



PROTECTING THE WATERWAYS THAT CONNECT US

CHESAPEAKE BAY COMMISSION QUARTERLY MEETING

JANUARY 8, 2026

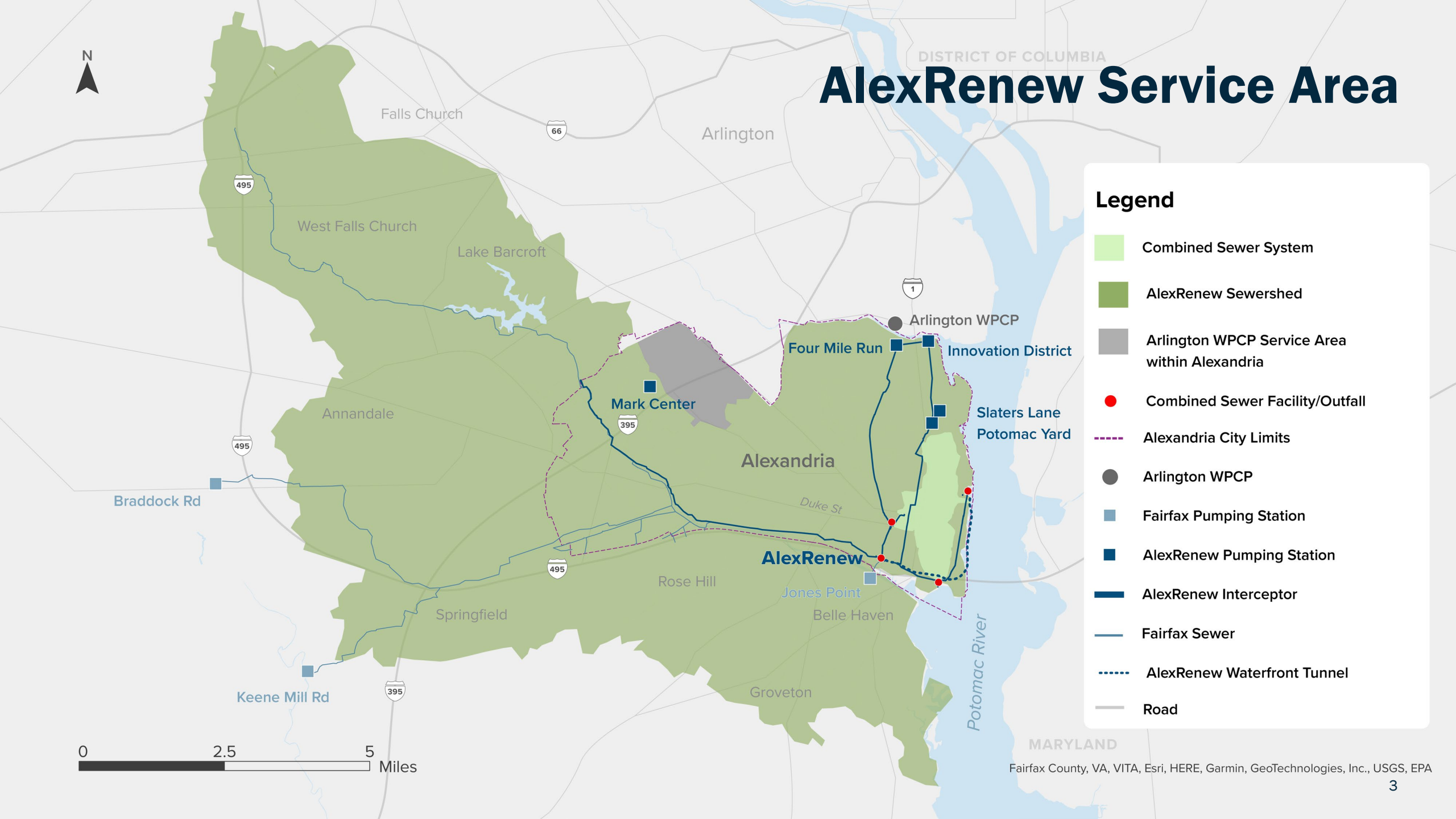
AlexRenew

OVERVIEW

- Independent public authority governed by a 5-member citizen Board
- Manages wastewater only with permit limits set by the Chesapeake Bay TMDL
- Wet weather facility with major CSO program
- Constrained site makes expansion challenging
- Recovers revenue solely through sewer rates from residential population



AlexRenew Service Area



Legend

- Combined Sewer System
- AlexRenew Sewershed
- Arlington WPCP Service Area within Alexandria
- Combined Sewer Facility/Outfall
- Alexandria City Limits
- Arlington WPCP
- Fairfax Pumping Station
- AlexRenew Pumping Station
- AlexRenew Interceptor
- Fairfax Sewer
- AlexRenew Waterfront Tunnel
- Road

History of AlexRenew's Wastewater Plant

Since beginning operations in 1956, AlexRenew has upgraded its wastewater treatment plant several times to meet emerging water quality regulations. Most notably, the plant was upgraded between 1999 and 2015 to meet effluent limits established by the Chesapeake Bay TMDL.



1970-1980 | 54 MGD upgrades



2009-2015 | Enhanced nutrient upgrades

1950
Virginia Water and
Waste Authorities Act

1972
Clean Water Act

1987
Chesapeake Bay
Agreement

1997
Potomac Embayment
Standards

2010
Chesapeake Bay
TMDL

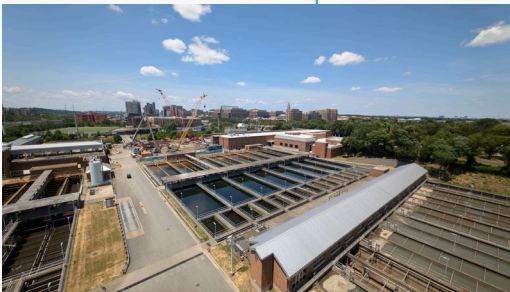
2017
Combined Sewer
Overflow Law



1952-1956 | Original plant construction



1999-2005 | Biological nutrient removal upgrades

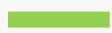


2018-2026 | Combined sewer overflow program

RiverRenew OVERVIEW



Four outfalls overflow about **70** times each year, resulting in **140 million gallons** of combined sewage entering our waterways



Hooffs Run Interceptor



Waterfront Tunnel

Project Benefits

<4

overflow events
each year

120

million gallons
of combined sewage
captured annually

80-99%

bacteria
reduction



Sets the stage for a fishable,
swimmable future for the
Potomac River



AlexRenew



Outfall
003



Outfall
004



Outfall
001



Outfall
002

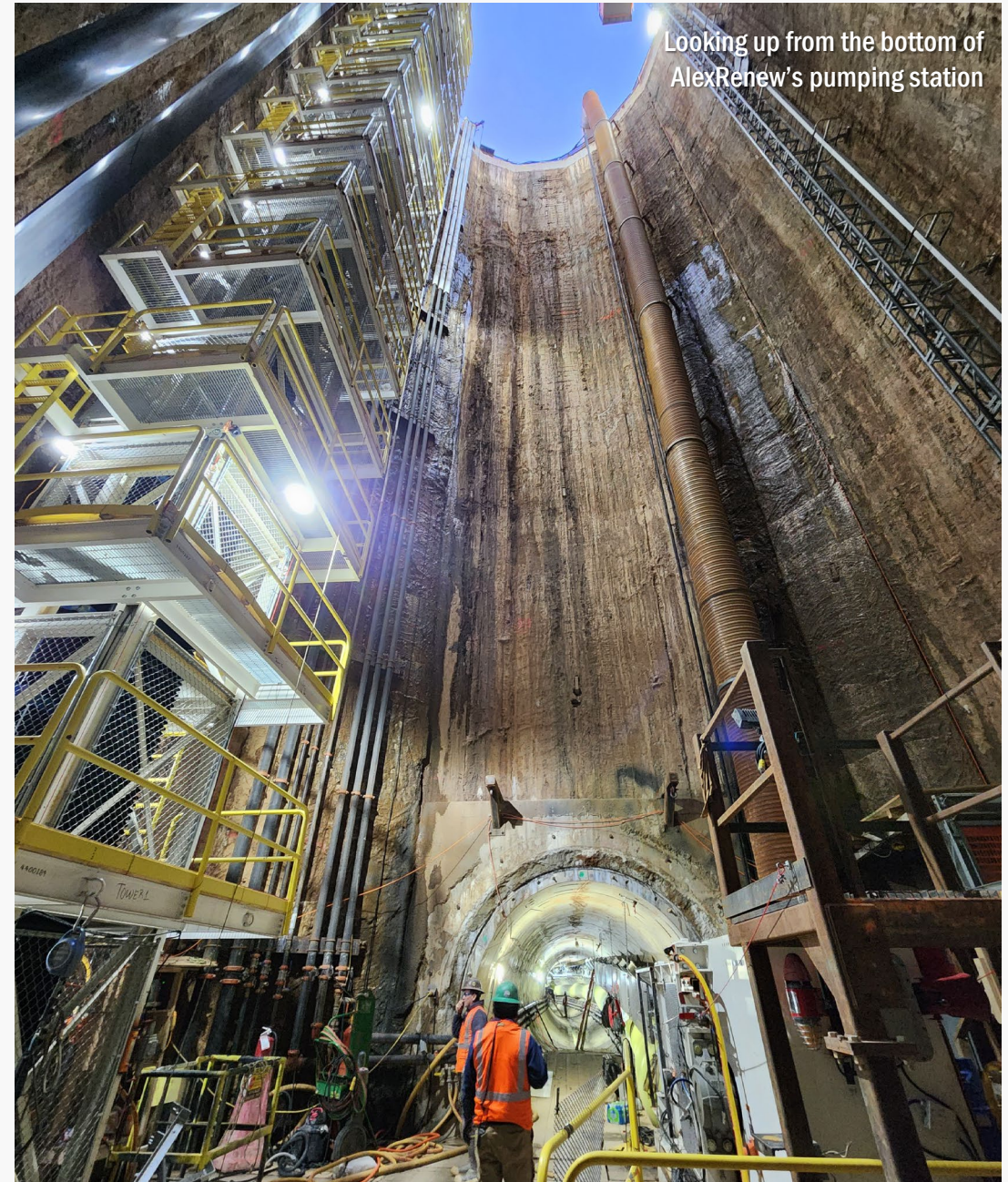
Waterfront Tunnel



AlexRenew's completed 2.2-mile-long Waterfront Tunnel



Hazel the Tunnel Boring Machine arrives to AlexRenew

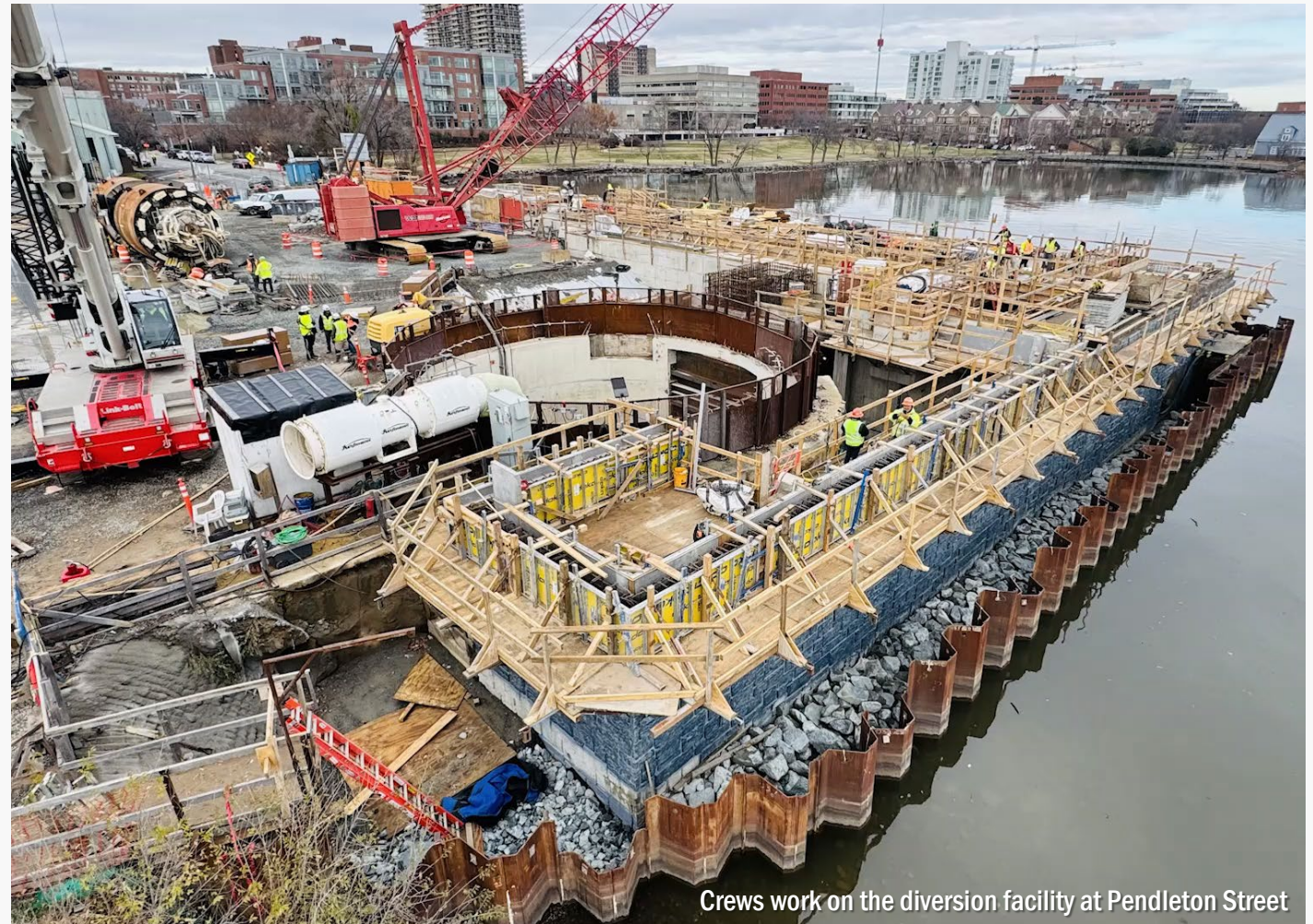


Looking up from the bottom of AlexRenew's pumping station

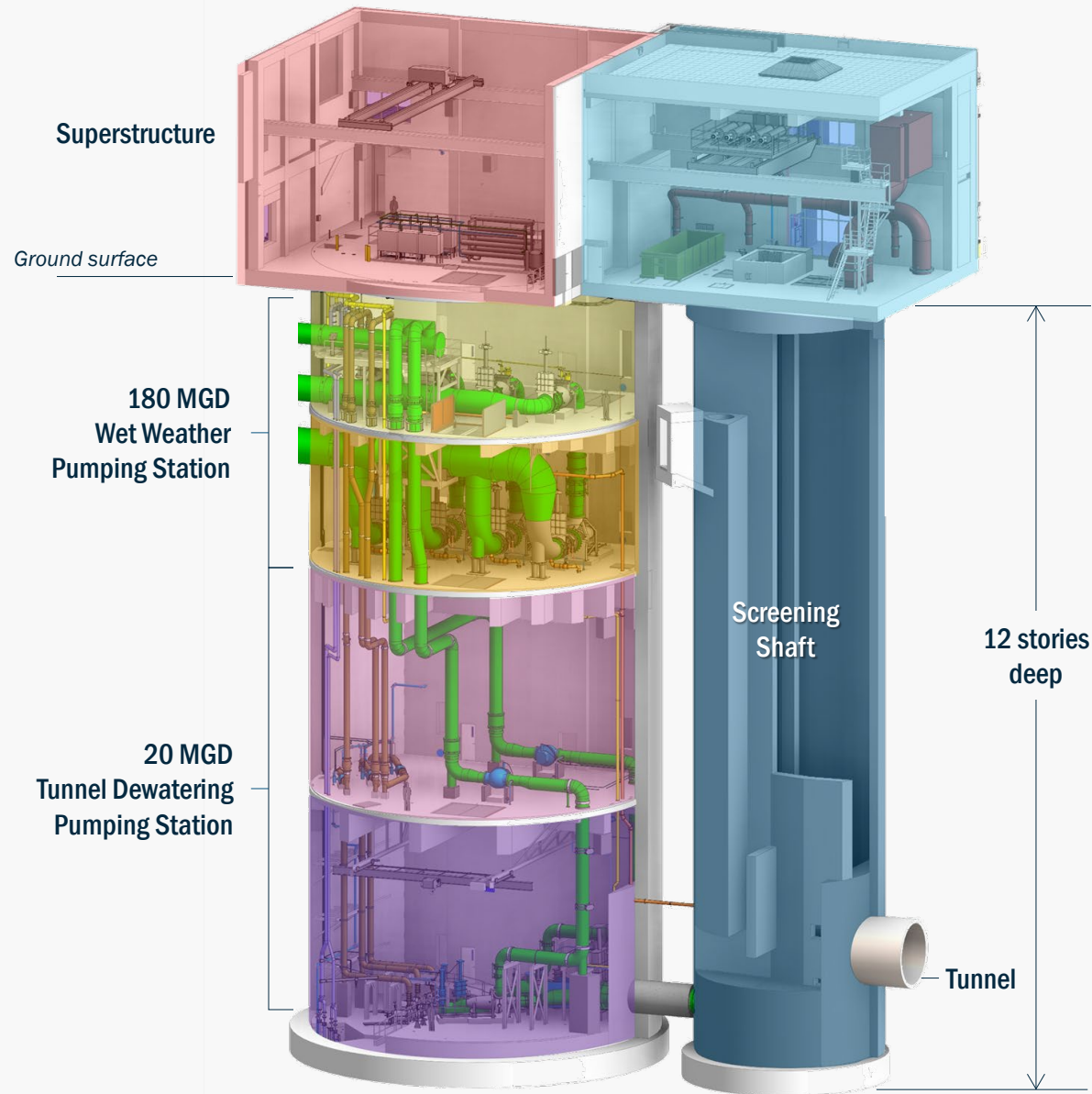
Diversion Facilities



Inside the diversion chamber at Royal Street



Crews work on the diversion facility at Pendleton Street



3D cutaway of the new RiverRenew Pumping Station

Pumping Station



Rendering of the new RiverRenew Superstructure

Leaving a Lasting Legacy



▲ McArthur Myers unveils new wayfinding signs



▲ Sharing the RiverRenew story through children's books



▲ RiverRenew Tunnel Completion Open House in April 2024

phaseforward

AlexRenew's PhaseForward program includes a series of major upgrades to meet evolving regulatory requirements and strengthen the resilience of its infrastructure. The program started in 2024 and is anticipated to be complete in 2033.



▲ Biosolids Diversification

Upgrades to diversify the end use of AlexRenew's biosolids
\$355 million

Headworks Renewal ►

Improvements to preliminary treatment equipment that met its useful life
\$127 million



◀ Nutrient Reduction

Upgrades to further reduce nitrogen loads, allowing continued growth in our community
\$190 million



◀ Process Optimization

Installation of new equipment to remove ammonia and enhance nitrogen removal
\$10 million

AlexRenew Costs for Effluent Nitrogen Removal

Prior to nitrogen removal



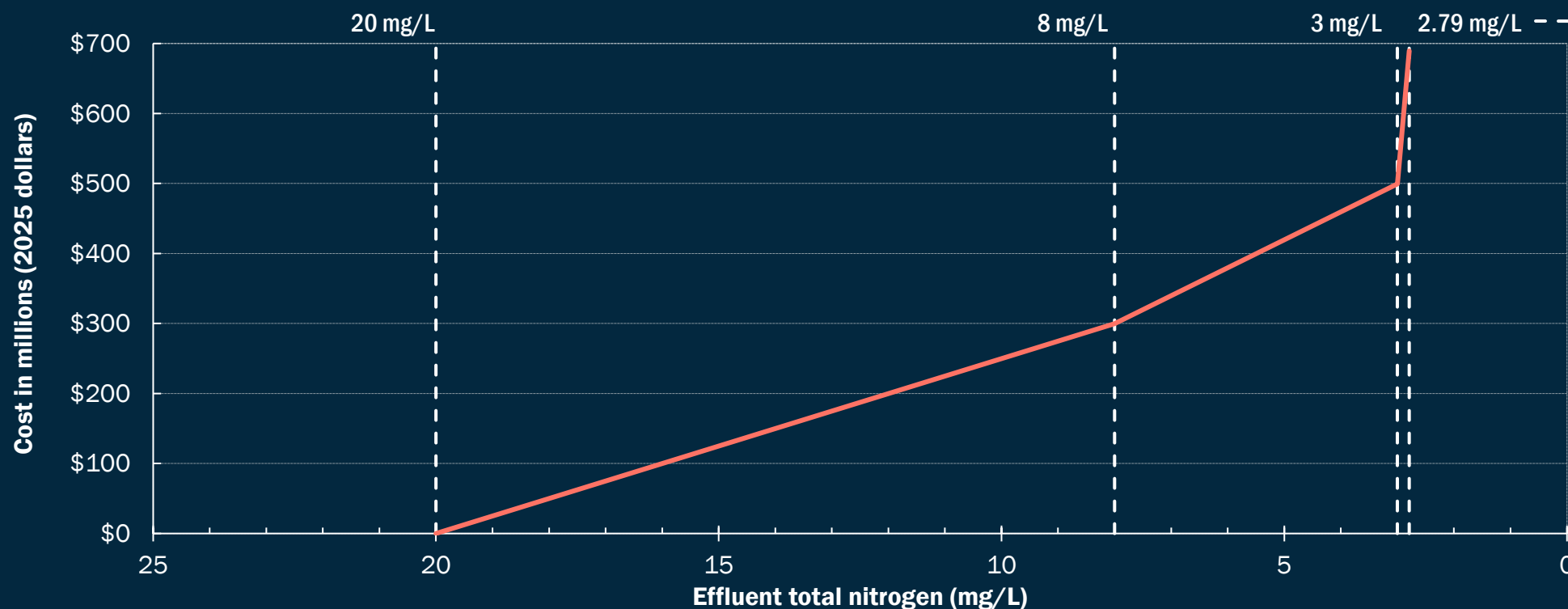
Biological nutrient removal upgrades



Enhanced nutrient upgrades

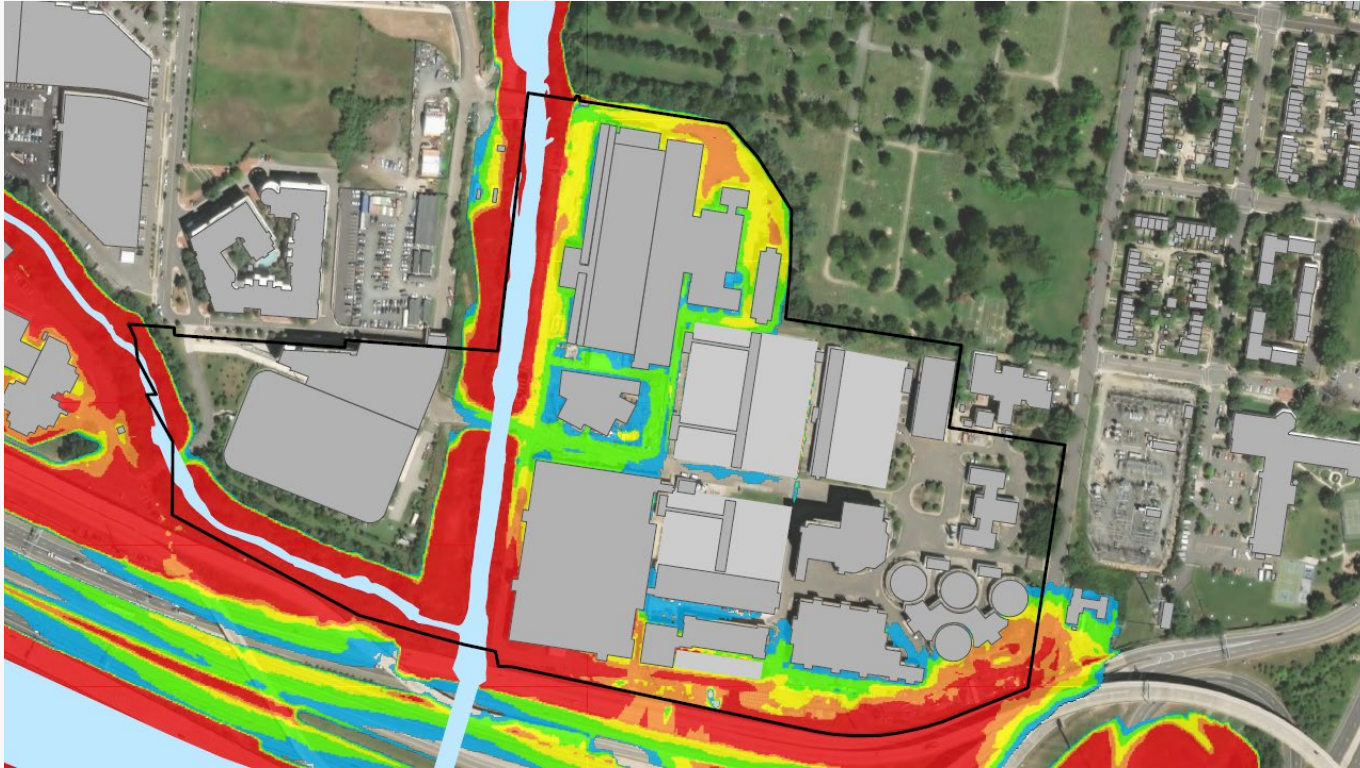


4 MGD Capacity Expansion



To support growth in Alexandria, AlexRenew will need to operate beyond the knee of the nitrogen reduction curve where additional reductions demand high cost for marginal gains.

Mitigating the Impacts of Climate Change



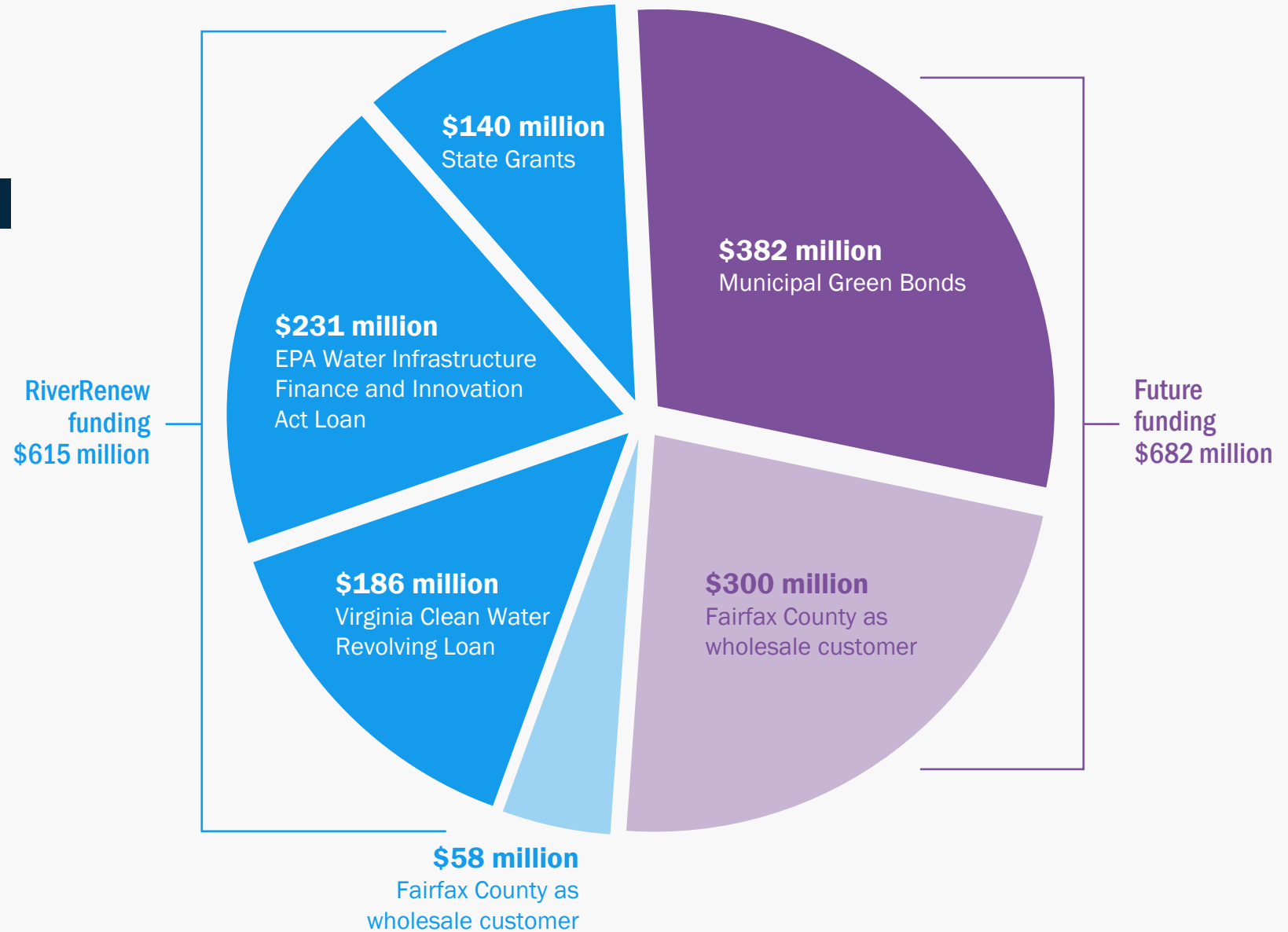
As part of ongoing upgrades, AlexRenew is designing resiliency into its systems to mitigate current and future flooding impacts.

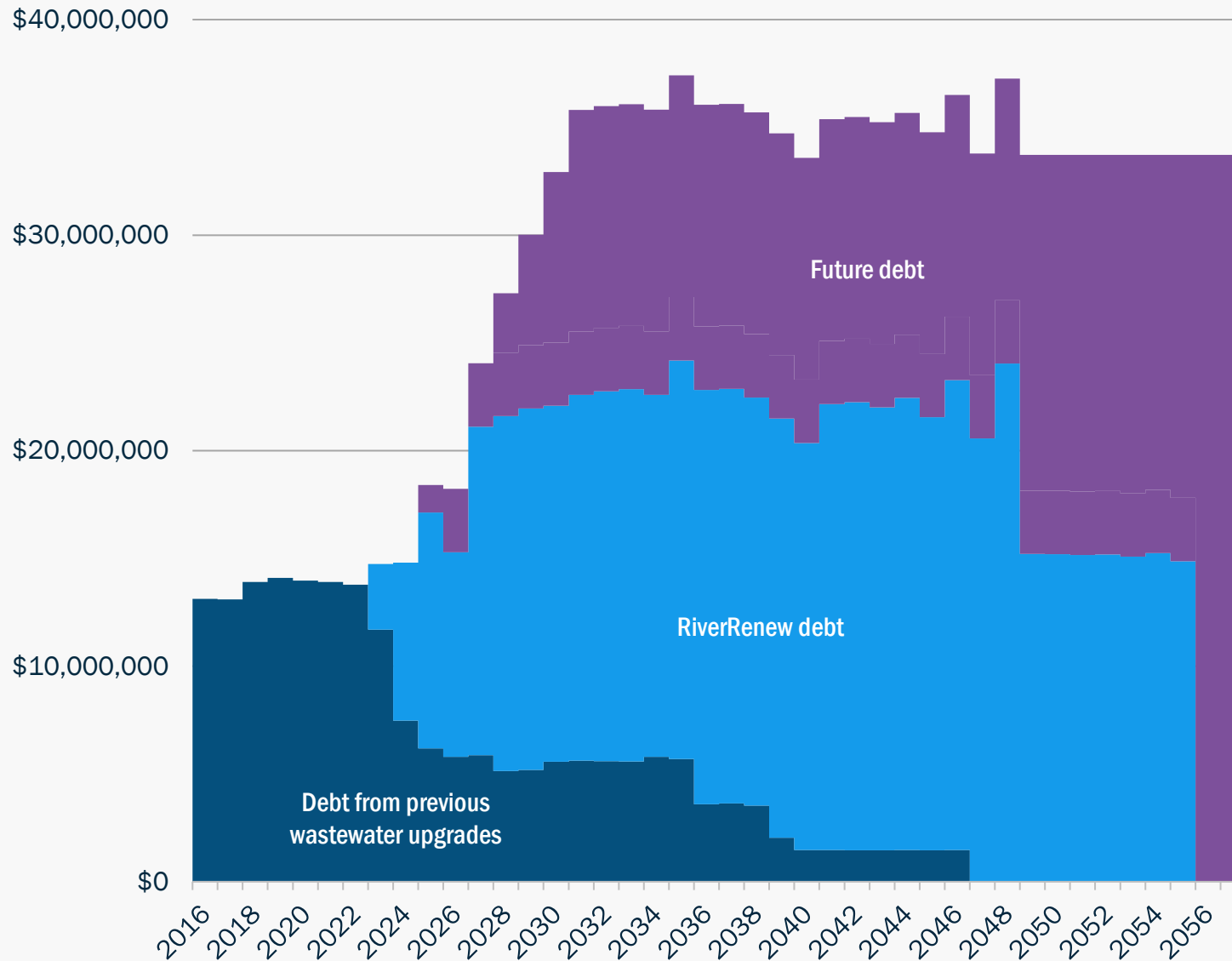


AlexRenew depends on a dedicated workforce to operate its facilities 24/7/365 – both indoors and outdoors. As part of its climate study, AlexRenew is analyzing the impacts of a hotter future on its staff and equipment.

AlexRenew Capital Project Funding 2018-2033

To fund its major capital projects, AlexRenew relies on loans from state and federal programs and municipal public bonds – strategically securing the funding option that offers the lowest interest rate to minimize debt and impact to ratepayers.



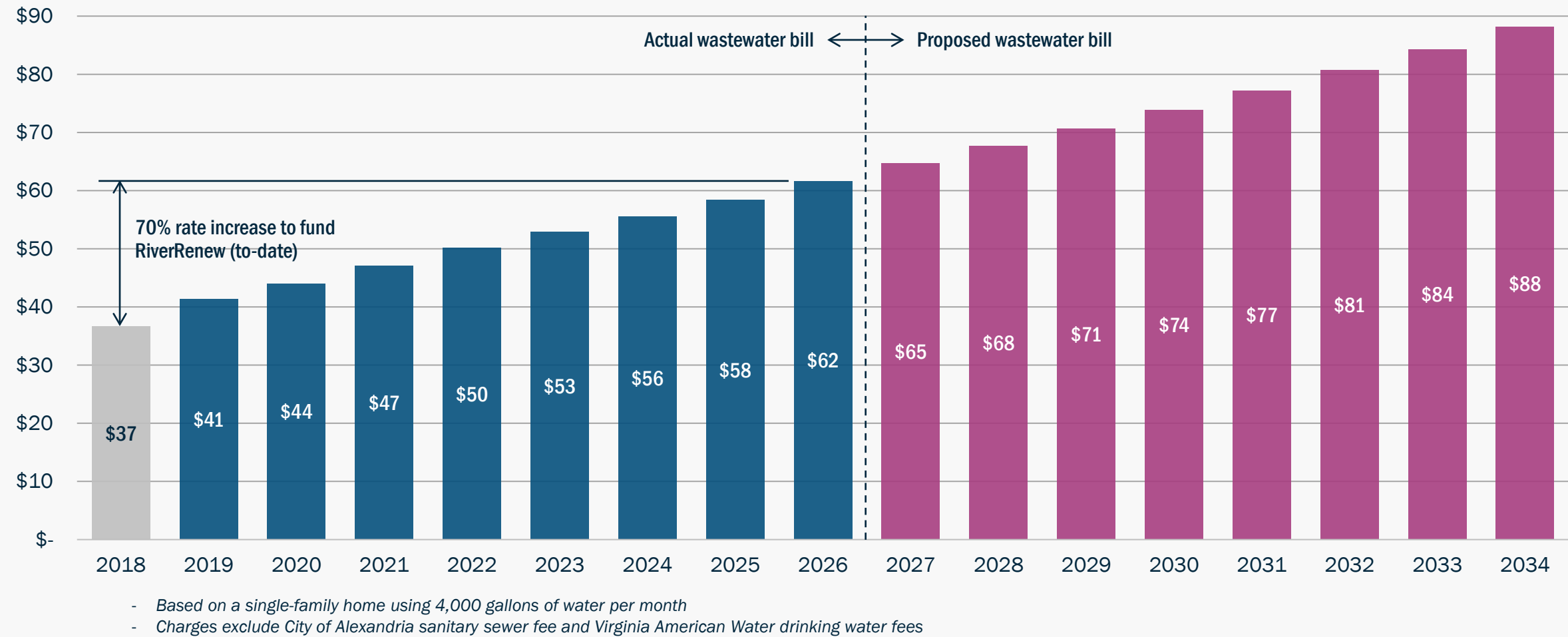


AlexRenew Debt Service

AlexRenew's annual debt service has more than doubled since 2023, reflecting the scale of required capital investments. Because customer rates are the sole source of repayment, these costs are borne directly by ratepayers and drive continued upward pressure on rates.

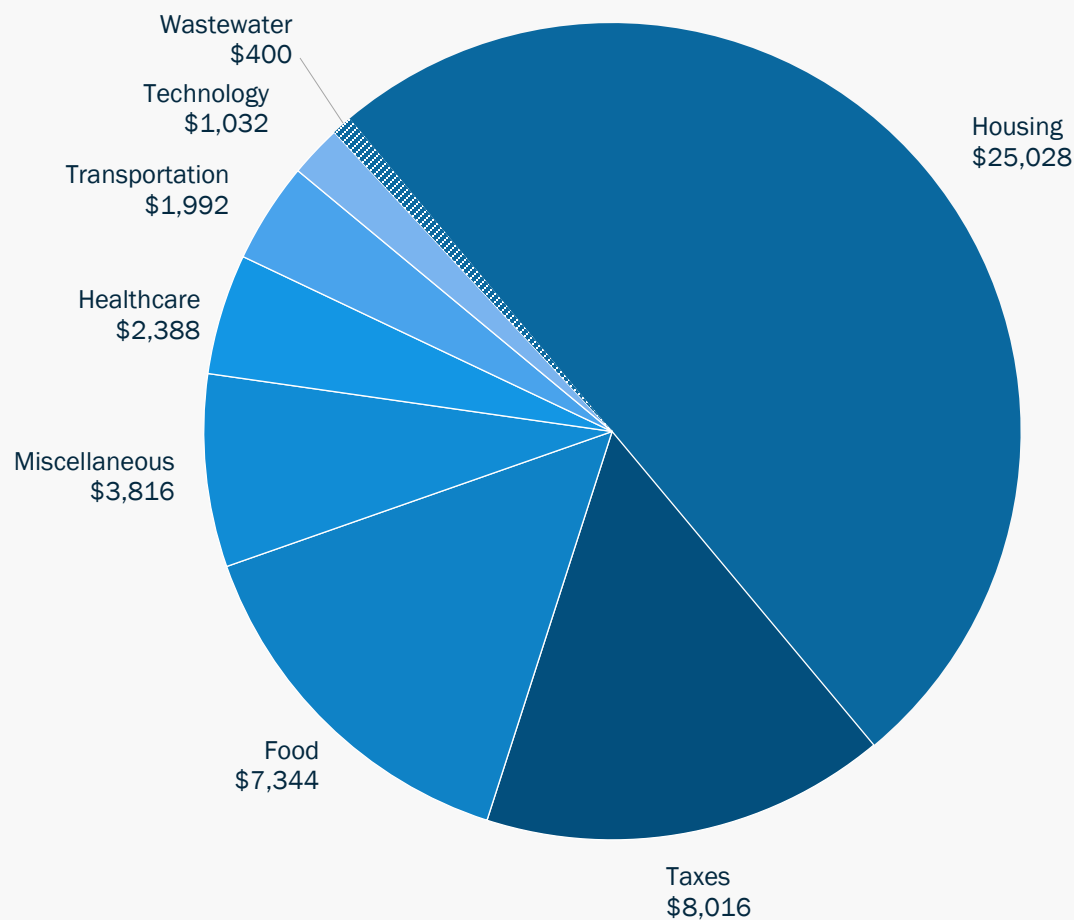
AlexRenew Wastewater Bill

AlexRenew’s monthly wastewater bill has increased sharply to pay for RiverRenew. Additional bill increases are proposed to pay for future debt associated with improvements to AlexRenew’s wastewater plant.



Affordability in Alexandria, VA

The basic household survival budget (no savings or extra) for one-person in Alexandria, VA is \$50,000.
Most of these households are considered burdened by housing costs.

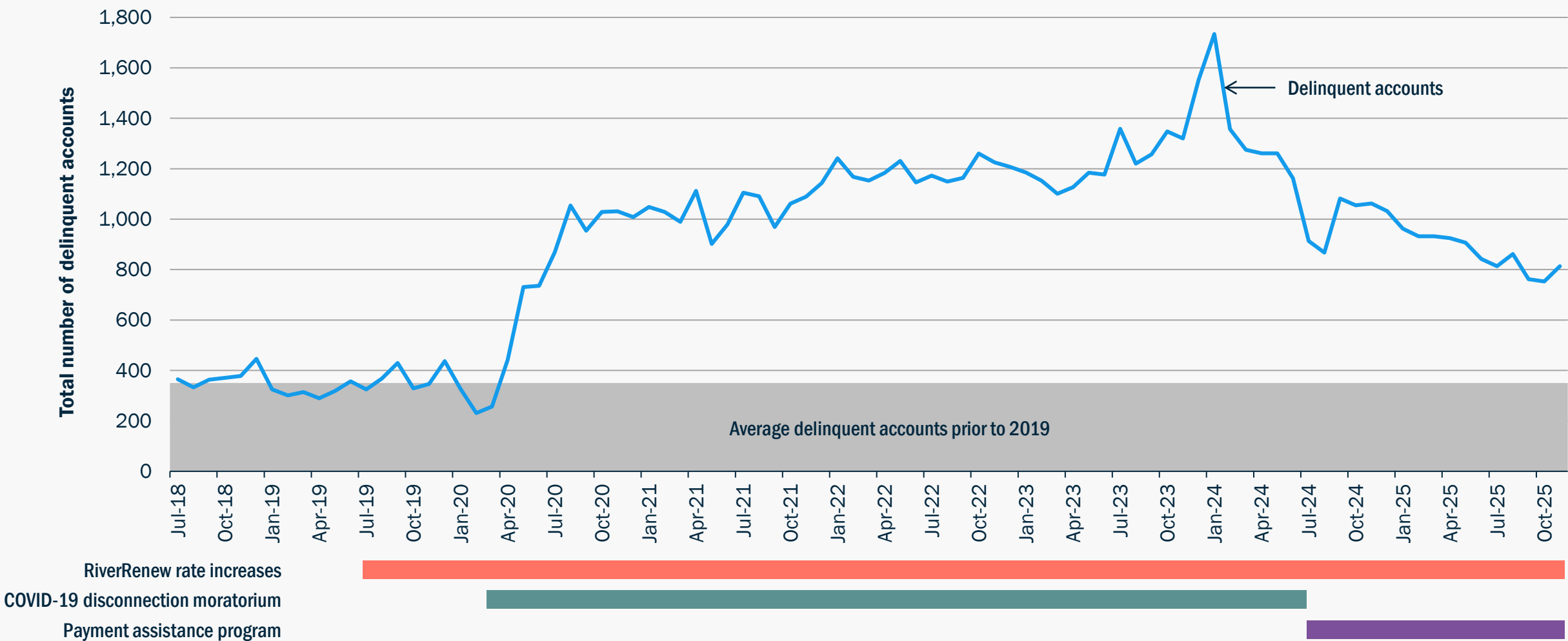


Basic household survival budget	\$50,016
Full time hourly wage required	\$25.01
Area Median Income	\$99,700

- Values denote annual expenditures
- Source: <https://www.unitedforalice.org/household-budgets/Virginia>, 2023 data
- Miscellaneous: Cost overruns estimated at 10% of the budget, excluding taxes, to cover one-time unanticipated costs within the other categories

AlexRenew Customer Delinquencies

AlexRenew has seen a significant increase in customer delinquencies due to the COVID-19 pandemic and bill increases associated with RiverRenew.





AlexRenew's Lifeline Emergency Assistance Program (LEAP) is designed to help AlexRenew customers having trouble paying their sewer bill. LEAP is funded through charitable donations and non-rate revenue, protecting affordability while maintaining fiscal responsibility.

180 customers assisted

\$143,000 distributed

\$325,000 raised

since July 2024

