expenses, and private development costs.

## Financial Policies – Planning for the Future

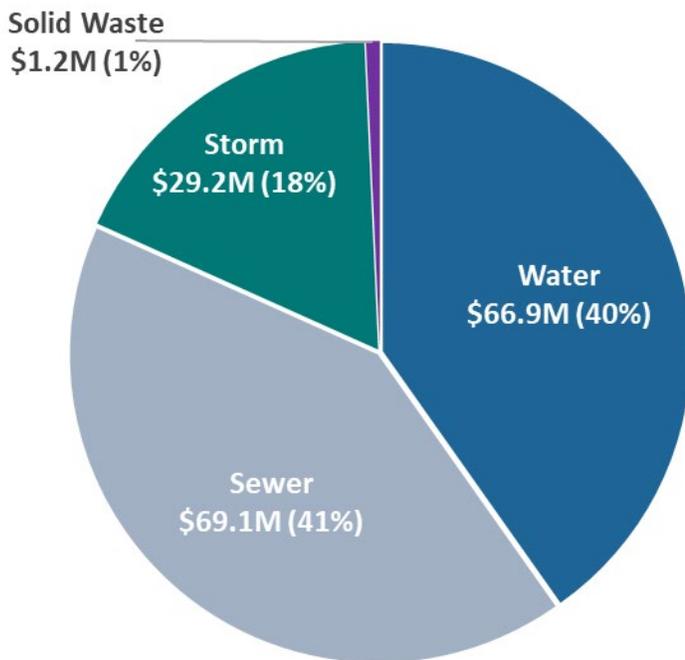
The city's Drinking Water, Wastewater, and Storm and Surface Water Utilities were established with the goals of financial stewardship, self-sufficient funding, and comprehensive planning.

### Bellevue Utilities Financial Policies:

- Plan for long-term investment in infrastructure
- Accumulate funds in advance of major expenses
- Maintain existing levels of service by renewing and replacing systems
- Keep rate increases gradual and uniform
- Maintain equity — each generation should pay its fair share
- Use debt sparingly and maintain financial flexibility
- Pass wholesale costs through to customers

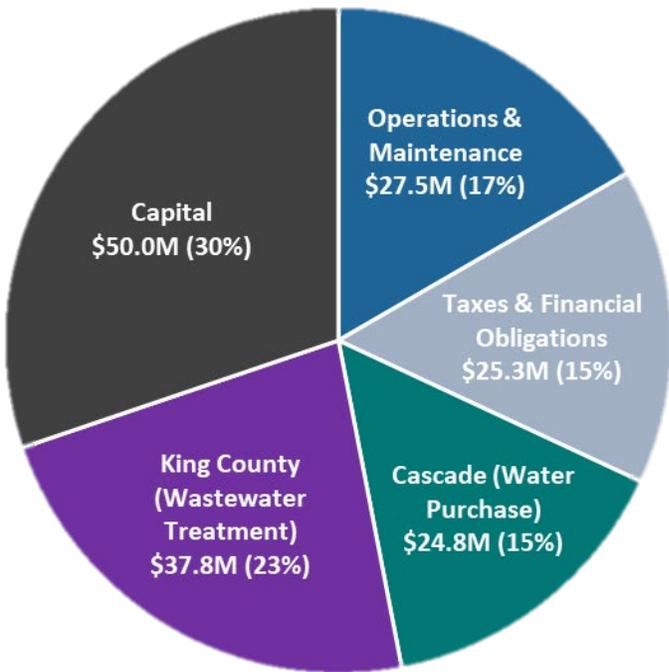
Utilities financial planning includes rate-setting and management of operating and renewal and replacement reserves. Short- and long-term planning serve as the foundation for these activities. Key financial operating and capital planning policies and practices, originally adopted by the City Council in the early 1990s, include:

- **Rate-setting** — Rate revenues are the primary source of funding for Utilities. During the biennial budget process, the Environmental Services Commission reviews Utilities budgets and rates in detail and makes a recommendation to Council. The Council reviews and adopts rates every two years. Utilities rates are set as low as possible, while still allowing Utilities to accomplish ongoing operations, maintenance, repair, long-term renewal and replacement, system improvements, and its general business.
- **Reserves** — Reserves are purposefully set aside to help ensure uninterrupted service through normal fluctuations within the billing cycle, adverse financial performance, or significant failure of a Utilities system.
- **Capital Planning** — Bellevue Utilities is better prepared than most utilities to meet increasing infrastructure resource requirements due to the Renewal and Replacement Fund and our use of long-term planning and a 75- year financial model.



**2022 Budgeted Equipment & Operating Reserves (in Millions)**

**2022 Utilities Budgeted Revenue = \$166.4 M**



## 2022 Utilities Budgeted Expenses = \$165.4 M

	Water	Sewer	Storm	Solid Waste	Total
<b>Equipment Replacement</b>	\$5.1M	\$3.8M	\$4.9M	\$0.0M	\$13.8M
<b>Operations</b>	\$10.5M	\$4.4M	\$2.3M	\$2.2M	\$19.5M
<b>Total Reserves</b>	\$15.7M	\$8.2M	\$7.2M	\$2.2M	\$33.2M

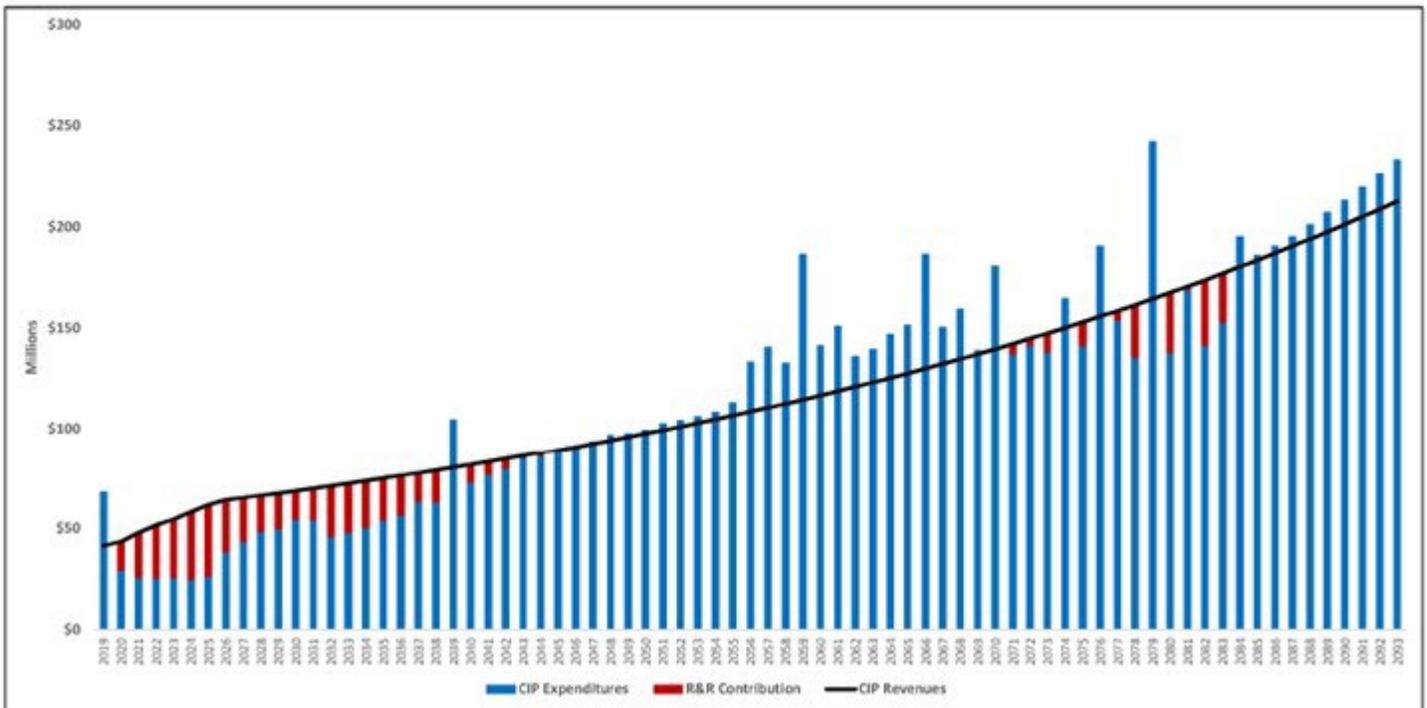
## Long-term Renewal and Replacement Fund

In 1995, City Council created the Renewal and Replacement Fund to accumulate funds necessary to replace infrastructure as it ages. This account allows Utilities to:

- Amortize major pending liabilities over a long-time span, while maintaining current service levels
- Keep rate increases gradual and uniform
- Maintain equity – each generation should pay its fair share

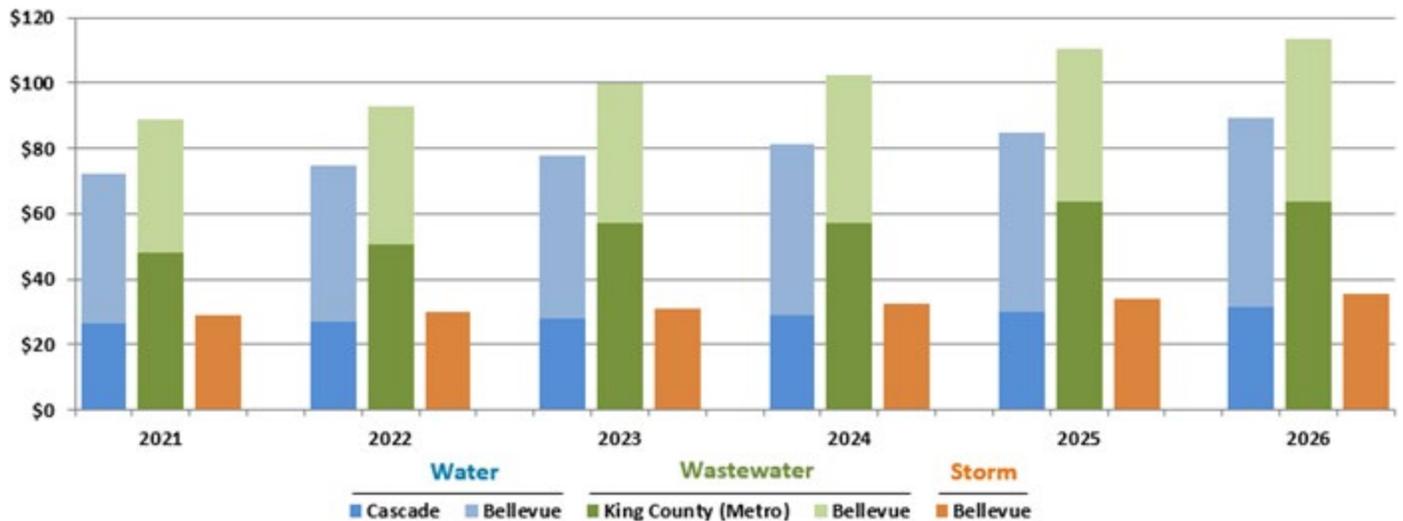
Spending on system renewal and replacement will increase significantly in the next ten years to adequately address the needs of aging infrastructure.

## Water, Sewer, and Storm & Surface Water CIP Renewal and Replacement 75-year Forecast



Business Line	2022 Budgeted R&R Fund Balances
Drinking Water	\$31M
Wastewater (Sewer)	\$107M
Storm & Surface Water	\$76M

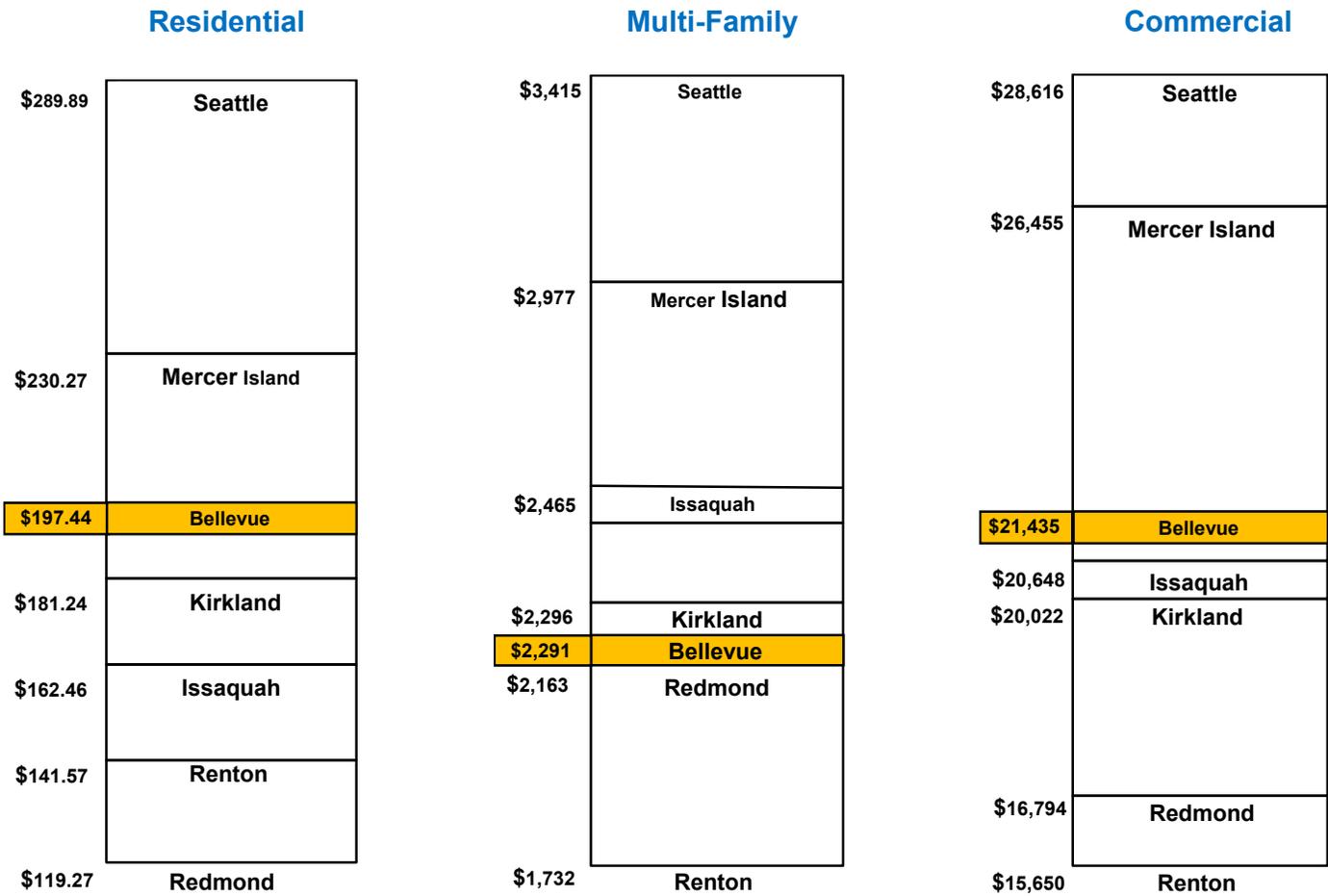
## Typical Monthly Residential Bill



## Typical Monthly Single-Family Residential Bill

Service Year		adopted 2021	adopted 2022	forecasted 2023	forecasted 2024	forecasted 2025	forecasted 2026
Water	Cascade	26.44	27.09	28.06	29.00	29.98	31.34
	Drinking Water Utility	45.77	47.65	49.89	52.30	54.98	57.95
	<b>Total</b>	<b>72.21</b>	<b>74.74</b>	<b>77.95</b>	<b>81.30</b>	<b>84.96</b>	<b>89.29</b>
	<b>Total Rate Increase</b>	<b>3.5%</b>	<b>3.5%</b>	<b>4.3%</b>	<b>4.3%</b>	<b>4.5%</b>	<b>5.1%</b>
Sewer	King County Wastewater Utility	48.07	50.74	56.88	56.88	63.63	63.63
	Wastewater Utility	40.90	42.23	43.16	45.46	46.69	49.89
	<b>Total</b>	<b>88.97</b>	<b>92.97</b>	<b>100.04</b>	<b>102.34</b>	<b>110.32</b>	<b>113.52</b>
	<b>Total Rate Increase</b>	<b>4.1%</b>	<b>4.5%</b>	<b>7.6%</b>	<b>2.3%</b>	<b>7.8%</b>	<b>2.9%</b>
Storm	<b>Total</b>	<b>28.78</b>	<b>29.73</b>	<b>31.01</b>	<b>32.41</b>	<b>33.87</b>	<b>35.63</b>
	<b>Total Rate Increase</b>	<b>3.5%</b>	<b>3.3%</b>	<b>4.3%</b>	<b>4.5%</b>	<b>4.5%</b>	<b>5.2%</b>
<b>Total Monthly Bill</b>		<b>189.96</b>	<b>197.44</b>	<b>209.00</b>	<b>216.05</b>	<b>229.15</b>	<b>238.44</b>
<b>Total Rate Increase - All Three Utilities</b>		<b>3.8%</b>	<b>3.9%</b>	<b>5.9%</b>	<b>3.4%</b>	<b>6.1%</b>	<b>4.1%</b>

## Water, Sewer, and Storm & Surface Water Utilities 2022 Combined Monthly Bill Comparison



Source: All rate information was obtained from municipality websites

### Comparisons based on the following criteria:

- **Water:** Consumption of 8.5 ccf (6,358 gallons)/month, 3/4" water meter
- **Wastewater:** Use of 7.5 ccf (5,610 gallons)/month, bill includes Metro charge
- **Storm:** 10,000 square-foot lot, moderately developed area

The following Supplemental References are included in this section:

## Asset Management

- Supplemental Reference 1—Asset Management

## Drinking Water Quality

- Supplemental Reference 2—Drinking Water Quality

## Growth

- Supplemental Reference 3—Growth Impacts
- Supplemental Reference 4—Bel-Red Area Transformation

## National Pollutant Discharge Elimination System (NPDES)

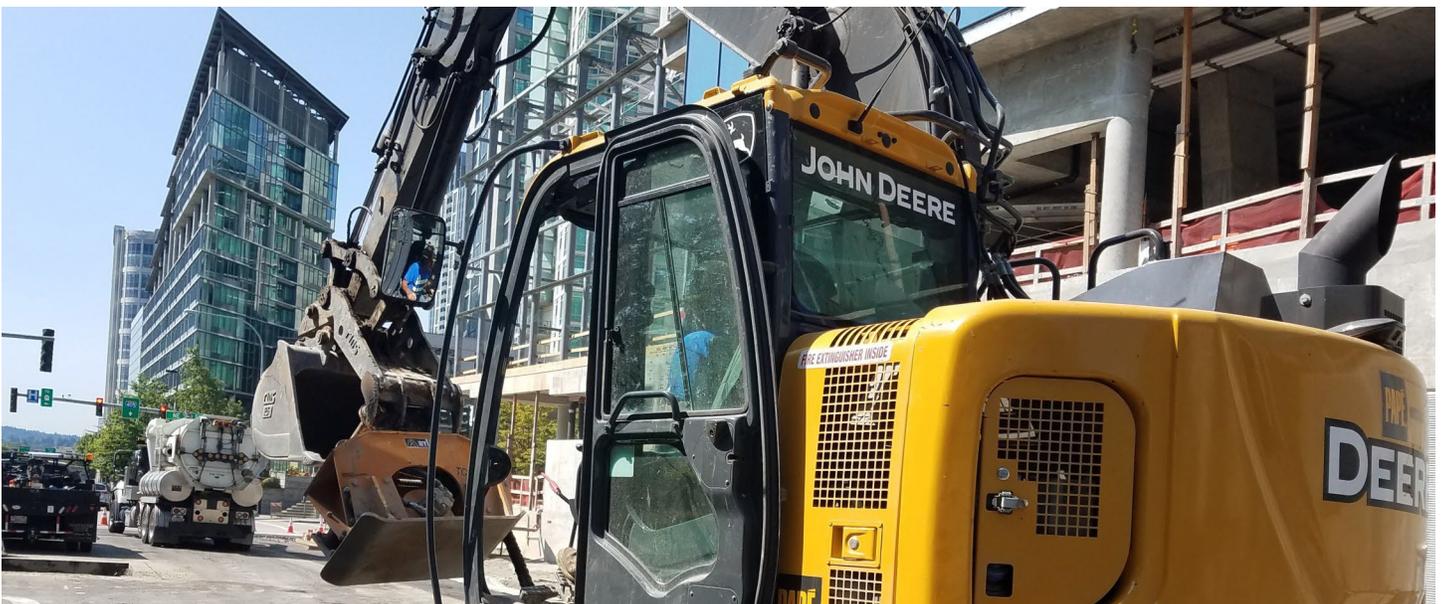
- Supplemental Reference 5—National Pollutant Discharge Elimination System Municipal Stormwater Permit

## Regulatory Mandates

- Supplemental Reference 6—Mandates

## Solid Waste

- Supplemental Reference 7—Solid Waste System



A new challenge for Bellevue Utilities is performing necessary maintenance and construction work downtown now that many residents have chosen to live here for the urban experience. New city residents don't like the noise at night or early morning, which used to be opportune times for utility work because retail/office buildings and streets were vacant. Utilities is working to balance these issues so that important work can be done with the least impact to downtown residents.

## Key Points

- The purpose of Utilities' Asset Management Program is to proactively manage more than \$3.5 billion worth of water, sewer, and stormwater assets to meet service goals and manage risk while minimizing total life-cycle cost to rate-payers.
- The City plans on spending \$27.6 million per year on Utility infrastructure rehabilitation/replacement over the next seven years.

Bellevue Utilities' Asset Management Policy, which relates to all Utility owned infrastructure, facilities, equipment, and related assets, supports the delivery of high-quality reliable drinking water, wastewater conveyance, storm and surface water services in an environmentally responsible and cost-competitive manner. The City's assets require significant investment in resources over their life cycles for Utilities to continue to deliver our services effectively.

## Asset Management Initiatives

- Adopting a life cycle approach to managing infrastructure assets
- Establishing service levels
- Providing optimal value through balancing cost, risk, and performance of assets
- Ensuring environmental and financial sustainability, while meeting desired service levels
- Endorsing evidence-based decisions utilizing robust software systems to manage and analyze data to make data-driven capital improvement and infrastructure operating decisions

Although Utilities has been executing its Asset Management Program since 2006, the department continues to look for new and better ways to improve the program and ultimately realize financial savings and/or reduced risk for its ratepayers. In 2021-2027, Utilities is delivering 213 projects/programs in the water, wastewater and stormwater areas, with the goal of improving our infrastructure to continue meeting service needs now and into the future.

## Strategic Asset Management Plan Development

In 2021, we completed a comprehensive evaluation and update to our Asset Management Program Plan, intended to:

1. Update our Asset Management strategy and program approach
2. Further develop Asset Management analysis tools
3. Update data and system requirements for Asset Management
4. Continue asset data collection and analysis

## Water/Wastewater/Stormwater Pipeline Life Cycle Cost Optimization Project:

Another important Asset Management project being undertaken in the 2021/2022 biennium is the completion of economic models for the water, wastewater, and stormwater utilities. These will be used to optimize pipe replacement/rehabilitation strategies. The models will assess and predict when our infrastructure assets will need to be rehabilitated or replaced and will calculate replacement costs to determine the optimal replacement/rehabilitation timing for each asset.

## Key Points

- Bellevue Utilities is a member of the Cascade Water Alliance. The City's drinking water is provided by Seattle Public Utilities via Cascade.
- The City does not perform treatment of the drinking water; therefore, drinking water quality is relatively unchanged from the point it is provided by Seattle Public Utilities to the point that we deliver it to our customers.
- For safety, we monitor drinking water quality thousands of times per year across our system to ensure public health is protected and to comply with regulatory requirements.

Bellevue Utilities' water distribution system provides drinking water to over 155,000 Bellevue residents, and a daytime population of about 260,000, each day. The system is subject to regulatory oversight under the federal Safe Drinking Water Act and the Washington Administrative Code. Bellevue's drinking water comes from the Tolt River and Cedar River watersheds, and fully meets all state and federal drinking water standards. From a system standpoint, Bellevue Utilities designs, operates, and maintains the city's water storage and distribution system to ensure delivery of high-quality, safe drinking water. This occurs in a number of ways:

- Ongoing inspection and cleaning reduce leaks and removes accumulated sediments from reservoirs
- Computer modeling of the distribution system helps keep water fresh by reducing the amount of time the water spends in the system
- Water quality testing stations located throughout the water system ensure citywide monitoring for potential contaminants
- A backflow prevention program makes every effort to prevent air or fluid contaminants from entering the city's water system through back-pressure or back-siphonage

## Challenges

- Drinking water concerns are increasingly spotlighted in the media, such as the lead issue in Flint, Michigan, or the *E. coli* outbreak on Mercer Island. In addition, potential health effects from new contaminants that may be found in source water are increasingly being researched by the public and the media (endocrine disrupting compounds, personal care products, microplastics, perfluorinated compounds, etc.). When these issues are prominent in the news, Utilities must prepare for and respond to numerous questions and concerns from customers, regulators, and the media. Compounding the challenge is the proliferation of advocacy groups, which use water quality goals to imply the City's water is unfit to drink, even though water quality regulations are being met.
- For many similar cities, aging infrastructure can result in more line breaks and a greater potential for contamination of the city's drinking water. Utilities has embarked on numerous projects designed to replace aging infrastructure with the expectation that these investments will help ensure the consistent delivery of high-quality drinking water. Projects include assessment and/or replacement of aging system components, such as pump stations, distribution main lines, sample stands, chlorine analyzers, and air valves.
- Consistently evolving regulatory mandates for water purveyors; specifically, a greater emphasis on backflow prevention, system monitoring, and reporting may result in budget and resource impacts.

## Key Points

- Planning for growth is coordinated throughout the city and is critical to ensure that adequate utilities capacity is available for new development.
- Utilities capacity improvements needed for growth, while initially rate-funded, are ultimately paid for by the benefited properties.
- Residential growth in the downtown area is presenting challenges with regard to the scheduling of maintenance work, construction, and garbage collection.

## Objective

To strategically plan utility capacity to meet the needs of anticipated growth throughout the city, to ensure that capital project costs directly associated with growth are borne by the benefited properties, and to balance utility services and necessary construction and maintenance work so it has the least impact on the growing residential community in the downtown area.

## Background

Increased densities downtown will significantly impact the drinking water, wastewater, and storm and surface water systems, as well as add thousands of new customers.

The growing number of residents moving into downtown Bellevue for an urban living experience is presenting new challenges for Utilities. Maintenance work, construction, and garbage collection that used to occur at night or early morning when office buildings and streets were mostly vacant is now causing challenges because these “off-hours” are when residents are sleeping. Bellevue Utilities is challenged with balancing downtown residential and business concerns with necessary operations, maintenance, and the continued provision of essential services.

Utility System Plans, the primary tools used to strategically plan for growth, are updated as follows:

- Washington State Department of Health requires an update to the drinking Water System Plan every 10 years.
- Washington State Department of Ecology requires the comprehensive Wastewater (Sewer) System Plan to be kept up-to-date to adequately address changing conditions and regulations. Due diligence requires that the Wastewater System Plan be updated every 6-to-10 years.
- The Storm and Surface Water System Plan is updated every 10 years.

## Challenges

- Planning is not an exact science; therefore, growth projections and resultant forecasted capacity requirements must be periodically reassessed to ensure Utilities is prepared for new growth and redevelopment.
- Growth-related capital projects are initially funded by rates. The project costs are then recovered over time from new development or re-development as it occurs.
- Utilities must work to balance the concerns, such as noise and traffic impacts, of new residential customers in the city center with the necessary delivery of services, construction, and maintenance.

# Supplemental Reference 4: Bel-Red Corridor Transformation

## Key Points

- The Bel-Red Corridor is undergoing a major transformation from an older, light industrial area to mixed use neighborhoods consisting of residential, office, and retail development close to two light rail stations.
- By 2030, the Bel-Red area is expected to generate 10,000 new jobs and 5,000 new housing units.
- New development in the Bel-Red Corridor will require water, wastewater, storm and surface water, and solid waste services and infrastructure.
- The Bel-Red Plan calls for stream/wetland restoration and improvements to surface water quality.

## Objective

To ensure that the city's utilities provide sufficient capacity to meet the needs of projected growth in the Bel-Red Corridor and to support environmental restoration to improve streams, habitat, water quality, stormwater run-off, and native landscaping.

## Background

The Bel-Red Corridor is a 900-acre area that stretches from I-405 to 148th Avenue NE, and from SR 520 southward to Bel-Red Road. When major employers began moving out of the area, the city worked with businesses, residents, and other stakeholders between 2005 and 2009 to come up with an overall plan for the growth and development of the Bel-Red area. In 2009, the City Council rezoned the area from light industrial to a mixture of retail, office, and residential uses, including mid-rises and high-rises. The vision for the Bel-Red Corridor became urban living and working – neighborhoods with residential, office, and retail close to light rail (two Sound Transit East Link stations are planned for this area – the Spring District/120<sup>th</sup> Station and the Bel-Red/130<sup>th</sup> Avenue Station). The plan also calls for parks, open space, stream and wetland restoration, and improvements to surface water quality.

The first project to break ground (on the old Safeway Distribution Center site at NE 12<sup>th</sup> Street and 120<sup>th</sup> Avenue NE) in September 2013 was the Spring District, a \$2.3 billion, mixed-use urban neighborhood development. The 36-acre site is currently well under development and includes apartments, office buildings, restaurants, and hotels to encompass 16 city blocks. It is close to Sound Transit's East Link Spring District 120<sup>th</sup> Station which will connect the Spring District to downtown Bellevue, Seattle, and Redmond. More developments are expected to come online, especially with light rail ready to roll in 2023.

## Challenges

Utilities workload will continue to escalate for the next 5-8 years with the transformation of the Bel-Red Corridor, from permitting projects, inspecting plans, identifying and resolving issues prior to construction, coordinating with private utilities, scheduling shut-offs of services to existing tenants, etc.

- Two of Bellevue's six East Link light rail stations are in process of being built in the Bel-Red Corridor, which requires permitting, inspections, and coordinating with multiple underground utilities.
- Although private developers will be installing much of the utility infrastructure, the city will eventually own the infrastructure, which will require operations and maintenance by Utilities.

## NPDES Municipal Stormwater Permit

### Key Points

- Everyday activities, such as fertilizing lawns, washing cars, and failing to scoop pet waste, can affect surface water quality.
- Protecting surface water quality requires a societal and cultural shift in resident behavior, combined with local, state, and federal actions. Bellevue has done and will continue to do its part in protecting water quality.
- One way to protect water quality is by continuing to implement the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit, a Federal Clean Water Act mandate that affects programs citywide to prevent water pollution.

### Objective

To coordinate citywide implementation of the NPDES Municipal Stormwater Permit to protect water quality and ensure compliance, while containing costs.

### Background

The NPDES Permit program is a requirement of the Federal Clean Water Act intended to protect and restore waters for “fishable, swimmable” uses. In Washington, the Environmental Protection Agency has delegated permit authority to the Department of Ecology. Bellevue is a “Phase II” permittee. The city’s current permit took effect August 1, 2019 and will expire on July 31, 2024. The permit authorizes the discharge of stormwater runoff from the city’s drainage systems into Washington’s surface waters (streams, rivers, lakes and wetlands) as long as the city implements permit-specified “best management practices” (BMPs) over the permit term. These BMPs reduce the discharge of stormwater pollutants to the “maximum extent practicable” and help protect water quality. The permit-specified BMPs are collectively referred to as the Stormwater Management Program and grouped under the following program components:

- Stormwater Planning
- Public Educations and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Operations and Maintenance
- Source Control Program for Existing Development

### Challenges

- A requirement of the current permit term (2019-2024) requires Bellevue to prepare a Stormwater Management Action Plan for one high prioritized basin. Bellevue is expanding on this effort through a series of Stormwater initiatives designed to holistically look at our watersheds across the City resulting in a Citywide Watershed Management Plan that can be used as a planning tool into the future.
- As a condition of the Washington Department of Ecology’s re-issued stormwater permit, Phase II municipalities, like the City of Bellevue, are required to develop and implement a Source Control program. The Source Control Program will regulate potential pollution sources at publicly- and privately-owned commercial and industrial properties. The new program will require additional resource commitments in the areas of surveying, inspecting, educating, tracking, and enforcement.

## Key Points

- Bellevue Utilities monitors potential future regulatory mandates and works to proactively influence their outcome when appropriate.
- Utilities uses resources effectively and efficiently to comply with current regulatory mandates.
- As Utilities faces new and stricter regulatory mandates, additional resources may be required to remain in compliance.

## Objective

To comply with local, state, and federal regulatory mandates while using resources effectively and efficiently, and to monitor potential mandates that may have an impact on the city and proactively influence their outcome when appropriate.

## Background

Regulatory mandates can affect Bellevue Utilities on numerous fronts and vary from fairly easy to comply with to more difficult with far-reaching consequences and impacts to resources. An example of a mandate that is fairly easy to comply with is the requirement concerning personal protective equipment for staff. An example of a mandate with more far-reaching consequences and impacts to resources is our compliance with the Federal Safe Drinking Water Act.

## Challenges

- Utilities continues to focus on backflow prevention compliance rates mandated by the Federal Safe Drinking Water Act and the State Department of Health. The number of backflow prevention assemblies (devices that protect drinking water from contamination due to backflow) now totals over 15,000. The state has announced and resourced to place an increased focus on high health hazard cross connections and will be examining programs in more detail in the next biennium. Stricter state and federal standards will likely be promulgated within the next five years and result in the need for expanded drinking water system monitoring activities that may require additional resources.
- Ensuring compliance with King County regulations related to fats, oils, and grease (FOG) is a growing focus of Bellevue Utilities. Lack of information, increasing demand for food services, and aging wastewater infrastructure are major drivers in the number of FOG-related discharges and resultant blockages. City-wide food services have expanded to over 1100 establishments with pretreatment obligations. Along with preventive maintenance in the sewer system, Utilities conducts outreach to restaurants and other customers to reduce FOG-related incidents and blockages.
- Continuing changes in the way we use, treat, and dispose of water will have impacts to the City in the future. Natural drainage practices and low-impact development are examples of “smart development” that are being increasingly codified in local, state, and federal regulations.

## Key Points

- Increased waste prevention and recycling by city customers will help extend the useful life of the Cedar Hills Regional Landfill and keep solid waste rates down.
- Utilities works with its solid waste collection hauler to ensure high-quality, efficient, reliable, and cost-effective solid waste collection services that protect public health and the environment.

## Objective

To provide a convenient, unobtrusive solid waste collection system that contributes to a healthy and pleasing cityscape in an environmentally sensitive way.

## Background

Through a contract with Bellevue, Republic Services provides garbage, recycling, and organics collection services to single-family, multifamily, and commercial customers, along with citywide litter control and customer service/billing services. Other items are collected at the curb and at Republic's Recycling Center in Bellevue.

The city's 71,000 annual tons of garbage is hauled to the Factoria and Houghton Transfer Stations, located in Bellevue and Kirkland, respectively, where it is consolidated and transported for final disposal to Cedar Hills. King County operates the Cedar Hills Regional Landfill and 10 transfer stations and drop boxes located throughout the county. Cedar Hills Regional Landfill is the only active landfill remaining in the county. Located in the Maple Valley area, Cedar Hills Regional Landfill has operated since 1965 and is projected to close in 2030 or later. Its useful life may be extended due to changes in daily landfill operations, the natural settling of the waste through decomposition, and ongoing waste prevention and recycling efforts. The county is currently exploring additional ways to maximize the capacity and lifespan of Cedar Hills Regional Landfill. The county also plans to consider the benefits of diverting a portion of the waste stream from Cedar Hills Regional Landfill to another disposal option before the landfill closes. Partial "early diversion" of waste from Cedar Hills Regional Landfill would further extend the life of the landfill and provide an opportunity to assess the feasibility and cost of other options before it is necessary to make a final decision on the successor facility to the Cedar Hills Regional Landfill.

In 1988, Bellevue entered into the Solid Waste Interlocal Agreement (ILA) with King County, under which the county provides solid waste planning, transfer, and disposal services. The ILA runs through 2028, and the city has chosen to enter into an amended and restated ILA through 2040. The current Comprehensive Solid Waste Management Plan, lays out a road map for the county's entire solid waste system, including the transfer and disposal system, waste prevention and recycling goals, and service standards for a 6-year planning period.

## Challenges

- Implementing waste prevention and recycling strategies that help extend the useful life of the Cedar Hills Regional Landfill.
- Planning for how the city will improve its overall recycling rates.



Bellevue Utilities' Stream Team volunteers join forces on Earth Day to add native plants to the banks of Kelsey Creek. Join us by emailing [streamteam@bellevuewa.gov](mailto:streamteam@bellevuewa.gov) or calling 425-452-5200.

**Information**  
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For alternate formats, interpreters, or reasonable accommodation requests please phone at least 48 hours in advance 425-452-5215 (voice) or email [jguthrie@bellevuewa.gov](mailto:jguthrie@bellevuewa.gov). For complaints regarding accommodations, contact City of Bellevue ADA/Title VI Administrator at 425-452-6169 (voice) or email [ADATitleVI@bellevuewa.gov](mailto:ADATitleVI@bellevuewa.gov). If you are deaf or hard of hearing dial 711. All meetings are wheelchair accessible.