

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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David K. Paylor Director

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Matthew J. Strickler Secretary of Natural Resources

To:

The Honorable Ralph S. Northam, Governor

The Honorable Matthew J. Strickler Secretary of Natural Resources

The Honorable Janet D. Howell

Chair, Senate Committee on Finance and Appropriations

The Honorable Chap Petersen

Chair, Senate Committee on Agriculture, Conservation and Natural Resources

The Honorable Luke Torian

Chair, House Committee on Appropriations

The Honorable Kenneth R. "Ken" Plum

Chair, House Committee on Agriculture, Chesapeake and Natural Resources

The Honorable David L. Bulova

Vice-Chair, Chesapeake Bay Commission

The Honorable Robert S. Bloxom, Jr. Member, Chesapeake Bay Commission

The Honorable Nancy D. Guy

Member, Chesapeake Bay Commission

The Honorable Emmett W. Hanger, Jr. Member, Chesapeake Bay Commission

The Honorable Lynwood W. Lewis, Jr. Member, Chesapeake Bay Commission

Dennis H. Treacy

Member, Chesapeake Bay Commission

From: David K. Paylor

Date: January 1, 2021

Subject: Alexandria Combined Sewer Overflow Outfall Progress Report (2020)

In accordance with the 2017 Virginia Acts of Assembly Chapters 826 and 827, the Department of Environmental Quality is transmitting the attached 2020 General Assembly Report for Virginia Pollution Discharge Elimination System (VPDES) Permit VA0087068 from Alexandria Renew Enterprises (AlexRenew).

If you have any questions concerning this report or would like a hard copy of this report, please contact Brandon Bull, Water Policy Manager, at (804) 698-4092.



#### **Board of Directors**

John Hill, Chair James Beall, Vice Chair William Dickinson, Sec'y-Treas Bruce Johnson Adriana Caldarelli

Chief Executive Officer Karen L. Pallansch. P.E., BCEE

> General Counsel McGuireWoods, LLP

#### **October 30, 2020**

Tom Faha, Director Virginia Department of Environmental Quality Northern Regional Office 13901 Crown Court Woodbridge, VA 22193-1453

Subject: 2020 General Assembly Report for Virginia Pollution Discharge Elimination System

(VPDES) Permit VA0087068

Dear Mr. Faha:

In accordance with Part I, Paragraph F.9 of the Virginia Pollutant Discharge Elimination System (VPDES) Permit VA0087068, Alexandria Renew Enterprises (AlexRenew) is submitting this letter to report on the implementation status of the approved 2018 Long Term Control Plan Update (LTCPU).

AlexRenew has made significant progress with respect to the implementation of the LTCPU over the past year. The approved LTCPU, branded as "RiverRenew" since July 2018, includes four (4) major projects that are currently underway and discussed herein. The 2020 General Assembly Report will provide updates on:

- AlexRenew's response to the ongoing COVID-19 pandemic;
- Implementation status of RiverRenew projects;
- Third party coordination and permitting milestones;
- Stakeholder outreach and engagement efforts;
- Budget and funding associated with RiverRenew; and
- A look ahead to major milestones anticipated in 2021.

#### AlexRenew's Response to the COVID-19 Pandemic

AlexRenew and its partners are finding new ways to meet milestones, while navigating the evolving COVID-19 pandemic. Despite the pandemic, RiverRenew is still on-track to meet its legislative mandate of completion by July 1, 2025. Critical to improving the health of Alexandria's waterways, RiverRenew consists of a Tunnel System Project and multiple projects to upgrade AlexRenew's Water Resource Recovery Facility (WRRF). When complete, these projects will help capture and treat millions of gallons of combined sewage that would otherwise pollute local rivers and streams during rain events.

The procurement process for the Tunnel System Project was completed in October 2020, and the AlexRenew Board of Directors will consider the contract award at the upcoming meeting on November 17, 2020. Amid the pandemic, AlexRenew adapted to keep the procurement process on-schedule to meet the goals of the legislative mandate. Secure virtual conference platforms replaced confidential

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Alexandria's Water Transformers

face-to-face meetings, and AlexRenew developed innovative contract terms to manage and minimize COVID-19 risks during final design and construction.

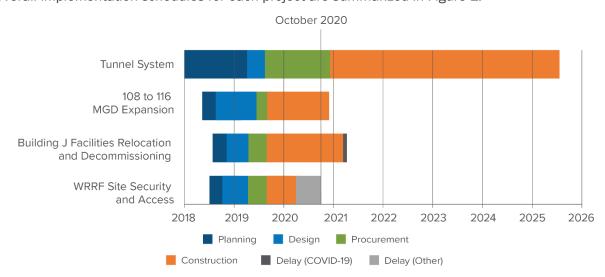
To comply with the Centers for Disease Control and Prevention's protocol and Virginia's Stay-at-Home order, AlexRenew implemented teleworking procedures and team rotations to meet continuity of operations requirements and keep construction work moving forward. To ensure that work stays on-schedule and to keep staff safe, strict protocols for site access were developed, alternate work schedules for contractors and construction management teams were established, and construction operations have been confined to discrete areas on-site. Currently, it is anticipated that ongoing construction work occurring at AlexRenew as precursor work to the Tunnel System Project will be complete by April 2021.

#### **Implementation Status of RiverRenew Projects**

To comply with the 2017 legislative mandate, AlexRenew is in the process of implementing four (4) major projects that include:

- Tunnel System Project. 12-foot diameter, 2-mile-long storage and conveyance tunnel; 6-ft diameter, 0.5-mile-long conveyance sewer; 20-million-gallon-per-day tunnel dewatering pumping station; 130-million-gallon-per-day wet weather pumping station; and wet weather treatment.
- **108 to 116 MGD Expansion Project.** Upgrades to AlexRenew's primary pumping capacity at the WRRF.
- **Building J Facilities Relocation and Decommissioning Project.** Relocation of facilities including the WRRF laboratory, chiller system, and instrumentation and controls system; and demolition of AlexRenew's former administrative building.
- **Site Security and Access Project.** Upgrades to AlexRenew's existing access points and site security system to accommodate construction at the WRRF.

Overall implementation schedules for each project are summarized in Figure 1.



**Figure 1.** Overall Implementation Schedule for RiverRenew Projects

As of this submittal, the WRRF projects are currently under construction, with anticipated Final Completion scheduled for April 2021.

At the time of this submission, the 108 to 116 MGD Project neared Substantial Completion. This represents a major milestone, since it is the first project that will help manage wet weather flows and assist in preventing 130 million gallons of combined sewage from entering local waterways as well as help AlexRenew manage overall jurisdictional wet weather flows. The Building J project also hit a significant milestone in October 2020, with employees moving into the new laboratory and locker room spaces in Building G/1. Additionally, the Site Security Project reached Substantial Completion in September 2020, making the site safe and secure for the tunnel work expected to start early next year.

Table 1 summarizes the major milestones reached this year as well as percent complete for each project at the WRRF.

**Table 1.** Implementation Status for Ongoing WRRF Projects

Project	Major Milestones	Percent Complete*
108 to 116	<ul> <li>Substantial Completion anticipated November 4, 2020</li> <li>Pumps able to meet design capacity of 116 MGD</li> <li>AlexRenew able to push 116 MGD through preliminary and primary treatment</li> </ul>	92%
Building J	<ul> <li>New laboratory and locker rooms reached beneficial occupancy and staff moved into new spaces on October 23, 2020</li> <li>Building demolition currently underway</li> </ul>	78%
Site Security and Access	<ul> <li>Reached Substantial Completion on September 18, 2020</li> <li>New gates and security booths commissioned on October 8, 2020</li> </ul>	77%

<sup>\*</sup>NOTE: Percent complete based on project amount spent to date at time of this submittal

The Tunnel System Project was procured through a two-step procurement process that started in June 2019 and consisted of Request for Qualifications (RFQ) and Request for Proposals (RFP) periods. In response to the RFQ, AlexRenew received Statements of Qualifications from eight (8) Design-Build teams. In October 2019, three (3) Design-Build Teams were shortlisted to submit Technical and Price Proposals. The Shortlisted Design-Build Teams included Clark-Atkinson-Michels Limited Liability Corporation, Kiewit-McNally Joint Venture, and Traylor-Shea Joint Venture.

In February 2020, AlexRenew completed the Tunnel System Project RFP Documents, which were subsequently issued to the Shortlisted Design-Build Teams. The RFP Documents included preliminary engineering drawings, specifications, and data and baseline reports. Issuance of the RFP Documents started the collaborative period with the Shortlisted Design-Build Teams, which consisted of a series of confidential meetings with each team to discuss design and construction approaches along with contract terms and conditions. During this period, AlexRenew issued eight (8) addenda to the RFP Documents and completed additional geotechnical investigations to support data requests from the

teams. Following the completion of the collaborative process, AlexRenew received Technical and Price Proposals in September 2020.

To select a Design-Build Team, AlexRenew first evaluated Technical Proposals based on the following criteria that included; Team Organization and Commitment, Design and Construction Plan, Community Impact Mitigation Plan, Design and Construction Schedule, and Maintenance of Plant Operations and Systems Integration.

Following the review of Technical Proposals, AlexRenew conducted formal presentations and interviews with each team. The presentations were based on the criteria outlined above and supplemented with a question-and-answer period to clarify Technical Proposal contents. Once Technical Proposal scoring was finalized, Price Proposals were opened to determine which team provided the best value based on a 50-percent price and 50-percent technical weighting. Announcement of the successful Design-Build Team is planned for the November 17, 2020 AlexRenew Board of Directors meeting. Construction Notice to Proceed is anticipated in December 2020.

A summary of the procurement timeline for the Tunnel System Project is summarized in Figure 2.



**Figure 2.** Tunnel System Project Procurement Timeline

#### **RiverRenew Third Party Coordination and Permitting Milestones**

As presented in previous General Assembly Reports, AlexRenew assumed responsibility of the Combined Sewer System Virginia Pollution Discharge Elimination System (VPDES) Permit (VA0087068) from the City of Alexandria in September 2018. As part of the renewal process for the WRRF VPDES Permit (VA0025160), AlexRenew requested that the two (2) permits be consolidated. Following AlexRenew's VPDES Permit renewal application, VDEQ determined that the application was administratively complete in August 2019. AlexRenew and VDEQ continued to coordinate permit finalization and issuance throughout 2020. It is currently anticipated that VDEQ will issue the renewal of the consolidated VPDES Permit in early 2021.

Throughout 2020, AlexRenew has continued close coordination with regulatory agencies to finalize the major permits required for RiverRenew. Permitting milestones in 2020 included the following:

- **National Park Service** issuance of the Finding of No Significant Impact for the RiverRenew Environmental Assessment in April 2020;
- Virginia Marine Resources Commission issuance of Subaqueous Lands Permit in June 2020;

- **City of Alexandria and AlexRenew** developed a streamlined permitting approach to align with the unique nature of design-build work; and
- Fairfax County, a jurisdictional partner with AlexRenew, and AlexRenew partnered on a Memorandum of Agreement to share costs associated with RiverRenew.

Major remaining permits for RiverRenew include the National Park Service Construction/Right-of-Way Permits, U.S. Army Corps of Engineers Clean Water Act Section 404/Section 10 Permits, and VDEQ Clean Water Act Section 401 Water Quality Certification. Issuance of these permits is anticipated in December 2020.

Additionally, AlexRenew has secured most rights-of-way, easements, and agreements for RiverRenew. Out of nine (9) agreements with property owners, six (6) are executed, while the remaining are under final negotiation.

#### **RiverRenew Program Cost and Funding**

In June 2020, the AlexRenew Board of Directors approved an updated Fiscal Year 2021 (FY2021) budget that acknowledged the ongoing COVID-19 pandemic impacts on the regional community.

The updated FY2021 budget allows AlexRenew to continue essential operations to clean wastewater while fulfilling its commitment to complete RiverRenew. The updated budget included reductions in operational expenses, deferral of capital projects, and a reduction in the previously approved rate increase.

The rate increase is needed to support RiverRenew, which will be largely funded through sewer rate increases imposed on Alexandria residents. The previously approved rate increase of 11 percent was reduced to 6.6 percent, balancing the need to fund RiverRenew while acknowledging the pandemic's financial burden to the community. The reduced rate increase went into effect on July 1, 2020 and resulted in an average monthly bill increase of about \$3 per month.

Capital costs associated with RiverRenew are currently estimated between \$506 million and \$605 million. To date, AlexRenew has expended over \$70 million to support RiverRenew. In Fiscal Year 2022, sewer rate increases are estimated to increase sharply to total between \$20 and \$40 per month on top of current sewer bills.

AlexRenew has worked diligently to manage the impacts of "rate shock" on Alexandria residents. In addition to the \$25 million in Virginia Public Building Authority (VPBA) bonds issued by the Virginia General Assembly in February 2019, AlexRenew has been successful in securing preliminary commitments for low-interest loans through the Virginia Clean Water Revolving Loan Fund and Water Infrastructure Finance and Innovation Act. AlexRenew and the City of Alexandria will continue to jointly request additional VPBA authorizations to reduce the financial burden on residents.

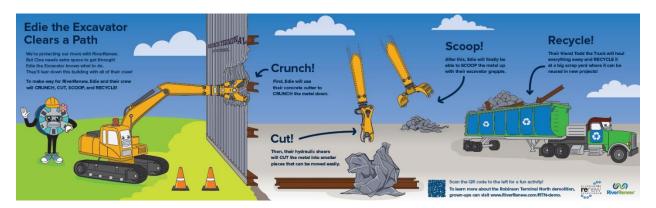
#### **Stakeholder Outreach and Engagement**

Consistent with previous phases of RiverRenew, City Council unanimously approved the formation of a new Stakeholder Advisory Group (SAG) to monitor the progress of the RiverRenew Tunnel System Project through final design and construction. The new SAG will follow the same processes used for the previous RiverRenew SAG, which completed its chartered mission and was retired in January 2020. The new SAG is proposed to consist of nine (9) members that represent neighborhoods, businesses, and environmental groups who commit to being active and engaged in the stakeholder process.

In accordance with the 2018 Outfall Transfer Agreement between AlexRenew and the City of Alexandria, the City Council-AlexRenew Board Workgroup has continued to be engaged on a quarterly basis over the last year. The Workgroup consists of Mayor Justin Wilson, Councilwoman Amy Jackson, AlexRenew Board Chair John Hill, and Vice Chair James Beall. The group continues to serve as a liaison to review plans, finances, and implementation costs, to minimize community impacts and maximize community benefits. To continue to keep the Workgroup apprised of RiverRenew progress during the pandemic, a quarterly report was developed can be viewed as an attachment to this document.

AlexRenew continues to enhance RiverRenew's digital presence with regular updates to RiverRenew.com and weekly #TunnelTakeoverTuesday content on AlexRenew's social media channels. AlexRenew significantly increased its digital programming efforts due to the pandemic and, as a result, developed over 20 videos covering a range of topics from local internships, tunnel construction, and AlexRenew's response to the pandemic. The collection of videos can be viewed here: https://vimeo.com/showcase/7227109.

To help engage younger audiences, AlexRenew introduced Cloe, the Tunnel Boring Machine, earlier this year. Cloe has a dedicated educational corner on RiverRenew.com and has been used publicly to notify the community about upcoming construction work to support the Tunnel System Project. Figure 3 shows how Cloe and her friends plan to demolish an existing building to make way for the tunnel. This campaign supplemented the installation of required informational signage notifying the community about upcoming construction work. Figure 4 illustrates the informational signage installed near Outfall 001 in Alexandria, supplemented with the informational banner.



**Figure 3.** Cloe and Friends illustrate how an existing building will be demolished and recycled to keep RiverRenew on-schedule



**Figure 4.** Preconstruction sign notifying community of upcoming work, supplemented with educational banner

### **Next Steps and Closing**

RiverRenew will transition fully to construction phases by early 2021. It is anticipated that the Tunnel System Project construction Notice to Proceed will be issued in December 2020, and the remaining work at the WRRF will be complete by April 2021. As a community anchor, AlexRenew will continue to engage and educate the community with respect to RiverRenew – with adaptation as needed due to the ongoing pandemic.

Following the November 17, 2020 AlexRenew Board of Directors meeting and the Board's anticipated vote to award, AlexRenew plans to announce the Design-Build partner to implement the Tunnel System Project. Once the details go public, they will be shared with VDEQ.

We greatly appreciate VDEQ's continued support and assistance as we sustain our vital mission to manage wastewater and improve the waterways that connect us. Should you have any questions or comments, please contact me directly at (703) 549-3382 ext. 2202 or <a href="mailto:karen.pallansch@alexrenew.com">karen.pallansch@alexrenew.com</a>.

Sincerely,

Karen Pallansch

AlexRenew General Manager

Copy: Douglas Frasier, VPDES/VPA Permit Writer, Senior II, VDEQ

Bryant Thomas, Regional Water Permit & Planning Manager, VDEQ

Emily Baker, City of Alexandria, Deputy City Manager

Jonathan Rak, McGuireWoods LLP

Preston Bryant, McGuireWoods Consulting

Attachment: 2020 Quarter 3 Council-Board Workgroup Report

2020 Quarter 3 Council-Board Workgroup Report

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# RiverRenew Council-Board Workgroup Report

2020 - 3RD QUARTER

**CO**RiverRenew



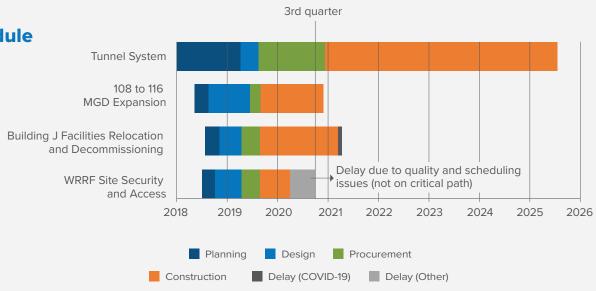
# **AlexRenew Tunnels Ahead**

# Keeping RiverRenew on track while maintaining a safe work environment

As the COVID-19 pandemic continues, the RiverRenew program remains on track to meet its legislative mandate of completion by July 1, 2025. To keep construction work moving forward while complying with the Centers for Disease Control and Prevention's protocols and Virginia's stay-at-home order, AlexRenew has implemented teleworking procedures and team rotations for essential workers.

To ensure staff safety and remain on schedule, strict protocols for site access were developed, alternate work schedules for contractors and construction management teams were established, and construction operations have been confined to discrete areas on site. Currently, it is anticipated that ongoing construction work at AlexRenew will be complete by March 2021. To keep the community informed of our progress, we are increasing RiverRenew's digital presence. Check out our featured video here.





SUMMARY OF UPCOMING ACTIVITIES		
Date:	Upcoming Activities:	
9/2020	Tunnel System Project proposals due	
Fall 2020	Robinson Terminal North (RTN) Demolition	
11/2020	Anticipated AlexRenew Board of Directors approval of Tunnel System Project	
12/2020	Anticipated Notice to Proceed for Tunnel System Project	

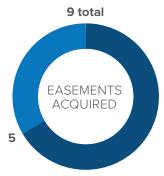
SUMMARY OF MAJOR PERMITTING DELAYS			
Issue:	Impact:		
Federal Government Shutdown 2019-2020	Delayed Environmental Assessment issuance by 2 months		
Requirement for Programmatic Agreement condition	Delayed Finding of No Significant Impact issuance by 9 months		
COVID-19 hampered review process	Delayed National Park Service and United States Army Corps of Engineers permits by 5 months		

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# **The RiverRenew Tunnel System Project**

# **Progress to Date**









# **Major Permit Status**

- VPDES permit issued September 2018
- Environmental Assessment published June 2019
- Finding of No Significant Impact issued April 2020

# **Easement Agreement Status**

## Remaining Easements:

- St. Mary's Catholic Cemetery permanent subterranean easement
- Two private properties permanent subterranean easement
- Presbyterian Cemetery temporary easement

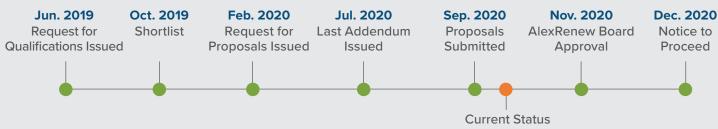
# **Funding Status**

- \$25 million grant appropriated by the Virginia General Assembly in April 2019
- Received preliminary approvals from the Virginia Clean Water Revolving Loan Fund (VCWRLF) and the Water Infrastructure Finance and Innovation Act (WIFIA)

## **Site Investigations Status**

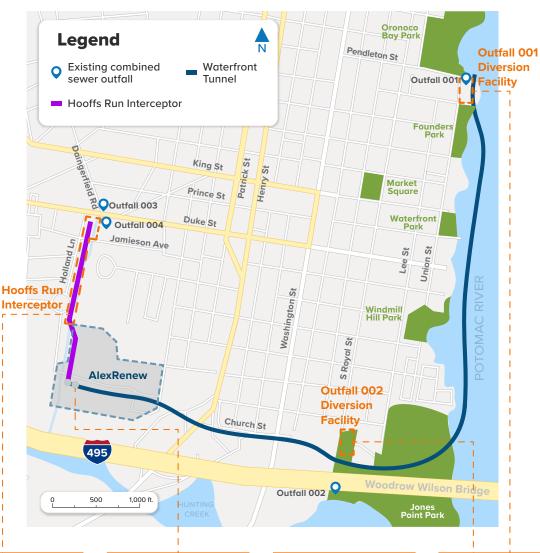
- 96 soil borings completed
- 12,786 linear feet drilled
- 2,221 geotechnical soil samples collected
- 100 environmental soil samples collected
- 31 groundwater monitoring wells installed
- 15 environmental groundwater samples collected

### **Procurement Status**



# **RiverRenew Tunnel System Project Components**

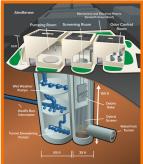
The completed tunnel system will connect to four outfalls across the city and will prevent about 130 million gallons of combined sewage from entering our waterways each year. At Outfalls 001 and 002, below-ground diversion facilities will direct combined sewer flows into the Waterfront Tunnel. Outfalls 003 and 004 will be served by the Hooffs Run Interceptor, an open-cut pipeline.



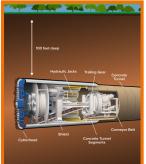


Hooffs Run Interceptor

**Construction:** Spring 2021-Summer 2024



Tunnel Dewatering and Wet Weather Pumping Station



**Tunnel Boring Machine** 



**Diversion Facility** 

Outfall 001 Diversion Facility Construction: Spring 2021-Winter 2024

Outfall 002 Diversion Facility Construction: Spring 2021-Fall 2024

# **RiverRenew Construction on AlexRenew's Campus**

# **Current Construction Project Status**

Three projects are currently underway at AlexRenew's Water Resource Recovery Facility (WRRF) to pave the way for the Tunnel System Project.

# 108 to 116 MGD Expansion

Increases primary pumping capacity to 116 MGD in preparation for the Tunnel System Project.

Vendor: ACE

Contract Amount: \$2,665,000
Construction Finish Date: Dec. 2020

**Latest Project Updates:** 

• All pumps upgraded with new pull-out assemblies

• Finalizing HVAC equipment installation



# **Building J Facilities Relocation and Decommissioning**

Relocation of laboratory and locker rooms and demolition of former administrative building to provide space to build the Tunnel System Project.

Vendor: Clark Construction
Contract Amount: \$19,409,800
Construction Finish Date: April 2021

**Latest Project Updates:** 

• New laboratory, locker rooms, and other staff facilities nearing completion

• Preparing for staff relocation into new facilities



## **WRRF Site Security and Access**

Upgrades to existing access points and security systems at the WRRF in preparation for increased campus activity for the Tunnel System Project.

**Vendor:** Sorensen Gross Company **Contract Amount:** \$1,527,000

Construction Finish Date: Sept. 2020

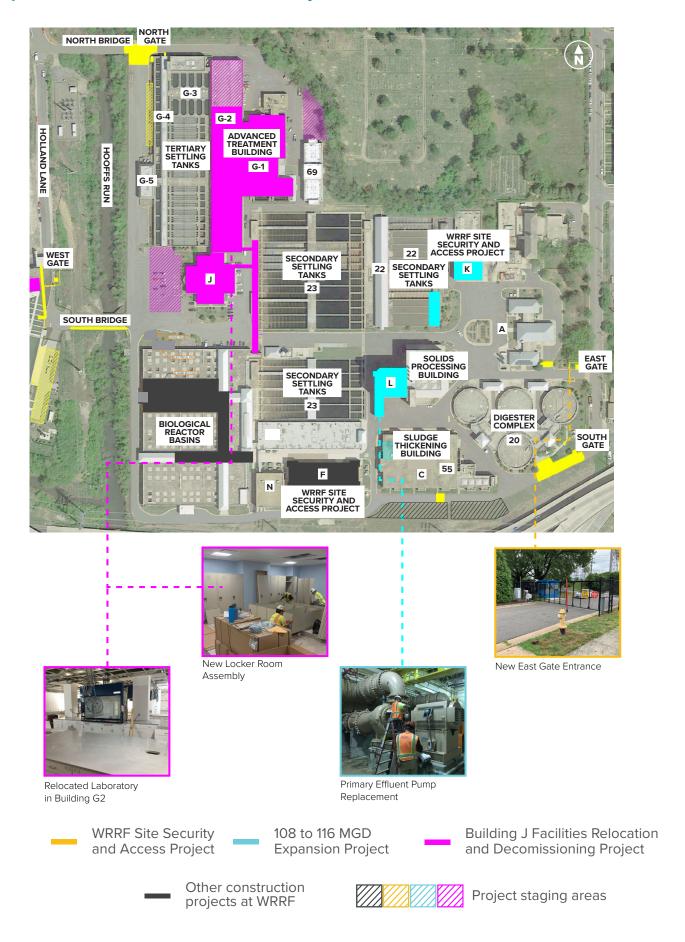
**Latest Project Updates:** 

• All access gates and security booths complete

• Finalizing pedestrian walkways between facilities

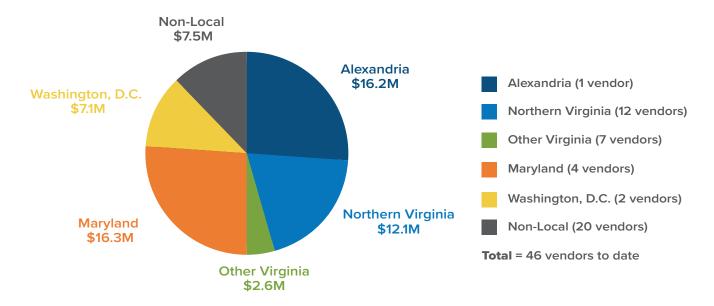


# **Map of AlexRenew Construction Projects**

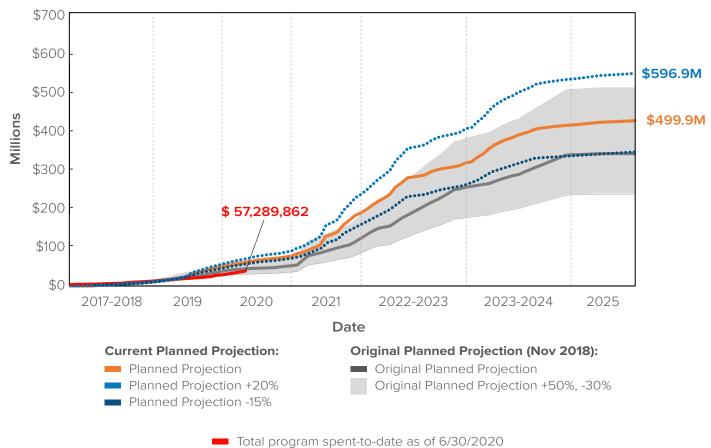


# **RiverRenew Program Costs to Date**

# **RiverRenew Spend-to-Date by Locality**



# **RiverRenew Cash Flow Analysis**



# **RiverRenew Community Outreach**



# **Education**

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

#### Highlights:

- Introduced RiverRenew Mascot, Cloe the Tunnel Boring Machine
- Established Cloe's Activity Corner on RiverRenew.com





# **Community Meetings**

**Community meetings** are the presentations given to various stakeholder groups, including the stakeholder advisory group (SAG), and community listening sessions. These presentations can be given in person or virtually.

#### Highlights:

- SAG Resolution on City Council Docket 09/22/20
- SAG Applications Open 09/23/20
- SAG Members Selected 12/2020
- SAG Meeting #1 01/2021



# **Community Events**

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

#### Highlights:

- Water Discovery Week September 6–12, 2020
- United Infrastructure Week September 14–21, 2020



# **Digital Programming**

**Digital programming** keeps the community connected to RiverRenew, with regular program updates on RiverRenew.com, featured content on AlexRenew's social media pages during "Tunnel Takeover Tuesdays," and distribution of *The River Renewer*, a quarterly newsletter promoting updates and milestones to more than 450 contacts.

#### Highlights:

- RiverRenew Tunnels Ahead: On-Site Updates from AlexRenew's Wastewater Treatment Plant
- Safety Updates with AlexRenew Construction Partners
- RiverRenew: Before and After AlexRenew's Tunnel System Project







# **Community Days**

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



#### **Robinson Terminal North Warehouse Demolition**

One of the first steps toward healthier waterways involves the demolition of the Robinson Terminal North (RTN) warehouse. The RTN warehouse is located immediately east of Union Street between Oronoco Street and Pendleton Street and primarily served as a newsprint storage facility for the Washington Post from 1939 to 2013.

AlexRenew plans to demolish the steel structure to grade this Fall to pave the way for the Tunnel System Project to start in Spring 2021. While construction of the diversion facility is necessary to address the discharge of combined sewage at Outfall 001, the demolition work is not associated with the Tunnel System Project. AlexRenew is currently working with the City to finalize the permitting process and implementing a community outreach plan to inform residents and neighbors about the demolition. Keep an eye on <a href="riverrenew.com">riverrenew.com</a> and AlexRenew's Facebook and Twitter pages to learn more.

# Solving a Century-Old Problem with RiverRenew

Click **here** to watch an animated video about RiverRenew and learn how the Waterfront Tunnel will be constructed.

To learn more, visit www.RiverRenew.com





