YOUR INVESTMENTS AT WORK:

Healthier Waterways for a Sustainable Community

Alexandria Renew Enterprises Annual Report Fiscal Year 2019

ALEXANDRIA
re*new*
ENTERPRISES®

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Water is life, and clean water is health.

Audrey Hepburn

We Make Your Used Water Usable.

Clean waterways are essential to our future. Every day, we transform millions of gallons of used water back into usable water to help our community thrive.

Karen Pallansch
CEO

Bill Dickinson
SECRETARY - TREASURER
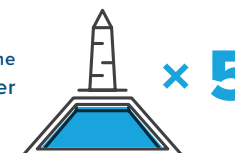
James Beall
MEMBER

John Hill
CHAIR

Patricia Turner
MEMBER

Bruce Johnson
VICE CHAIRMAN

MORE THAN 35 MILLION GALLONS of used water into usable water every day

This is enough water to fill the Lincoln Memorial Reflecting Pool five times over × 5

SERVING 305,000
in Alexandria and parts of Fairfax

ALMOST $1 BILLION
invested from 1956 — Present

CLEANING WATER FOR
63 YEARS

100+
WATER PROFESSIONALS

Aerial of AlexRenew campus, located in the Carlyle area of Alexandria

~~~ Clean waterways support a thriving community.

Recreation, public and environmental health, and our economy all depend on a well-functioning water system. Alexandria Renew Enterprises (AlexRenew), the partner in our water system that makes your used water usable, is passionately committed to serving Alexandria and parts of Fairfax County with clean water and healthy waterways. Every day, we transform more than 35 million gallons of used water into usable water, and reuse the byproducts of our water cleaning process, supporting a physically and economically healthy city.
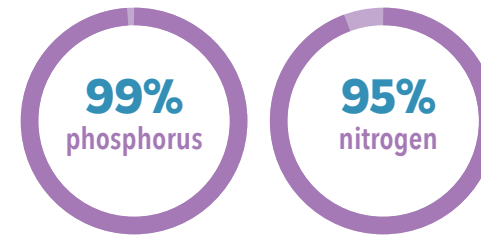
During the past 63 years, our customers have invested almost $1 billion in water cleaning equipment, facilities, and technology to ensure our team of water professionals cleans our customers' used water to some of the **highest standards in the country.**
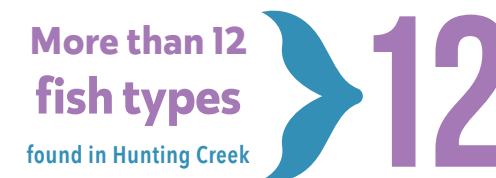
We Clean Your Used Water with Excellence.

Nitrogen and phosphorus cause algae blooms that rob waterways of oxygen and sunlight essential to aquatic life. Our team eliminates almost all of those pollutants to keep streams and rivers healthy.

99% phosphorus

95% nitrogen

removed from wastewater, preventing these two harmful pollutants from entering our waterways

24,000 individual analyses

by AlexRenew's lab to **ensure quality process monitoring and compliance with regulations**

More than 12 **fish types** found in Hunting Creek

>12

FIVE TIMES

the adult Alewife fish in Hunting Creek than the previous year

AlexRenew is one of the world's most advanced water resource recovery facilities and foremost clean water experts.

Your investments and partnership help us clean your used water with excellence. Last year, **we removed 99.5% of phosphorus and 95% of nitrogen from Alexandria's used water.** These pollutants stimulate the growth of excessive amounts of algae in waterways, reducing the oxygen and sunlight needed for seagrasses and other aquatic life to thrive. By removing almost all phosphorus and nitrogen from your used water, AlexRenew plays a critical role in protecting our local waterways.

Careful Monitoring to Ensure a Return on Your Investment

Our on-site laboratory team carefully monitors water quality throughout our entire process of making your used water usable. During the past year, they **conducted approximately 24,000 individual analyses**, thoroughly monitoring each step in our used water cleaning process. Our daily rigorous testing ensures compliance with clean water regulations. This is crucial, as the used water we clean is returned to Hunting Creek which flows into the Potomac River – and ultimately, the Chesapeake Bay.

Partnering for Positive Environmental Impact

AlexRenew has collaborated with George Mason University's Potomac Environmental Research and Education Center (PEREC) for five years to sample water and aquatic life in Hunting Creek, where we release our cleaned water back into the Potomac River. They reported a healthy ecosystem with **more than a dozen species of fish and submerged aquatic vegetation carpets, and found more than five times the adult Alewife fish** in Hunting Creek than the previous year.
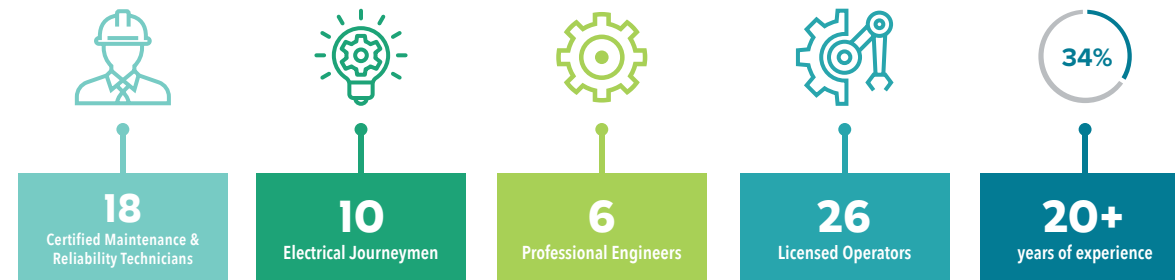
We Serve You Every Minute of Every Day with Passion and Expertise.

Our team is committed, highly skilled and up-to-date on the latest water transformation techniques and technology. And we're building the workforce of the future through apprenticeships and internships.
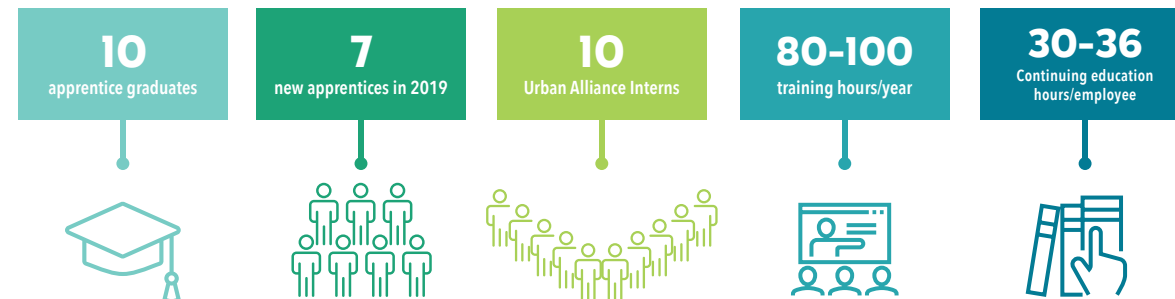
Our water transformation team holds more than 100 licenses and certifications, and 34% of them have more than 20 years of experience.
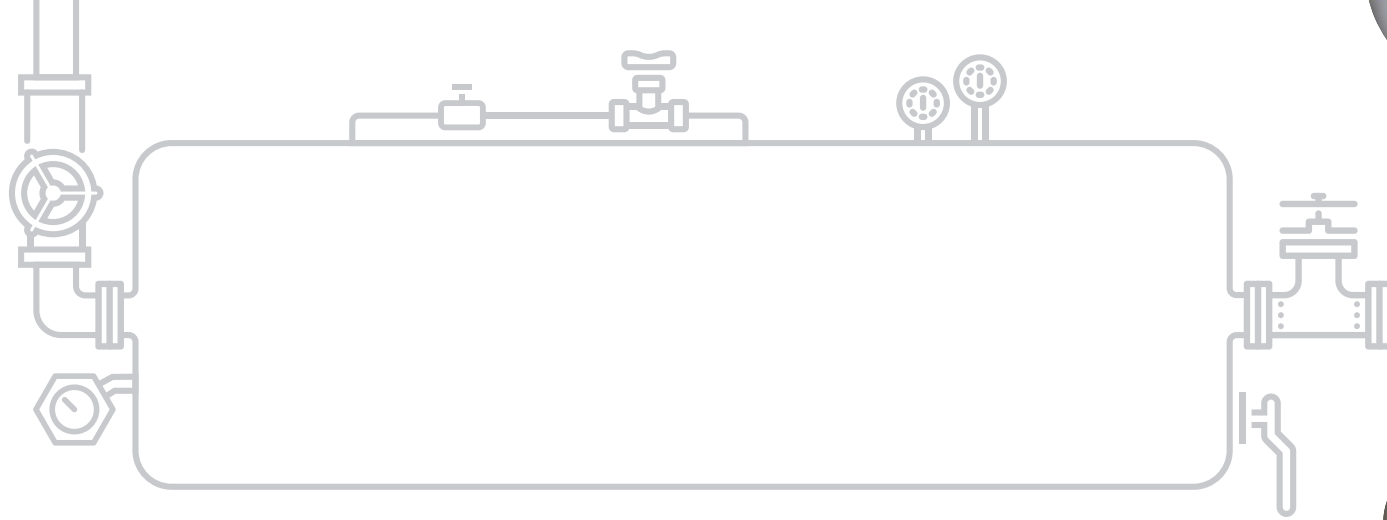
Last year, each of our employees committed to 80 to 100 hours of training, and logged more than 30 hours of continuing education. Our team's commitment to earning and renewing licenses and certifications and attending training is anchored in our dedication to serving our city and water world, and our mission of leading public health protection through effective water resource recovery efforts.

Our licensed and certified water professionals clean your used water so it is usable again:

18	10	6	26	20+
Certified Maintenance & Reliability Technicians	Electrical Journeymen	Professional Engineers	Licensed Operators	years of experience

34%

We are building our water workforce of the future to ensure continuity of water cleaning expertise:

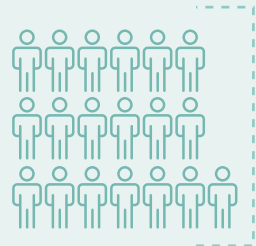| 10	7	10	80-100	30-36
apprentice graduates	new apprentices in 2019	Urban Alliance Interns	training hours/year	Continuing education hours/employee

Developing the Workforce of the Future

We are creating the water workforce of the future through our apprentice program. We instituted this comprehensive training program, certified by the Virginia Department of Education and the Virginia Department of Labor, to provide continuity of water cleaning enthusiasm and proficiency to future generations of AlexRenew customers. Through an effective combination of hands-on training under the direction of an experienced mentor and intensive classroom training, our apprentices learn what it takes to serve a community with clean water.

Since the start of this program,
19 APPRENTICES
have graduated to become
wastewater plant operators, electricians, and mechanics.

Earlier this year,
we hired seven
new apprentices.

Marcus Andrew, Operator in Training, examines microbes that clean used water
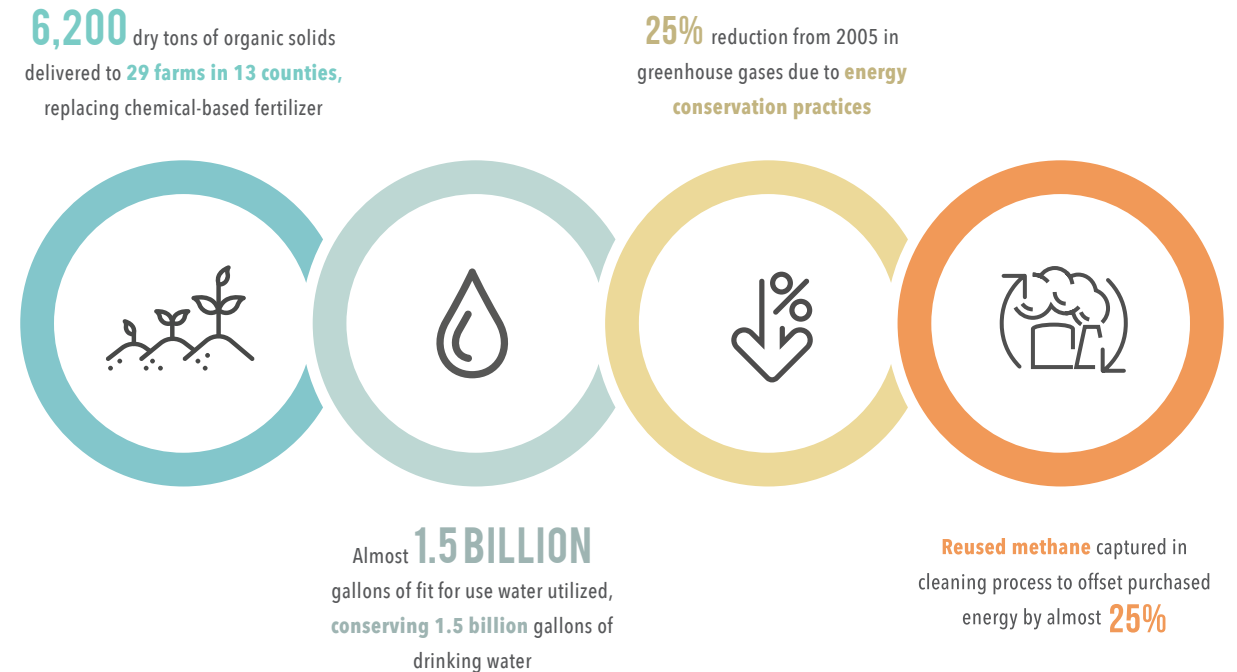
We also host two high school interns annually through our partnership with Urban Alliance Foundation, an organization that trains youth from under-resourced areas for work and self-sufficiency.
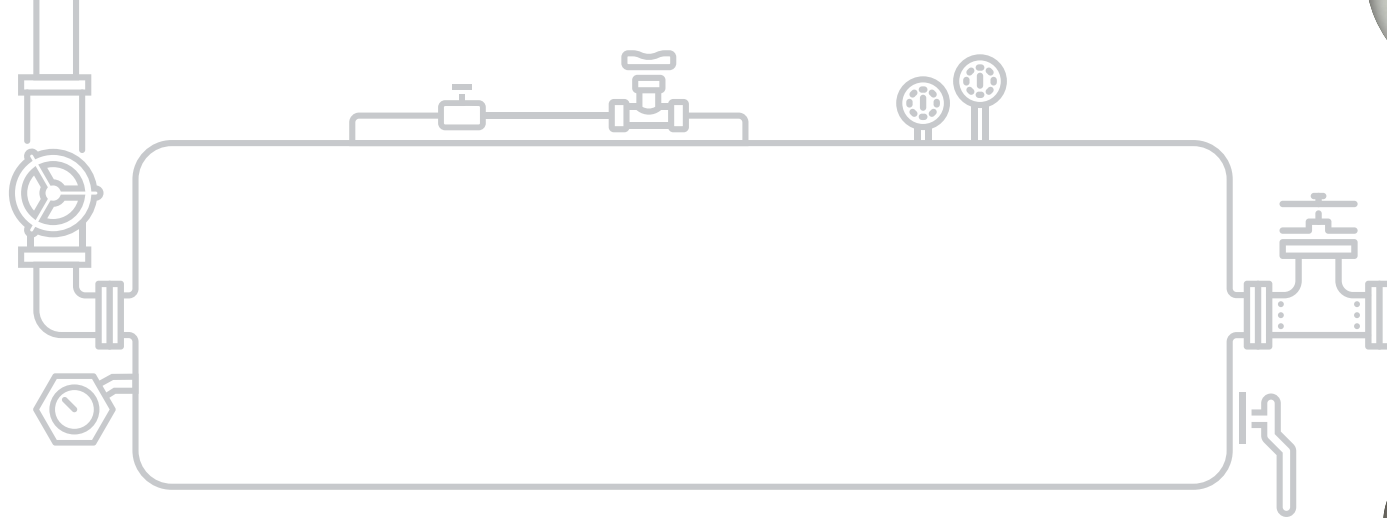
Most of our interns we have hosted are pursuing STEM careers.

URBAN ALLIANCE

We Reuse the Resources You Send to Us in Your Used Water.

Nothing goes to waste. Our processes creates a bio-based fertilizer, methane gas to use in our operations, and cleaned water for non-drinking uses. That helps reduce greenhouse gases for a healthier community and world.

6,200 dry tons of organic solids delivered to **29 farms in 13 counties,** replacing chemical-based fertilizer

25% reduction from 2005 in greenhouse gases due to **energy conservation practices**

Almost **1.5 BILLION** gallons of fit for use water utilized, **conserving 1.5 billion** gallons of drinking water

Reused methane captured in cleaning process to offset purchased energy by almost **25%**

Your wastewater is a resource that is too good to waste. We reuse what you send us in your used water, and we also reuse the resources generated from our water cleaning process. This creates a sustainable operation that saves energy and reduces greenhouse gases.

BioRenew - Our solids reuse product

During our water cleaning process, we separate solids from the wastewater. We pasteurize these solids to eliminate germs and deliver this nutrient-rich organic product to farmers to use as fertilizer. Last year, AlexRenew distributed BioRenew to 29 farms in 13 counties, recycling more than 240 tons of nitrogen back into the soil. By providing more than 6,200 dry tons of BioRenew to farmers in our region, we eliminated their need to use an equivalent amount of chemical-based fertilizers to enrich their fields.

Our BluRenew water is used in a fish tank in our Environmental Center lobby

eRenew - Our methane gas reuse product

We capture and reuse more than 95 percent of the methane gas produced as our digesters – which act like giant stomachs – break down the solids that are separated from wastewater. Last year, we offset purchased energy by almost 25 percent, using eRenew gas to heat our water cleaning plant.

BluRenew - Our fit for use water product

Clean water is an essential and limited resource, and we must find ways to reuse it. Our BluRenew fit for use water is clean, odorless and highly treated through a process regulated by the Virginia Department of Environmental Quality (DEQ). Using BluRenew conserves precious drinking water resources because it is a replacement product for non-drinking water uses. For instance, we used almost 1.5 billion gallons of BluRenew last year for flushing, cleaning equipment, irrigation, heating and cooling, and in educational water features.

We are Creating a Sustainable Water Future for You.

By 2025, RiverRenew will create a tunnel system to capture sewage mixed with rainwater for treatment. The project will prevent sewage from polluting the Potomac River, other waterways, and the Chesapeake Bay.

AlexRenew made significant progress this past year in advancing RiverRenew, the program to build a tunnel system to fix Alexandria's combined sewer system. This progress, largely through achieving key permitting and design milestones, is essential to meeting the July 2025 deadline established by the Virginia General Assembly in 2017. Behind the success of major milestones is RiverRenew's engagement with the Alexandria community and partnerships with the City of Alexandria, the Commonwealth of Virginia, and local environmental and educational entities.

$25 million
grant approved by General Assembly

13
Stakeholder Advisory Group members

$370 – $555 million
estimated cost for RiverRenew

Community input has been vital in understanding the ways to mitigate impacts to residents. AlexRenew worked with the City of Alexandria to select and launch the 13-member RiverRenew Stakeholder Advisory Group (SAG) in February 2019. This citizen group represents Alexandria neighborhoods, businesses, and environmental groups, and provides diverse perspectives, key in reaching and representing the Alexandria community. The SAG has been providing valuable feedback on designs for the RiverRenew program and has been essential in garnering support for permitting this year.

RiverRenew also participated in 20 community events and presented at over 40 community meetings. The feedback from this outreach was critical to incorporating community amenities into the overall design for RiverRenew, including stream restoration over new sewer infrastructure along Hooffs Run, and a publicly-accessible promenade on top of tunnel infrastructure adjacent to Oronoco Bay Park.

Caitlin Feehan, RiverRenew Program Manager, speaks to attendees at a RiverRenew community Listening Session

RiverRenew is currently expected to cost between $370-$555 million. Recognizing the need to lessen the financial impact of RiverRenew on our customers, AlexRenew and the City of Alexandria have been working together to obtain federal and state assistance. In February, the General Assembly announced it is allocating a $25 million grant toward the total cost of the project to help offset RiverRenew costs.

Partnerships with educational and environmental groups have provided a deeper understanding of the local waterways that will benefit from the RiverRenew tunnel system. Beginning this year, George Mason University (GMU) and the Potomac Riverkeeper are collecting water quality sampling data from the Potomac River, Hooffs Run, and Hunting Creek. This work helps us understand the health of these waterways prior to RiverRenew implementation.

When Our Neighbors Talk About Ensuring a Sustainable Community, We Listen.

Some of our best ideas come from you. Residents' input led to a multipurpose field being built on top of wastewater tanks and is changing RiverRenew's design.

Sports field
Public art
stream restoration
Promenade

(write your own idea!)

LEED Platinum building
Use native plants

When we were upgrading our Four Mile Run Pump Station, we listened to ideas from our neighbors in Arlandria and created an educational fence around the pump station that teaches visitors about how we clean water. When we were planning to build large wastewater tanks on our campus, our neighbors told us they needed more recreational space, and we built Limerick Street field, a multipurpose field managed by the City Department of Recreation, Parks, and Cultural Activities, on top of those tanks.

We are also listening to you as we plan the RiverRenew program. We have adapted the design for RiverRenew to address the feedback we received from our neighbors during the past year. The Waterfront Tunnel will run under the Potomac River, with mining for this tunnel conducted from the AlexRenew campus. For the Hooffs Run Tunnel, we will upsize and replace our existing Commonwealth Interceptor, to minimize the impact on potential archeological resources, and reduce the amount of digging, traffic, and disruption to the Carlyle community. Our diversion facility for Outfall 001 in Oronoco Bay will be built at Robinson Terminal North, the location of least impact, and one that will not require closing the Union Street during construction.

Alexandria soccer players
on Limerick Street Field

We Partner with the Community to Further Serve You.

We value our connections with residents, whether we see you at community events, at tours of our water-cleaning operation or other meetings on our campus.
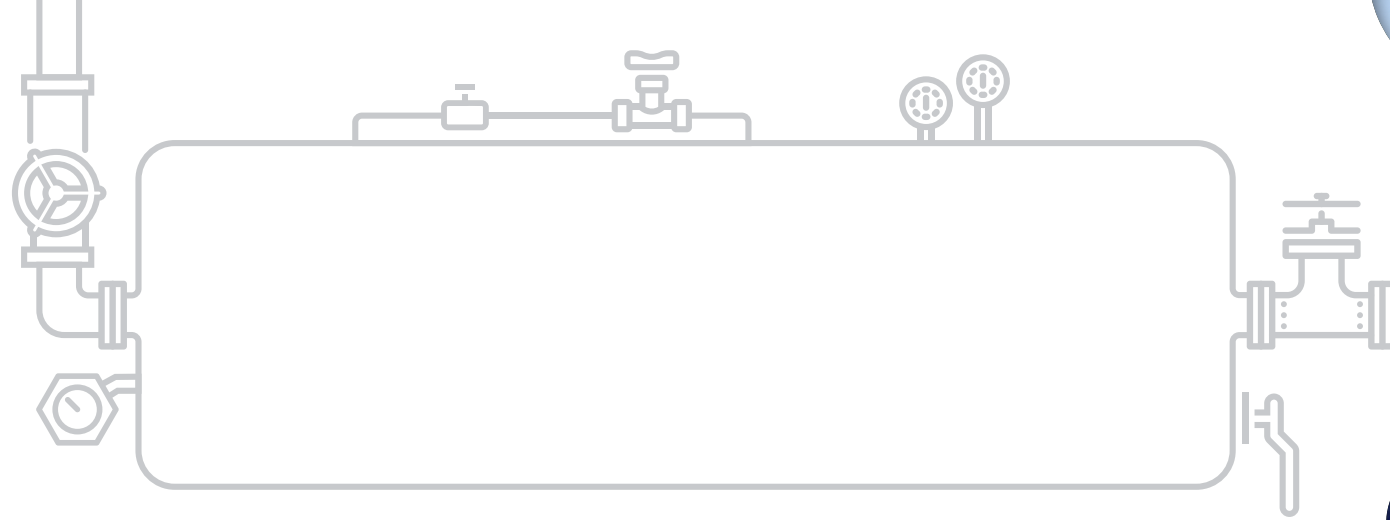
50
community partners

70+
tours of our campus

5,000+
visitors using our community meeting rooms

The AlexRenew team further expresses its devotion to caring for our community's water by inspiring personal connections with local waterways through outreach, events, and partnerships with other energetic and involved local organizations.

Last year, we worked with more than 50 local partners to help citizens of all ages understand the value of clean water by organizing and participating in approximately 75 local events, including Water Discovery Day and Alexandria's Annual Earth Day Celebration.

We led more than 70 tours of our water-cleaning campus to groups of students and neighbors who wanted to better understand how we clean water and how they can be supporters of water.

Almost 5,000 people attended meetings on the sixth floor of our Environmental Center, where we offer use of a suite of meeting rooms to community organizations at low or no cost.

The AlexRenew tent at Earth Day; water partners Virginia American Water and the City of Alexandria had tents next to ours
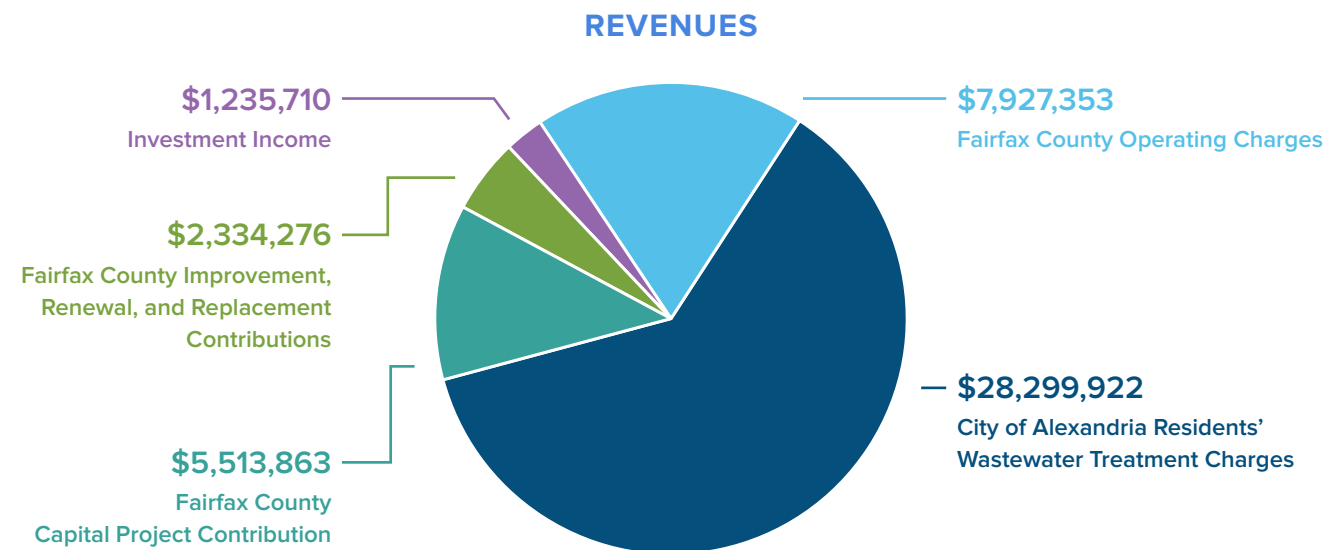
One Water Alexandria
AlexRenew works closely with our water system partners, Virginia American Water and the City of Alexandria, to achieve shared goals of improving water quality in local waterways, protecting public health, and promoting economic growth in our community. We also created a One Water Alexandria outreach partnership to help our customers understand each of our roles within the water system that serves our community.
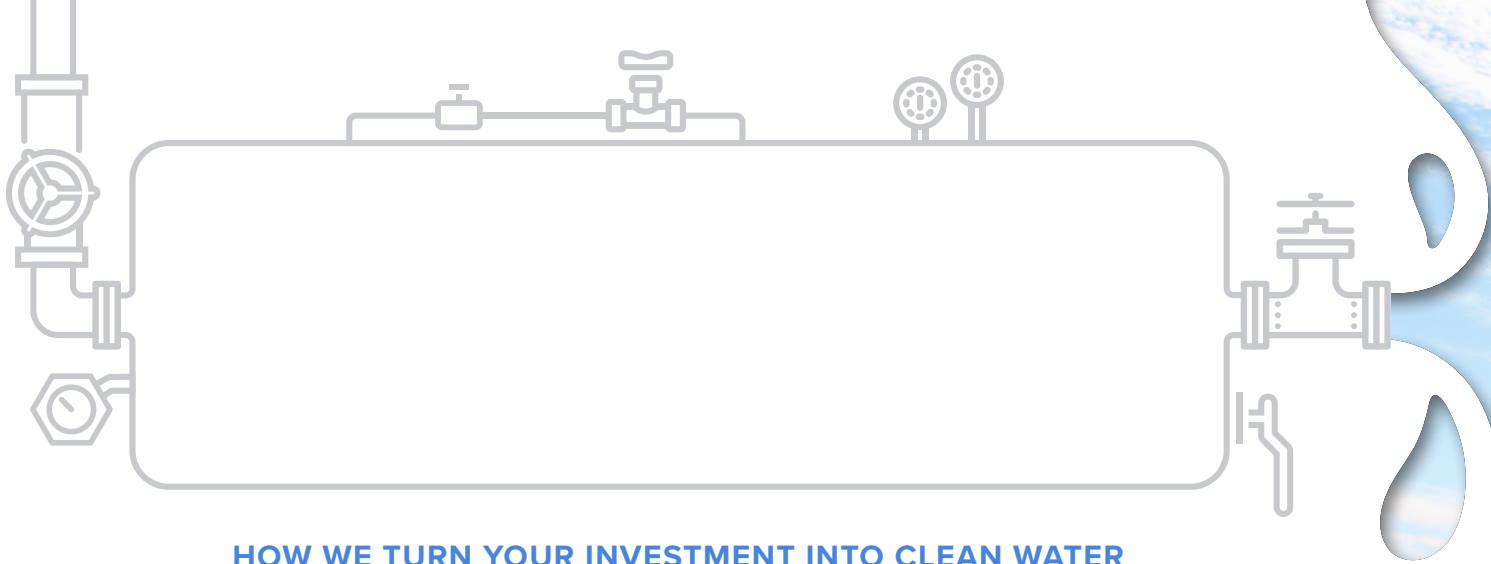
We Carefully Steward Your Clean Water Investments

We use your investment in AlexRenew to make our community stronger and we're dedicated to spending your money wisely.

We manage our financial resources to create an efficient and resilient organization that contributes to the health of the economy.

REVENUES

$1,235,710
Investment Income

$2,334,276
Fairfax County Improvement,
Renewal, and Replacement
Contributions

$5,513,863
Fairfax County
Capital Project Contribution

$7,927,353
Fairfax County Operating Charges

$28,299,922
City of Alexandria Residents'
Wastewater Treatment Charges

HOW WE TURN YOUR INVESTMENT INTO CLEAN WATER

$2,559,436
Improvement, Renewal and Replacement
Repairing and replacing critical equipment and infrastructure so we can continue to clean water effectively and efficiently.

$998,838
Arlington Sewage Disposal
Supporting the operations and maintenance associated with the City of Alexandria's allocated wastewater treatment in the Arlington County Water Pollution Control Plant for a small portion of Alexandria.

$4,307,918
Operational Excellence
Costs for energy, chemicals, and other resources needed to transform our water.

$1,134,662
Public Engagement and Trust
Customer service and education functions to share the benefits of clean water in our community.

$1,737,120
Watershed Stewardship
Specialized, expert services to support AlexRenew's core function of cleaning water.

$9,083,517
Adaptive Culture
Providing best-in-class water professionals for effective and safe operations.

$798,532
Effective Financial Stewardship
Maintaining our infrastructure and technology to most efficiently and effectively clean dirty water.

George Mason University Potomac Environmental Research and Education Center (PEREC) staff conduct water testing in Hunting Creek, where we release our cleaned water.

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Enterprises

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callmemoxie