

MEMORANDUM

DATE: January 4, 2024
TO: Environmental Services Commission
FROM: Andy Baker, Utilities Fiscal Manager
Jaclyn Knoth, Utilities Asset Manager
SUBJECT: Asset Renewal Forecast Update

ACTION REQUIRED

No action is required by the Commission at this time. Staff will provide an update on the Asset Renewal Forecast.

BACKGROUND / ANALYSIS

Bellevue Utilities Department provides drinking water, wastewater, and storm and surface water services to our community. The infrastructure assets that support the delivery of these services require ongoing operation, maintenance, and renewal throughout their life cycles. Asset management is a strategy utilized by Bellevue Utilities to optimize performance while balancing risk and minimizing life-cycle costs of infrastructure assets. Bellevue has a long-standing history of implementing asset management best practices to achieve Departmental priorities.

As part of its asset management and financial management, Bellevue Utilities maintains a 75-year outlook of its forecasted capital needs for infrastructure. This forecast provides the analytical basis to inform the City's Renewal and Replacement strategy, which Bellevue Utilities first implemented in 1995 based on Council direction to ensure the sustainable funding of utility infrastructure replacement, to promote intergenerational equity, and to provide more stable rates for utility customers over the long term. This 75-year forecast is developed based on the best available information and best practices for forecasting capital needs.

The "Renewal and Replacement Forecast Update" project represents a major update to this forecast, which was last comprehensively updated in 2013. The Environmental Services Commission received an update regarding the project on May 4, 2023. This update includes evaluation of both the renewal and replacement needs and the cost of that renewal and replacement for an exhaustive list of all the capital infrastructure assets of Bellevue Utilities, including:

- Over 1,525 miles of pipe across water, sewer, and storm utilities.
- 69 pump, lift, and flush stations, including evaluation of over 1,300 mechanical, electrical, telemetry, and structural equipment sub-components of the stations.
- 149 pressure relief valves, 14 water supply inlet stations, and 24 reservoirs.
- Over 13,000 manholes, 600 cleanouts, and 5.7 miles of force mains.
- 11 regional detention facilities, over 350 water quality treatment and flow control facilities, and almost 22,000 catch basins and inlets.

The project evaluates each of these assets in their respective groupings as "Asset Classes", and further within those classes as "cohorts" based on similar age, material type, or other characteristics. To determine operational *risks* and prioritize renewal and replacement actions the project considers the function, health,

and impacts of failure specific to each asset class and produces a data driven prioritization, renewal timing, and renewal method recommendation for each asset.

In addition to informing when and how assets should be managed, replacement costs for each of these assets has been updated using a combination of Bellevue-specific recent actual cost history, comparable construction bid history from local peer utilities, as well as updated planning, design, and contingency costs.

The forecasted asset renewal plan is used to inform the Bellevue Utilities Capital Investment Program (CIP) as well as utility rate planning. Utilities maintains long-term financial models for each fund, with a forecast matched to the duration of the asset renewal forecast. These financial models include consideration of inflation, construction cost escalation, customer growth, and increases to operating expenses, in addition to the long-term capital needs identified in the asset renewal forecast. Collectively, the operating and capital needs for each utility are referred to as their revenue requirements. Council-adopted financial policies guide the development of a rate forecast based on meeting those revenue requirements ensuring minimum fund balances are met, and smoothing rate adjustments over a 20-year or longer period.

Through this long-term approach to planning for future needs, Bellevue Utilities can responsibly prioritize asset renewal and replacement actions, while establishing a rate plan that both reduces the risk of rate spikes and reduces the potential for current customers to either subsidize or be subsidized by future generations.

POLICY ISSUES

Council-adopted policies guide Bellevue Utilities' asset management and capital planning practices.

- Comprehensive Plan Policy UT-2: *Build and manage city-owned utility infrastructure assets to reduce the likelihood of risks to public safety, property and environment, and disruption due to asset failure.*
- Comprehensive Plan Policy UT-10: *Emphasize cost effective management of utility systems over their lifetime, including planning for their renewal and replacement, balancing risk, and maintaining desired service levels. Forecast future capital and maintenance costs and manage rates so that customer rate revenue funds the cost of ownership equitably across generations.*

Council-adopted policies guide the development of and planning for the renewal and replacement fund.

- Waterworks Financial Policy I.C: *All utility system plans shall [...] consider life cycle costs to identify funding needs.*
- Waterworks Financial Policy II.A: *Financial planning for long-term capital investments shall be based on principles that result in smooth rate transitions, maintain high credit ratings, provide for financial flexibility and achieve inter-generational equity.*
- Waterworks Financial Policy II.B:
 - *Funding for capital investments shall be sustained at a level sufficient to meet the projected 20 year (or longer) capital program costs.*
 - *Funding from rate revenues shall fund current construction and engineering costs, contributions to the Capital Facilities Renewal and Replacement (R&R) Account, and debt service, if any.*
 - *Inter-generational equity will be assured by making contributions to and withdrawals from the R&R Account in a manner which produces smooth rate transitions over a 20 year (or longer) planning period.*
 - *On an annual basis, funding should not fall below the current depreciation of assets expressed in terms of historical costs less any debt principal payments.*
- Waterworks Financial Policy II.D.3: *The R&R Account will accumulate high levels of funds in advance of major expenses. These funds will provide rate stability over the long-term when used for this purpose and should not be used for rate relief.*

FISCAL IMPACT

The information presented today has no fiscal impact in the current biennium. The potential impact of these findings will be considered as part of the 2025-2026 budget process.

ATTACHMENTS & AVAILABLE DOCUMENTS

- A. May 5, 2023 Presentation to ESC: Asset Management Program Update
<https://bellevue.legistar.com/View.ashx?M=AO&ID=131421&GUID=c6505e6a-5c12-4529-86d4-3b2527f1a87f&N=QXNzZXQgTWFuYWdlbWVudCBQcm9ncmFtIFVwZGF0ZSBQcmVzZW50YXRpb24%3d>