



1800 Limerick Street  
Alexandria, VA 22314  
alexrenew.com

**Board of Directors**  
John Hill, Chair  
James Beall, Vice Chair  
Adriana Caldarelli, Sec’y-Treas  
Mark Jinks  
Rebecca Hammer  
**Chief Executive Officer**  
Justin Carl, PE  
**General Counsel**  
Amanda Waters

Tuesday, February 20, 2024 – 6:00 p.m.

## Regular Board of Directors Meeting Agenda

**In-person:** AlexRenew Environmental Center (1800 Limerick St)  
Ed Semonian Boardroom, Room 600

**Virtual:** [Microsoft Virtual Events Powered by Teams](#)

Public comments will be received at the meeting. If you wish to speak during public comment, please contact the Board Executive Assistant at (703) 721-3500 ext. 2260 or [lorna.huff@alexrenew.com](mailto:lorna.huff@alexrenew.com) in advance. Submission of written statements is encouraged and may be emailed to the Board Executive Assistant.

A recording of the meeting will be posted on [alexrenew.com](http://alexrenew.com) after the meeting.

No.	Item	Presenter	Action
1.	Call to Order (6:00 p.m.)	Chair	
2.	Approval of Agenda (6:02 p.m.)	Chair	Approval
3.	Public Comment Period (6:05 p.m.)	Chair	
4.	Consent Agenda (6:10 p.m.) a. Minutes from January 16, 2024, meeting (Tab 1)	Chair	Approval
5.	Member and Committee Updates (6:15 p.m.) a. Community Meetings (Tab 2) b. Finance & Audit Committee (as needed) c. Governance Committee (as needed) i. Policies: Committees, Financial	Chair	Information
6.	Unfinished Business (6:20 p.m.) a. AlexRenew’s Winter Quarter Average Discussion (Tab 3) b. Review AlexRenew Strategic Plan 2024-2029 (Tab 4)	Chair Mr. Carl	Information
7.	New Business (6:40 p.m.) a. Overview of AlexRenew’s Cybersecurity Framework (Tab 5) b. Request for Board Member Participation on the 2024 Ellen Pickering Environmental Excellence Award Selection Committee (Tab 6)	Chair Mr. Roberts Mr. Robertson	Information
8.	AlexRenew Monthly Outcomes Update (7:00 p.m.) (Tab 7)	Mr. Carl	Information
9.	Closed Session: Discussion of a personnel matter (7:10 p.m.)	Chair	
10.	Adjourn (7:45 p.m.)	Chair	

Times shown in parentheses ( ) are approximate start times and serve as guidelines

If you need an interpreter, translator, materials in alternate formats or other accommodations to access this service, activity or program, please call (703) 721-3500 ext. 2260 at least three business days prior to the meeting.

A Finance and Audit Committee meeting is scheduled for Monday, March 18, 2024. The next Regular Board of Directors meeting is scheduled for Tuesday, March 19, 2024.

Minutes of the 914<sup>th</sup> Meeting  
*“Celebrating Over 60 Years of Continuous Environmental Excellence”*  
AlexRenew Board of Directors  
6:00 p.m., Tuesday, January 16, 2024

On Tuesday, January 16, 2024, the AlexRenew Board of Directors held its regular meeting in the Edward Semonian Board Room at 1800 Limerick Street, and broadcast via Microsoft Teams, with the following present:

Members: Mr. John Hill, Chair  
Mr. James Beall, Vice Chair  
Ms. Adriana Caldarelli, Secretary-Treasurer via Microsoft Teams  
Mr. Mark Jinks, Member  
Ms. Becky Hammer, Member

Staff: Mr. Justin Carl, General Manager/Chief Executive Officer  
Ms. Amanda Waters, General Counsel and Deputy General Manager  
Mr. Lake Akinkugbe, Director of Finance  
Mr. Matt Robertson, Director of Communications  
Ms. Lorna Huff, Executive Assistant to the Board

Consultants: Mr. Thierry Boveri, Raftelis  
Ms. Diana Ling, Raftelis

Fairfax County Representative: Mr. Shahram Mohsenin, Chief Wastewater Division

City Representative: Ms. Erin Bevis-Carver, Chief T&ES/Sanitary Infrastructure Division

1. Call to Order

The Chair called the meeting to order at 6:00 p.m.

2. Approval of Agenda

The Chair requested that members review and approve the agenda. Mr. Beall moved, and Ms. Hammer seconded. The Board unanimously approved.

3. Public Comment Period

There being no members of the public present and wishing to speak, the Chair closed the public comment period.

4. Consent Agenda

Members reviewed the Consent Agenda which contained the Minutes of the December 19, 2023, meeting, and updates to the Board policy on Procedures for the Procurement of Construction Management and Design Build. There being no changes to the Minutes or Policy, the Chair requested a motion to approve the Consent Agenda. Ms. Hammer moved, and Mr. Jinks seconded. The Board unanimously approved.

## 5. Member and Committee Updates

### a. Community Meetings

The Chair reported that due to the proposed arena in Potomac Yard, there is not much discussion on AlexRenew items. The Chair noted some discussion in the HOA meetings in Rosemont and Del Ray. The Chair also provided some content to the discussion with the pump station.

### b. Finance and Audit Committee

Mr. Jinks reported that the February 12 meeting would begin the budget and rates process.

### c. Governance Committee

Mr. Beall reported that he and the Finance Committee Chair would meet to discuss the updates to the Financial Policy.

## 6. Unfinished Business

### a. Recap and Action Items from 2024 Board Retreat

The Chair reported the 2024 retreat was excellent in terms of productivity and collaboration. Members' Clifton Strengths survey results have been incorporated into the Board meeting set up. Members developed AlexRenew's 2060 Vision, Mission, and Goals statement. The document is succinct, and the Chair commended the facilitator (Ms. Sally Magee) and the process. The Chair recognized Mr. Beall, who reported no changes from the Governance Committee nor from other members. The Chair requested a motion to accept the 2060 Mission and Vision statement. Ms. Hammer moved and Mr. Beall seconded. The board unanimously approved. Mr. Carl reported on the next steps to bring strategies to the Board to show how the strategic goals will be implemented.

These strategies will be reflected in the documents that come before the Board and the new statement will be included in the Council Board Workgroup package.

## 7. New Business

### a. Review AlexRenew's Winter Quarter Average

Mr. Carl reported that Raftelis would take a deep dive into the AlexRenew rate model at the February Finance and Audit Committee meeting. This presentation is designed to bring the new members up to speed on how the rate setting process works and the current policy for the winter quarter average. Five options for addressing concerns related to the winter quarter average and associated impacts to revenue were presented for Board consideration. Next steps include members reviewing the proposed options and making recommendations for the February 12 Finance and Audit Committee meeting. Changes would begin as part of the FY2025 Budget cycle.

The Chair inquired about whether ratepayers understand AlexRenew's winter quarter average. Mr. Robertson reported that most do not fully understand the policy. Members discussed the options and reported that if the impacts to revenue are minimal, that staff should select the option that provided the most equity among ratepayers. Mr. Boveri reported that changes to the policy will bring changes to the City's billing too.

### b. Review Disconnection for Nonpayment Talking Points

The Chair recognized Mr. Carl who reviewed the process and the timing for customer disconnections. Mr. Carl reported that the initial funding goal for LEAP has been met. Staff is

ready to disperse funds and Dollar Energy will administer the program. There is \$15,000 in place with more expected. Mr. Robertson reviewed the policies in place that guide AlexRenew's process. He reported that disconnections have been suspended since 2020 and AlexRenew is behind most wastewater utilities in beginning the disconnection process. He reviewed the total number of delinquent accounts and noted that customers on payment plans would not be disconnected. He then reviewed the process for customer disconnections from the first delinquency notice and robocall. If the customer fails to respond to the notices, AlexRenew alerts Virginia American Water (VAW) who then disconnects service. Disconnection and reconnection fees are \$25 each. The Chair inquired how this would affect customers. Mr. Robertson reported that customers respond more quickly when disconnected. Mr. Akinkugbe concurred that disconnections will have the biggest impact. Disconnections will begin with the most delinquent customers, those that are a year or two in arrears. Mr. Jinks suggested beginning the disconnections in July at the beginning of AlexRenew's fiscal year. Mr. Beall inquired if the disconnection letters have a deadline and mention payment plans. The updated letters will include the LEAP program and eligibility requirements and payment plans. Board members discussed adding information on LEAP to the Council Board Workgroup package.

#### 8. Monthly Outcomes Update

The Chair recognized Mr. Carl who reported on an increase in delinquencies due to delayed billing from the new contractor. Staff are working with the vendor to get caught up.

The funding goal for LEAP was reached.

Senate Bill 372 extending the CSO deadline was reported unanimously by the Senate Agriculture and Natural Resources Committee to the Senate Finance and Appropriations Committee.

The final SAG (Stakeholder Advisory Group) meeting under the City Council is scheduled for January 18. The SAG then comes under AlexRenew's Board in March. Staff are also meeting with the Council Board Workgroup this month to discuss LEAP, disconnection talking points and the winter quarter average.

The Chair inquired if the end of the SAG should be recognized in some way. Mr. Carl reported that it is the same group moving forward. Ms. Yvonne Callahan left, and staff recognized her service. Her replacement was Mr. Larry Beam.

The tunnel boring machine is currently moving approximately 40 feet per day.

He noted that staff sent out talking points about the work at Pendleton Street which will also be noted in the Council Board Workgroup presentation.

AlexRenew's contractor will occupy the boardwalk between Union and Pendleton Streets. This was always planned but did not occur earlier to minimize impacts to the community. That space is also needed to connect into the outfall. Staff received one phone call about four trees that were taken down.

There being no additional business the Chair requested a motion to adjourn. Mr. Jinks moved, and Ms. Hammer seconded. The Board unanimously approved.

The meeting was adjourned at 6:55 p.m.

**APPROVED:**

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**Secretary-Treasurer**

AlexRenew Board of Directors  
**Alexandria Homeowners and Civic Associations Matrix**  
 Updated December 20, 2023

HOA	Contact	Meeting Info	Board Contact
Alexandria Federation of Civic Associations	Carter Flemming, Chair <a href="mailto:carterflemming@gmail.com">carterflemming@gmail.com</a>	<ul style="list-style-type: none"> <li>• Last Wednesday of the month</li> <li>• 7:00 PM</li> <li>• Hybrid</li> </ul>	John Hill
Del Ray Citizens Association	Katie Waynick, President <a href="mailto:president@delraycitizen.net">president@delraycitizen.net</a>	<ul style="list-style-type: none"> <li>• Second Wednesday of the month</li> <li>• 7:00 PM</li> <li>• Meeting locations vary</li> </ul>	Jim Beall
North Old Town Independent Citizens Civic Association	Mace Carpenter, President <a href="mailto:notice.communications@gmail.com">notice.communications@gmail.com</a>	<ul style="list-style-type: none"> <li>• Meet three times a year</li> </ul>	Adrianna Caldarelli
Old Town Civic Association	Steve Milone, President <a href="mailto:stevemilone@yahoo.com">stevemilone@yahoo.com</a> or <a href="mailto:president@theoldtowncivicassociation.org">president@theoldtowncivicassociation.org</a>	<ul style="list-style-type: none"> <li>• Second Wednesday of the month</li> <li>• 7:00 PM</li> <li>• The Lyceum</li> </ul>	Mark Jinks
Rosemont Citizens Association (including PELT)	Jol Silversmith, President <a href="mailto:info@rosemontcitizensassoc.org">info@rosemontcitizensassoc.org</a> or <a href="mailto:jol@thirdamendment.com">jol@thirdamendment.com</a>	<ul style="list-style-type: none"> <li>• None scheduled</li> </ul>	Rebecca Hammer



AlexRenew

Board of Directors Meeting  
**Winter Quarter Average Discussion**

February 20, 2024



## Outline of today's presentation

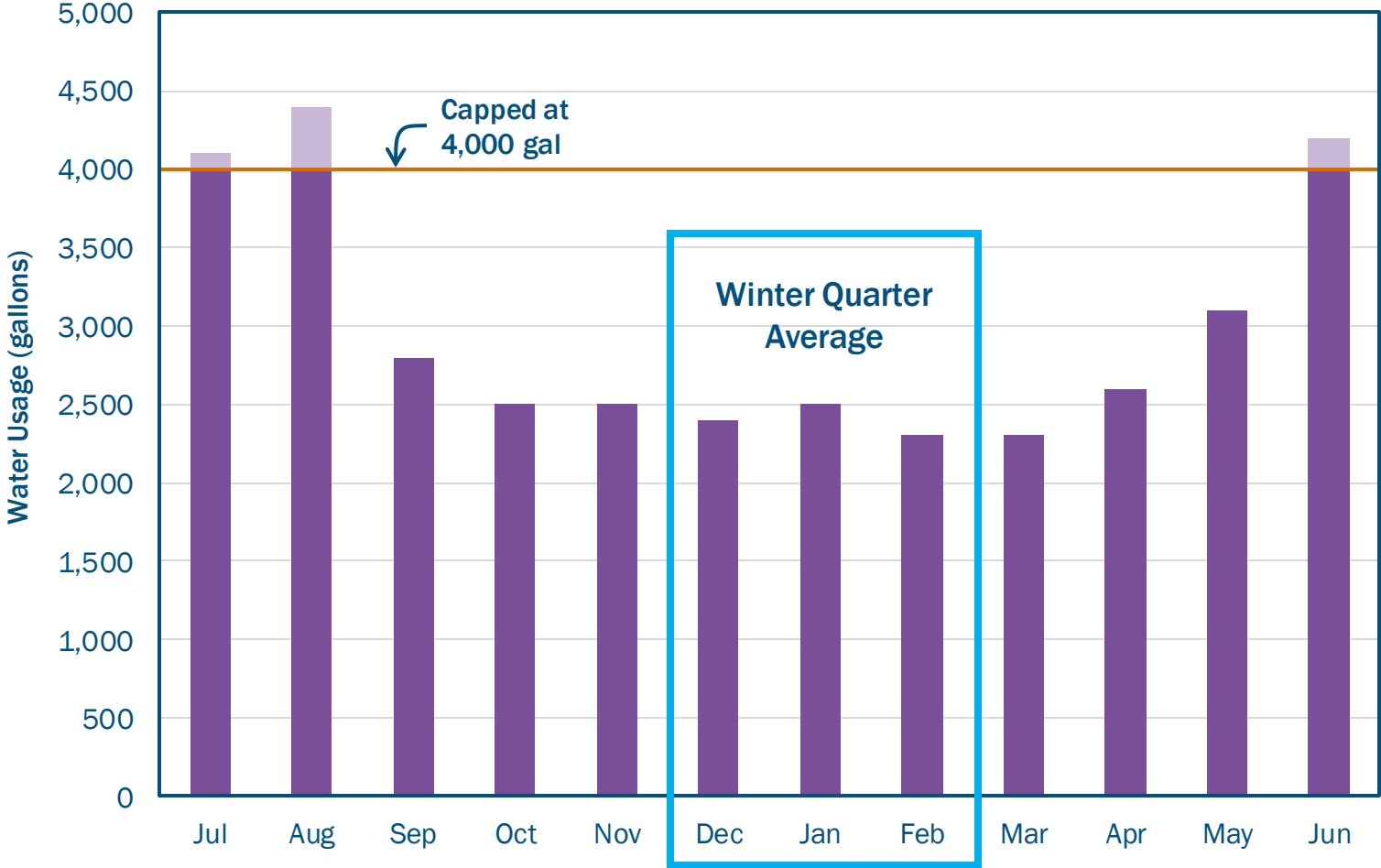
- Overview of AlexRenew's current winter quarter average policy
- Review of single-family residential customer water usage data
- Discussion of potential options to revise the current winter quarter average policy
- Next steps



## Overview of AlexRenew's current winter quarter average policy

- Implemented in 2015
- Applies only to single-family residential customers
- Adopted to promote fairness and limit billed wastewater treatment charges
- Recognizes that not all water usage will be returned to the sewer system (especially in summer months)
- Establishes a cap on wastewater treatment charges from Mar-Nov
  - Based on water usage between Dec-Feb (winter quarter average)
  - Set at either average winter usage or 4,000 gallons, whichever is greater
- No wastewater billing cap for commercial customers

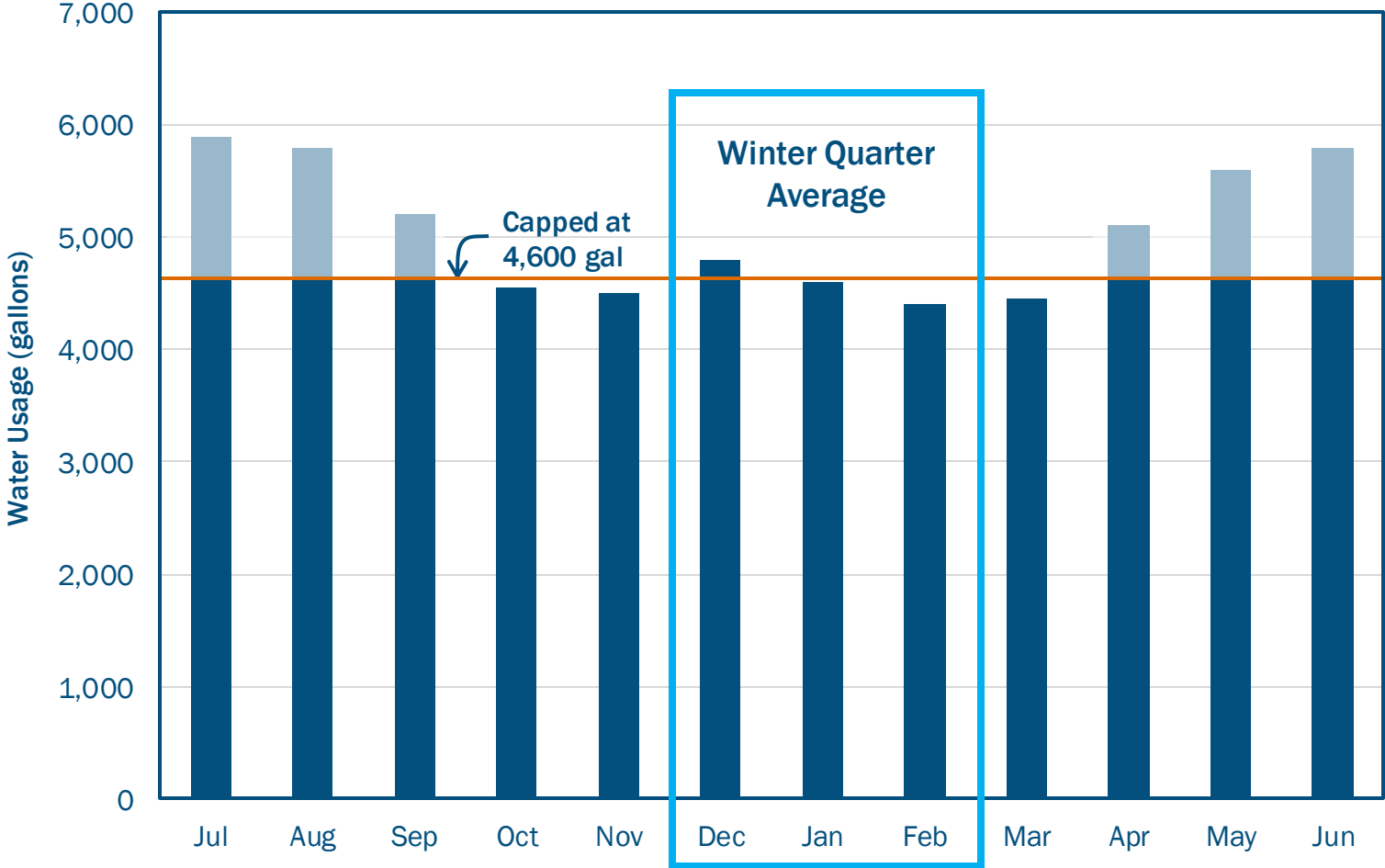
# Current AlexRenew winter quarter average for customers using less than an average of 4,000 gallons between December and February



- ▶ Winter Quarter Average
  - 2,400 gallons
- ▶ Sep-May
  - Pay what you use
- ▶ Jun-Aug
  - Capped at 4,000 gal

*Note: Winter quarter average applies only to single-family residential customers*

# Current AlexRenew winter quarter average for customers using more than an average of 4,000 gallons between December and February

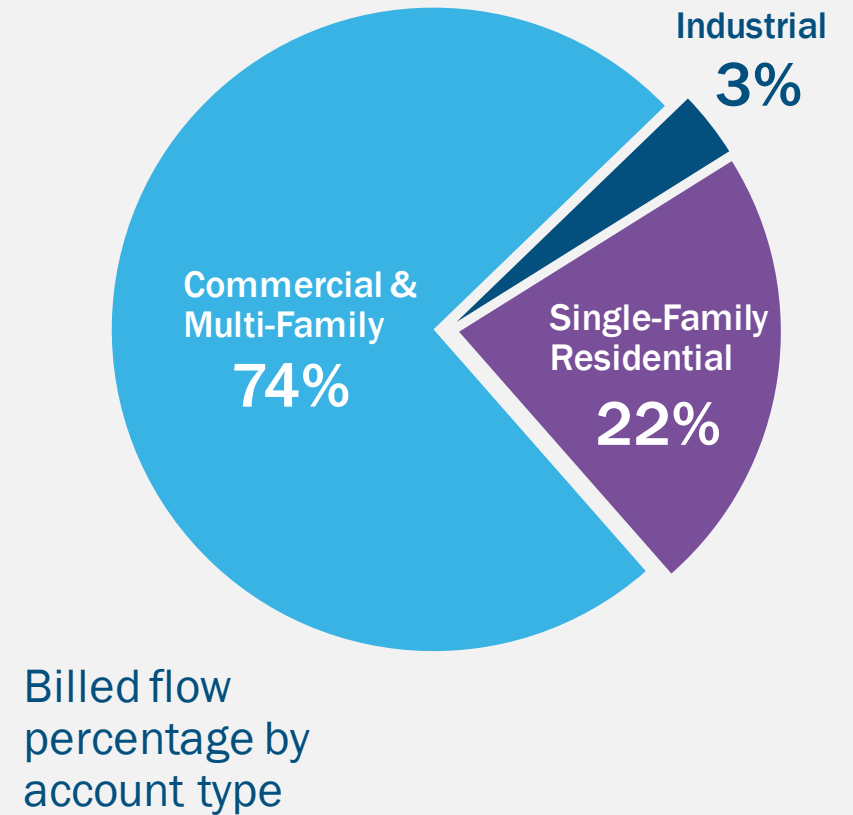
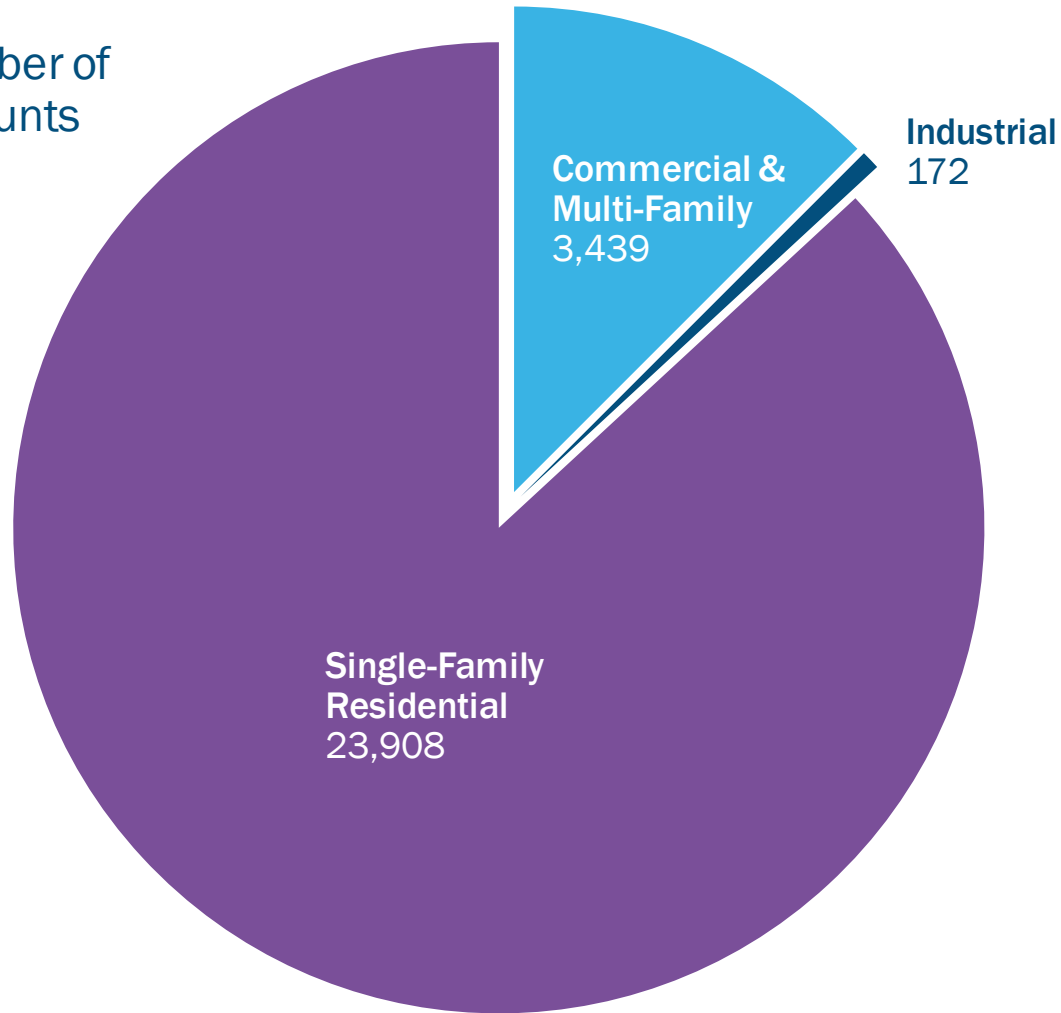


- ▶ Winter Quarter Average
  - 4,600 gallons
- ▶ Oct-Mar
  - Pay what you use
- ▶ Apr-Sep
  - Capped at 4,600 gal

Note: Winter quarter average applies only to single-family residential customers

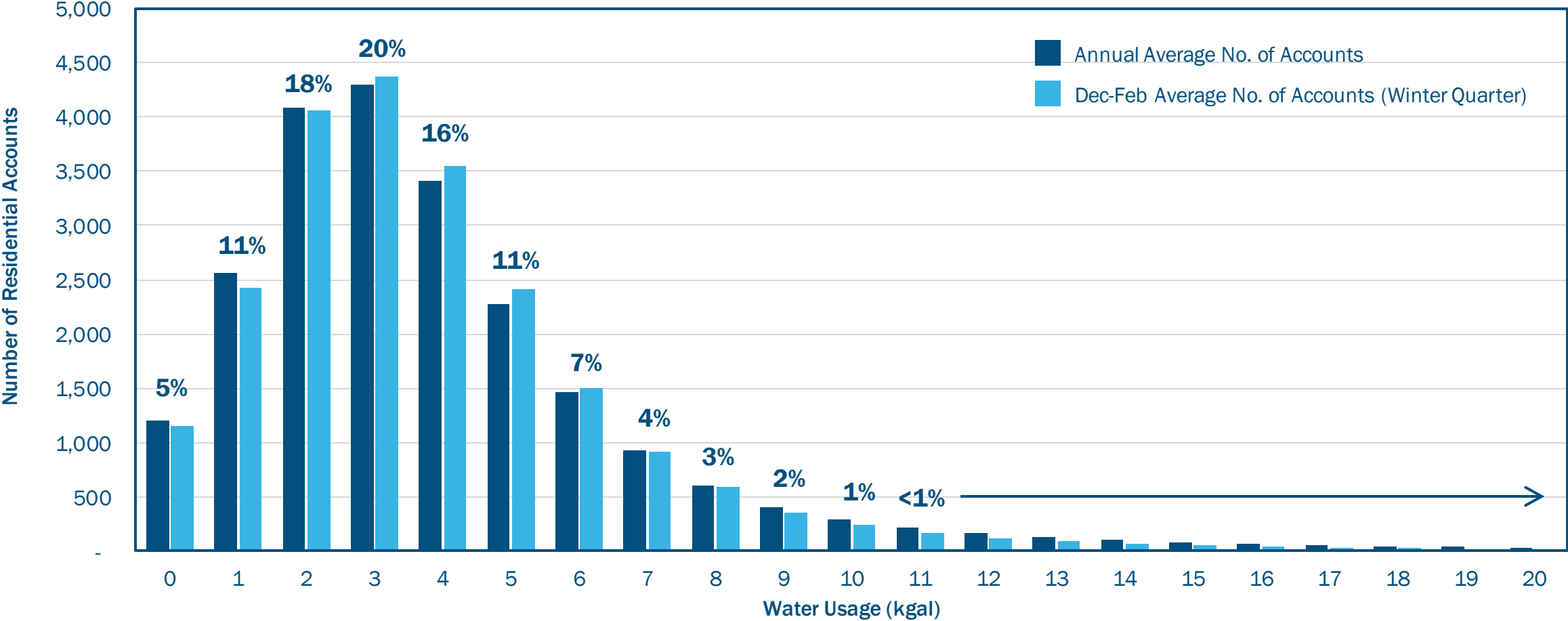
# Breakdown of AlexRenew customer accounts

Number of accounts

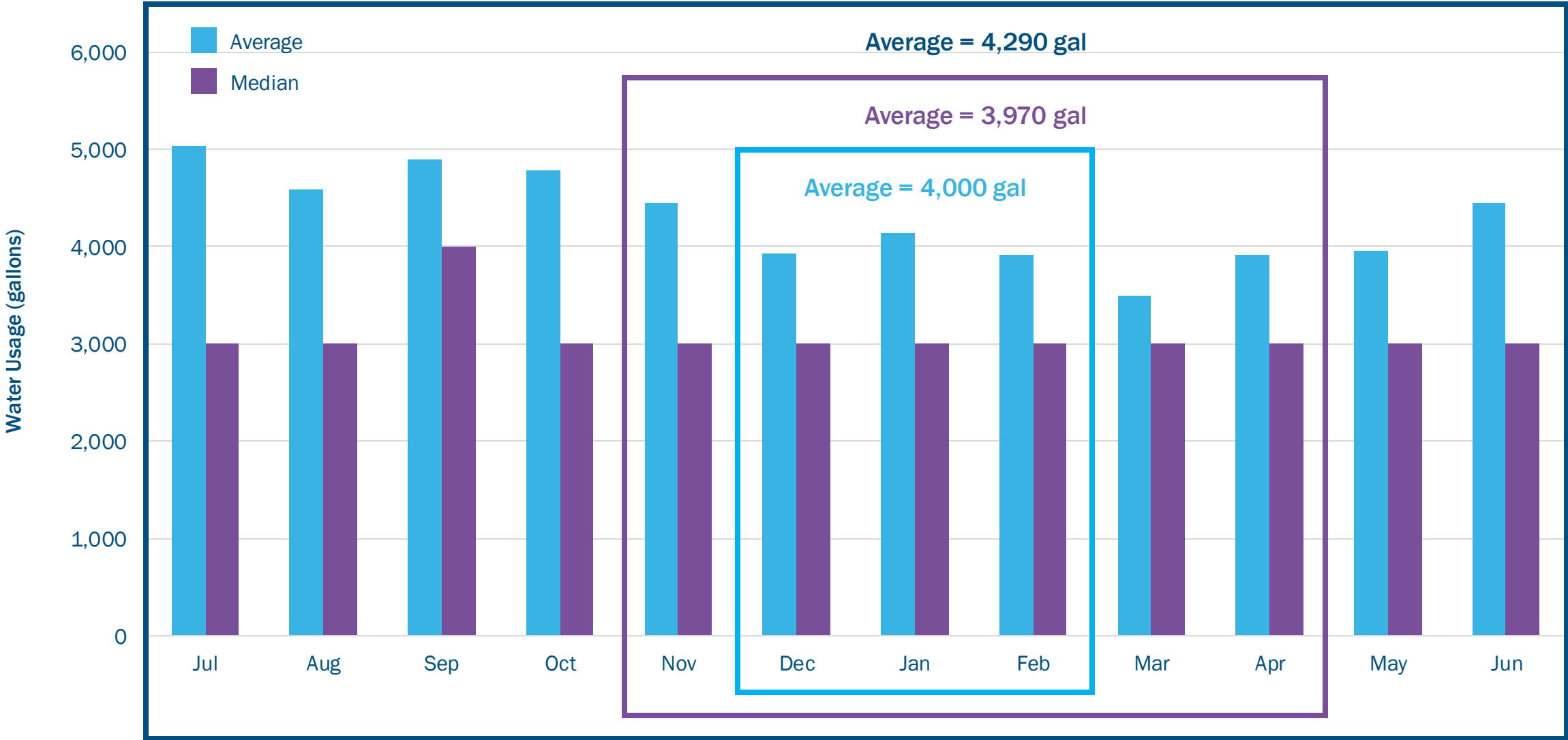


*\*Amounts shown reflect billed flows based on metered flows for Fiscal Year 2022*

# Summary of AlexRenew residential customer accounts and associated water usage



# Average and median monthly AlexRenew residential customer water usage



# Potential options to address concerns related to winter quarter average

	1	2	3	4	5
Options	Maintain current caps	Adjust 4,000 gal winter quarter average cap	Change winter quarter average cap to actual average water usage	Change winter quarter average cap to actual peak water usage	Eliminate winter quarter average cap
Description	<ul style="list-style-type: none"> <li>Two winter average caps, one at 4,000 gal</li> </ul>	<ul style="list-style-type: none"> <li>Keep two winter average caps – set lower cap to 3,000 or 3,500 gal</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate 4,000 gal cap</li> <li>Set cap based on average usage between Dec-Feb</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate 4,000 gal cap</li> <li>Set cap based on highest monthly usage between Dec-Feb</li> </ul>	<ul style="list-style-type: none"> <li>Bill based on water usage</li> <li>No cap</li> </ul>
Eligibility requirements	<ul style="list-style-type: none"> <li>Single-family residential</li> </ul>	<ul style="list-style-type: none"> <li>Single-family residential</li> <li>Minimum average usage of 1,000 gal per month (Dec-Feb)</li> <li>Accounts with a zero read in any of the 3 months will not be eligible for winter average</li> <li>Accounts not eligible for winter average are billed based on usage</li> </ul>	<ul style="list-style-type: none"> <li>Single-family residential</li> <li>Minimum average usage of 1,000 gal per month (Dec-Feb)</li> <li>Accounts with a zero read in any of the 3 months will not be eligible for winter average</li> <li>Accounts not eligible for winter average are billed based on usage</li> </ul>	<ul style="list-style-type: none"> <li>Single-family residential</li> <li>Accounts with a zero read between Dec-Feb will be capped at 3,000 or 4,000 gal</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
New residential customers	<ul style="list-style-type: none"> <li>Bill based on water usage (maximum billed is 4,000 gal per month)</li> </ul>	<ul style="list-style-type: none"> <li>Bill based on water usage until winter average is established (maximum billed is 12,000 gal per month)</li> </ul>	<ul style="list-style-type: none"> <li>Bill based on water usage until winter average is established (maximum billed is 12,000 gal per month)</li> </ul>	<ul style="list-style-type: none"> <li>Bill based on water usage until winter average is established (maximum billed is 12,000 gal per month)</li> </ul>	<ul style="list-style-type: none"> <li>Bill based on water usage</li> </ul>
Revenue impacts	<ul style="list-style-type: none"> <li>\$0</li> </ul>	<ul style="list-style-type: none"> <li>Cap at 3,000: <b>\$40,000</b> (0.1%)*</li> <li>Cap at 3,500: <b>\$160,000</b> (0.3%)*</li> </ul>	<ul style="list-style-type: none"> <li><b>(\$110,000)</b> (-0.2%)*</li> </ul>	<ul style="list-style-type: none"> <li>Zero read cap at 3,000: <b>\$210,000</b> (0.4%)*</li> <li>Zero read cap at 4,000: <b>\$240,000</b> (0.4%)*</li> </ul>	<ul style="list-style-type: none"> <li><b>\$2,000,000</b> (3.6%)*</li> </ul>

\*Denotes percentage of billed wastewater flows in FY2023, \$54,844,244

Hybrid of options 3 and 4 - change winter quarter average cap to actual average water usage, all single-family residential customers are eligible

## Description

Set cap based on average usage between December – February

## Eligibility

Single-family residential accounts – any account with a zero read between Dec-Feb will be capped at 3,000 or 4,000 gal

## New customers

Bill based on water usage until winter average is established – max billed is 12,000 gal per month

## Revenue impact

- Zero read cap at 3,000 gal: (\$530,000) (-1.0%)
- Zero read cap at 4,000 gal: (\$430,000) (-0.8%)



## Next steps

- Coordinate with City on code changes and Council approval
- Implement changes as part of Fiscal Year 2025 budget cycle



**AlexRenew**

To learn more, visit [alexrenew.com](https://alexrenew.com)



STRATEGIC PLAN  
2024-2029

DRAFT





## ALEXRENEW BOARD OF DIRECTORS

*From left: James Beall, John Hill (back), Adriana Caldarelli, Mark Jinks, Rebecca Hammer (front)*

Staff is grateful to the Board of Directors for their guidance and vision throughout the strategic planning process. The framework they established will ensure that **AlexRenew remains a leader in our community and the wastewater sector.**





## Foreward from the AlexRenew Executive Team:

Elements outside of our control often become catalysts for change. As we evolve to meet all the challenges of tomorrow, AlexRenew remains committed to delivering the highest level of service to our community.

Our Strategic Plan sets the framework to guide decision-making throughout our organization, ensuring each choice aligns with a greater vision. The goals and strategies benefit our execution, progress, and allow us to

remain adaptable in an ever-evolving landscape. Our mission and vision instill a sense of responsibility in each member of our team.

As we build upon our strong foundation, the Strategic Plan will provide the path forward to deliver next-level solutions to those we serve. We're confident this approach will allow us to build a more resilient, sustainable, and equitable organization on our way to fulfilling our 2060 vision.

*“Our vision sets the tone for the organization, allowing us to act with purpose today as we set our sights on the future.”*

**-JOHN HILL, AlexRenew Board Chair**

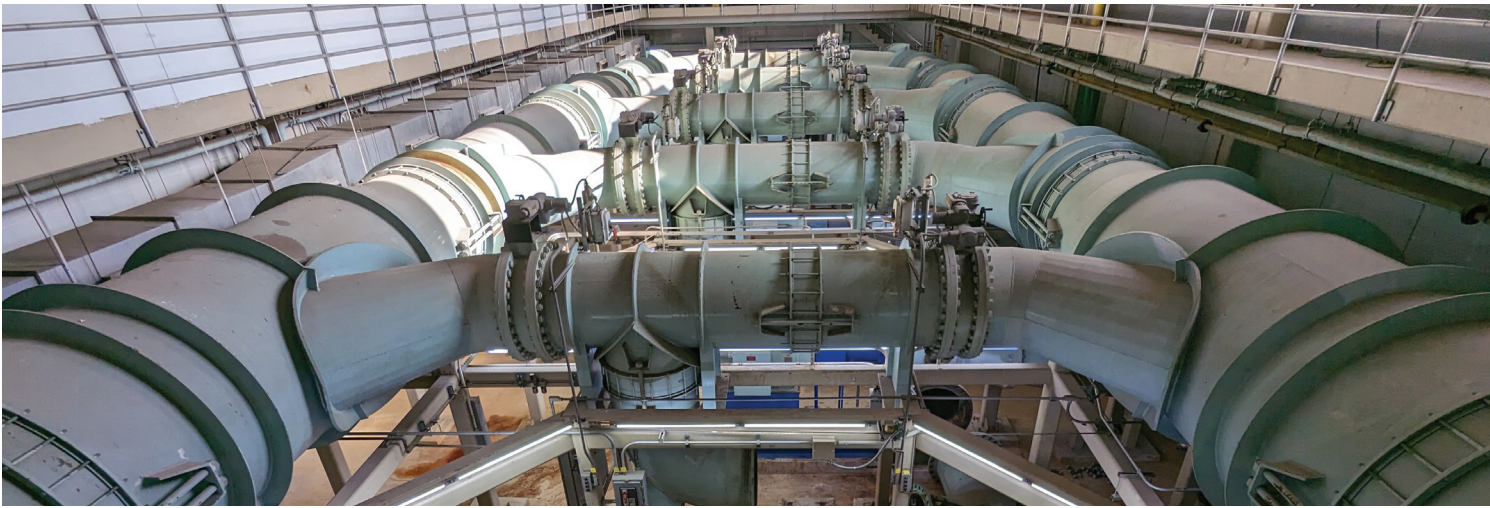
## **Vision**

Every drop of water contributes to a thriving community and healthy environment for all.

## **Mission**

Treat wastewater to protect public health and the waterways that connect us.





# Strategic Goals

## **Operational Excellence**

Taking proactive steps to meet current and future challenges

## **Thriving Workforce**

Investing in our staff and fostering a culture of belonging

## **Strategic Partnerships**

Promoting watershed-level thinking through collaboration and advocacy

## **Environmental Sustainability**

Being good stewards of our resources to minimize our impact on the environment

## **Commitment to the Community**

Strengthening connections with the public and providing affordable service

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*“The strategic goals are integrated into our daily operations, challenging our team to build a more resilient, sustainable, and equitable organization.”*

**-JUSTIN CARL, General Manager and CEO**

A close-up photograph of a male worker with a grey beard, wearing a blue hard hat, a blue knit beanie, and a dark blue high-visibility work jacket with reflective green and white stripes. He is wearing white work gloves and is focused on working on a large, complex industrial machine. The machine has a tan-colored panel with some text and a circular opening. The background shows more industrial equipment and a tiled wall. A semi-transparent blue box is overlaid on the top right of the image, containing the text 'Operational Excellence' in white.

# Operational Excellence





# Taking proactive steps to meet current and future challenges.

## OBJECTIVES:

- Be a leader in the sector by innovating to meet stringent permit limits.
- Adapt to address contaminants of concern and changes in flow trends.
- Proactively manage the impacts of climate change.
- Maximize equipment availability while reducing the need to replace assets.
- Leverage technology to advance efficiency and modernize operations.
- Safeguard against current and emerging cybersecurity risks.

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*“We operate 24/7/365 to serve the community and protect the environment.”*

**-PAUL CARBARY, Senior Operations & Maintenance Advisor**

# Thriving Workforce



TROJAN UV3000 PLUS™



# Investing in our staff and fostering a culture of belonging.

## OBJECTIVES:

- Foster a diverse and inclusive work environment.
- Upskill staff to meet the demands of a dynamic industry.
- Promote a culture of continuous improvement.


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*“We value our most important asset — AlexRenew employees. We’re working to build a culture of belonging, while we cultivate the workforce of tomorrow.”*

**-WENDY CALLAHAN, Chief Human Resources Officer**

# Strategic Partnerships



An aerial photograph of a city, likely Washington, D.C., showing a mix of urban buildings, green spaces, and a river in the foreground. The image is partially obscured by a blue header bar.

# Promoting watershed-level thinking through collaboration and advocacy.

## OBJECTIVES:

- Modernize intergovernmental agreements to effectively manage water resources.
- Partner with local stakeholders to advance a holistic and resilient one water approach.
- Engage with advocacy associations and peer utilities to promote reasonable and effective policies and regulations that are supportive of local needs.

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*“Addressing the complex water challenges of today necessitates collaboration across political, jurisdictional, and watershed boundaries to create reasonable and sustainable solutions.”*

**-AMANDA WATERS, General Counsel and Deputy General Manager**

# Environmental Sustainability





# Being good stewards of our resources to minimize our impact on the environment.

## OBJECTIVES:

- Integrate sustainability into infrastructure investments and operations.
- Strive toward net carbon zero operations.
- Recover and beneficially reuse resources from wastewater.
- Promote the safe reuse of reclaimed water.

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*“Integrating sustainable solutions into our daily operations, infrastructure, and our decision-making process, ensures we operate in a way that helps protect our community and our future.”*

**-ALLISON DIENES, Chief Water Quality Officer**

# Commitment to the Community





# Strengthening connections with the public and providing affordable service.

## OBJECTIVES:

- Provide affordable and equitable rates.
- Develop innovative funding and financing strategies to support capital investments.
- Advance a sustainable customer assistance program.
- Meaningfully engage the community to grow personal connections to water.
- Mitigate disproportionate environmental impacts on the community.
- Inspire younger audiences to develop the next generation of water professionals.

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*“Developing strong connections throughout our community creates opportunities for open dialogue, increases transparency, and ensures AlexRenew is acting in the best interest of all the people we serve.”*

**-CAITLIN FEEHAN, Chief Administration Officer**



**AlexRenew**

1800 LIMERICK STREET | ALEXANDRIA, VIRGINIA 22314

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**AlexRenew**

Board of Directors Meeting

**Overview of AlexRenew's  
Cybersecurity Framework**

February 20, 2024



**Outline of today's presentation**

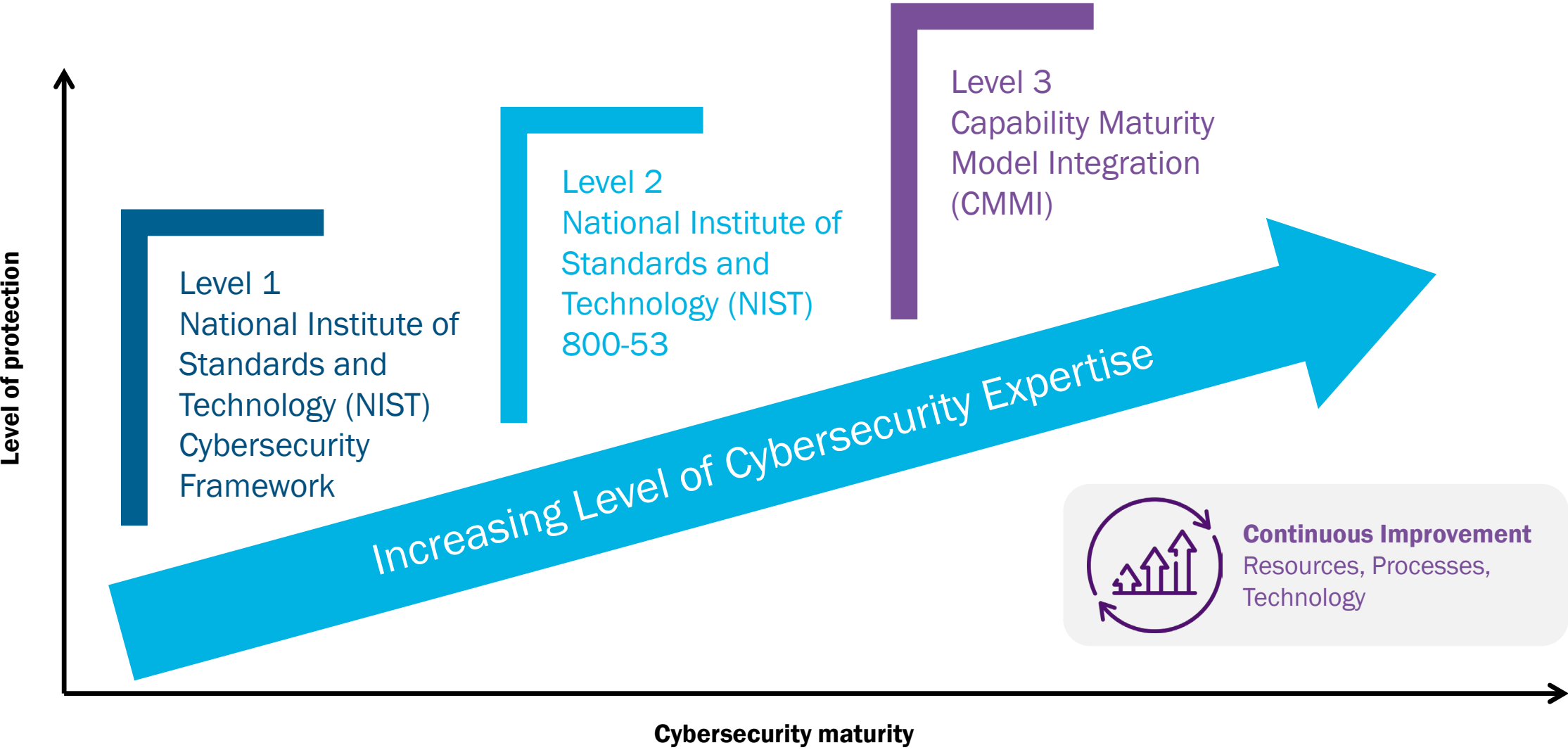
- Cybersecurity, Generally
- Cybersecurity in the Federal Government
- Cybersecurity in Water and Wastewater
- Cybersecurity Challenges
- AlexRenew Cybersecurity Implementation and Goals

# What is cybersecurity? Why is it important?

- Cybersecurity is the practice of protecting systems from attacks, unauthorized access, damage, and theft
- Protects sensitive data
- Safeguards infrastructure and protects the mission
- Preserves privacy and personal information
- Ensures business continuity



# The Federal government has robust standards for cybersecurity



# Cybersecurity standards have not yet been established in the water and wastewater sector

- Water and wastewater sector is developing cybersecurity regulations
- Operational technology typically lags 10-15 years behind current cybersecurity technology
- Regulation in the water and wastewater sector in the U.S. is challenging:
  - 94% of the ~50,000 drinking water suppliers serve communities with fewer than 10,000 persons (National Rural Water Association)
  - 72% of the 15,617 wastewater treatment facilities serve communities with fewer than 10,000 persons (EPA)
  - Smaller utilities may not have the expertise or budgets to properly implement a cybersecurity framework

# EPA released cybersecurity recommendations in March 2023 and withdrew them in October 2023

*“Imposing cybersecurity regulations on local water systems is not within EPA’s authority under the Safe Drinking Water Act. If the federal government is going to address this issue, it must be done by Congress.”*

*– Tim Griffin, Arkansas Attorney General*

GOVERNMENT

## EPA calls off cyber regulations for water sector

The announcement is a major blow to the Biden administration's efforts to improve the cybersecurity of U.S. critical infrastructure.

BY [CHRISTIAN VASQUEZ](#) • OCTOBER 12, 2023





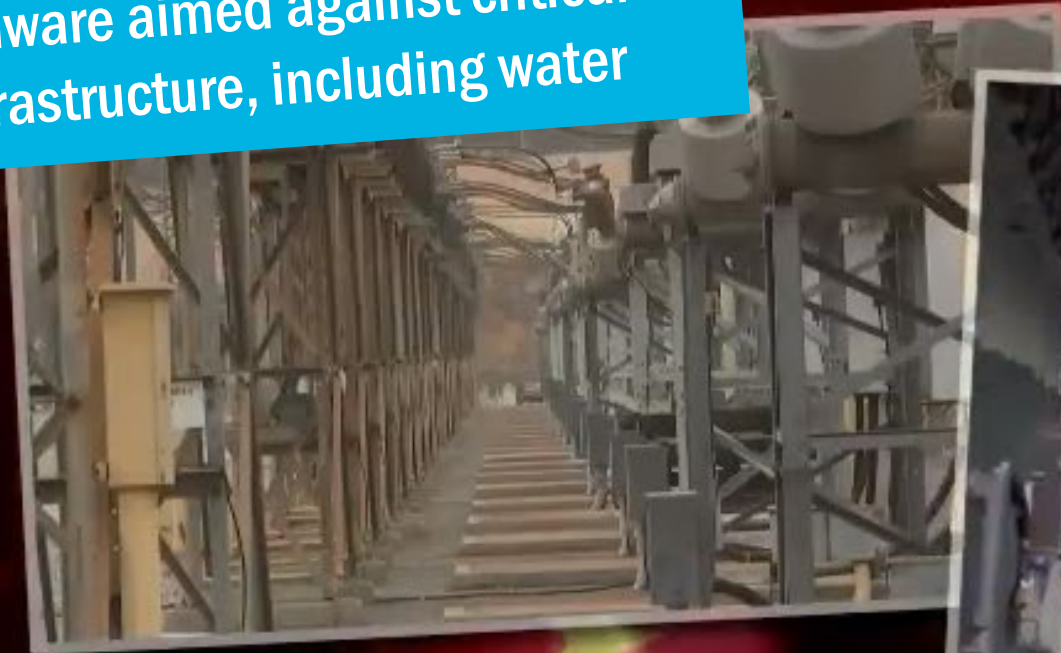
## November 2023 cybersecurity attack in Aliquippa, PA

- Municipal Water Authority of Aliquippa (MWAA) was attacked
- Iran-aligned cyber group accessed control of MWAA's booster station that monitors/regulates water pressure
- Hackers indicated the primary motivation for the attack was due to use of an equipment manufactured by Israel
- Lack of basic security controls led to the attack

# FBI director warns Chinese hackers aim to 'wreak havoc' on U.S. critical infrastructure

Christopher Wray, who has sounded the alarm about national security threats China poses to the U.S., appeared before the House Select Committee on the Chinese Communist Party.

January 31, 2024 | Volt Typhoon malware aimed against critical infrastructure, including water



# What types of tools are in the cybersecurity toolbox?



Internet defense



Email phishing blocks



Data and file security



Application security



Infrastructure and cloud security



User access and permissions

# Types of cybersecurity attacks and their frequency

## Kiddie Scripts

### Description

- Attackers use existing software developed by others

### Tools

- Modern security tools block these

### Frequency

- 75,000 per day

## Phishing

- Attackers impersonate a legitimate person or business via email

- Modern security tools mostly block these

- 100 per day

## Zero Day

- Vulnerability that is currently unknown to the vendor and public

- Modern security tools can't block these until they become known

- 2 per day, worldwide

## Supply Chain

- Vulnerability embedded into a vendor's patch or update

- Modern security tools can never block these

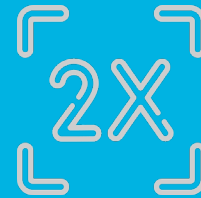
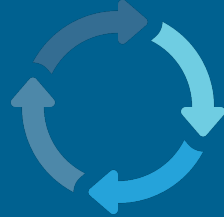
- 2 per year, worldwide

## AlexRenew cybersecurity goals

- Employ multiple tools and defense mechanisms for a comprehensive and layered approach
- Strive for Department of Defense level security, where applicable
- Train staff to have a “security first” culture
- Employ a "security first" architecture to minimize impacts of an attack and allow for quick recovery
- Continue investment in cybersecurity technology
- Support research and development in cybersecurity
- Report to Virginia Fusion Center and the Cybersecurity & Infrastructure Security Agency

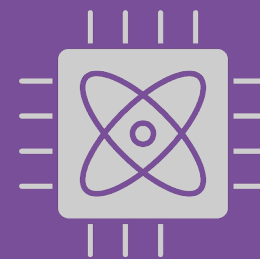
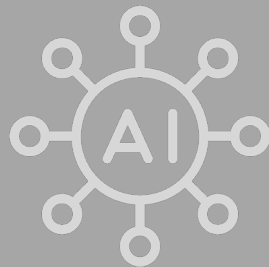
# How do cybersecurity investments differ from traditional infrastructure?

Cybersecurity infrastructure asset life-cycle is measured in months



Technology capabilities generally double every two years

Artificial intelligence has exponentially complicated cybersecurity protections



Quantum computing and artificial intelligence will create additional cybersecurity challenges



**AlexRenew**

To learn more, visit [alexrenew.com](https://alexrenew.com)



703.721.3500 | 1800 Limerick Street | Alexandria, Virginia 22314

AlexRenew.com f @ in

## MEMORANDUM

**TO:** AlexRenew Board of Directors

**FROM:** Justin Carl, CEO

**DATE:** February 13, 2024

**SUBJECT:** Alexandria-Only Action Item: Request for Board Member Participation on the 2024 Ellen Pickering Environmental Excellence Award Selection Committee

---

### Issue

Each year, one member of the AlexRenew Board participates on the annual selection committee for the Ellen Pickering Environmental Excellence Award.

### Recommendation

Staff respectfully requests that the Board selects a member to serve on the 2024 Ellen Pickering Environmental Excellence Award Selection Committee.

### Budget and Funding

There is no budget associated with this request.

### Discussion

For 15 years, AlexRenew and the City of Alexandria Environmental Policy Commission have presented the Ellen Pickering Environmental Excellence Award to recognize outstanding citizens or groups committed to promoting environmental sustainability within the City of Alexandria.

The Ellen Pickering Environmental Excellence Award is named to honor Mrs. Pickering's dedication to preservation and conservation efforts in the City of Alexandria. Frances Ellen Pickering, a long-time City activist, first gained recognition over 40 years ago for her lobbying efforts that helped to create the Mount Vernon Trail between Alexandria and Washington. Mrs. Pickering was elected to City Council as an independent, serving for one term between 1976 and 1979. She also served on numerous City boards and commissions, including the Alexandria Beautification Commission, the Alexandria Sanitation Authority, the Ad Hoc Committee on Potomac Yard, the Potomac Greens Task Force, and the Open Space Steering Committee.



**Award Timing, Criteria, and Expectations for the Selection Committee Members**

*Timing:* Nominations are typically accepted from late February 2024 to late March 2024 (dates are pending final coordination with City staff). The award is anticipated to be announced and presented at Del Ray Garden Fest, part of Alexandria’s Earth Month events.

*Nomination Criteria:* Citizens nominated for the award must be residents of the City of Alexandria. Groups, clubs, organizations, and corporations must also operate within the City. The actions of the nominees must have a direct impact on the environment within the City of Alexandria.

*Contributions:* Contributions related to the following areas are considered applicable to the award criteria: natural resource preservation, energy conservation, climate change mitigation, education outreach on environmental sustainability, water conservation and preservation, waste reduction and/or materials reuse/recycling, and promotion of clean air.

*Level of Committee Commitment:* Selection Committee members will be required to review and select an award recipient. The committee will score the nominations individually and meet (via teleconference) in March to select a recipient. The Selection Committee will attend the event where the award will be presented. The estimated time commitment is four hours.

**Congruence with AlexRenew Strategic Plan**

This action enables our strategy of Watershed Stewardship.

**ACTION TAKEN**

Approved: \_\_\_\_\_

Disapproved: \_\_\_\_\_

Approved with Modification: \_\_\_\_\_

Modification(s): \_\_\_\_\_  
\_\_\_\_\_



1800 Limerick Street  
Alexandria, VA 22314  
alexrenew.com

**Board of Directors**  
John Hill, Chair  
James Beall, Vice Chair  
Adriana Caldarelli, Sec'y-Treas  
Mark Jinks  
Rebecca Hammer

**Chief Executive Officer**  
Justin Carl, PE

**General Counsel**  
Amanda Waters

## Monthly Report

Reporting Period: January 1-31, 2024

This report represents a summary of AlexRenew’s operational excellence, financial resilience, and public engagement and trust for January 2024.

### 1 Operational Excellence

#### 1.1 Water Resource Recovery Facility (WRRF) Performance

Performance of AlexRenew’s operations is reviewed and evaluated monthly to oversee operational excellence.

Precipitation for the month was 5.88 inches of rain and 7.80 inches of snow, which is above the historical average precipitation of 2.86 inches of rain and 4.90 inches of snow for the month.

Biosolids production was 1,873 wet tons. Biosolids were beneficially used through land application in the Virginia counties of Essex, King George, King William, and Caroline.

AlexRenew met all Virginia Pollutant Discharge Elimination System (VPDES) effluent parameters for January 2024 as outlined in Table 1.1.

**Table 1.1.** Summary of VPDES Permit VA0025160 Effluent Parameters

	Average Flow	Carbonaceous Biochemical Oxygen Demand	Total Suspended Solids	Ammonia (as N)	Total Phosphorus	Dissolved Oxygen	Total Nitrogen	Total Nitrogen Load	Total Phosphorus Load
	MGD	Monthly Average (mg/L)	Monthly Average (mg/L)	Monthly Average (mg/L)	Monthly Average (mg/L)	Minimum (mg/L)	Annual Average (mg/L)	Year-to-Date (lb)	Year-to-Date (lb)
<b>Permit</b>	54.0	5.0	6.0	Seasonal (1)	0.18	6.0	3.0	493,381	29,603
<b>Reported</b>	42.6	ND	2.5	0.54	0.05	8.2	2.5	28,078	622

Notes: (1) Ammonia has seasonal limits – November - January: 8.4 mg/L

#### 1.2 Capital Improvement Program

Specific projects within AlexRenew’s Capital Improvement Program (CIP) are highlighted monthly to support operational excellence.

In July 2023, the Board approved three (3) Job Order Contracts (JOC) to support AlexRenew’s ongoing construction and maintenance needs. Table 1.2 summarizes the status of JOC task orders.

**Table 1.2.** Summary of JOC Task Orders

Task Order	Estimate	Status
Gravity Thickener No. 3 Assessment and Cleaning	\$90,000	Completed
Gravity Thickener No. 3 Repair	\$275,000	Work ongoing
Gravity Thickener 2 and 4 Repair	\$125,000	Work ongoing
Four Mile Run Pumping Station Valve Modifications	\$480,000	Work ongoing
Tertiary Settling Tank Valve Replacement	TBD	Scoping
WRRF General Housekeeping	\$350,000	Work ongoing
BRB Mixing System Improvements	\$200,000	Work ongoing
Building A Flare System Repairs	TBD	Scoping
Building 55 Thermal Oxidizer (Flare) Repairs	TBD	Scoping
Centrate Tank Cleaning	\$100,000	Work ongoing
Environmental Center Improvements	TBD	Scoping
Innovation District Pumping Station On-call Services	TBD	Scoping
Primary Sludge Pump Upgrades	TBD	Scoping
Gravity Thickened Sludge Pumps	\$300,000	Work ongoing
Digester Gas Mixing Compressors	TBD	Scoping
Tertiary Filter Valve Replacement	TBD	Scoping
Filter Backwash Tank Cleaning and Upgrades	TBD	Scoping
Plant Air Compressor Upgrades	TBD	Scoping
Heat Exchanger Cleaning and Repair	\$200,000	Work ongoing

### 1.3 RiverRenew

Updates on RiverRenew are outlined in the RiverRenew Dashboard, provided as Attachment A.

### 1.4 Safety

Since August 3, 2023, AlexRenew has logged 98,170 hours without a lost time accident.

## 2 Financial Resilience

Performance of AlexRenew's annual approved budget is reviewed and evaluated monthly to ensure overall organizational financial stability.

### 2.1 Revenues and Expenditures

Table 2.1 summarizes AlexRenew revenues and expenditures for this period. Major takeaways for this period include:

- Wastewater Treatment Charge revenues (\$34.5 million) are trending slightly higher than projections due to usage;

- Operating and Maintenance expenditures are trending slightly below projections; and
- Total Expenditures (\$114.2 million) are currently trending lower than projections due to the timing of capital expenditures. This also impacts Debt Proceed revenues (\$63.4 million), since most current capital expenditures are funded through debt, which is also affected by the timing of requisitions.

**Table 2.1.** Revenues and Expenditures for this Period

Revenues and Expenditures	Total FY2024 Budget	FY2024 To-Date	% of Budget To-Date	% of FY2024 Completed	Total FY2024 Projected
<b>Revenues</b>					
Wastewater Treatment Charge	53,672,299	34,458,512	64	58	57,000,000
Fairfax Operating Expense Charge	12,796,021	7,464,346	58	58	12,500,000
Fairfax IRR* and Capital Contributions	36,419,800	8,829,555	24	58	22,000,000
Debt Proceeds and Other Sources	159,923,187	63,445,083	40	58	112,400,000
<b>Total Revenues</b>	<b>262,811,307</b>	<b>114,197,496</b>	<b>43</b>	<b>58</b>	<b>203,900,000</b>
<b>Expenditures</b>					
Operating and Maintenance	33,023,593	18,013,826	54	58	33,000,000
Parity Debt Service	16,448,494	5,726,733	35	58	12,500,000
IRR*	10,818,748	5,725,353	53	58	10,700,000
Capital	202,520,472	84,731,584	42	58	147,700,000
<b>Total Expenditures</b>	<b>262,811,307</b>	<b>114,197,496</b>	<b>43</b>	<b>58</b>	<b>203,900,000</b>

\*IRR: Improvement, Renewal, and Replacement

## 2.2. Delinquencies

Figure 2.2 illustrates active AlexRenew accounts 60 or more days delinquent and total delinquent dollar amount owed over the last three (3) years. Major takeaways for this period include:

- The number of accounts delinquent by more than 60 days increased 182 from the previous period to 1,734.
- The total dollar amount owed to AlexRenew from these accounts totaled \$1,557,693 at the end of January, an increase of \$193.
- Approximately 52 percent of the delinquency value is from residential accounts.
- Currently, 145 residential and 15 commercial accounts are on active payment plans.

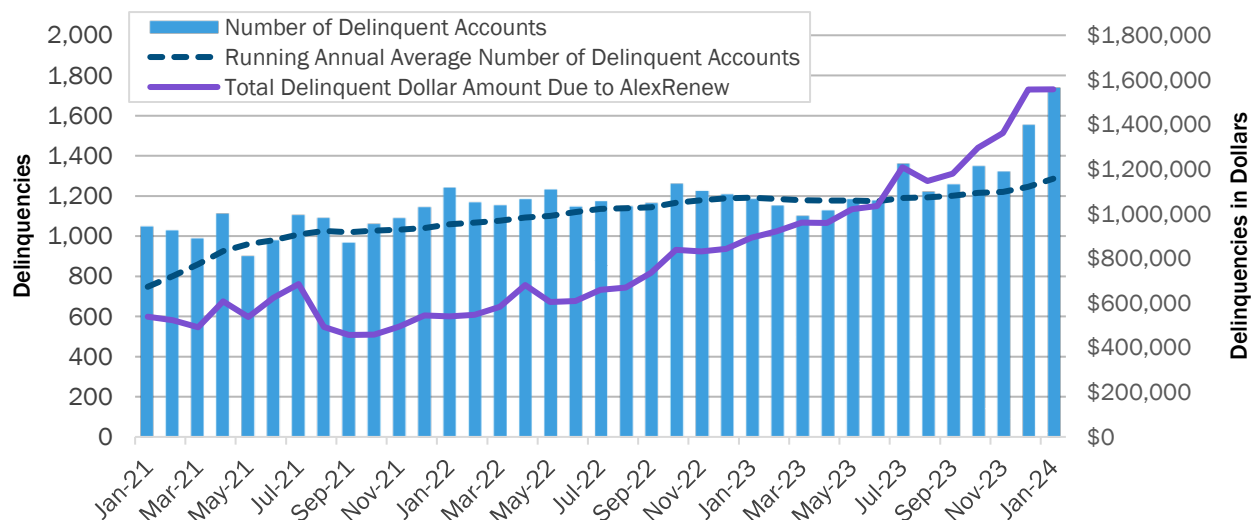


Figure 2.2. Active Accounts 60 or more days Delinquent

### 2.3 Board Financial Policy Status

The Master Indenture of Trust (Indenture) and Board Financial Policy require AlexRenew to maintain at least 120 days cash on hand. Additionally, the Indenture requires AlexRenew to maintain minimum debt service coverage of 1.1 times the parity debt service due in any fiscal year. The Board Financial Policy requires AlexRenew to maintain a higher minimum debt service coverage of at least 1.5 times. In both cases, AlexRenew currently exceeds its compliance standards as indicated in Tables 2.3a and 2.3b.

Table 2.3a. Cash Reserves

Item	FY2024 Budget	FY2024 Annualized	Percentage of Goal
Total Operating Cash	\$5,428,536	\$5,928,011	109%
Total General Reserve Sub-Fund Cash	\$5,428,536	\$5,428,536	100%
<b>Total</b>	<b>\$10,857,072</b>	<b>\$11,356,547</b>	<b>105% (126 days)</b>

Table 2.3b. Debt Service Coverage

Item	FY2024 Budget	FY2024 Annualized
Total Revenues	\$66,583,320	\$70,738,358
Less Operating Expenses	(\$33,023,593)	(\$32,429,168)
<b>Net Revenue</b>	<b>\$33,559,727</b>	<b>\$38,309,190</b>
<b>Annual Debt Service</b>	<b>\$16,448,494</b>	<b>\$12,500,000</b>
<b>Calculated Coverage</b>	<b>2.04 times</b>	<b>3.06 times</b>

## **2.4 Investments**

PFM Investment Advisors manages approximately \$21 million of AlexRenew's \$25 million investment portfolio. The average yield to maturity as of January 31, 2024, is 2.53%, up 6 basis points from the previous month.

## **3 Public Engagement and Trust**

AlexRenew shares a monthly summary of its community engagement and customer service statistics to highlight its contributions to public engagement and trust.

AlexRenew welcomed a total of 270 visitors from the following organizations that hosted meetings on the 6th floor of the Environmental Center in January: Alexandria A Capella Collective (70), City of Alexandria (40), Arlington Public Schools (20), Alexandria Soccer Association (35), Anna Jochenning Baptist Church (40), Alexandria Chamber of Commerce (30), and Alexandria City Public Schools (35).

In January, AlexRenew customer service received a total of 2,088 calls. Average wait time before calls were answered was one minute, one second. Call center staff answered 75 emails.

# RiverRenew Board of Directors Dashboard



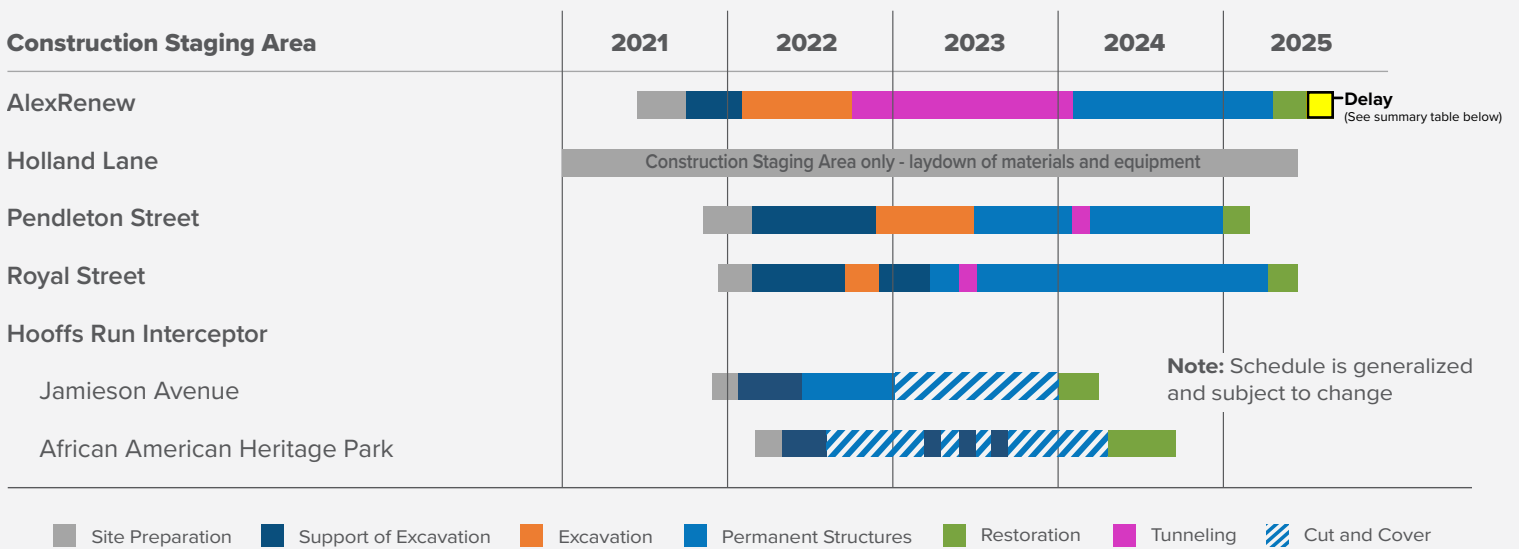
MONTH ENDING: JANUARY 31, 2024

RiverRenew is a program owned and implemented by AlexRenew, Alexandria's wastewater treatment authority.

## RiverRenew Overview

To improve the waterways that connect us, AlexRenew is implementing RiverRenew to prevent millions of gallons of combined sewage from polluting Alexandria's local rivers and streams each year. Three of the four RiverRenew projects are complete. The remaining Tunnel Project includes the construction of a new tunnel to connect AlexRenew's wastewater treatment plant to the four existing combined sewer outfalls, as illustrated on Page 4 of this dashboard. The phases of construction for the five primary construction sites are illustrated in the schedule below.

## RiverRenew Tunnel Project Schedule



## Summary of Major Tunnel Project Delays

Date:	Activity:
12/2021	Monitoring potential supply chain issues due to ongoing pandemic.
12/2021	COVID outbreak at tunnel segment mold plant in Slovenia. Manufacturing for tunnel segment molds relocated to Turkey. Anticipated one-month delay on tunnel segment molds.
1/2022	Concrete for shaft slurry walls delayed due to weather, COVID impacts, shortage of CDL drivers due to Omicron spike, and lack of concrete materials in the Greater Metro D.C. area. Monitoring schedule impacts to critical path.
2/2022	TBM fabrication and delivery delayed by three weeks. Monitoring schedule impacts to critical path.
4/2023	Due to the events in January and February 2022 (noted above), the Tunnel Project is currently 60 days behind schedule. The delay will primarily impact scheduled work at the AlexRenew site.
9/2023	Due to the delays noted above, the Tunnel Project is currently 90 days behind schedule. The delay will primarily impact scheduled work at the AlexRenew site.
12/2023	Legislation introduced during the 2024 General Assembly to extend the project's statutory deadline by one year to July 1, 2026.

# RiverRenew Tunnel Project Design-Build Progress

## Overall Project Progress

(Design and Construction)



▲ DEC 2020

JUL 2025 ▲



### Pendleton Street

Excavation for near surface structures ongoing

Construction Progress\*



NOV 2024 ▲



### Royal Street

Excavation for near surface structures ongoing

Construction Progress\*



JUL 2024 ▲



### Hooffs Run

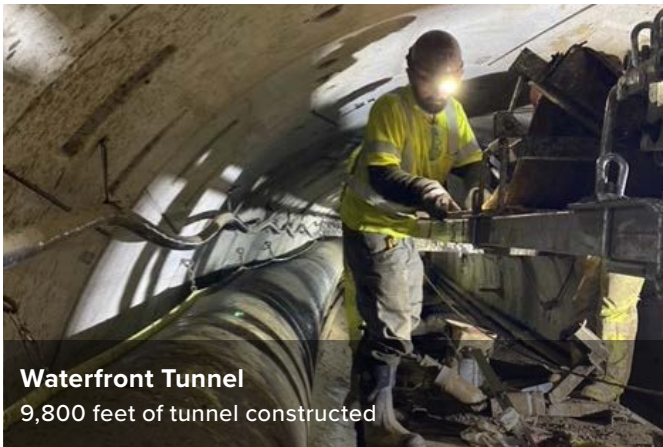
Interceptor installation ongoing

- Jamieson crossing anticipated to be complete by 3/4

Construction Progress\*



APR 2024 ▲



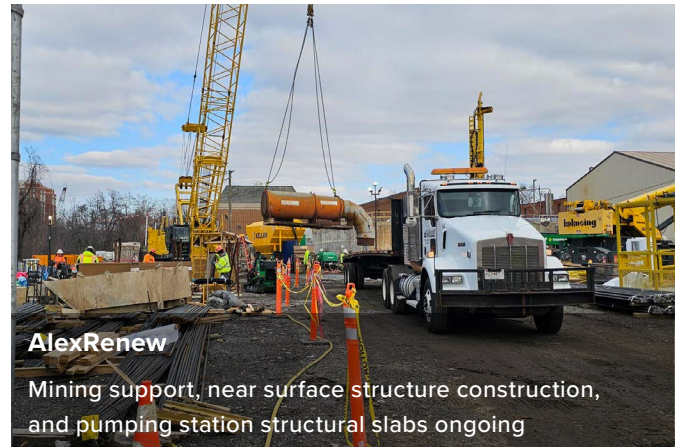
### Waterfront Tunnel

9,800 feet of tunnel constructed

Construction Progress\*



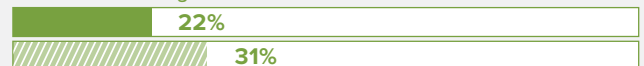
JAN 2024 ▲



### AlexRenew

Mining support, near surface structure construction, and pumping station structural slabs ongoing

Construction Progress\*



JUL 2025 ▲

**LEGEND:** ■ Actual Progress ■ Planned Progress ▲ Planned Completion Date

Actual Progress as of January 31, 2024. \*The planned progress for each construction staging area reflects the Design-Builder's schedule as of January 2024.



# RiverRenew Tunnel Project Six-Month Look-Ahead

## Work Hours

### NORMAL WORK HOURS

Pendleton Street	7 a.m. – 6 p.m.
Royal Street	7 a.m. – 6 p.m.
Hooffs Run	7 a.m. – 6 p.m.
AlexRenew	24/7

## Community Outreach

Event	Date
2024-2025 RiverRenew SAG Meeting No.1	Mar 21, 2024
Tunnel Completion Open House	Mar-Apr 2024
Community Listening Sessions	May 6, 7 & 9, 2024
Council-Board Workgroup	May 8, 2024
2024-2025 RiverRenew SAG Meeting No.2	Jun 20, 2024

## Pendleton Street

### MAJOR WORK ACTIVITIES

Activity	Date
Permanent concrete structures construction	Ongoing through Fall 2024
Permanent concrete structures deep foundations (pile driving)	Intermittent through Summer 2024

### PERMITS

Permit	Date
Building Permit - Permanent Concrete Structures Support of Excavation	Apr 2024
Building Permit - Shaft Mechanical, Electrical, and Plumbing	Apr 2024

## Hooffs Run

### MAJOR WORK ACTIVITIES

Activity	Date
North of Jamieson Ave	
Diversion chamber construction	Ongoing through Winter 2024
Junction chamber construction	Ongoing through Winter 2024
Open-cut construction	Ongoing through Spring 2024
African American Heritage Park	
Sheeting removal	Ongoing intermittently through Winter 2024
Open-cut construction	Ongoing through Winter 2024
Jamieson Avenue full closure	Ongoing through Mar 2024

## Royal Street

### MAJOR WORK ACTIVITIES

Activity	Date
Permanent concrete structures deep foundations	Ongoing through Spring 2024
Permanent concrete structures construction	Starting Spring 2024

### PERMITS

Permit	Date
Building Permit - Shaft Liner and Base Slab	Mar 2024
Building Permit - Mechanical, Electrical, and Plumbing	May 2024

## AlexRenew

### MAJOR WORK ACTIVITIES

Activity	Date
Permanent concrete structures support of excavation	Ongoing intermittently through Spring 2024
Permanent concrete structures construction	Ongoing intermittently through 2024
Pumping shaft cast-in-place concrete internals	Ongoing through Fall 2024

### PERMITS

Permit	Date
Building Permit - Superstructure Architectural	Apr 2024

## Waterfront Tunnel

### MAJOR WORK ACTIVITIES

Activity	Date
Mining	Ongoing through Feb 2024

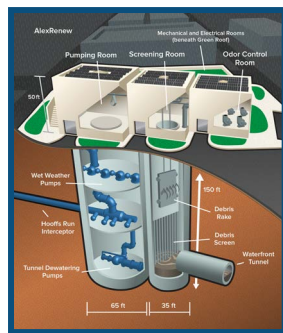
# RiverRenew Tunnel Project Snapshot

The Tunnel Project includes the following major components: a two-mile-long, 12-foot-wide, 100-foot-deep tunnel; a six-foot-wide sanitary sewer interceptor; diversion facilities to capture combined sewer discharges; and two pumping stations.



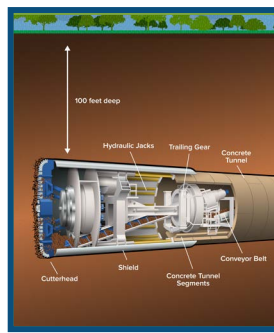
**Hooffs Run Interceptor**

Click [here](#) to learn more about upcoming activity at our Hooffs Run site.



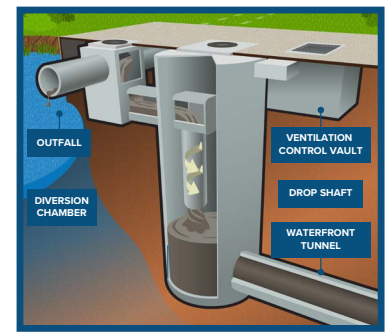
**Pumping Station**

Click [here](#) to take a 3D tour of RiverRenew's future pumping station.



**Waterfront Tunnel**

Click [here](#) to watch an animated video about RiverRenew and learn how the Waterfront Tunnel will be constructed.

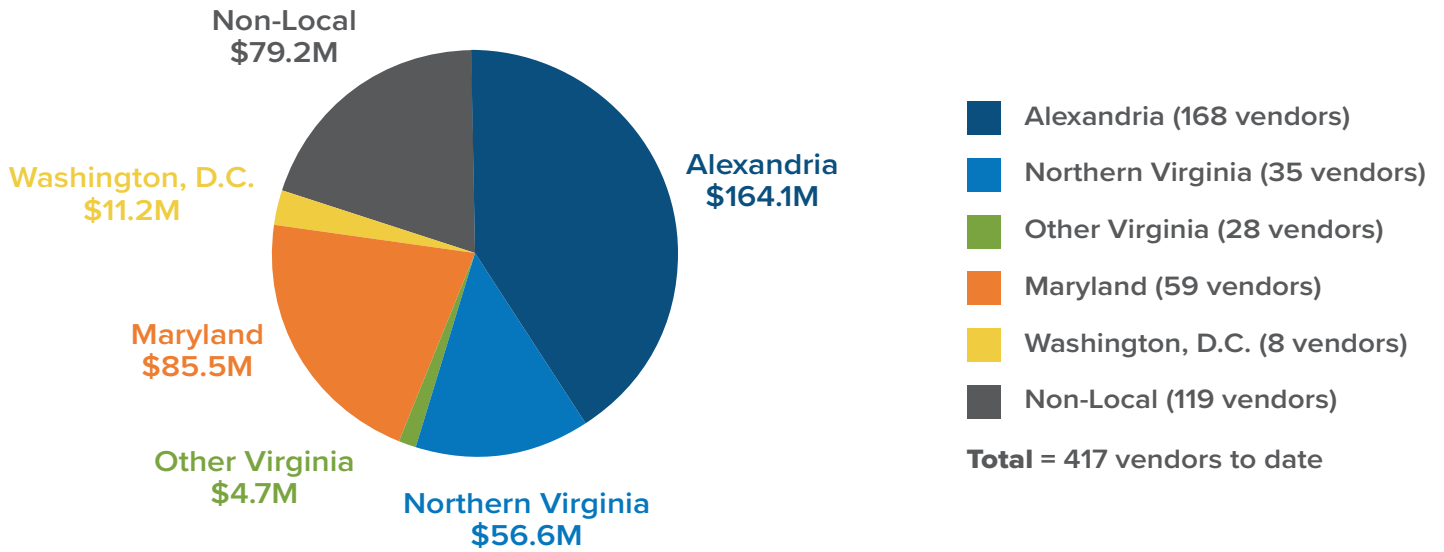


**Diversion Facility**

Click [here](#) for an introduction to diversion facilities from two RiverRenew engineers.

# RiverRenew Program Costs to Date

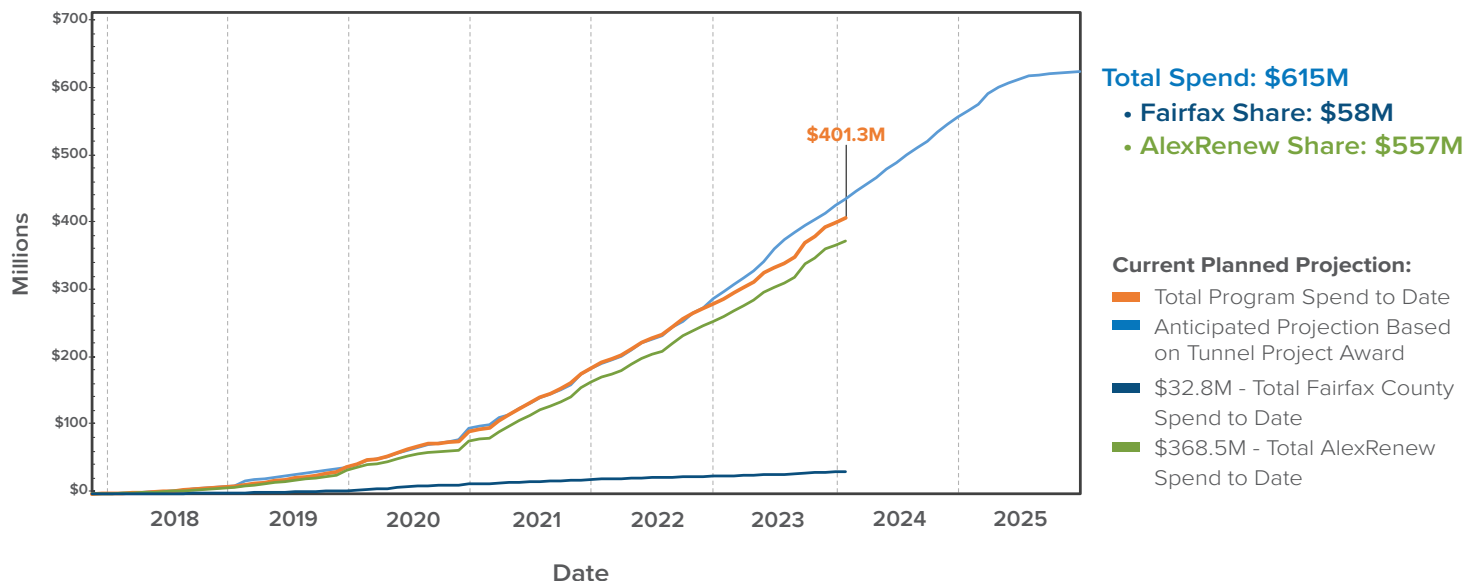
## RiverRenew Spend to Date by Locality



## RiverRenew Tunnel Project Contracts

Vendor	Role	Contract Type	Contract No.	Contract Date	Spent to Date (\$ millions)
Traylor-Shea Joint Venture	Design-Builder Tunnel System Project	Design-Build	19-079	Dec 2020	\$255.1
Brown and Caldwell	Owner's Advisor	Professional Services	17-022	Nov 2017	\$75.5
EPC	Resident Engineering & Inspection Tunnel System Project	Professional Services	20-013	Apr 2020	\$18.3
Completed RiverRenew Wastewater Projects to Pave the Way for the Tunnel Project					\$52.4

## RiverRenew Cash Flow Analysis



Note: As of January 31, 2024.

# RiverRenew Community Outreach



## Community Meetings

**Community meetings** are presentations given to various stakeholder groups, including the SAG. These presentations can be delivered in person or virtually.

### Highlights:

- 2023-2024 RiverRenew SAG Meeting No. 6: [January 18, 2024](#)

### Looking Ahead:

- 2024-2025 RiverRenew SAG Meeting No. 1: [March 21, 2024](#)
- 2024-2025 RiverRenew SAG Meeting No. 2: [June 20, 2024](#)



## Digital Programming

**Digital programming** keeps the community connected to RiverRenew with regular program updates on RiverRenew.com, content on AlexRenew's social media pages, and distribution of *The River Renewer*, a quarterly newsletter promoting updates and milestones to more than 600 contacts.

### Highlights:

- A [social post](#) sharing the completion of the concrete liner inside AlexRenew's pumping shaft
- A [360-degree view](#) of the inside of the Waterfront Tunnel



## Community Events

Participating in or co-sponsoring **community events** strengthens AlexRenew's relationship with its water and community partners.

### Looking Ahead:

- Sip 'n See event at Hooffs Run: Tuesdays between 11 a.m. and 1 p.m.
- Sip 'n See event at Royal Street: Wednesdays from 11 a.m. to 1 p.m.
- Sip 'n See event at Pendleton Street: Thursdays between 11 a.m. and 1 p.m.
- Community Listening Sessions:  
[May 6: Pendleton Street Site](#)  
[May 7: Royal Street Site](#)  
[May 9: Hooffs Run Site](#)



## Council-Board Workgroup

The **Council-Board Workgroup** comprises two members from AlexRenew's Board of Directors and two members from the Alexandria City Council.

### Looking Ahead:

- Council-Board Workgroup Meeting No. 22: [May 8, 2024](#)



## Education

**Education** initiatives are intended to engage audiences of all ages and help them learn more about RiverRenew and its technical components.

### Looking Ahead:

- First printed editions of *The Backhoe Brothers Dig Deep!* coming soon



## Community Days

**Community days** feature project-specific events to celebrate construction progress on the Tunnel Project and engage the community along the way.

### Looking Ahead:

- Tunnel Completion Open House: Mar-Apr 2024
- Hooffs Run Planting Day: Spring 2024

# Monthly Construction Spotlight



## New target date for Jamieson Avenue reopening: March 4!

In mid-October, RiverRenew crews closed Jamieson Avenue to support the construction of the Hooffs Run Interceptor. Since the start of the closure, our crews have been delayed by approximately 30 days due to the following impacts:

- Loss of workdays due to flooding associated with excessive rainfall in December and January;
- Loss of workdays due to snow events in January; and
- Additional time to remove unanticipated obstructions encountered during excavation, such as left-in-place support of excavation and additional concrete encasement of the existing Commonwealth Interceptor.

In order to meet their March 4th target, crews are working extended hours Monday through Friday and working on Saturdays as coordinated and permitted by the City of Alexandria.

Learn more about Hooffs Run Interceptor construction at [RiverRenew.com/construction/hooffs-run](https://www.RiverRenew.com/construction/hooffs-run).

## Building for the Future of Alexandria's Waterways

To learn more, visit [www.RiverRenew.com](https://www.RiverRenew.com)



RiverRenew is a program owned and implemented by AlexRenew, Alexandria's wastewater treatment authority.