



Commonwealth of Virginia

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VIA ELECTRONIC MAIL

To:

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The Honorable Richard H. Stuart
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From: Mike Rolband 

Date: November 4, 2024

Subject: Alexandria Combined Sewer Overflow Outfall Progress Report (2023)

In accordance with the 2017 Virginia Acts of Assembly Chapters 826 and 827, the Department of Environmental Quality is transmitting the attached 2024 General Assembly Report for Virginia Pollution Discharge Elimination System (VPDES) Permit VA0025160 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, Director – Policy, at (804) 698-4092.



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

Chief Executive Officer
Justin Carl, PE

General Counsel
Amanda Waters

via Electronic Mail

October 10, 2024

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

Subject: 2024 General Assembly Report for Virginia Pollution Discharge Elimination System (VPDES) Permit VA0025160

Dear Mr. Doucette:

In accordance with Part V, Paragraph I.5 of the Virginia Pollutant Discharge Elimination System (VPDES) Permit VA0025160, effective through June 30, 2026, AlexRenew is submitting this letter to report on the implementation status of the approved 2018 Long Term Control Plan Update (LTCPU), now branded as RiverRenew. Once operational, RiverRenew will prevent over 120 million gallons of combined sewage from polluting the Potomac River and its tributaries each year.

AlexRenew is grateful for the continued assistance of the General Assembly and Virginia Department of Environmental Quality (VDEQ) as we implement this historic initiative. We especially appreciate your support in enacting legislation to modify AlexRenew's permit to extend the statutory deadline for RiverRenew by one (1) year to July 1, 2026. We also are grateful to have received support for the statutory deadline change from key environmental organizations. Our staff and construction crews remain committed to bringing this project online by the revised deadline.

Since the last reporting period, AlexRenew has achieved several major milestones on RiverRenew, bringing us a few steps closer to cleaner waterways for our region. Most significantly, the 2-mile-long, 12-foot-wide Waterfront Tunnel, constructed by Hazel the Tunnel Boring Machine, was completed in March 2024. This watershed moment was celebrated with an open-house event in April 2024, where the community and other stakeholders were able to learn about tunneling from AlexRenew's skilled and dedicated staff, interactive displays, and get a once-in-a-lifetime photo op with Hazel. The day was also commemorated by Alexandria City Council as "Hazel the Tunnel Boring Machine Day." Approximately 1,500 community members and stakeholders attended the event, which was celebrated as one of most exciting events of the year in Alexandria.

Soon after Hazel emerged, the first signs of permanent sewer infrastructure also rose from the depths of the underground. In total, over 1,700-cubic yards of concrete were placed to finalize the walls of the 10-story-deep, 35-foot-wide drop shaft at Pendleton Street. This shaft will act like a hydraulic elevator to deliver captured combined sewer flows to the Waterfront Tunnel. Simultaneously, on the other side of Old Town, progress on the 6-foot-wide Hooffs Run Interceptor also neared completion. At the time of this report, crews have now shifted focus to restoring the riparian buffer and vacating easement properties north of Jamieson Avenue. At AlexRenew, the layers of the 12-story-deep pumping station started to take shape. In total, 10,000-cubic yards of concrete were placed to form the walls and floors of the structures. On the surface, 200 tons of rebar formed the foundation of the superstructure that will house the IT infrastructure, electrical panels, plumbing equipment, and HVAC systems to support the deep pumping station.

As outlined in previous General Assembly reports, this version will primarily provide updates specific to the Tunnel System Project, but will also include a programmatic discussion on cost and funding. The discussion includes expenditures on the Tunnel System Project as well as the three (3) RiverRenew projects completed as of May 2021.

RiverRenew Tunnel System Project Progress

The Tunnel System Project is 70 percent complete. Major milestones for each Project component are outlined in Table 1 and supported by Figure 1, which illustrates the work.

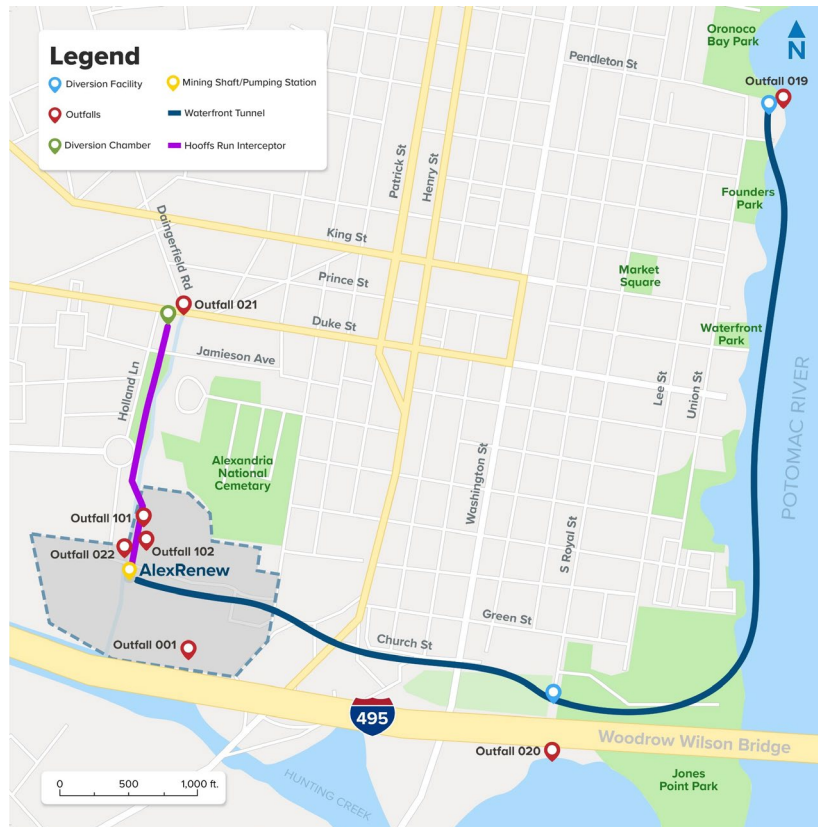


Figure 1. Tunnel System Project location map and components

Table 1. Major Tunnel System Project milestones (October 17, 2023 to October 10, 2024)

Project Site/ Component	Proposed Facilities	Major 2024 Milestones	Construction % Complete
Waterfront Tunnel	2.2-mile-long, 12-foot-diameter tunnel constructed by tunnel boring machine	<ul style="list-style-type: none"> Tunnel complete and ready for service 	100
AlexRenew	65- and 35-foot-diameter Pumping and Screening shafts (respectively); diversion chamber; 20 and 180 MGD pumping stations; superstructure	<ul style="list-style-type: none"> Pumping and screening shaft reinforced concrete walls and base slabs complete Superstructure deep foundations complete Pumping shaft reinforced concrete floors nearing completion 	35
Pendleton St	35-foot-diameter shaft; diversion chamber; overflow structure	<ul style="list-style-type: none"> Reinforced concrete shaft walls complete Diversion chamber and overflow structure deep foundation complete 	70
Royal St	35-foot-diameter shaft; diversion chamber	<ul style="list-style-type: none"> Diversion chamber deep foundations complete Base slab complete 	45
Hooffs Run	0.5-mile-long, 6-foot-diameter sewer interceptor; diversion chamber	<ul style="list-style-type: none"> Diversion chamber and junction chamber complete Open-cut interceptor installation nearing completion 	90

RiverRenew Tunnel System Project Schedule

Legislation to extend the project’s statutory deadline by one (1) year to July 1, 2026, was signed into law in March 2024. Subsequently, AlexRenew’s VPDES permit was modified on September 30, 2024, to update the associated deadline in accordance with the House and Senate bills passed by the General Assembly.

A general schedule showing original and projected dates for each Project site/component is illustrated in Figure 2. The projected dates reflect the updated schedule accounting for the delays associated with the global events discussed in last year’s report. As noted previously, pending any further delays, the project is on track to be operational by July 1, 2026.

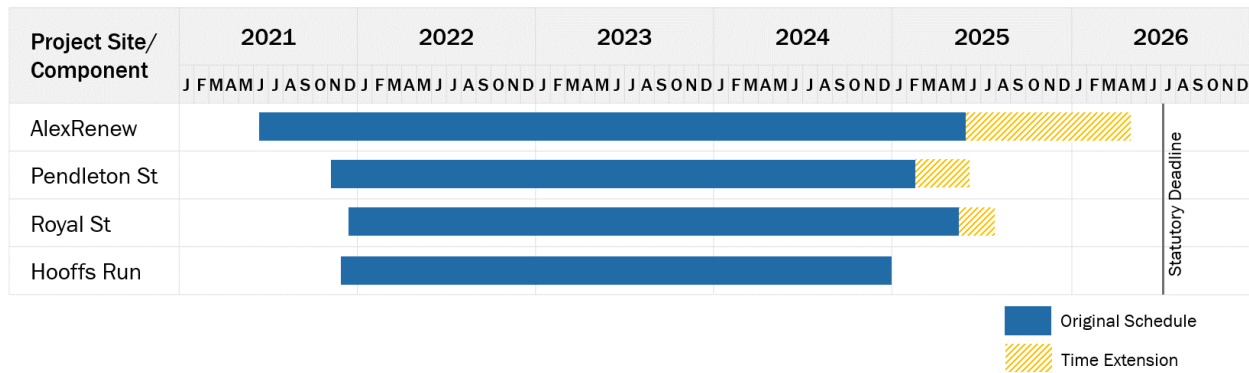


Figure 2. Generalized schedule for the Tunnel System Project

RiverRenew Program Cost and Funding

Program-wide, AlexRenew has invested over \$450 million in RiverRenew, which has employed over 240 Virginia firms. This is inclusive of the three previously completed projects as well as planning, engineering, and construction oversight costs. Comparatively, on the Tunnel System Project alone, \$297 million has been expended to date. Of this amount, \$177 million has gone to firms based in the Commonwealth.

RiverRenew is financed through a \$185 million loan through the Virginia Clean Water Revolving Loan Fund (VCWRLF) program, a \$321 million loan through EPA’s Water Infrastructure Finance and Innovation Act (WIFIA) program, and \$140 million in state grants. The VCWRLF loan was expended in June 2023 and it is anticipated that the remaining grant funds will be expended by December 2024. Following the expenditure of these funds, the remaining program funding will come from the WIFIA loan, which remains 82% unspent.

To repay the loans procured to fund RiverRenew, AlexRenew implemented a series of rate increases starting in 2018. In total, average rates for a residential customer have increased by over 50 percent. While the grant funding received from the Commonwealth helped to lower rate increases, Alexandria customers are still experiencing rate shock due to the significant program expenditures coupled with the aggressive schedule imposed by the Commonwealth. Additional rate increases are anticipated over the next two years to provide the funding necessary for AlexRenew’s debt payments for RiverRenew. To date, it is estimated that Alexandria residents have contributed approximately \$3,600 per household to support RiverRenew expenditures.

Community Outreach and Engagement

AlexRenew continues to prioritize community outreach by proactively communicating construction activities, providing unique pathways to understanding complex technical components, sharing major milestones, and educating all Alexandrians about the largest infrastructure project in our city’s history.

As construction progressed throughout 2024, AlexRenew shared frequent project updates with residents via its email newsletters, social media, and in-person events. In addition to “Hazel the Tunnel Boring Machine Day” discussed above, AlexRenew hosted two (2) Community Listening Sessions in September, sharing an overview of construction progress and upcoming work activities with over 50 community members. AlexRenew also provided tours to over 250 community partners, industry

colleagues, and university students, which included visitors from the Chesapeake Bay Foundation, Virginia Department of Environmental Quality, and engineering students from Bucknell University. Each unique tour offered attendees an opportunity to witness a large infrastructure project as it nears completion.

To reach its youngest community members, AlexRenew often leverages characters and children's books that tell the RiverRenew story in a simple yet meaningful way. In March, AlexRenew released its second book in a series of five, *The Backhoe Brothers Dig Deep*. The story shares the importance of AlexRenew's Hooffs Run Interceptor and explains how it will benefit the community and its waterways for generations to come. Over 600 free copies of the book have been distributed to area children.

AlexRenew continued to engage with the RiverRenew Stakeholder Advisory Group (SAG) and City-Council-AlexRenew Board Workgroup. The Workgroup has consisted of Mayor Justin Wilson, Vice Mayor Amy Jackson, and AlexRenew Board Chair John Hill, and Vice Chair James Beall. With construction drawing to a close at the sites outside of AlexRenew's campus, construction impacts in the community will largely cease. These groups have served their primary purpose of monitoring progress and sharing updates in the community and there are plans in place to sunset both groups at the end of 2024. We will continue to share digital updates with members of these groups moving forward.

Look-ahead and Closing

Major activities for next year include the completion of construction activities at Pendleton Street, Royal Street, and Hooffs Run. As construction wraps up at these locations, the major focus of work will be on the mechanical, electrical, network, plumbing, and control systems in the pumping station at AlexRenew. Central to these elements are the pumps that will dewater the tunnel following a rain event. The factory testing of these pumps will occur in October 2024, with delivery in December 2024. Crews will also be working above ground to erect the structural steel and concrete associated with the four (4) story superstructure.

AlexRenew is thankful for the Commonwealth's continued support as we build a brighter future for our waterways. Should you have any questions or comments, please contact me directly at (703) 785-8037 or justin.carl@alexrenew.com.

Sincerely,



Justin Carl
AlexRenew General Manager and CEO

Cc: Sarah Sivers, Water Permits and Planning Manager
Susan Mackert, Environmental Specialist II, Senior II, VDEQ
Caitlin Feehan, AlexRenew Chief Administrative Officer
Preston Bryant, McGuireWoods Consulting

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Alexandria CSO Project Update

September 2023



Learn More at
[RiverRenew.com](https://www.RiverRenew.com)


AlexRenew


RiverRenew™



Crews continue to make significant progress on Alexandria's CSO Project.

