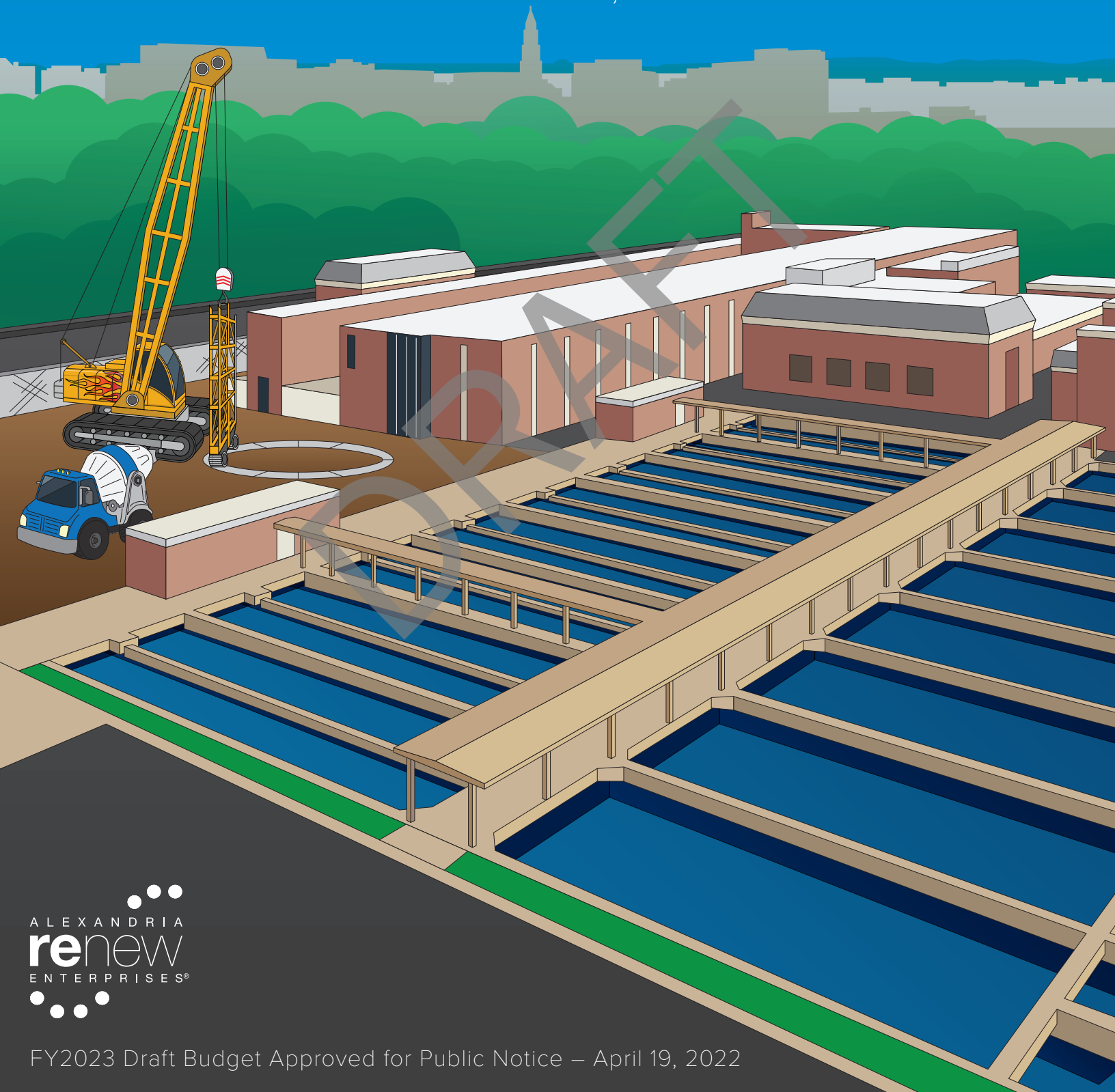
FY 2023

OPERATING AND CAPITAL BUDGET

July 1, 2022 – June 30, 2023
Alexandria, VA



ALEXANDRIA renew ENTERPRISES®

FY2023 Draft Budget Approved for Public Notice – April 19, 2022

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Chief Executive Officer's Message

To the Alexandria Renew Enterprises Board of Directors and our Ratepayers:

Alexandria Renew Enterprises (AlexRenew) supports the City of Alexandria in maintaining the City's stellar reputation as a great place to live, work, learn and visit by being a strong anchor institution. Equitable and affordable access to healthy water resources through anchor institutions is essential for a community's well-being and economic development. Throughout the 2020-2022 pandemic, AlexRenew continued its mission of creating healthier waterways by continuing investment in wastewater infrastructure, supporting our local businesses, creating jobs, and improving public health.

We at AlexRenew recognize that the pandemic has caused economic strain on many in our community. My team has worked diligently to incorporate those concerns into this budget, while balancing AlexRenew's need to meet our mission, constantly comply with Federal, state, and local mandates for water quality and continue to invest in healthier waterways for the city through our RiverRenew program, the largest infrastructure program undertaken in the city's history. Because of our status as an independent authority, we did not receive any Federal assistance during the pandemic. Yet we have continued to meet our mission through the judicious use of reserves and the talent and dedicated work of our employees, who continued to be on-site at AlexRenew's facilities throughout the pandemic.

The Fiscal Year 2023 proposed budget and rate structure minimize increases to residential and commercial customers, while maintaining a fiscally sustainable utility and building capacity for the future. The proposed Operating Budget totals $30.4 million, representing a 7.2% year-over-year increase. Over the past few years, AlexRenew has successfully held our operating budget steady with no increases. The Operating Budget increase recognizes the current inflationary conditions faced by all as labor and supply shortages affect our ability to procure the needed energy, chemicals, and supplies to meet our mission. It invests in our employees, helps implement changes in our customer service practice required by 2024, continues our cybersecurity efforts and enhances our resiliency initiatives.

The proposed Fiscal Year 2023 Capital Improvement Program budget totals $175.8 million. This is consistent relative to last year's budget and continues to reflect the investments for the RiverRenew program. AlexRenew received two grants from the Commonwealth of Virginia over the last two years for $25 million each to help offset the rate shock being experienced by our ratepayers caused by the legislatively mandated RiverRenew program costs.

AlexRenew continues to improve local waterways and help make our community's water environment a cleaner, healthier place. We will continue our strong community partnerships that help keep our waterways clean. Thank you for your passionate support of AlexRenew's clean water mission.

Karen Pallansch, P. E., BCEE, General Manager and Chief Executive Officer
Alexandria Renew Enterprises

Understanding the Budget

AlexRenew's budget is a financial instrument, crafted within a financial, legal, policy, regulatory and capital investment framework to ensure financial sustainability, support public health, and provide a clean, healthy water environment for the community. The budget is developed in a manner that ensures AlexRenew has the financial resources to efficiently construct, operate, and maintain a water resource recovery facility, intercepting system, and pump stations that comply with state and federal law.

Current expenses and capital outlays are estimates based on experience and judgment related to cost trends in labor, materials, and services required to operate and maintain AlexRenew's facilities. AlexRenew has no discretion with respect to the level of service it must provide to meet its regulatory requirements, and no discretionary programs within its assigned scope of activity. The primary purpose of the budget is to ensure AlexRenew maintains its mandated level of service, satisfies the requirements of the Master Indenture of Trust ("Indenture"), and achieves the objectives of AlexRenew's Financial Policies.

AlexRenew has only two major sources of revenue to fund all expenditures: wastewater treatment charges paid by City of Alexandria customers, and the reimbursement of a portion of expenses paid by Fairfax County. Fairfax County makes payments to AlexRenew under an amended and restated Service Agreement dated October 1, 1998 ("Fairfax County Agreement"). In accordance with the Fairfax County Agreement, Fairfax County pays a percentage of operations and maintenance expenses based upon sewer flow volume. Fairfax County also contributes to the Improvement, Renewal and Replacement Fund (IRR) and Capital Improvement Program (CIP), at predetermined levels, to allow for the upgrade and replacement of capital assets as they depreciate, and the acquisition of new assets associated with regulatory compliance.

How is AlexRenew's Budget Organized?

AlexRenew builds its budget from documents that provide legal or internal policy direction. These documents include a Master Indenture of Trust (Indenture) and related financing documents; the Fairfax County Service Agreement; a Service Agreement with the City of Alexandria; a service agreement between AlexRenew and Arlington County (Arlington County Agreement); and Financial Policies adopted by the AlexRenew Board of Directors.

The Indenture is a legal agreement that mandates how AlexRenew will collect and use its revenues for operations, maintenance and capital expenses. This document requires that wastewater treatment charges collected from City of Alexandria sewer system customers be deposited in a Revenue Fund. This document also requires operating expense payments that are made by Fairfax County to AlexRenew, for its reserved capacity in the sewer system, also be deposited in the Revenue Fund. The amount due to AlexRenew from Fairfax County is established in the Fairfax County Service Agreement.

The Fairfax County Service Agreement further directs the amount and timing for monies to be paid by the County to AlexRenew for improvements and repairs to the sewer system infrastructure and investments in major capital projects.

The Arlington County Service Agreement is similar to the Fairfax County Service Agreement. This legal document establishes the amount and timing for monies paid by AlexRenew to Arlington County for agreed upon capacity in the Arlington County sewer system that treats wastewater flows from the northwestern quadrant of the city.

AlexRenew's budget is also structured to comply with the Financial Policies adopted by the Board of Directors to maintain a combined 120 days of reserves in the Operating Fund and General Reserve sub-Fund, to ensure that revenues available to pay debt service are at least equal to 1.50 times the amount of debt service due in any fiscal year, and to fund at least 15% of the Capital Improvement Program from cash and reserves (PAYGO).

What is AlexRenew's Strategic Plan?

The AlexRenew Strategic Plan cascades from the AlexRenew 2040 Vision, shown on the following page. The 2040 Vision was originally developed in 2012 by AlexRenew's citizen-led Board and was most recently updated in 2018.

2040 Vision

By 2040, AlexRenew has effectively partnered with all watershed stakeholders to:

Enable local citizens the opportunity to embrace the best use of water resources and establish a **personal connection** with **local waterways**.

Create a **healthy environment** and improve **quality of life** through the exceptional reclamation of used water resources.

Sustainably manage water as a **single resource** through the entire water cycle.

Maximize use of multiple financial options to continue **fiscal stability**.

Strategic Outcomes

Operational Excellence: 100% compliance with all imposed mandates through continuous improvement efforts.

Public Engagement and Trust: Transparency in all public interactions.

Watershed Stewardship: Sustainability and resiliency integrated through effective partnerships.

Adaptive Culture: All employees continue to be fully rounded water professionals.

Effective Financial Stewardship: Provides cleaned water in a cost effective and efficient manner.

Budget Timeline

AlexRenew utilizes a fiscal year cycle ending June 30. The FY 2023 budget will encompass the 12-month period from **July 1, 2022 – June 30, 2023**. AlexRenew typically develops the budget during the prior fiscal year before it undergoes review by the Board of Directors and the public. The prior FY 2022 budget cycle included the adoption of new rates and charges for FY 2022 and for FY 2023. A public hearing is scheduled for **May 7, 2022** to obtain public comments pertaining to AlexRenew's proposed FY 2023 budget.

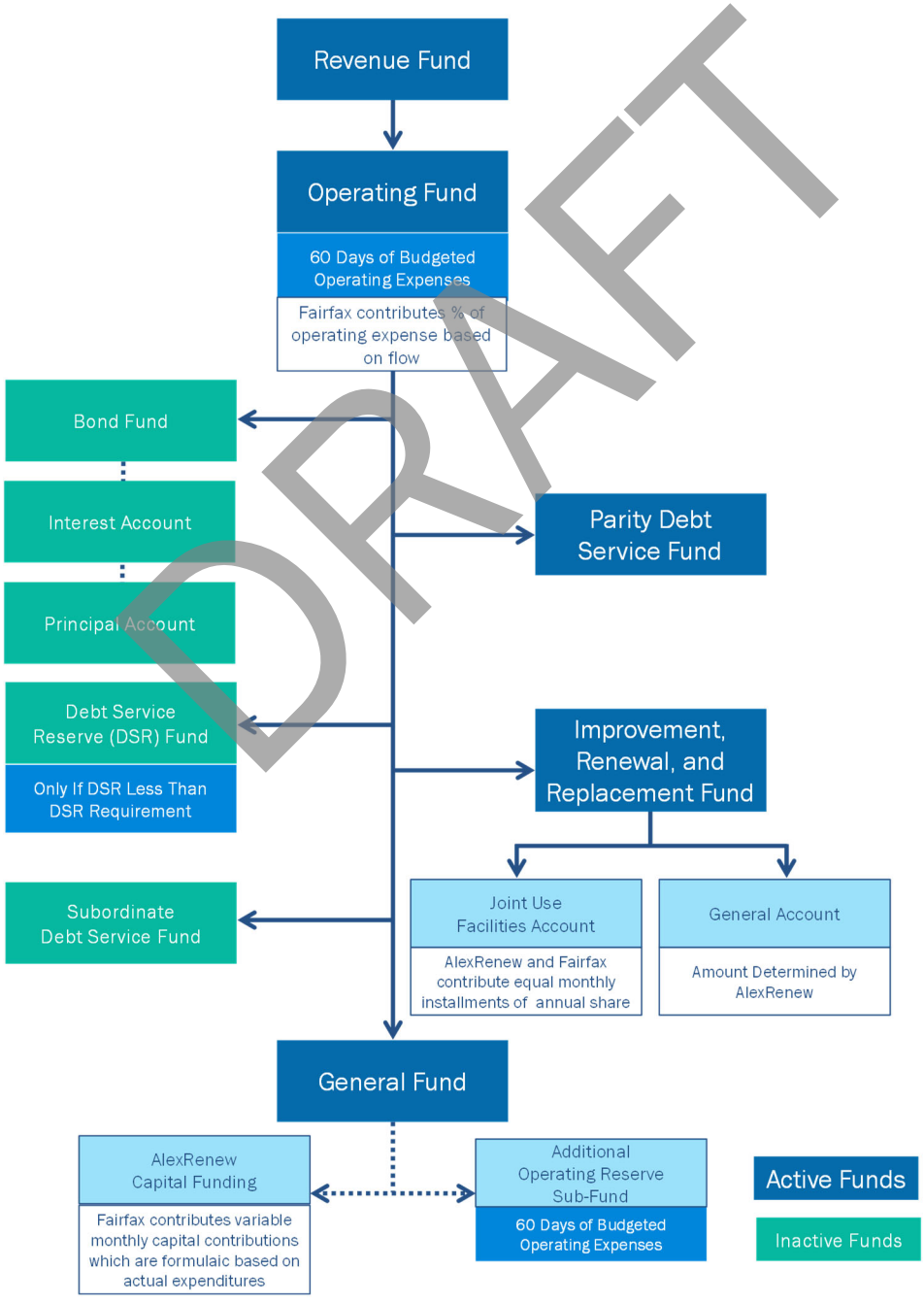
Month	*Customer*	*Board of Directors*	*Staff*
August - February			*Proposed Budget Development* Departments prepare budget proposals; CEO develops a balanced proposed budget.
March-April		*Budget Review* Board of Directors request additional information on specific budget issues from staff.	The CEO presents the proposed budget to the Board of Directors.
May	Customers are informed of proposed budget via posting to the AlexRenew website and may provide written comments, if any. **Customers invited to attend Public Hearing May 7, 2022.**		
June		*Final Adoption* Board of Directors makes final decisions and adopts the AlexRenew budget for the upcoming fiscal year.	Budget adoption no later than the June Board meeting: Execute adopted FY 2023 Budget starting July 1, 2022

Consolidated Enterprise Budget Statement

AlexRenew begins its annual budget presentation by preparing a Consolidated Enterprise Budget Statement (Statement) that combines all the estimated sources and uses of funds for the upcoming fiscal year. This statement is organized in accordance with the terms mandated in Article VII of the Indenture. The primary purpose for this Statement is to demonstrate that the overall FY 2023 operating and capital budgets are in "structural" balance – which means all of the revenues and expenses are consistent with the historical financial performance, all balances that remain in the prescribed funds and accounts meet stated requirements, and if total revenues exceed total expenses, any potential excess funds are deposited in the General Fund to serve as reserves.

The graphic below provides a visual presentation of the flow of monies through the financial structure established in the Indenture. A definition for each fund and account is provided on the following page. In general, customer payments and Fairfax County operating expense charges are deposited in the Revenue Fund and are subsequently transferred to other Funds and Accounts in the order of priority (per below) and the amounts prescribed in the Indenture.

AlexRenew Flow of Funds



Consolidated Enterprise Budget Statement

The chart below serves as a glossary that can be used to better understand the purpose, order of priority and funding method for each of the Funds and Accounts established in the Indenture.

Master Indenture of Trust – Flow of Funds	
Revenues	Revenues means all revenues, receipts and other income derived or received by AlexRenew from owning and operating the utility system. This primarily includes AlexRenew wastewater treatment charges and Fairfax County operating expense charges.
Revenue Fund	Revenues are initially deposited into the Revenue Fund and then transferred to the other funds in the following order of priority.
Operating Fund	To the Operating Fund to pay Operating Expenses. At the end of each month, AlexRenew must ensure at least 1/6th (or 60 days) of annual budgeted operating expenses are deposited into the operating fund.
Parity Debt Service Fund	To the Parity Debt Service in order to pay debt service payments in equal monthly amounts such that debt service payments can be paid when due.
Improvement, Renewal and Replacement (IRR) Fund – Joint Use Facilities Account	To the Joint-Use Facilities Account of the IRR Fund an amount equal to 1/12th of AlexRenew's share of the amount due.
Improvement, Renewal and Replacement (IRR) Fund – General Account	To the General Account of the IRR Fund in an amount predetermined by AlexRenew.
General Fund	To the General Fund any revenues remaining.

The Statement on the following page presents a consolidated profile of AlexRenew's overall operating and capital budgets for FY 2023. This schedule directly follows the flow of funds mandated in the Indenture.

Consolidated Enterprise Budget Statement

Consolidated Enterprise Budget Statement	Adopted FY2022	Draft Proposed FY2023
REVENUE FUND (Per Master Indenture)		
AlexRenew Wastewater Treatment Charges	$ 47,814,540	$ 50,922,485
Estimated Fairfax County Operating Expense Charge	10,785,305	11,694,706
Total Revenues	**58,599,845**	**62,617,191**
OPERATING FUND		
Beginning Balance	4,666,355	4,666,355
Revenue Fund Transfer	28,376,991	30,770,960
Interest Income	10,000	10,000
Operating Expenses	(28,386,991)	(30,442,988)
Ending Balance (Operating Fund Reserve)	**4,666,355**	**5,004,326**
REVENUE FUND BALANCE [Total Revenues LESS Transfer to Operating Fund]	30,222,855	31,846,231
PARITY DEBT SERVICE FUND		
Beginning Balance	12,364	(0)
Revenue Fund Transfer	13,817,255	14,649,508
Interest Income	90,000	90,000
Parity Debt Service Payment	(13,919,620)	(14,739,509)
Ending Balance	**(0)**	**0**
REVENUE FUND BALANCE [LESS transfer to Parity Debt Service Fund]	16,405,600	17,196,723
IMPROVEMENT, RENEWAL AND REPLACEMENT FUND		
Joint Use Facilities Account		
Beginning Balance	8,319,883	11,545,464
Revenue Fund Transfer	2,319,561	2,410,801
Fairfax County Annual Required Contribution	3,346,197	3,477,819
IRR Joint Use Facilities Expenses	(5,667,100)	(10,327,855)
Ending Balance	**11,545,464**	**7,106,228**
General Account (Alex-only)		
Beginning Balance	-	-
Revenue Fund Transfer	124,400	689,475
IRR Alex-Only Expenses	(124,400)	(689,475)
Ending Balance	**-**	**-**
REVENUE FUND BALANCE [LESS transfer for IRR Funds]	13,961,638	14,096,447
GENERAL FUND		
Beginning Balance	45,046,760	42,250,354
Revenue Fund Transfer	13,961,638	14,096,447
Interest Income	15,000	15,000
Alex-Only General CIP Capital Costs	(4,532,005)	(3,481,290)
Transfer to CIP - Joint Use Facilities	(17,527,058)	(11,886,206)
Ending Balance	**36,964,336**	**40,994,305**
General Reserve sub-Fund	**(4,666,355)**	**(5,004,326)**
Available Balance	**32,297,981**	**35,989,978**
REVENUE FUND BALANCE [LESS transfer to General Fund]	-	-
PROJECT FUND		
Beginning Balance	-	-
Parity Debt / New Bond Proceeds	134,395,696	118,814,132
Transfer to CIP - Joint Use Facilities	(137,968,696)	(118,814,132)
Ending Balance	**-**	**-**
CAPITAL IMPROVEMENT PROGRAM - JOINT USE FACILITIES		
Beginning Balance	-	-
General Fund Transfer	17,527,058	11,886,206
Project Fund Transfer	137,968,696	118,814,132
Estimated Fairfax County Capital Contributions	19,851,158	30,699,887
Joint Capital Costs	(175,346,912)	(161,400,225)
Ending Balance	**-**	**-**

Consolidated Enterprise Budget Summary

The schedule below summarizes the funding sources and budgeted expenses associated with AlexRenew's FY 2023 budget, which total $221.4 million, a 3% decrease compared to the prior year.

Condensed Summary	Adopted FY2022	Draft Proposed FY2023	ANNUAL VAR %
OPERATING REVENUES			
AlexRenew Wastewater Treatment Charges	$ 47,814,540	$ 50,922,485	6%
Fairfax County Operating Expense Charge	10,785,305	11,694,706	8%
	$ 58,599,845	$ 62,617,191	7%
IR&R AND CAPITAL CONTRIBUTIONS			
Fairfax County IRR Contribution	$ 3,346,197	$ 3,477,819	4%
Fairfax County Capital Contribution	19,851,158	30,699,887	55%
	$ 23,197,355	$ 34,177,706	47%
DEBT PROCEEDS AND OTHER SOURCES			
Parity Debt Proceeds	$ 137,968,696	$ 118,814,132	-14%
Interest Income	115,000	115,000	0%
Use of Fund Balances	8,096,130	5,695,285	-30%
	$ 146,179,826	$ 124,624,417	-15%
TOTAL FUNDING SOURCES	**$ 227,977,027**	**$ 221,419,313**	**-3%**
OPERATING EXPENSES			
Operating and Maintenance Expenses - AlexRenew Portion	$ 17,601,686	$ 18,748,282	7%
Operating and Maintenance Expenses - Estimated Fairfax County Portion	10,785,305	11,694,706	8%
	$ 28,386,991	$ 30,442,988	7%
NON-OPERATING EXPENSES			
Parity Debt Service	13,919,620	14,739,509	6%
Joint IRR	5,667,100	10,327,855	82%
Alex-only IRR	124,400	689,475	454%
Fund Balance Additions	-	337,972	0%
	$ 19,711,120	$ 26,094,810	32%
CAPITAL OUTLAY			
RiverRenew (Alex-only)	$ 67,857,050	$ 65,800,000	-3%
RiverRenew (Joint)	93,320,649	57,800,000	-38%
General CIP (Alex-only)	4,532,005	3,481,290	-23%
General CIP (Joint)	14,169,213	37,800,225	167%
	$ 179,878,918	$ 164,881,515	-8%
TOTAL EXPENSES AND CAPITAL OUTLAY	**$ 227,977,027**	**$ 221,419,313**	**-3%**

The FY 2023 revenue projection is based on the rates and charges adopted by AlexRenew's Board during the prior FY 2022 budget cycle including a rate adjustment of approximately 6.5% to become effective on July 1, 2022 for FY 2023. The rate adjustment is further detailed on pages 14-15 to follow.

At approximately 74%, capital outlay represents the largest share of the budget. Together with the Parity Debt Service Fund at 7%, these combined expenses comprise 81% of the FY 2023 budget, demonstrating the capital-intensive nature of the wastewater utility business.

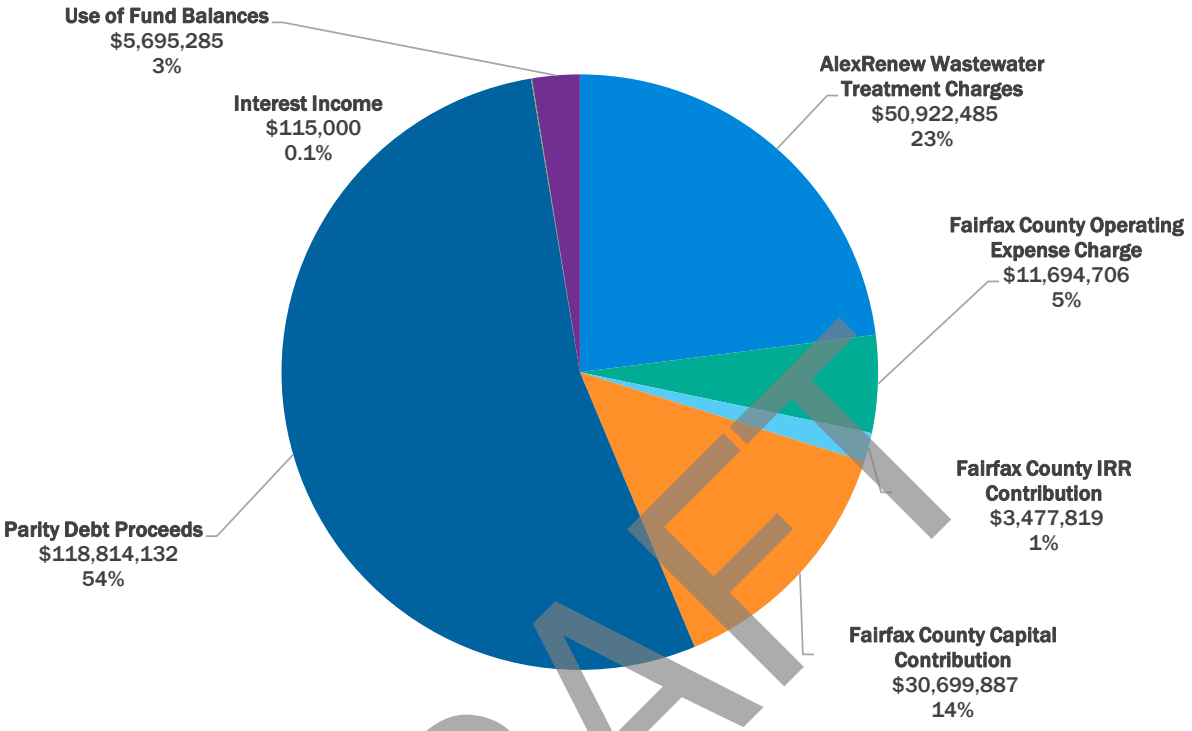
The proposed FY 2023 operating budget reflects an increase of 7.2%, a departure from the prior three fiscal years during which AlexRenew was able to maintain its annual operating budget with no increases. Even during times of economic stability, wastewater expenses tend to increase at least at the rate of inflation. As global and regional markets have begun to recover from the COVID pandemic, many core expense areas are experiencing significant cost increase pressures, including energy, chemicals, construction, labor, and transportation. As such, the proposed budget accounts for current market conditions while maintaining efficiency across the business while conservatively planning for future needs.

The proposed FY 2023 capital budget reflects continued momentum in the capital program with $164 million in planned spending across the RiverRenew and general capital improvement programs. Funding for improvement, renewal and replacement projects increased year-over-year reflecting an effort to ensure timely upgrades of AlexRenew's infrastructure to maintain efficient operations. The proposed budget funds the capital program with cash and reserves, along with $118 million in debt proceeds for RiverRenew construction.

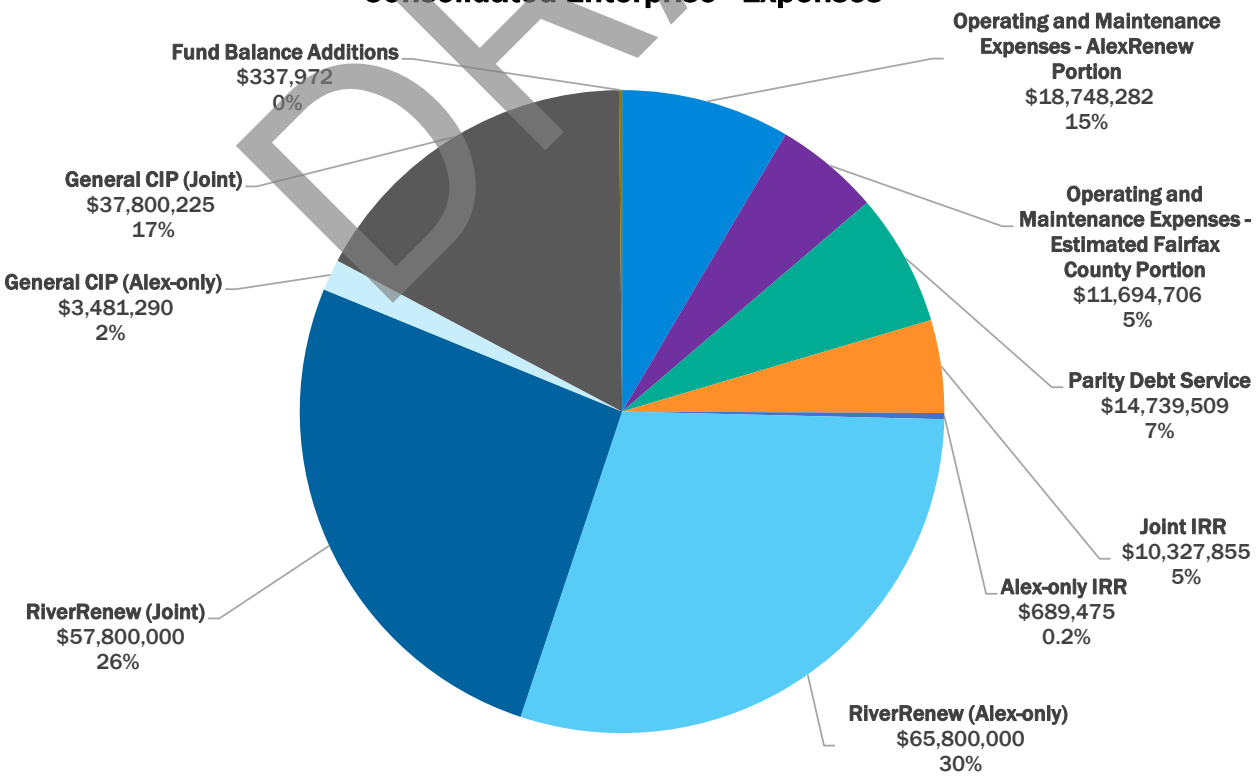
Consolidated Enterprise Budget Summary

The charts below further depict the funding sources and budgeted expenses for FY 2023, again highlighting the significant activity related to debt financing and capital project construction associated with RiverRenew.

Consolidated Enterprise - Revenues



Consolidated Enterprise - Expenses



For more than fifteen years, AlexRenew has employed rate modeling to analyze, evaluate and implement an annual and long-term fee structure to support the financial obligations of the enterprise. AlexRenew has engaged an independent, third-party consultant to develop and monitor a rate model designed specifically for AlexRenew. This model is used to manage revenue performance in the current year and to forecast revenue requirements, based on anticipated operating and capital costs, each year over a 10-year time horizon.

In addition to rate modeling, the AlexRenew Board of Directors (Board) has adopted a strong Financial Policy (see Appendix A) to guide the approach to setting rates and maintaining a sustainable financial position. These policies target key financial metrics, represent best practices, and ensure AlexRenew maintains cost-efficient operations while delivering superior public services for AlexRenew's customers and community.

The Rate Modeling Process

Annually, upon completion and acceptance of AlexRenew's audited financial statements, and more frequently as necessary, rate consultants review and update the AlexRenew rate model. This process, and the model, is heavily data-driven and uses historical and projected data comprised of billing statistics, historical financial data, the current budget, and capital plan forecasts. The rate consultants perform comprehensive due diligence exercises to validate all information provided by AlexRenew and obtained from other relevant sources. Once validation is complete, the rate consultants review their findings with AlexRenew leadership to discuss observed historical trends, how they compare to prior forecasts, what the current projections are, and whether the consultants should adjust for known conditions, as a contingency.

The resultant revenues, and assumptions of additional debt and capital funding, are evaluated relative to AlexRenew's annual cash flow requirements and likely financial position at year-end. This iterative process allows AlexRenew and its rate consultants to examine how subtle changes to rates or assumptions today have the potential to materially influence financial position across the forecast. It also allows for sensitivity analysis and the ability to examine AlexRenew's financial profile under various hypothetical scenarios, which is instructive to management and provides a stronger basis for recommending the timing and magnitude of potential rate adjustments.

As a single, dominant revenue source that accounts for almost 50% of operating revenues, the Wastewater Treatment Charges are critical to the funding of current operations and long-term financial viability. As a result, it is imperative to combine a thorough understanding of the rate modeling process, strict adherence to the terms of the Indenture, faithfulness to AlexRenew's Financial Policies, and the needs of the community when establishing rates and charges.

Revenue Growth Assumptions

AlexRenew has historically modeled growth in Wastewater Treatment Charges of approximately 0.50% - 2.00% and Fairfax County Operating Expense Charges of approximately 1.00% - 3.00% when determining rates and revenues over the forecast period.

Expenditure Growth Assumptions

AlexRenew has historically used CPI to evaluate costs over the forecast period and has commonly assumed an inflation range of 2.0% to 3.5%.

Revenue Forecast Assumptions

Starting in FY 2020, AlexRenew began implementing a multi-year phased rate increase initiative, primarily to fund capital expenditures including the RiverRenew program. The revenue forecast that forms the basis of this budget includes annual rate increases that were adopted by AlexRenew's Board for FY 2022 and FY 2023, as further described on the following page.

The following schedule details the monthly rates and charges for all individually metered residential customers and commercial customers discharging sewage to and/or requiring wastewater treatment service from AlexRenew. Commercial wastewater customers include all commercial, industrial, government and other public agencies, master-metered residential, and all other accounts or customers not otherwise classified as individually metered residential customers.

A wastewater customer's monthly bill for wastewater interception, treatment and discharge services is based on the sum of their: (1) base charge and (2) wastewater treatment charge, as determined by water meter readings conducted by Virginia American Water, at the customer premise. The base charge serves as the minimum monthly bill for sewer service for all customers served by AlexRenew.

The AlexRenew Board of Directors previously approved a rate adjustment effective July 1, 2022 for the upcoming FY 2023. The adopted rates are shown below and are projected to increase the average monthly bill by approximately 6.5% or $3/month based on average water usage. Based on current projections, these rate adjustments will allow AlexRenew to maintain its fiscal profile while funding the budget and capital program herein. The chart below details the rate structures in effect for FY 2021, FY 2022, and the upcoming FY 2023.

Base Charge. Charge per account based on meter size at the customer premise.

Description	Meter Size	Prior (Effective July 1, 2020) Monthly	Current (Effective July 1, 2021) Monthly	Adopted (Effective July 1, 2022) Monthly
Residential Base Charge	All Meters	$11.54	$12.34	$13.14
Commercial Base Charge	5/8"	$34.63	$37.02	$39.42
	¾"	$34.63	$37.02	$39.42
	1"	$86.59	$92.55	$98.55
	1-1/2"	$173.17	$185.10	$197.10
	2"	$277.08	$296.16	$315.36
	3"	$519.52	$555.30	$591.30
	4"	$865.87	$925.50	$985.50
	6"	$1,731.74	$1,851.00	$1,971.00
	8"	$2,770.79	$2,961.60	$3,153.60
Residential Customer Activation Fee		$15.00	$15.00	$15.00

Treatment Charge. Charge per account based on water consumption as measured by Virginia American Water from meter at customer premise.

Description	Meter Size	Prior (Effective July 1, 2020) Per 1,000 Gallons	Current (Effective July 1, 2021) Per 1,000 Gallons	Adopted (Effective July 1, 2022) Per 1,000 Gallons
Individual Meter Residential Wastewater Charge	All Meters	$8.13	$8.69	$9.26
Commercial Wastewater Treatment Charge	All Meters	$8.13	$8.69	$9.26

Revenue Fund Statement

AlexRenew's Indenture establishes nine (9) Funds into which monies may be deposited to manage operating and maintenance, non-operating, and capital obligations. The collection and deposit of monies typically occurs monthly at specified times and in specified amounts, and in a prescribed order of priority.

AlexRenew is required to collect and deposit *Revenues*, as defined in the Indenture, in the Revenue Fund and make monthly transfers to each of its actively managed Funds. Deposits to the Revenue Fund do not include Fairfax County Improvement, Renewal and Replacement (IRR) payments or Capital Contributions. These dollars are deposited by Fairfax County directly into the Joint Use Facilities Account of the IRR Fund or the Project or General Fund for capital outlay reimbursements, as appropriate.

The schedule below presents adopted, proposed, and estimated Revenues expected to be received by AlexRenew for the period FY 2022 – FY 2027, respectively. In addition, proposed Revenue transfers to various operating and non-operating Funds are provided to highlight the use or purpose of the funds.

Revenue Fund	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
REVENUES							
AlexRenew Wastewater Treatment Charges	$ 47,814,540	$ 50,922,485	6%	$ 53,621,377	$ 56,302,446	$ 59,004,963	$ 60,067,052
Fairfax County Operating Expense Charge	10,785,305	11,694,706	8%	12,045,729	12,407,287	12,655,433	12,910,752
Total Revenues	**$ 58,599,845**	**$ 62,617,191**	**7%**	**$ 65,667,106**	**$ 68,709,733**	**$ 71,660,396**	**$ 72,977,805**
TRANSFERS							
Transfer to Operating Fund[1]	$ 28,376,991	$ 30,770,960	8%	$ 31,496,409	$ 32,441,600	$ 33,039,087	$ 33,700,069
Transfer to Parity Debt Service Fund	13,817,255	14,649,508	6%	16,358,494	19,036,687	21,257,774	21,405,144
Transfer to IRR Fund - Joint Use Facilities Account	2,319,561	2,410,801	4%	2,581,223	2,704,353	2,879,101	2,971,371
Transfer to IRR Fund - General Account	124,400	689,475	454%	2,077,725	191,000	166,000	166,000
Transfer to General Fund	13,961,638	14,096,447	1%	13,153,254	14,336,093	14,318,434	14,735,220
Total Uses	**$ 58,599,845**	**$ 62,617,191**	**7%**	**$ 65,667,106**	**$ 68,709,733**	**$ 71,660,396**	**$ 72,977,804**

[1] Includes entire Fairfax County Operating Expense Charge

Fairfax County Contributions

The following schedule demonstrates the method by which Fairfax County annual payments and contributions are determined based on the capacity rights Fairfax County currently receives under the Agreement. The County currently makes equal monthly Operating Expense Charge installments into the Revenue Fund, equal monthly contributions into the Joint Use Facilities Account of the IRR Fund, and variable monthly capital contributions (formulaic reimbursements based actual capital expenditures) into the Project Fund.

Fairfax County Contributions	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
Operating Expense Charge:							
Total Estimated Operating Expenses	$ 28,386,991	$ 30,442,988	7%	$ 31,356,278	$ 32,296,966	$ 32,942,905	$ 33,601,763
Less Estimated "Alexandria Only" Expenses	(4,379,920)	(4,414,233)	1%	(4,546,660)	(4,683,060)	(4,776,721)	(4,872,256)
Net Estimated Joint Operating Expenses	$ 24,007,071	$ 26,028,755	8%	$ 26,809,617	$ 27,613,906	$ 28,166,184	$ 28,729,508
Estimated Fairfax County Net Flow	45.0%	45.0%		45.0%	45.0%	45.0%	45.0%
Estimated Fairfaix County Operating Expense Charge	10,803,182	11,712,940	8%	12,064,328	12,426,258	12,674,783	12,928,278
Less Alexandria Only Flow Charge	(17,877)	(18,234)	2%	(18,599)	(18,971)	(19,350)	(17,526)
Estimated Fairfax County Operating Expense Charge	**$ 10,785,305**	**$ 11,694,706**	8%	**$ 12,045,729**	**$ 12,407,287**	**$ 12,655,433**	**$ 12,910,752**
IRR Fund - Joint Account Contribution:							
Estimated Joint Use Plant Investment	$ 809,394,053	$ 841,231,254	4%	$ 900,699,169	$ 943,664,099	$ 1,004,641,248	$ 1,036,838,184
Estimated Joint Use IRR Funding Percentage	0.7%	0.7%	0%	0.7%	0.7%	0.7%	0.7%
Estimated Joint Use IRR Investment	$ 5,665,758	$ 5,888,619	4%	$ 6,304,894	$ 6,605,649	$ 7,032,489	$ 7,257,867
Investment Allocation at 60%	$ 5,269,155	$ 5,476,416	4%	$ 5,863,551	$ 6,143,254	$ 6,540,215	$ 6,749,816
Investment Allocation at 49%	339,946	353,317	4%	378,294	396,339	421,949	435,472
Investment Allocation at 32%	56,658	58,886	4%	63,049	66,056	70,325	72,579
Total IRR - Joint Account Investment	$ 5,665,758	$ 5,888,619	4%	$ 6,304,894	$ 6,605,649	$ 7,032,489	$ 7,257,867
Fairfax County Allocation at 60%	$ 3,161,493	$ 3,285,850	4%	$ 3,518,131	$ 3,685,952	$ 3,924,129	$ 4,049,890
Fairfax County Allocation at 49%	166,573	173,125	4%	185,364	194,206	206,755	213,381
Fairfax County Allocation at 32%	18,130	18,844	4%	20,176	21,138	22,504	23,225
Total Fairfax County IRR - Joint Account Contribution	**3,346,197**	**3,477,819**	4%	**3,723,670**	**3,901,297**	**4,153,388**	**4,286,496**
Alex Renew Joint IRR Contribution	2,319,561	2,410,801	4%	2,581,223	2,704,353	2,879,101	2,971,371
Capital Project Contribution - Joint Use Facilities:							
Estimated Joint Capital Improvements at 60%/40%	$ 13,059,213	$ 37,150,225	184%	$ 25,649,630	$ 43,395,891	$ 30,910,000	$ 21,705,000
Fairfax County Allocation at 60%	7,835,528	22,290,135	184%	15,389,778	26,037,535	18,546,000	13,023,000
Estimated Joint Capital Improvements at 49%/51%	1,110,000	650,000	-41%	150,000	150,000	1,200,000	-
Fairfax County Allocation at 49%	543,900	318,500	-41%	73,500	-	588,000	-
Estimated Joint Capital Improvements RiverRenew	93,320,649	57,800,000	-38%	73,700,000	90,900,000	9,300,000	-
Fairfax County Allocation [1]	11,471,731	8,091,252	-29%	10,158,466	14,521,004	820,409	-
Estimated Joint Capital Improvements at 32%/68%	-	-	0%	-		300,000	-
Fairfax County Allocation at 32%	-	-	0%	-		96,000	-
Total Fairfax County Capital Contribution	**19,851,158**	**30,699,887**	**55%**	**25,621,744**	**40,558,539**	**20,050,409**	**13,023,000**
Total Fairfax County Contributions	**$ 33,982,661**	**$ 45,872,411**	35%	**$ 41,391,143**	**$ 56,867,122**	**$ 36,859,230**	**$ 30,220,249**

[1] Fairfax County allocation based on Contractor Schedule of Values (Rev 1)

Operating Fund Statement

AlexRenew manages its Operating Fund by functional area and strategic outcome. This allows the enterprise to understand the impact of each department on the overall budget and how monies are being spent to achieve key business objectives.

Operational Excellence.

This element of the operating budget primarily includes utilities and chemicals required to meet all regulatory compliance obligations for AlexRenew's cleaned water product as well as ongoing operating needs such as bio-solids reuse and solids disposal.

Public Engagement and Trust.

This operating budget category includes community education and outreach, and customer collection and billing services.

Watershed Stewardship.

This operating budget item encompasses the costs for legal, financial, and engineering partners. It also includes the cost of supporting the operations and maintenance associated with the City's capacity rights at the Arlington County Water Pollution Control Plant.

Adaptive Culture.

This operating budget category covers personnel services including all compensation related costs, required safety materials, training and professional development, and licensing and dues. This operating budget item also contains the ancillary services required to ensure clean, safe water for the community and environment, including laboratory testing and research support.

Effective Financial Stewardship.

This component of the operating budget covers all preventative and corrective maintenance for infrastructure assets, technology investments, general back-office support, and annual asset renewal and insurance needs.

Operating Fund	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
REVENUES							
Transfer from Revenue Fund	$ 28,376,991	$ 30,770,960	8%	$ 31,496,409	$ 32,441,600	$ 33,039,087	$ 33,700,069
Interest Income	10,000	10,000	0%	10,000	10,000	10,000	10,000
Total	**$ 28,386,991**	**$ 30,780,960**	**8%**	**$ 31,506,409**	**$ 32,451,600**	**$ 33,049,087**	**$ 33,710,069**
EXPENSES							
Operational Excellence	$ 7,168,460	$ 8,752,407	22%	$ 9,014,980	$ 9,285,429	$ 9,471,138	$ 9,660,560
Public Engagement and Trust	2,385,686	2,564,960	8%	2,641,909	2,721,166	2,775,589	2,831,101
Watershed Stewardship	2,758,250	2,622,403	-5%	2,701,075	2,782,108	2,837,750	2,894,505
Adaptive Culture	14,073,082	14,657,154	4%	15,096,868	15,549,774	15,860,770	16,177,985
Effective Financial Stewardship	2,001,514	1,846,064	-8%	1,901,446	1,958,489	1,997,659	2,037,612
Total	**$ 28,386,992**	**$ 30,442,988**	**7%**	**$ 31,356,278**	**$ 32,296,966**	**$ 32,942,905**	**$ 33,601,763**
FUND BALANCE - Beginning	**$ 4,666,355**	**$ 4,666,354**		**$ 5,004,326**	**$ 5,154,457**	**$ 5,309,091**	**$ 5,415,272**
FUND BALANCE - Ending [1]	**$ 4,666,354**	**$ 5,004,326**		**$ 5,154,457**	**$ 5,309,091**	**$ 5,415,272**	**$ 5,523,577**

[1] Operating Reserve Requirement of 60 days cash

Adaptive Culture Highlights

AlexRenew continues to invest in its workforce to attract, retain and continuously develop top tier water sector professionals. Over $13.3 million (44%) of AlexRenew's budgeted operating expenditures are utilized for personnel expenses, consisting of salaries and benefits. Salaries are provided for full and part time employees, while fringe benefits for qualifying employees include healthcare, retirement, social security, short and long-term disability, personal protective gear and other competitive benefits. Paid time off is provided at a rate based on years of service.

Personnel Budget		
Salaries	$	9,739,942
Benefits		3,599,234
Total Personnel Budget	$	13,339,176

Operating Budget		
Personnel	$	13,339,176
Non-Personnel		17,103,812
Total Operating Budget	$	30,442,988

Other personnel and compensation highlights from the FY 2023 Budget include:

- In keeping with AlexRenew's Board enacted compensation philosophy, AlexRenew recently completed a compensation study to benchmark positions and determine the competitive posture of AlexRenew's compensation packages. AlexRenew has 14 general salary grades. The results of the compensation study led to adjustments in salary bands and positions, which have been incorporated into the FY 2023 budget. Employees are eligible for performance-based pay increases ranging from 2.0 to 5.0% of salary.
- In December 2021, AlexRenew received the employee health insurance renewal rates from United Healthcare. The renewal rate was four percent (4%). AlexRenew will continue to offer only one medical plan option, High Deductible with a Health Savings Account. AlexRenew pays 85% for employee-only premiums and 83% of dependent coverage.
- AlexRenew continues to offer a benefits program that balances quality and affordability and includes broad offerings such as the Employee Assistance Program, short and long term disability, family care & tutoring services through Care@Work, legal and identity theft support, and a robust Employee Wellness Incentive Program that encourages participation in wellness program activities, events, and challenges.
- A total of 1,440 hours of safety training are planned for AlexRenew employees during FY 2023, reflecting investment in the safety of AlexRenew team members beyond mandated trainings.

Retirement Benefit

Budgeted funds for staff retirement are the contributions AlexRenew pays into the Virginia Retirement System (VRS). VRS administers pension plans and other benefits for Virginia's covered public sector employees and updates the employer contribution every other even calendar year. AlexRenew's contribution to VRS increased from 7.27% to 8.19% in July 2022 through June 2024.

Full-time, regular employees hired since January 1, 2014 have been placed into the VRS Hybrid plan unless they are already participating in VRS from previous employment. The VRS Hybrid plan does not offer disability benefits as part of its core provisions. VRS has offered the VLDP (Virginia Local Disability Plan) for jurisdictions who do not elect to opt out. AlexRenew has opted out of the VLDP Plan and provides a comparable disability plan.

AlexRenew currently has 20 employees in the VRS Plan 1 retirement plan, which allowed enrollment before July 1, 2010. AlexRenew has 7 employees in the VRS 2 retirement plan, which was available between July 1, 2010 and December 31, 2013. 71 employees are enrolled in the VRS Hybrid plan, which started on January 1, 2014 and is still in effect.

Other Post-Employment Benefits (OPEB)

OPEB funding supports retiree healthcare benefits. The FY 2023 budget provides for approximately $150,000 in OPEB funding. AlexRenew currently has 5 retirees receiving this benefit.

Workforce by Full Time Equivalent (FTE)

As shown below by Focus Area, the FY 2023 budget includes a modest increase in head count (the addition of two FTEs) compared to the FY 2022 Adopted Budget.

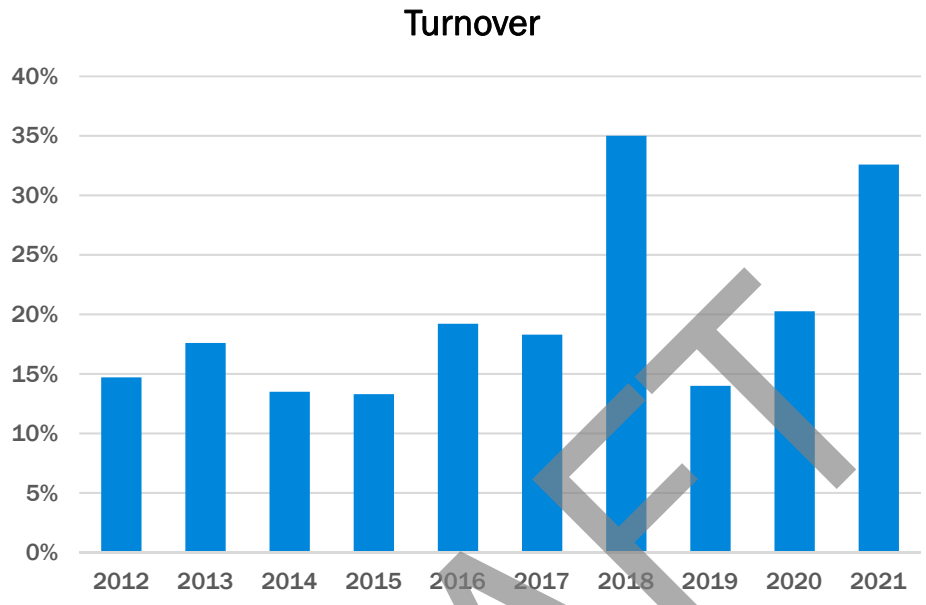
Focus Area	FY 2022 Adopted	FY 2023 Proposed	FTE Impact
Effective Financial Stewardship			
Executive	5	4	-1
Finance	11	11	0
Subtotal	16	15	-1
Watershed Stewardship			
Strategy & Policy	3	5	+2
Laboratory	8	7	-1
Subtotal	11	12	+1
Public Engagement and Trust			
Communications	2.5	5	+2.5
Subtotal	2.5	5	+2.5
Operational Excellence			
Operations & Maintenance	69	70	+1
Engineering & Planning	12	8	-4
Information Systems	7	9	+2
Subtotal	88	87	-1
Adaptive Culture			
Human Resources	3	3.5	+0.5
Subtotal	3	3.5	+0.5
Grand Total	**120.5**	**122.5**	**+2**

Equity in the Workplace

AlexRenew is committed to fostering, promoting, and preserving a culture of diversity and inclusion throughout the workplace. To support this commitment, our current diversity and inclusion initiatives extend to our practices and policies on recruitment and selection; compensation and benefits; professional development and training; and the ongoing development of a work environment built on the premise of gender and diversity equity.

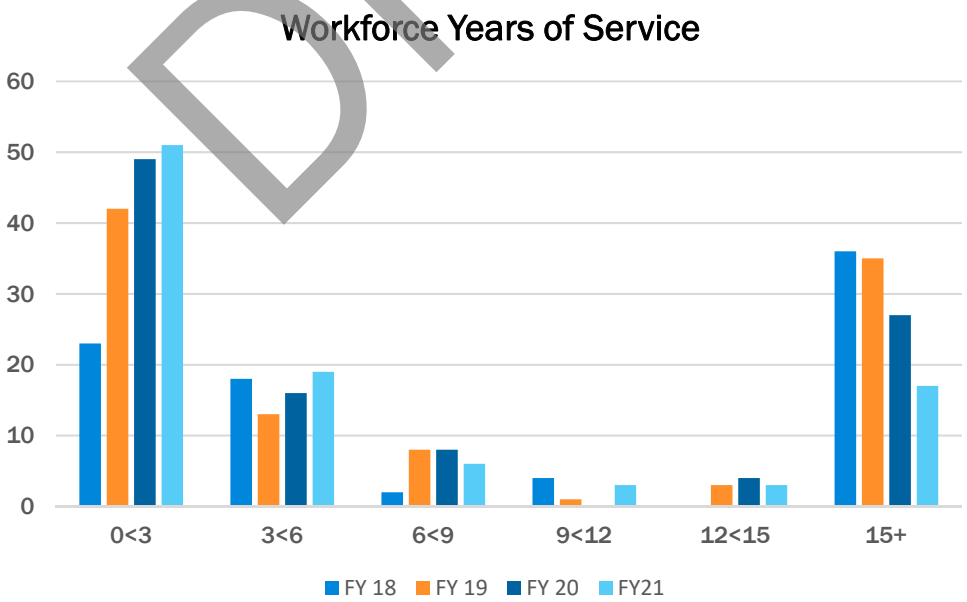
Workforce Impacts

AlexRenew saw continued workforce impacts due to pandemic related stresses as employees made life decisions affecting their tenure at AlexRenew. AlexRenew continues to utilize the apprentice program for succession development for its trades.



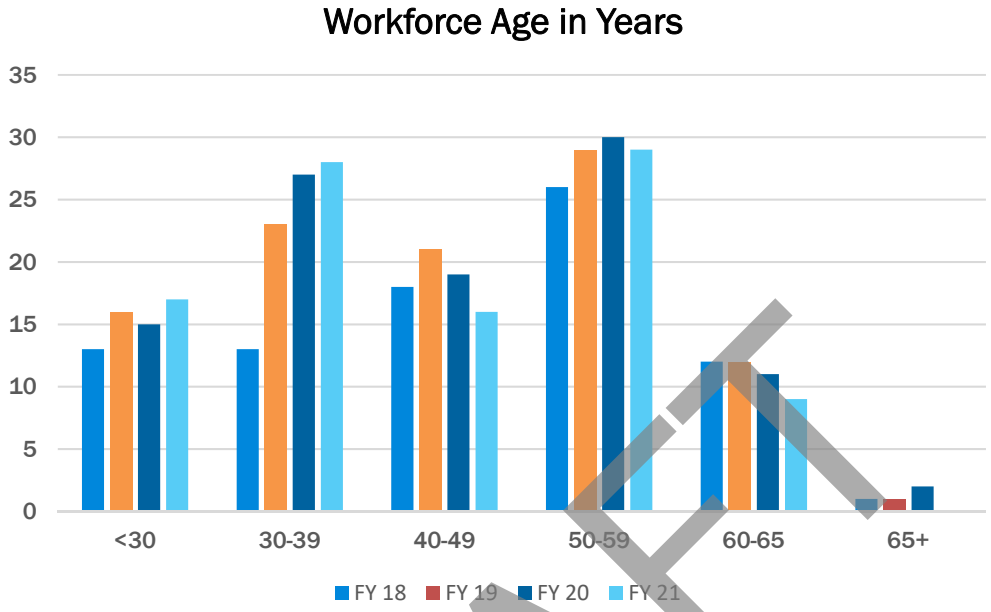
Years of Service

Almost three quarters of the current workforce (70%) has been employed with AlexRenew for ten years or less while 30% have worked for AlexRenew for more than 10 years. The average years of service is currently nine (9) years. Over the past three years, the number of AlexRenew employees with less than three years of service increased while those with fifteen years of service or more decreased, in part due to a voluntary retirement program initiated during 2020.



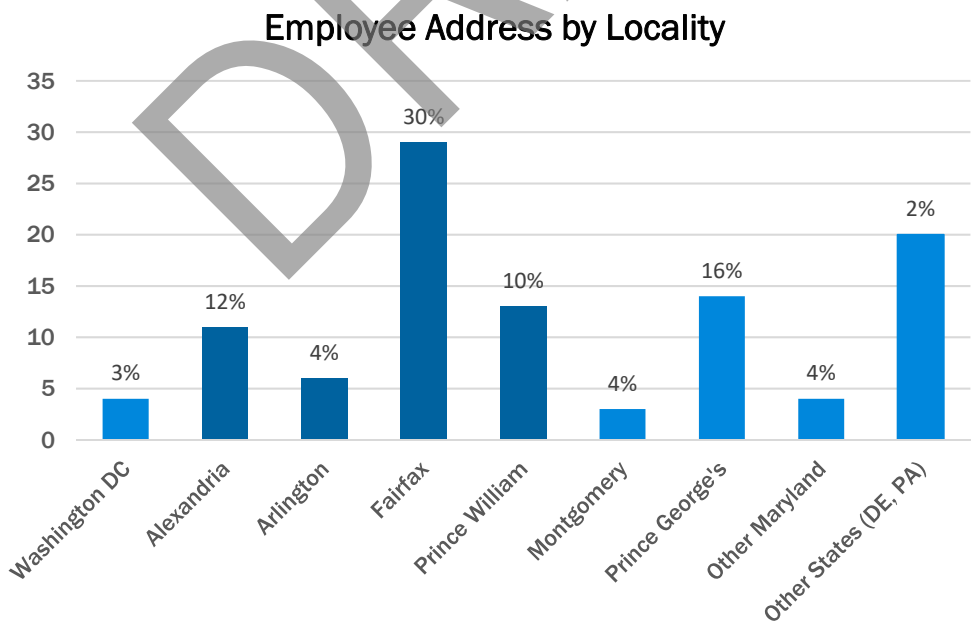
Employee Demographics

Over eighty three percent (83%) of AlexRenew's workforce falls within the ages of 30 and 60 years old with an average age of 44 years old. The percentage of the AlexRenew workforce in the 30-39 and 50-59 age range have increased considerably over the past three years, while the 60-65 age range has declined.



Employee Home Address by Locality

Just over half (57%) of AlexRenew's workforce live in Virginia (depicted in dark blue below) and twelve percent (12%) live in the City of Alexandria. The remainder live in Washington DC (3%) or in surrounding states such as Maryland.



Parity Debt Service Fund Statement

The Parity Debt Service Fund includes the amounts due in FY 2023 to pay principal and interest on outstanding and projected AlexRenew debt. To date, AlexRenew has borrowed from the Virginia Clean Water Revolving Loan Fund (CWRLF) and Virginia Pooled Financing Program (VPFP) through the Virginia Resources Authority (VRA) as well as through the federal Water Infrastructure Financing and Innovation Act (WIFIA) loan program. Within the context of the Indenture, capital funding in this manner is deemed parity debt.

During FY 2021, AlexRenew issued two new sewer revenue bonds to fund construction associated with the RiverRenew capital program – a loan of up to $185.6 million from the CWRLF and a loan of up to $320.9 million from the WIFIA program. In total, the FY 2023 budget assumes that AlexRenew funds $118 million of its capital spending through debt or grants.

The debt service schedules below make certain assumptions about the pace of spending the debt proceeds and the repayment schedules shown for the Series 2021 CWRLF and WIFIA Bonds may vary (but will not exceed) the levels shown below. AlexRenew's outstanding bonds bear interest at fixed interest rates; the Series 2021 CWRLF Bonds at 1.35%, the Series 2021 WIFIA Bonds at a 1.88% and the Series 2019 Bonds at a 1.10%. Repayment of the Series 2021 CWRLF Bonds begins in the upcoming FY 2023 while the Series 2021 WIFIA Bond payments begin in FY 2025. AlexRenew is also working with its financial advisor and the CWRLF to reset the rate on its Series 2011 Bonds for net present value savings, which are not yet reflected in the figures below.

AlexRenew also currently maintains a $30 million line of credit with a commercial bank to provide cash flow flexibility. AlexRenew fully drew on the facility in FY 2021 to fund RiverRenew construction and expects to repay the line with bond proceeds in the future. The line of credit bears interest at a variable rate. The line of credit is considered subordinate debt under the Indenture and as such, projected interest and fees associated with it are budgeted as an operating expense rather than included in the Parity Debt Service fund.

Parity Debt Service Fund	Adopted FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
REVENUES						
Beginning Balance	$ 12,365	$ 0	$ 0	$ (0)	$ (0)	$ 0
Transfer from Revenue Fund	13,817,255	14,649,508	16,358,494	19,036,687	21,257,774	21,405,144
Interest Income	90,000	90,000	90,000	90,000	90,000	90,000
Total Revenue	**13,919,620**	**14,739,508**	**16,448,494**	**19,126,687**	**21,347,774**	**21,495,144**
EXPENDITURES						
VRA BOND SERIES 00B INTEREST	$ 345,827	$ 77,464	$ -	$ -	$ -	$ -
VRA BOND SERIES 00B PRINCIPAL	6,589,727	4,024,113	-	-	-	-
VRA BOND SERIES 04 INTEREST	45,433	31,609	17,646	3,543	-	-
VRA BOND SERIES 04 PRINCIPAL	1,378,979	1,392,803	1,406,766	708,669	-	-
VRA BOND SERIES 06 INTEREST	48,246	39,187	30,038	20,798	12,979	5,589
VRA BOND SERIES 06 PRINCIPAL	903,561	912,620	921,769	830,185	737,180	744,570
VRA BOND SERIES 09 INTEREST	197,438	175,299	152,554	129,186	105,178	80,512
VRA BOND SERIES 09 PRINCIPAL	808,439	830,578	853,324	876,692	900,700	925,366
VRA BOND SERIES 11 INTEREST	129,590	120,332	110,856	101,157	91,277	81,063
VRA BOND SERIES 11 PRINCIPAL	391,620	400,877	410,353	420,053	429,982	440,146
VRA BOND SERIES 14A INTEREST	120,112	112,361	104,513	96,566	88,520	80,373
VRA BOND SERIES 14A PRINCIPAL	618,159	625,910	633,758	641,705	649,751	657,899
VRA BOND SERIES 14B INTEREST	22,362	20,857	19,333	17,792	16,231	14,652
VRA BOND SERIES 14B PRINCIPAL	125,062	126,567	128,117	128,859	130,410	132,771
VRA BOND SERIES 14C INTEREST	855,463	841,625	827,019	811,772	795,756	775,714
VRA BOND SERIES 14C PRINCIPAL	260,000	280,000	290,000	305,000	320,000	490,000
VRA BOND SERIES 17A INTEREST	907,506	892,772	862,534	830,759	797,319	762,084
VRA BOND SERIES 17A PRINCIPAL	-	575,000	605,000	635,000	670,000	705,000
VRA BOND SERIES 19 INTEREST	167,096	114,070	112,970	111,870	110,220	107,470
VRA BOND SERIES 19 PRINCIPAL	5,000	100,000	100,000	100,000	300,000	100,000
VRA BOND SERIES 21 INTEREST	-	3,045,463	3,597,117	8,867,258	2,293,042	2,234,383
VRA BOND SERIES 21 PRINCIPAL	-	-	5,264,825	2,442,336	6,514,011	6,572,670
WIFIA BOND SERIES 21 INTEREST	-	-	-	1,047,488	6,284,926	6,284,098
WIFIA BOND SERIES 21 PRINCIPAL	-	-	-	-	100,291	300,784
TOTAL EXPENSES	**$ 13,919,620**	**$ 14,739,509**	**$ 16,448,494**	**$ 19,126,687**	**$ 21,347,774**	**$ 21,495,144**
Total Interest	2,839,073	5,471,040	5,834,582	12,038,188	10,595,449	10,425,938
Total Principal	11,080,547	9,268,468	10,613,912	7,088,499	10,752,325	11,069,206

IRR Fund Statement - Joint Use Facilities Account

The Improvement, Renewal & Replacement (IRR) Fund – Joint Use Facilities Account funds the project costs associated with the upgrade of infrastructure and equipment for the portions of the facility used jointly by the City and Fairfax County.

As noted in the accompanying schedule, contributions to the Joint Use Facilities Account are made annually by both AlexRenew and Fairfax County in a combined amount equal to 0.7% of AlexRenew's estimated joint capital asset value for FY 2023. Fairfax County's portion of the total contribution is also based on the allocation percentages detailed on page 16 and affirmed in the Agreement.

Planned spending in the IRR program is expected to increase in the upcoming FY 2023 to provide funding for smaller projects in broad, treatment-process-based categories (e.g., preliminary/primary, secondary, solids, tertiary), as well as several new projects (e.g., UV system rehabilitation, warehouse upgrades, network upgrades, SCADA/PLC work) and ongoing investments in cybersecurity.

IRR Fund - Joint Use Facilities Account	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
REVENUES							
Revenue Fund Transfer	$ 2,319,561	$ 2,410,801	4%	$ 2,581,223	$ 2,704,353	$ 2,704,353	$ 2,879,101
Fairfax County Contribution	3,346,197	3,477,819	4%	3,477,819	3,723,670	3,901,297	4,153,388
Total Revenues	**$ 5,665,758**	**$ 5,888,619**	**4%**	**$ 6,059,042**	**$ 6,428,023**	**$ 6,605,649**	**$ 7,032,489**
EXPENSES							
Campus Digital Signage	$ -	$ -	-	$ -	$ -	$ 140,000	$ -
Campus Wide Projects	315,600	1,178,756	273%	1,101,944	1,200,000	1,200,000	2,281,699
Collection System Projects	15,000	15,000	0%	15,000	15,000	15,000	15,000
Compliance Laboratory	-	45,500	100%	50,000	20,000	-	20,000
Information Technology Projects	1,350,000	3,000,000	122%	2,000,000	1,800,000	1,000,000	500,000
Preliminary / Primary Infrastructure	80,000	80,800	1%	85,648	86,504	87,370	34,948
PLC Equipment and Network Upgrades	-	300,000	100%	300,000	300,000	300,000	300,000
Safety and Security	-	355,000	100%	355,000	-	-	-
Secondary Infrastructure	1,638,000	1,737,099	6%	1,754,470	1,772,015	1,789,735	1,807,633
Solids Infrastructure	1,635,500	1,000,000	39%	750,000	750,000	1,000,000	1,000,000
Tertiary Infrastructure	633,000	2,240,700	254%	2,252,100	1,763,900	1,776,000	683,500
UV System Rehabilitation	-	225,000	100%	-	-	325,810	-
Warehouse and Inventory Upgrades	-	150,000	100%	500,000	500,000	150,000	25,000
WRRF Fire Alarm Upgrade	-	-	-	-	50,000	300,000	1,000,000
Joint IRR Expenses	**$ 5,667,100**	**$ 10,327,856**	**82%**	**$ 9,164,163**	**$ 8,257,420**	**$ 8,083,916**	**$ 7,667,781**
FUND BALANCE - Beginning	**$ 12,445,000**	**$ 11,545,464**		**$ 7,106,227**	**$ 4,001,106**	**$ 2,171,710**	**$ 693,443**
FUND BALANCE - Ending	**$ 11,545,464**	**$ 7,106,227**		**$ 4,001,106**	**$ 2,171,710**	**$ 693,443**	**$ 58,151**

IRR Fund Statement - General Account

The Improvement, Renewal & Replacement (IRR) Fund – General Account funds the project costs associated with the upgrade of infrastructure and equipment for the portions of the facility used for the benefit of the City only.

Contributions to the General Account are made annually for projects AlexRenew determines are necessary to maintain the safe and effective operation of the facility.

The proposed Alex-only IRR program increased year-over-year to accommodate the procurement and implementation of a new customer information system that is required by January 2024 and maintains funding levels for collection system and Alex-only campus needs.

IRR Fund - General Account	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
Revenues							
Revenue Fund Transfer	$ 124,400	$ 689,475		$ 2,077,725	$ 191,000	$ 166,000	$ 166,000
Total Revenue	**$ 124,400**	**$ 689,475**	**454%**	**$ 2,077,725**	**$ 191,000**	**$ 166,000**	**$ 166,000**
Expenses							
Billing and Customer Information System	$ -	$ 523,475	-	$ 1,728,725	$ 25,000	$ -	$ -
Campus Wide Projects	21,000	22,000	5%	205,000	22,000	22,000	22,000
Collection System Projects	103,400	144,000	39%	144,000	144,000	144,000	144,000
Total Expenses	**$ 124,400**	**$ 689,475**	**454%**	**$ 2,077,725**	**$ 191,000**	**$ 166,000**	**$ 166,000**

General Fund Statement

The General Fund is the repository of funds remaining after deposits to all other Funds are made and may be used for any lawful purpose of AlexRenew. AlexRenew uses the General Fund to finance City-only capital improvements, contribute PAYGO (cash) funding to the Joint capital program, manage unanticipated expenditures, and maintain sufficient reserves to promote ongoing financial strength.

The General Fund balance is projected to decrease slightly (by $1.2 million or 3%) through FY 2023 but remain strong at fiscal year-end, with a projected balance of over $35 million.

General Fund	Adopted FY2022	Proposed FY2023	VAR %	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
REVENUES							
Revenue Fund Transfer	$ 13,961,638	$ 14,096,447	1%	$ 13,153,254	$ 14,336,093	$ 14,318,434	$ 14,735,220
Interest Income	15,000	15,000	0%	15,000	15,000	15,000	15,000
Total Revenues	**$ 13,976,638**	**$ 14,111,447**	**1%**	**$ 13,168,254**	**$ 14,351,093**	**$ 14,333,434**	**$ 14,750,220**
EXPENSES							
Alex-only General Capital Exenses	$ 4,532,005	$ 3,481,290	-23%	$ 5,629,800	$ 6,366,008	$ 5,096,386	$ 3,667,740
Transfer to Joint CIP Project Fund	17,527,058	11,886,206	-32%	7,017,043	12,687,119	0	0
Total Expenses	**$ 22,059,063**	**$ 15,367,496**	**-30%**	**$ 12,646,843**	**$ 19,053,127**	**$ 5,096,386**	**$ 3,667,740**
Fund Balance Increase (Decrease)	$ (8,082,424)	$ (1,256,049)		$ 521,411	$ (4,702,034)	$ 9,237,048	$ 11,082,480
Fund Balance - Beginning	$ 45,046,760	$ 42,250,354		$ 36,964,336	$ 37,485,746	$ 37,485,746	$ 32,783,713
Fund Balance - Ending	$ 36,964,336	$ 40,994,305		$ 37,485,746	$ 32,783,713	$ 46,722,794	$ 43,866,193
General Reserve sub-Fund [1]	$ (4,666,355)	$ (5,004,327)		$ (5,154,457)	$ (5,309,090)	$ (5,309,090)	$ (5,415,272)
Available Balance	$ 32,297,981	$ 35,989,978	11%	$ 32,331,290	$ 27,474,622	$ 41,413,704	$ 38,450,921

[1] Additional Operating Reserve Requirement of 60 days cash per Board-approved Financial Policies

Capital Improvement Program

AlexRenew manages its capital outlay for both Joint Use and City only infrastructure and equipment through its Capital Improvement Program (CIP). The CIP is summarized in the 10-year plan and is a key element in planning for and managing to future regulatory compliance through large-scale capital investments.

The 10-year plan is an important tool used to formulate future project financing plans, maximize federal and state grant opportunities, proactively plan for the replacement or reconstruction of essential assets nearing the end of their service life, and schedule and coordinate the execution of multiple projects to minimize operational impact. The FY 2023 – FY 2032 CIP includes project cost assumptions for all capital projects, including the RiverRenew program, as well as the Improvement, Renewal and Replacement program.

While the CIP provides a long-term roadmap for planned capital expenditures, AlexRenew retains the ability to defer projects if needed, and may elect to defer certain new capital projects, depending on revenue performance throughout the fiscal year.

Definition of Capital Projects

A capital project involves expenditures to construct or acquire assets of a relatively permanent nature such as property, plant, and equipment with a useful life that exceeds approximately two years.

CIP Funding

Potential funding sources for CIP projects include loans from the Virginia Department of Environmental Quality (VA DEQ), Clean Water Revolving Loan Fund (CWRLF), Virginia Pooled Financing Program (VPFP), Commonwealth of Virginia Grant programs, Water Infrastructure Finance and Innovation Act (WIFIA) loans, revenue bond issues, bank loans and lines of credit, grants, and AlexRenew cash and reserves, also called pay-as-you-go (PAYGO) funds. To comply with its Board-adopted Financial Policies, AlexRenew funds at least 15% of the annual CIP with PAYGO funds.

Alex-Only CIP

Capital projects that are the responsibility of AlexRenew only are funded from General Fund resources and/or using various financing instruments. Costs associated with the Alex-only CIP are detailed on page 32 and specific project information is provided on pages 33-49.

Joint-Use CIP

Capital projects for which AlexRenew and Fairfax County share joint responsibility are funded pay-as-you-go from General Fund resources and/or using various financing instruments. Costs associated with the Joint Use Facilities CIP are detailed on pages 50-51 and project information is found on pages 52-109.

Proposed CIP Overview

AlexRenew is proposing a FY 2023 capital budget of $175.8 million and a total 10-year capital budget of $678.6 million. Based on current project spending projections, the capital spend in FY 2023 is expected to be similar to the year prior and remain at a similarly elevated level until the RiverRenew Tunnel System project concludes. The total 10-year budgeted CIP expenditures decreased year-over-year as the first major year of Tunnel System spend was completed in the prior FY 2022.

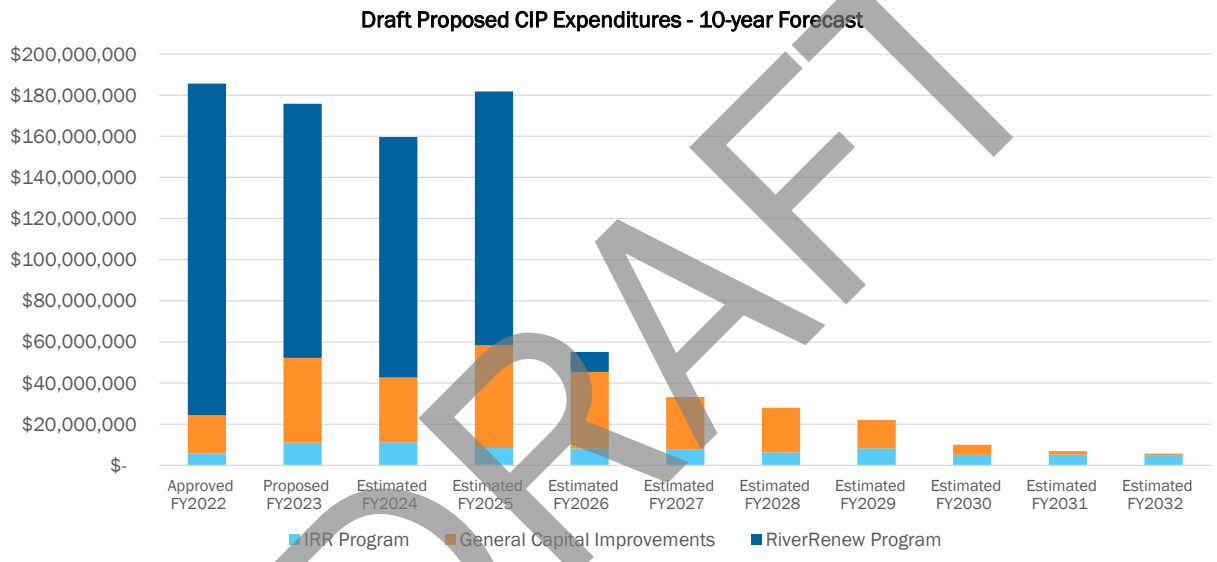
In addition to RiverRenew, highlights of the FY 2023 CIP include:

- Funding for City-only projects such as improvements to the Potomac Yard and Four Mile Run Pump Stations and design and construction of the Innovation District Pump Station
- Continued funding for ongoing Joint CIP projects such as Preliminary/Primary System Upgrades, Tertiary Filter Repairs, W3 System Improvements, and Solids Master Planning work
- New funding for CIP projects that grew out of IRR work related to the Preliminary Settling Tanks and Secondary Settling Tanks
- New funding to track study drivers in areas such as regulatory strategy, sustainability and resilience

Highlights of the 10-year plan include:

- Continued funding for the RiverRenew Tunnel System project through 2025
- Continued funding for Preliminary Primary System upgrades through 2026
- Increased investments for IT systems and infrastructure and care of existing digital assets
- Funding for future Solids Management projects to come from master planning initiative through 2029
- Continued capital contributions to Arlington County
- Periodic plant and external systems odor control system upgrades
- Contingency based on overall capital spend

The graph below illustrates the planned capital spending over the 10-year period including the significant increase in capital spend for RiverRenew through 2025.

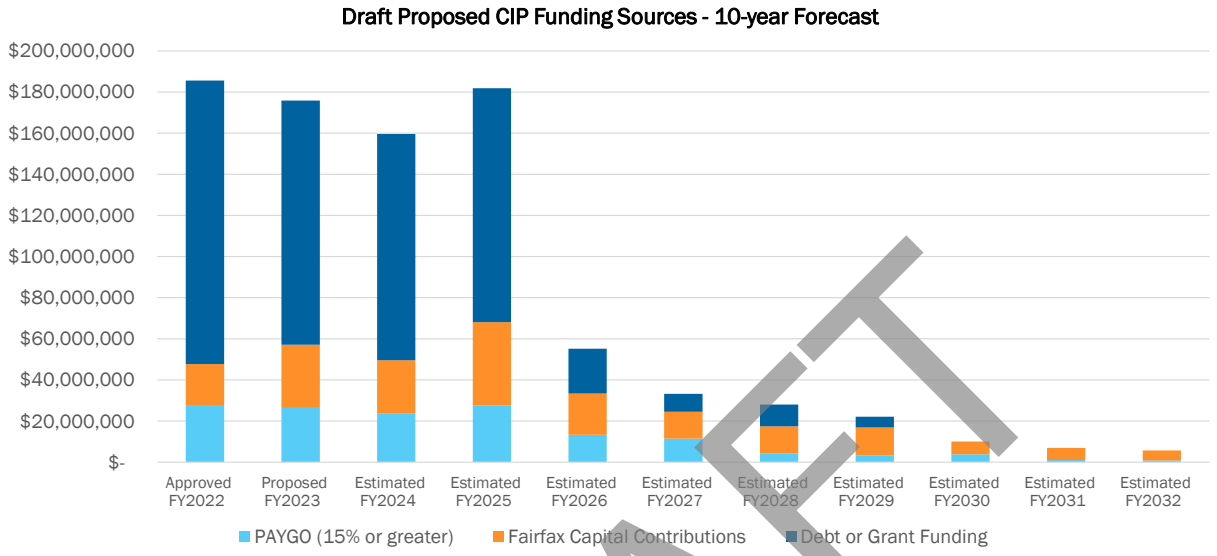


The specific funding sources for the proposed CIP include PAYGO (cash contributions from AlexRenew's operations and reserves), capital contributions from Fairfax County (which are determined according to negotiated percentages for the relevant project), and debt or grant funding. Per AlexRenew's Financial Policies, at least 15% of the CIP is funded from PAYGO each fiscal year.

Expected debt and grant funding sources include proceeds from four existing AlexRenew loans – its Series 2017, Series 2019 and Series 2021 Bonds issued through the Virginia Clean Water Revolving Loan Fund (CWRLF) and the Series 2021 WIFIA loan. Additional details on the loans can be found on pages 23-24 under the detailed Parity Debt Service Fund statement.

Although funding from the debt facilities is projected to be sufficient to fund the capital plan, AlexRenew has also pursued grant funding to support the RiverRenew program; to the extent additional grant proceeds are available in the coming fiscal years, a like amount less debt would be utilized to fund capital work that year. The graph on the following page illustrates the planned capital funding sources over the 10-year period including the significant debt financing to be utilized in the next several fiscal years to fund the high level of ongoing RiverRenew construction.

The proposed CIP and related funding strategies comply with all relevant AlexRenew financial policies including the required 15% PAYGO funding requirement and sufficient projected net revenues to produce coverage of debt service requirements in excess of the 1.5x policy minimum.



The pages to follow provide additional detail on the specific funding levels for each project over each of the next ten fiscal years, as well as a project sheet for each major project detailing the project's description, justification, benefits, milestones, useful life, and impact to the community.

FY23 10-year Capital Improvement Program - Summary

SUMMARY OF ESTIMATED EXPENDITURES

	Approved FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027	Estimated FY2028	Estimated FY2029	Estimated FY2030	Estimated FY2031	Estimated FY2032	Project Totals FY23-32
IRR Program												
Alex-only IRR	$ 124,400	$ 689,475	$ 2,077,725	$ 191,000	$ 166,000	$ 166,000	$ 899,000	$ 1,966,000	$ 206,000	$ 166,000	$ 166,000	$ 6,693,200
Joint IRR	$ 5,667,100	$ 10,327,855	$ 9,164,162	$ 8,257,419	$ 8,083,915	$ 7,667,780	$ 5,411,922	$ 6,210,677	$ 4,897,077	$ 5,082,033	$ 4,443,275	$ 69,546,115
IRR Program Subtotal	$ 5,791,500	$ 11,017,330	$ 11,241,887	$ 8,448,419	$ 8,249,915	$ 7,833,780	$ 6,310,922	$ 8,176,677	$ 5,103,077	$ 5,248,033	$ 4,609,275	$ 76,239,315
General CIP												
Alex-only Capital Improvement Projects	$ 4,532,005	$ 3,481,290	$ 5,471,040	$ 5,414,440	$ 4,097,240	$ 3,667,740	$ 3,479,000	$ 4,513,040	$ 870,000	$ 460,000	$ 460,000	$ 31,913,790
Joint Capital Improvement Projects	$ 14,169,213	$ 37,800,225	$ 25,958,390	$ 44,497,459	$ 33,109,146	$ 21,705,517	$ 18,229,410	$ 9,430,910	$ 4,053,910	$ 1,247,910	$ 642,632	$ 196,675,509
General CIP Subtotal	$ 18,701,218	$ 41,281,515	$ 31,429,430	$ 49,911,899	$ 37,206,386	$ 25,373,257	$ 21,708,410	$ 13,943,950	$ 4,923,910	$ 1,707,910	$ 1,102,632	$ 228,589,299
RiverRenew Program												
RiverRenew Bdg J Fac. Reloc. & Decom.	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RiverRenew Tunnel System	$ 161,077,699	$ 123,600,000	$ 117,000,000	$ 123,500,000	$ 9,700,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 373,800,000
RiverRenew Subtotal	$ 161,177,699	$ 123,600,000	$ 117,000,000	$ 123,500,000	$ 9,700,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 373,800,000
Total CIP Expenditures	**$ 185,670,417**	**$ 175,898,845**	**$ 159,671,317**	**$ 181,860,318**	**$ 55,156,301**	**$ 33,207,037**	**$ 28,019,332**	**$ 22,120,627**	**$ 10,026,987**	**$ 6,955,943**	**$ 5,711,907**	**$ 678,628,614**

SUMMARY OF ESTIMATED FUNDING SOURCES

	Approved FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027	Estimated FY2028	Estimated FY2029	Estimated FY2030	Estimated FY2031	Estimated FY2032	Project Totals FY23-32
Joint IRR Fund	$ 5,667,100	$ 10,327,855	$ 9,164,162	$ 8,257,419	$ 8,083,915	$ 7,667,780	$ 5,411,922	$ 6,210,677	$ 4,897,077	$ 5,082,033	$ 4,443,275	$ 69,546,115
General Fund PAYGO	$ 22,183,463	$ 16,056,971	$ 14,565,808	$ 18,292,559	$ 4,263,240	$ 3,833,740	$ 4,378,000	$ 6,479,040	$ 1,076,000	$ 626,000	$ 626,000	$ 70,197,358
Fairfax Capital Contributions	$ 19,851,158	$ 30,699,887	$ 25,621,744	$ 40,558,539	$ 20,050,409	$ 13,023,000	$ 13,413,690	$ 5,658,546	$ 2,432,346	$ 748,746	$ 385,579	$ 152,592,486
Known Grant Funding	$ 25,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Series 2019 CWRLF Bonds	$ 301,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Series 2021 CWRLF Bonds	$ 112,667,496	$ 72,982,504	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,982,504
Series 2021 WIFIA Bonds	$ -	$ 45,831,628	$ 110,319,603	$ 114,751,801	$ 22,758,737	$ -	$ -	$ -	$ -	$ -	$ -	$ 293,661,769
Future Debt	$ -	$ -	$ -	$ -	$ -	$ 8,682,517	$ 4,815,720	$ 3,772,364	$ 1,621,564	$ 499,164	$ 257,053	$ 19,648,382
Debt or Grant Funding Subtotal	$ 137,968,696	$ 118,814,132	$ 110,319,603	$ 114,751,801	$ 22,758,737	$ 8,682,517	$ 4,815,720	$ 3,772,364	$ 1,621,564	$ 499,164	$ 257,053	$ 386,292,655
Total Estimated CIP Funding	**$ 185,670,417**	**$ 175,898,845**	**$ 159,671,317**	**$ 181,860,318**	**$ 55,156,301**	**$ 33,207,037**	**$ 28,019,332**	**$ 22,120,627**	**$ 10,026,987**	**$ 6,955,943**	**$ 5,711,907**	**$ 678,628,614**

FY23 10-year Capital Improvement Program – Detailed Expenditures

	Adopted FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027	Estimated FY2028	Estimated FY2029	Estimated FY2030	Estimated FY2031	Estimated FY2032	Project Totals FY23-32
Alex-Only Capital Improvement Program												
Interceptor/ Trunk Sewers Rehabilitation Program												
Commonwealth Interceptor Rehabilitation	$ -	$ -	$ -	$ 313,000	$ -	$ -	$ -	$ -	$ 385,000	$ -	$ -	$ 698,000
Potomac Interceptor Rehabilitation	$ -	$ -	$ -	$ 540,000	$ 1,200,000	$ 1,800,000	$ 1,800,000	$ 3,590,000	$ -	$ -	$ -	$ 8,930,000
Improvement, Renewal & Replacement Program												
IRR: Billing and Customer Information System	$ -	$ 523,475	$ 1,728,725	$ 25,000	$ -	$ -	$ 550,000	$ 1,800,000	$ 40,000	$ -	$ -	$ 4,667,200
IRR: Campus Wide Projects	$ 21,000	$ 22,000	$ 205,000	$ 22,000	$ 22,000	$ 22,000	$ 205,000	$ 22,000	$ 22,000	$ 22,000	$ 22,000	$ 586,000
IRR: Collection System Projects	$ 103,400	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 144,000	$ 1,440,000
RiverRenew Program												
RiverRenew Tunnel System - Category 1, City-only Portion	$ 67,857,050	$ 65,800,000	$ 43,300,000	$ 32,600,000	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 142,100,000
Service Chambers and Pump Stations Upgrade Program												
Bush Hill Service Chamber	$ -	$ -	$ 155,000	$ 310,000	$ 775,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,240,000
Four Mile Run Pump Station Modifications	$ -	$ 850,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 850,000
Innovation District Pumping Station Design and Construction	$ 125,000	$ 86,900	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 86,900
Mark Center Pump Station Study	$ -	$ -	$ 260,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 260,000
Potomac Yards PS: Odor Control and Ventilation System Upgrade	$ 2,042,065	$ 240,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 240,000
WRRF Improvements Program												
4 MGD WRRF Expansion Facility Plan	$ -	$ -	$ -	$ -	$ -	$ 1,000,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ 2,000,000
NMF Wet Well Elimination Study and Preliminary Design	$ -	$ -	$ -	$ -	$ 100,000	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ 300,000
Other Capital												
Arlington County Capital Contributions	$ 1,817,000	$ 1,613,000	$ 4,334,000	$ 3,493,000	$ 1,318,000	$ 205,000	$ 204,000	$ 211,000	$ 210,000	$ 210,000	$ 210,000	$ 12,008,000
Capital Financing Fees	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 1,900,000
CONTINGENCY												
Contingency on Alex-Only Funding Excluding RiverRenew	$ 297,940	$ 441,390	$ 472,040	$ 508,440	$ 454,240	$ 312,740	$ 325,000	$ 562,040	$ 125,000	$ 100,000	$ 100,000	$ 3,400,890
Alex-Only Capital Project Subtotal	**$ 72,513,455**	**$ 69,970,765**	**$ 50,848,765**	**$ 38,205,440**	**$ 4,663,240**	**$ 3,833,740**	**$ 4,378,000**	**$ 6,479,040**	**$ 1,076,000**	**$ 626,000**	**$ 626,000**	**$ 180,706,990**
Joint-Use Capital Improvement Program												
Interceptor/ Trunk Sewers Rehabilitation Program												
Commonwealth Interceptor Pile Intrusion	$ -	$ -	$ -	$ -	$ 225,000	$ 750,000	$ -	$ -	$ -	$ -	$ -	$ 975,000
Upper Holmes Run Trunk Sewer Rehabilitation	$ 40,000	$ -	$ 880,000	$ 1,760,000	$ 1,320,000	$ 440,000	$ 100,000	$ 55,000	$ -	$ -	$ -	$ 4,555,000
Improvement, Renewal & Replacement Program												
IRR: Campus Digital Signage	$ -	$ -	$ -	$ -	$ 140,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 140,000
IRR: Campus Wide Projects	$ 315,600	$ 1,178,756	$ 1,101,944	$ 1,200,000	$ 1,200,000	$ 2,281,699	$ 484,516	$ 487,361	$ 490,235	$ 493,137	$ 496,068	$ 9,413,716
IRR: Collection System Projects	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 150,000
IRR: Compliance Laboratory	$ -	$ 45,500	$ 50,000	$ 20,000	$ -	$ 20,000	$ -	$ 20,000	$ -	$ 20,000	$ -	$ 175,500
IRR: Information Technology Projects	$ 1,350,000	$ 3,000,000	$ 2,000,000	$ 1,800,000	$ 1,000,000	$ 500,000	$ 500,000	$ 1,500,000	$ -	$ 500,000	$ -	$ 10,800,000
IRR: Preliminary/Primary Infrastructure	$ 80,000	$ 80,800	$ 85,648	$ 86,504	$ 87,370	$ 34,948	$ 35,297	$ 35,650	$ 36,007	$ 36,367	$ 36,367	$ 554,958
IRR: PLC Equipment and Network Upgrades	$ 1,635,500	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 3,000,000
IRR: Safety and Security	$ -	$ 355,000	$ 355,000	$ -	$ -	$ -	$ 355,000	$ 355,000	$ -	$ -	$ -	$ 1,420,000
IRR: Secondary Infrastructure	$ 1,638,000	$ 1,737,099	$ 1,754,470	$ 1,772,015	$ 1,789,735	$ 1,807,633	$ 1,825,709	$ 1,843,966	$ 1,862,406	$ 1,881,029	$ 1,899,840	$ 18,173,902
IRR: Solids Infrastructure	$ 1,635,500	$ 1,000,000	$ 750,000	$ 750,000	$ 1,000,000	$ 1,000,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 10,500,000
IRR: Tertiary Infrastructure	$ 392,000	$ 2,240,700	$ 2,252,100	$ 1,763,900	$ 1,776,000	$ 683,500	$ 696,400	$ 453,700	$ 597,400	$ 611,500	$ 496,000	$ 11,571,200
IRR: UV System Rehabilitation	$ 675,000	$ 225,000	$ -	$ -	$ 325,810	$ -	$ -	$ -	$ 396,029	$ -	$ -	$ 946,839
IRR: Warehouse and Inventory Upgrades	$ -	$ 150,000	$ 500,000	$ 500,000	$ 150,000	$ 25,000				$ 25,000		$ 1,350,000
IRR: WRRF Fire Alarm Upgrade	$ -	$ -	$ -	$ 50,000	$ 300,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ 1,350,000
Non-Process Facilities Program												
Environmental Center: 5th/6th Floor Modifications, Carpet and HVAC Upgrades	$ 1,000,000	$ 500,000	$ 150,000	$ 150,000	$ 1,200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000,000
Environmental Center: Outdoor Exhibit Upgrade	$ 50,000	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
Holland Lane Pavement Reconstruction	$ -	$ -	$ -	$ -	$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,000
South Carlyle Partnership	$ -	$ -	$ -	$ -	$ 700,000	$ 400,000	$ 300,000	$ 100,000	$ -	$ -	$ -	$ 1,500,000
WRRF HVAC Automation System Upgrade	$ -	$ 50,000	$ -	$ -	$ -	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ 1,050,000

Continued on following page

FY23 10-year Capital Improvement Program – Detailed Expenditures (continued)

Continued from previous page

	Adopted FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027	Estimated FY2028	Estimated FY2029	Estimated FY2030	Estimated FY2031	Estimated FY2032	Project Totals FY23-32
RiverRenew Program												
RiverRenew Bdg J Fac. Reloc. & Decom.	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RiverRenew Tunnel System - Joint Use	$ 93,220,649	$ 57,800,000	$ 73,700,000	$ 90,900,000	$ 9,300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 231,700,000
Regulatory Strategy Program												
Coliphage Study	$ -	$ -	$ 50,000	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000
Emerging Contaminant Analysis	$ -	$ 50,000	$ 50,000	$ 100,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,000
Total Nitrogen Limit Compliance Study	$ -	$ -	$ 75,000	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 325,000
Sustainability and Resilience Program												
Climate Resilience Initiatives	$ -	$ 133,000	$ 243,000	$ 489,000	$ 150,000	$ 445,000	$ 325,000	$ 95,000	$ 500,000	$ -	$ -	$ 2,380,000
Stormwater System - Struct./Nonstruct. Best Management Practices	$ -	$ -	$ -	$ 50,000	$ 400,000	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ 850,000
WRRF Improvements Program												
Campus-Wide Electrical Upgrade Sub-Program	$ -	$ -	$ -	$ -	$ 781,000	$ 3,334,000	$ 3,278,000	$ 4,301,000	$ 2,652,000	$ 646,000	$ -	$ 14,992,000
Centrate Pretreatment Facility Improvements	$ 258,000	$ 500,000	$ 5,000,000	$ 7,000,000	$ 6,000,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 19,700,000
Building 22: Primary Weir Observation House	$ -	$ 660,000	$ 990,000	$ 1,980,000	$ 990,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,620,000
Building G/4: Tertiary Filter Repairs	$ -	$ 2,520,000	$ 2,713,375	$ 2,541,500	$ 330,000	$ 2,200,000	$ -	$ -	$ -	$ -	$ -	$ 10,304,875
Building F: Plant Effluent Water (W3) System Improvements	$ -	$ 1,027,425	$ 906,255	$ 1,710,391	$ -	$ 31,907	$ -	$ -	$ -	$ -	$ 40,722	$ 3,716,700
Building L: Centrifuge Replacement	$ -	$ -	$ -	$ 1,461,000	$ 1,461,000	$ 4,591,000	$ 4,591,000	$ 1,531,000	$ -	$ -	$ -	$ 13,635,000
HMI Upgrade	$ 1,336,425	$ 1,600,000	$ 1,200,000	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,050,000
Main Campus Galleries Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ 500,000	$ 300,000	$ -	$ -	$ 1,300,000
Odor Control System Upgrade	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ 1,000,000	$ 1,000,000	$ -	$ -	$ -	$ 2,500,000
Power Distribution Monitors	$ -	$ 50,000	$ 100,000	$ 250,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000
Preliminary /Primary System Upgrades	$ 8,249,270	$ 9,110,800	$ 9,350,000	$ 18,690,000	$ 9,350,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 46,500,800
Process Air Compressor (PAC) System Upgrade	$ 743,314	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Primary Settling Tank Rehabilitiation	$ -	$ 5,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,000,000
Purified Water System Upgrade	$ -	$ -	$ 158,760	$ 951,568	$ 999,146	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,109,474
Secondary Settling Tanks Refurbishment	$ 1,638,000	$ 7,500,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 7,725,000
Security Services During Construction	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,600,000
Solids Management: Solids Master Plan	$ 750,000	$ 700,000	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 950,000
Solids Management: Building 55: Additional Cooling for Digesters	$ -	$ 3,276,100	$ 218,400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,494,500
Solids Management: Building 55: Replace Valves on W3 Cooling System	$ -	$ 21,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,500
Solids Management: Building 55: Solids Screen Replacement	$ -	$ 533,400	$ 348,600	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 882,000
Solids Management: Solids/Resource Recovery Upgrades	$ -	$ -	$ -	$ 3,039,000	$ 5,628,000	$ 5,628,000	$ 5,628,000	$ 901,000	$ -	$ -	$ -	$ 20,824,000
Solids Management: Pre-Pasteurization System Improvements	$ -	$ 18,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,000
CONTINGENCY												
Contingency on Joint Funding Excluding RiverRenew	$ 1,304,896	$ 4,000,000	$ 2,850,000	$ 2,850,000	$ 2,650,000	$ 2,760,610	$ 1,782,410	$ 722,910	$ 376,910	$ 376,910	$ 376,910	$ 18,746,660
Joint Capital Project Subtotal	**$ 116,827,154**	**$ 105,928,080**	**$ 108,822,552**	**$ 143,654,878**	**$ 50,493,061**	**$ 29,373,297**	**$ 23,641,332**	**$ 15,641,587**	**$ 8,950,987**	**$ 6,329,943**	**$ 5,085,907**	**$ 497,921,624**
ALEXRENEW 10-YEAR CIP TOTAL	**$189,340,609**	**$175,898,845**	**$159,671,347**	**$181,860,318**	**$ 55,156,301**	**$ 33,207,037**	**$ 28,019,332**	**$ 22,120,627**	**$ 10,026,987**	**$ 6,955,943**	**$ 5,711,907**	**$ 678,628,614**

Alexandria-Only CIP Project Details

The table below details the FY 2023 – FY 2032 (10-year) Alexandria-only CIP Projects and the strategic outcome to which they are attached. Following this summary are detailed project sheets for each project that include the project description, benefits, community impacts, lifetime budget, and other relevant details.

10-year Capital Improvement Program – Alexandria Only

Projects	Watershed Stewardship	Operational Excellence	Adaptive Culture	Public Engagement and Trust	Effective Financial Stewardship
Commonwealth Interceptor Rehabilitation		●			
Potomac Interceptor Rehabilitation		●			
IRR: Billing and Customer Information System				●	
IRR: Campus Wide Projects		●			
IRR: Collection System Projects		●			
RiverRenew Tunnel System - Category 1, City-only Portion	●				
Bush Hill Service Chamber		●			
Four Mile Run Pump Station Modifications		●			
Innovation District Pumping Station Design and Construction	●				
Mark Center Pump Station Study		●			
Potomac Yards PS: Odor Control and Ventilation System Upgrade				●	
4 MGD WRRF Expansion Facility Plan		●			
NMF Wet Well Elimination Study and Preliminary Design		●			
Arlington County Capital Contributions	●				
Capital Financing Fees					●

Commonwealth Interceptor Rehabilitation

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Commonwealth Avenue	Interceptor/ Trunk Sewers Rehab. ☒ Alexandria Only ☐ Joint Use	20-30 years	$698,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$313,000	$0	$0	$0	$0	$385,000	$0	$0	$698,000
Financing												
AlexRenew	$0	$0	$0	$313,000	$0	$0	$0	$0	$385,000	$0	$0	$698,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Monitoring items identified in 2018 cleaning and potential rehabilitation

Background: Based upon cleaning and inspection conducted in early 2018, the Commonwealth Interceptor is in good condition, having experienced a variety of rehabilitation projects in 1997, 2001, and 2008.

Project Components: Monitor items in three areas of the Commonwealth to minimize degradation of the pipe

Benefits	Strategic Outcome Area
• Appropriate minor repairs and maintenance activities maximize asset life.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Any cleaning and/or inspection on the Commonwealth requires coordination with Operations and Maintenance personnel to actively manage the flow downstream of the Four Mile Run Pumping Station. Cleaning activities require City permitting for traffic control, and parking impacts. • Citizens are to be notified if contractor equipment will be in their neighborhood.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Draft Sept. 2018 Greeley & Hansen Report "Commonwealth Interceptor Condition Assessment"	• Moving to start in FY25 to avoid conflict with work on Hooffs Run Interceptor (CI south of Duke Street). Costs escalated by 3% from $270,000 spent in 2018

Potomac Interceptor Rehabilitation

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	East Alexandria (Jones Point Park)	Interceptor/ Trunk Sewers Rehab. ☒ Alexandria Only ☐ Joint Use	20-30 years	$8,930,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$540,000	$1,200,000	$1,800,000	$1,800,000	$3,590,000	$0	$0	$0	$8,930,000
Financing												
AlexRenew	$0	$0	$0	$540,000	$1,200,000	$1,800,000	$1,800,000	$3,590,000	$0	$0	$0	$8,930,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: To inspect, replace and/or rehabilitate the Potomac Interceptor (PI).

Background: Parts of the Potomac Interceptor were CCTV inspected in 2015/2016. Age related concerns were noted throughout the length of the pipe. Due to RiverRenew, all work prior to FY2025 has been postponed. Work in FY2025 includes phased lining of the entire length and associated manhole upgrades.

Project Components: CCTV, planning, design, and construction for issues identified in 2017 Report

- Replace the 1,450 linear feet of 42-inch pipe within Jones Point Park (Permits required for work in the National Park Service jurisdiction)
- Rehabilitate all 26 manholes of Potomac Interceptor
- Clean and/or Re-inspect the entire length of the Potomac Interceptor (City Permit required) segments

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Maximizes asset life.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Improve reliability and longevity of the PI. • Traffic and parking impacts possible due to pipe cleaning/inspection and/or pipe repair/rehab activities • Presence/storage of contractor equipment possible in City neighborhoods.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• 2017 Greeley and Hansen Report, "Potomac Interceptor Condition Assessment Summary and Recommendations"	• None

IRR: Billing and Customer Information System (Alexandria Only)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Finance	Various	Alex-only IRR ☒ Alexandria Only ☐ Joint Use	5 years	$4,745,400 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$523,475	$1,728,725	$25,000	$0	$0	$550,000	$1,800,000	$40,000	$0	$0	$4,667,200
Financing												
AlexRenew	$0	$523,475	$1,728,725	$25,000	$0	$0	$550,000	$1,800,000	$40,000	$0	$0	$4,667,200
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: AlexRenew is planning for a transition in its billing and customer information systems. The third party currently providing these services is exiting the business and will no longer provide services after January 2024, upon contract expiration. AlexRenew will need to have implemented a new billing and customer information system along with managing changing business processes and customer service practices by January 2024.

Background: AlexRenew has engaged a professional consulting firm to provide advisory services including a needs assessment, providing guidance through the procurement phase, and supporting AlexRenew through the expected implementation in Fiscal Years 2023-24. It is expected that the system would require upgrading approximately every 5 years.

Project Components: This project includes a new Billing and Customer Information System, creating updated business processes for billing needs such as managing meter reads and payment plans, procuring new contracts for activities such as collections and payment processing, enabling a new contact center solution, and designing in quality control measures for accurate billing.

Procurement Method: Professional consulting services were procured via an existing cooperative contract. A formal procurement such as a Request for Proposal(s) will likely be issued in the future for the system, its implementation, and potentially other elements of the project.

Benefits	Strategic Outcome Area
• Secure, accurate billing is critical to building trust with customers • City customers increasingly expect technology-forward, convenient payment options, such as AlexRenew's existing customer portal, and features like paperless billing • Customer information systems can also be used to better communicate with customers (for example, using email or text to promote customer assistance	• Public Engagement & Trust

Key Milestones for FY 23	Impact on Operations or Community
• Release formal procurement and develop firm implementation schedule	• Billing implementations often do involve customer impacts, such as requiring re-registration or affirming a payment method, though the project team will minizmie customer impacts to the extent feasible • A communications campaign will accompany the implementation and clearly communicate any required customer actions
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• Recommendations based on Phase 1 Billing Transition Support Services Report dated November 29, 2021	• New project established in June 2021 based on notification that existing contract would end January 2024

IRR: Campus Wide Projects (Alexandria Only)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Various	Main and West Campus	Alex-only IRR ☒ Alexandria Only ☐ Joint Use	10 years for Data Center and Network Improvements	$607,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$21,000	$22,000	$205,000	$22,000	$22,000	$22,000	$205,000	$22,000	$22,000	$22,000	$22,000	$586,000
Financing												
AlexRenew	$21,000	$22,000	$205,000	$22,000	$22,000	$22,000	$205,000	$22,000	$22,000	$22,000	$22,000	$586,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Funds are required to maintain this subprogram to the main Improvement, Rehabilitation/Renewal and Replacement program (IRR) for Alexandria only projects.

Background: This subprogram covers Alexandria-only projects that have impacts broadly across the campus including certain Information Technology projects related to information and data storage security, required records retention, and periodic updates to the AlexRenew website.

Project Components: Infrastructure and network enhancements to minimize outages; monitoring and securing AlexRenew environment; updates to the emergency notification system; records retention and Sharepoint enhancements

Procurement Method: Varies as appropriate

Benefits

- 24/7 near real time security monitoring and incident response.
- Ensure and improve compliance with federal, state and local regulatory recordkeeping directives
- Allowing for retrieval of records by staff when needed to conduct day-to-day business activities, preserve historically and culturally important records as well as provide support in litigation,
- Prevention of technological obsolesces
- Reduce physical storage space and staff resources required to maintain paper records, and support continued and on-going awareness of staff recordkeeping responsibilities through the use of training.
- Up to date security patching for critical assets.
- And upgrading the emergency notification systems.
- Vulnerability management and monitoring of network and hosts

Strategic Outcome Area

- Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Development of detailed roadmap and roll out plan • Security Event Monitoring and Incident Response	• Data is more secure • Decreased bandwidth requirements • Information access is better controlled and managed • Operational, reputational, and legal risks are managed • Provides secure, available, and accurate systems and data • Reduced hardware costs • Regulatory Compliance • Results in operational efficiencies
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• Cybersecurity Assessment completed by Achilles Shield, including assessment of vulnerabilities and hacker exploitation; and a physical security assessment • Electronic Records Management (ERM) As-Is Observation Report	• None

IRR: Collection System Projects (Alexandria Only)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations & Maintenance	AlexRenew and Multiple Locations in Alexandria	Improve., Rehab., Replacement ☒ Alexandria Only ☐ Joint Use	3 years for pumps and grinders	$1,440,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$103,400	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$1,440,000
Financing												
AlexRenew	$103,400	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$144,000	$1,440,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Continued improvement, rehabilitation, and replacement of Alexandria-only-funded AlexRenew assets.

Background: This subprogram covers all improvement, rehabilitation and replacement projects associated with the pump stations, service chambers, and outfalls that are for city only use.

Project Components: Improvements to Interceptors, Pumping Stations, Service Chambers, and Outfalls

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Full redundancy and reliability of all assets	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Coordination with O&M for any work

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• Costs updated to $144,000 yearly from FY2023 - FY2032

RiverRenew Tunnel System (Alexandria Only)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
RiverRenew	AlexRenew and Multiple Locations in Alexandria	RiverRenew ☒ Alexandria Only ☐ Joint Use	Tunnel - 100 years	$223,200,000 Grant/Debt Funded? Yes

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$67,857,050	$65,800,000	$43,300,000	$32,600,000	$400,000	$0	$0	$0	$0	$0	$0	$142,100,000
Financing												
AlexRenew	$67,857,050	$65,800,000	$43,300,000	$32,600,000	$400,000	$0	$0	$0	$0	$0	$0	$142,100,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: In April 2017, a Virginia law was passed that required Alexandria's four existing combined sewer outfalls be brought into compliance by July 1, 2025.

Background: In June 2018, the Virginia Department of Environmental Quality approved a Plan that complied with the new law through the design and construction of a tunnel system to capture and convey combined sewage to AlexRenew for treatment. In July 2018, the Plan was re-branded as RiverRenew.

Project Components: The RiverRenew Tunnel System includes:

- Waterfront Tunnel: 2-mile long, 12'-0" diameter segmentally lined tunnel.
- Hooffs Run Interceptor: 2,700-foot long, 6'-0" open-cut sewer.
- Four diversion chambers to direct combined sewer flows to the Waterfront Tunnel and Hooffs Run Interceptor.
- Four shafts ranging from 35-feet to 65-feet in diameter.
- Tunnel Dewatering and Wet Weather Pumping Station: 20-mgd tunnel dewatering and 130-mgd wet weather pumping station, including a new superstructure at AlexRenew.

Procurement Method: In November 2020, AlexRenew awarded a fixed-price design-build contract to Traylor-Shea Joint Venture in the amount of $454.4 million following a 2-step (RFQ/RFP) procurement process.

Benefits	Strategic Outcome Area
• Significant reduction of CSOs to local waterways • Site restoration includes community amenities in two locations	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Major design submittals complete • Tunnel mining begins	• Coordination with O&M and the community during construction • O&M will operate and maintain pumping station once system is operational.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Long Term Control Plan Update, Approved 2018	• Updated costs

Bush Hill Service Chamber

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Bush Hill	Service Chambers and PS Upgrades ☒ Alexandria Only ☐ Joint Use	20 years	$1,240,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$155,000	$310,000	$775,000	$0	$0	$0	$0	$0	$0	$1,240,000
Financing												
AlexRenew	$0	$0	$155,000	$310,000	$775,000	$0	$0	$0	$0	$0	$0	$1,240,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Perform a condition assessment of the pump station and rehabilitate the system as needed based on the assessment.

Background: The BHSC was constructed in November 2002 to service the Holiday Inn located at 2460 Eisenhower Avenue. This project is a condition assessment of the BHSC followed by asset rehabilitation or replacement, as needed. As part of this project, a retrofit of the BHSC inflow orifice with a bar screen will be considered.

Project Components: Condition assessment and identified rehabilitation/replacement.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Maximizes asset performance and life.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Improves asset performance and reliability

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Bar screen portion: August 2017 Greeley & Hansen Condition Assessment Summary and Recommendations	• Start of project moved to FY24. Costs each year escalated at 3%.

Four Mile Run Pump Station Modifications

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Four Mile Run PS	Service Chambers & PS Upgrades ☒ Alexandria Only ☐ Joint Use	20-30 years	$1,000,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$150,000	$850,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$850,000
Financing												
AlexRenew	$150,000	$850,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$850,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: The proposed pump station modifications are to manage excess flows caused by inflow and infiltration at the station to prevent overflow conditions.

Background: Four Mile Run Pumping Station continues to experience excess infiltration and inflow, causing sanitary sewer overflows. Modifications are needed to automate the pump over, sending flows more than 9.4MGD to the Potomac Yard Trunk Sewer. Preliminary design is underway, with design and permitting expected in FY22 and construction in FY23.

Project Components: Piping and valve modifications, SCADA programming.

Procurement Method: Design-Bid-Build

Benefits	Strategic Outcome Area
• Reduce manual operation of pump over.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete construction	• Construction work will need to be coordinated with O&M.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Preliminary Engineering Report is underway as of December 2021.	• New project

Innovation District Pumping Station Design & Construction

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Various	Service Chambers & PS Upgrades ☒ Alexandria Only ☐ Joint Use	20 years	$339,416 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$125,000	$86,900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$86,900
Financing												
AlexRenew	$125,000	$86,900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$86,900
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Purpose: To participate in the design and construction of the Innovation District Pumping Station (IDPS).

Background: The Innovation District Pumping Station is being built to serve new developments in the city brought on by the arrival of the Virginia Tech (VT) Campus. AlexRenew has been collaborating with the city and the Developer on the pump station's design, sewer impacts and related infrastructure improvements.

Project Components: Review Permit, Design, and Construction submittals

Procurement Method: Part of existing consultant contract

Benefits	Strategic Outcome Area
• Ensures that new IDPS is constructed in accordance with the design specifications and AlexRenew's requirements.	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• To participate in/provide services related to the design and construction of the new facility.	• Supports the City's partnership with VT

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• None

Mark Center Pump Station Study

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Mark Center Pump Station	Service Chambers & PS Upgrades ☒ Alexandria Only ☐ Joint Use	N/A	$260,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$260,000	$0	$0	$0	$0	$0	$0	$0	$0	$260,000
Financing												
AlexRenew	$0	$0	$260,000	$0	$0	$0	$0	$0	$0	$0	$0	$260,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Evaluate the Mark Center (also known as Washington Headquarters) Pump Station (MCPS).

Background: Commission a study to evaluate the MCPS including MCPS reliability and redundancy.

Project Components: Reliability/redundancy study

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Maximizes asset performance and life.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Improves PS performance and reliability.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• Project moved to FY24. Costs were escalated by 3%.

Potomac Yards Pump Station – Odor Control and Ventilation System Upgrade Project

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Potomac Yards Pump Station	Service Chambers and PS Upgrades ☒ Alexandria Only ☐ Joint Use	20 years	$1,134,920 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$2,042,065	240,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$240,000
Financing												
AlexRenew	$2,042,065	$240,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$240,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Minimize odors from the Potomac Yards Pumping Station (PS) and improve its internal ventilation system.

Background: The Potomac Yards Pumping Station was installed by a developer in 2009 and officially transferred to AlexRenew in 2018. The Potomac Yards Pumping Station has been experiencing odor issues. The work proposed under this project will improve the odor control system and the PS ventilation system, declassifying (in accordance with NFPA 820) specific PS areas to protect operation and maintenance staff from potential sewer gas.

Project Components: This project includes the installation of a new odor control system and modification of the PS ventilation systems and declassify the occupied spaces.

Procurement Method: Design-bid-build, Awarded in November 2021

Benefits	Strategic Outcome Area
• Minimizes PS odors and protects operations and maintenance staff from potential sewer gas	• Public Engagement and Trust

Key Milestones for FY 23	Impact on Operations or Community
• Complete construction of the ventilation and odor control improvements	• Reduction in objectionable odors from the Potomac Yards Pumping Station

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Recommendations from the Potomac Yards Pump Station Basis of Design Report, March 26, 2021	• Projects were shown as two different projects in FY22 – merged for FY23. • Project awarded to Clark Construction in November 2021 for $830,000. Costs updated to reflect construction cost.

4MGD Water Resource Recovery Facility (WRRF) Expansion Facility Plan

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	WRRF Improvements Program ☒ Alexandria Only ☐ Joint Use	40 years	$2,000,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$0	$1,000,000	$1,000,000	$0	$0	$0	$0	$2,000,000
Financing												
AlexRenew	$0	$0	$0	$0	$0	$1,000,000	$1,000,000	$0	$0	$0	$0	$2,000,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Facility plan to potentially increase the capacity of the plant by 4MGD (from 54MGD to 58MGD) to accommodate additional city flows.

Background: Development in Alexandria is expected to continue resulting in additional flows conveyed to the plant. City expects to exceed allocated for pre-planning.

Project Components: Facility plan. No design or construction included.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Necessary to accommodate anticipated flows and support growth in the City	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Anticipate impacts to plant operations during construction

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• City of Alexandria Sanitary Sewer Master Plan (approved October 2021)	• New Project

Nutrient Management Facility (NMF) Wet Well Elimination Study and Preliminary Design

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 60 (NMF)	WRRF Improvements ☒ Alexandria Only ☐ Joint Use	N/A	$300,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$100,000	$200,000	$0	$0	$0	$0	$0	$300,000
Financing												
AlexRenew	$0	$0	$0	$0	$100,000	$200,000	$0	$0	$0	$0	$0	$300,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: To study and conduct preliminary design for eliminating/re-purposing the Nutrient Management Facility (NMF) wet well and reduce NMF pump vibration and harmonics.

Background: The NMF wet well was designed to function as part of the wet weather pumping station (WWPS) associated with the tunnel system. As the location of the WWPS has changed, the NMF wet well is no longer needed. Work is needed to address observed higher than desired NMF pump harmonics. As the extent of the construction costs are unknown, the budget only reflects the costs for an engineering study and preliminary design.

Project Components: A study and preliminary design

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Eliminates/re-purposes an unused structure and maximizes asset life.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Decrease future O&M costs

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Commission study to explore vibration dampening measures and best way to eliminate/re-purpose the existing wet well.	• Costs updated to be split as joint use project.

Arlington County Capital Contributions

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Finance	Various	Other Capital ☒ Alexandria Only ☐ Joint Use	20 years	Ongoing Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,817,000	$3,226,000	$4,334,000	$3,493,000	$1,318,000	$205,000	$204,000	$211,000	$210,000	$210,000	$210,000	$13,621,000
Financing												
AlexRenew	$1,817,000	$3,226,000	$4,334,000	$3,493,000	$1,318,000	$205,000	$204,000	$211,000	$210,000	$210,000	$210,000	$13,621,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Per its service agreement with Arlington County and the City, AlexRenew provides funding for designated allocable portions of capital improvements at the Arlington County Water Pollution Control Plant. AlexRenew's capital contributions to the County are billed quarterly and the County manages procurement and execution of project work.

Background: The City of Alexandria maintains 3MGD in capacity rights for the Arlington County Water Pollution Control Plant. Per the service agreement with the County and City, AlexRenew makes annual contributions to the County on behalf of the city sewer users to Arlington to fund allocable portions of capital improvements at the Arlington wastewater and conveyance facilities.

Project Components: Current capital projects to which AlexRenew has budgeted contributions include: Improvement to the Arlington plant's Eads Street Property (the plant's off-site Warehouse which requires work to a retaining wall), Non-Expansion Maintenance Capital (includes HVAC improvements and energy optimization studies), Technology Enhancements (Process Control System projects to protect critical infrastructure), Odor Control, Primary Clarifier Upgrades (work to pumps, motors, and instrumentation), Secondary Clarifiers (necessary rehabilitation to support permit compliance), Solids Master Plan (both immediate needs such as replacing the motor control center and future phases that support a long-term solution to producing a Class A biosolids project) and the relining of the Four Mile Run Interceptor

Benefits	Strategic Outcome Area
• Ensures the Arlington plant remains in good condition to accommodate AlexRenew's capacity rights	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• While these milestones are the County's to manage, work is expected to continue on Non-Expansion Capital, Technology enhancements and secondary clarifiers, along with continued planning for the County's solids improvements program.	• Results in operational efficiencies for the Arlington plant

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• Minor cost updates

Capital Financing Fees

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Finance	Various	Other Capital ☒ Alexandria Only ☐ Joint Use	20 years	Ongoing Grant/Debt Funded. Yes

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$250,000	$250,000	$250,000	$250,000	$250,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$1,900,000
Financing												
AlexRenew	$250,000	$250,000	$250,000	$250,000	$250,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$1,900,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Funds needed in the capital budget to accommodate fees associated with the financing of the Capital program.

Background: The financial advisory fees relate to structuring of debt to fund both the General CIP and RiverRenew program, legal fees such as Bond Counsel work to review legal documentation, rate consultant work to consider the impact of funding mechanism on rates, and application fees to potential grant or loan programs. To accommodate these fees, funds allocation in the capital budget is required. Certain ongoing fees are required during the RiverRenew construction period to maintain AlexRenew's $321 million Water Infrastructure Finance and Innovation Act (WIFIA) Loan.

Project Components: Financial advisory fees, legal fees, rate consultant work, and loan application and servicing fees.

Procurement Method: Varies depending upon service received

Benefits	Strategic Outcome Area
• Investing in capital finance fees helps ensure that capital financing is executed in the most efficient manner	• Effective Financial Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Maintain ongoing WIFIA portfolio management process • Maintain public rating	• Efficient execution of Capital Financing helps to minimize rate impacts.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Per Board guidance on capital and debt planning	• Budget decreased to reflect execution of loans and payment of upfront ratings and WIFIA fees in FY22

Joint Use CIP Project Details

The table below and on the following page detail the FY 2023 – FY 2032 (10-year) Joint-use CIP Projects and the strategic outcome to which they are attached. Following this summary are detailed project sheets for each project including the project description, benefits, community impacts, lifetime budget, and other relevant details. Also included are descriptions of the Improvement, Renewal and Replacement Projects that are funded from the Joint IRR Fund.

10-year Capital Improvement Program – Joint Use

Projects	Watershed Stewardship	Operational Excellence	Adaptive Culture	Public Engagement and Trust	Effective Financial Stewardship
Commonwealth Interceptor Pile Intrusion		●			
Upper Holmes Run Trunk Sewer Rehabilitation		●			
IRR: Campus Digital Signage			●		
IRR: Campus Wide Projects		●			
IRR: Collection System Projects		●			
IRR: Compliance Laboratory		●			
IRR: Information Technology Projects		●			
IRR: Preliminary/Primary Infrastructure		●			
IRR: PLC Equipment and Network Upgrades		●			
IRR: Safety and Security		●			
IRR: Secondary Infrastructure		●			
IRR: Solids Infrastructure		●			
IRR: Tertiary Infrastructure		●			
IRR: UV System Rehabilitation		●			
IRR: Warehouse and Inventory Upgrades					●
IRR: WRRF Fire Alarm Upgrade			●		
Environmental Center: 5th/6th Floor Modifications, Carpet and HVAC Upgrades				●	
Environmental Center: Outdoor Exhibit Upgrade				●	
Holland Lane Pavement Reconstruction	●				
South Carlyle Partnership	●				
WRRF HVAC Automation System Upgrade		●			
RiverRenew Tunnel System - Joint Use	●				
Coliphage Study		●			
Emerging Contaminant Analysis	●				
Total Nitrogen Limit Compliance Study		●			
Climate Resilience Initiatives	●				
Stormwater System - Structural/Nonstructural Best Management Practices	●				
Campus-Wide Electrical Upgrade Sub-Program					●
Centrate Pretreatment Facility Improvements		●			

Continued on following page

Joint Use CIP Project Details

Continued from previous page

Projects	Watershed Stewardship	Operational Excellence	Adaptive Culture	Public Engagement and Trust	Effective Financial Stewardship
Building 22: Primary Weir Observation House		●			
Building G/4: Tertiary Filter Repairs		●			
Building F: Plant Effluent Water (W3) System Improvements		●			
Building L: Centrifuge Replacement		●			
HMI Upgrade		●			
Main Campus Galleries Improvements		●			
Odor Control System Upgrade				●	
Purified Water System Upgrade		●			
Power Distribution Monitors		●			
Preliminary /Primary System Upgrades		●			
Preliminary Settling Tank Rehabilitation		●			
Secondary Settling Tanks Refurbishment		●			
Security Services During Construction				●	
Solids Management: Solids Master Plan					●
Solids Management: Building 55: Additional Cooling for Digesters		●			
Solids Management: Building 55: Replace Valves on W3 Cooling System		●			
Solids Management: Building 55: Solids Screen Replacement		●			
Solids Management: Solids/Resource Recovery Upgrades					●
Solids Management: Pre-Pasteurization System Improvements		●			

Commonwealth Interceptor Pile Intrusion

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF 88 feet south of Junction Box 34	Interceptor/ Trunk Sewer Rehab. ☐ Alexandria Only ☒ Joint Use	40 years	$975,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$225,000	$750,000	$0	$0	$0	$0	$0	$975,000
Financing												
AlexRenew	$0	$0	$0	$0	$90,000	$300,000	$0	$0	$0	$0	$0	$390,800
Fairfax	$0	$0	$0	$0	$135,000	$450,000	$0	$0	$0	$0	$0	$585,200

Project Description and Justification

Need: Eliminate a pile intrusion in the Commonwealth Interceptor between Buildings L and A.

Background: During a closed-circuit television inspection of the 72-inch CI conducted in 2006, an intrusion was discovered approximately 88 feet downstream of Junction Box 34. The intrusion appears to be from the installation of a pile supporting the odorous airline that crosses the Commonwealth Interceptor in this area, installed in 1996.

Project Components: Design and construction of one of the options presented in the 2014 report.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• More than 80% of the dry weather flow treated at AlexRenew is conveyed by the CI. Although being monitored, the pipe requires rehabilitation to ensure extended, reliable performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Decreases future O&M costs • Reduces risk

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• 2014 Greeley and Hansen Report "72 Inch Commonwealth Interceptor Repair Plan"	• Cost escalated to construction mid-point.

Upper Holmes Run Trunk Sewer Rehabilitation

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	West Alexandria	Interceptor/ Trunk Sewers Rehab. ☐ Alexandria Only ☒ Joint Use	20-30 years	$4,555,0000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$40,000	$0	$880,000	$1,760,000	$1,320,000	$440,000	$100,000	$55,000	$0	$0	$0	$4,555,000
Financing												
AlexRenew	$16,000	$0	$352,000	$704,000	$528,000	$176,000	$40,000	$22,000	$0	$0	$0	$1,822,000
Fairfax	$24,000	$0	$528,000	$1,056,000	$792,000	$264,000	$60,000	$33,000	$0	$0	$0	$2,733,000

Project Description and Justification

Need: To line a portion of the Upper Holmes Run Trunk Sewer (HRTS) to improve capacity and pipe conditions.

Background: As part of the July 2015 report titled, Wet Weather Management Evaluation Update, a recommendation to line a portion of the Upper HRTS to improve conveyance was identified. An additional condition assessment was performed in 2017 to assess other portions of HRTS and additional recommendations for rehabilitation were identified.

Project Components: Relining to address capacity issues and rehabilitation to address other condition issues. The projects can be performed under one contract or separated.

- Improve Conveyance: Rehabilitate 30”/36” pipe in Reach 8 and 9 from the Reach 7 to Dowden Terrance (~ approximately 5,700 feet). (This work was previously included in the CIP for FY2016, to address capacity limitations, but work has not yet begun; re-inspection is necessary.) Design is scheduled for FY24-25. Construction is scheduled for FY26-27.
- Address Condition Issues: Surface aggregate visible defects are present throughout many pipe segments in Reaches 4 & 5. The proposed rehabilitation extents span over 3,000 linear feet, beginning with manhole 5514 at the Fairfax County sewer connection in Cameron Run Regional Park, through manhole 4243 downstream of the original County sewer connection at Cameron Station. Pipe diameters range from 48” to 72”. Design and construction in FY28-29.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Minor Repairs and maintenance activities to maximize asset life	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Improve reliability and longevity of the HRTS. • Traffic and parking impacts possible due to pipe cleaning/inspection and/or pipe repair/rehab activities • Presence/storage of contractor equipment possible in City neighborhoods.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Wet Weather Management Evaluation Update (Task Order 16-2005), 2015 • Last inspection of reach 8 & 9 was in 2009, per the 2017 Greeley and Hansen report, "Holmes Run Trunk Interceptor System Condition Assessment." • Last inspection of reaches 4 & 5 were in 2016.	• Costs for Upper HRTS provided in 2016 report – escalated to FY25 and clarified project drivers

IRR: Campus Digital Signage (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Communications	Environmental Center	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use	10 years	$140,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$140,000	$0	$0	$0	$0	$0	$0	$140,000
Financing												
AlexRenew	$0	$0	$0	$0	$56,000	$0	$0	$0	$0	$0	$0	$56,000
Fairfax	$0	$0	$0	$0	$84,000	$0	$0	$0	$0	$0	$0	$84,000

Project Description and Justification

Need: This project will upgrade the digital signage across campus.

Background: AlexRenew has five digital signs that communicate information to staff across the campus. Upgrading these digitals signs will enable more comprehensive and informative communications across campus to all staff simultaneously. It will include the digital signs, software, installation, programming, and training. Annual maintenance will also be required.

Project Components: Software and hardware installation, programming, and training

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Allows for fast and efficient communications with AlexRenew staff. • The upgrade will also allow for more dynamic and static content to the used on the signs.	• Adaptive Culture

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Increased value to community and usage of facilities.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• No change

IRR: Campus Wide Projects (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	WRRF	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	4 years for odor media 6 years for cranes 10 years for vehicles 10 years for NMF media 15 year for odor scrubber and piping	$18,282,894 **Grant/Debt Funded.** No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$315,600	$1,178,756	$1,101,944	$1,200,000	$1,200,000	$2,281,699	$484,516	$487,361	$490,235	$493,137	$496,068	$9,413,716
Financing												
AlexRenew	$126,240	$471,502	$440,778	$720,000	$720,000	$912,680	$193,806	$194,944	$196,094	$197,255	$198,427	$3,765,486
Fairfax	$300,360	$707,254	$601,166	$480,000	$480,000	$1,369,019	$290,710	$292,417	$294,141	$295,882	$297,641	$5,648,230

Project Description and Justification

Need: Funds are required for improvement, rehabilitation and replacement of Campus Wide Projects that are associated with non-process facilities work at WRRF.

Background: This subprogram covers all improvement, rehabilitation and replacement projects associated with non-process facilities work at the WRRF. This includes, but is not limited to roof, concrete, HVAC, purified water system, vehicles, odor control repairs/replacement, truck scale, light fixtures, sump pump pits, heat detector, smoke sensors, C-Building MCC, switch gear, Methanol foam sire suppression system, Air Compressor, and flares. This subprogram also includes the maintenance of the fountain and aquarium.

Project Components: Roof, concrete, HVAC, purified water system. Vehicles, odor control repair/replacement, AlexRenew's website, truck scale, light fixtures, sump pump pits, heat detector, smoke sensors, C-Building MCC, switch gear, Methanol foam sire suppression system, Air Compressor, flares, fountain, Aquarium

Procurement Method: Varies as appropriate

Benefits	Strategic Outcome Area
• Full optimization of the Methane Gas supply generation using the Absorption Chillers • Maintain AlexRenew's odor quality control • Maintain reliability and effectiveness of the steam, chiller, odor control, plant air, and HVAC systems • Maintain the availability and integrity of the cranes and buildings • More efficient and reliable vehicles for employee transportation • Reduce carbon emissions • Use of purified water allows for AlexRenew to reduce water usage • Improve reliability in measurement of Biosolids leaving WRRF • Improve overall safety of Employee working conditions at the WRRF • Maintenance of the overall aesthetics of the EC Building and Outside. • Reduce the overall consumption of natural gas at Buildings A and 55	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• New transportation vehicles • Complete plant air system, chiller, HVAC system and crane repairs • Complete rebuilt/replace of one (1) Odor Scrubber • Complete review of valve exercising program • Complete roof and drain replacements • Pass boiler inspection • Complete Plant Air System repairs • Replace front entry doors for reliability • Start purified water system testing • Transition EC systems (including irrigation) to utilize purified water • Complete assessment and repair work for flare systems • Address concerns regarding Methanol Fire Suppression System • Replace the G-Building Air Compressor.	• Environmental Air Quality Control • Increase availability of purified water. • Increase equipment availability for process and high flow events • Increase equipment reliability for future RiverRenew Project • Lessen the carbon footprint • Maintain proper air change in Class I DIV II environments • Maintain roof integrity to prevent equipment damage. • Maintain safety for crane operators • Maintain the esthetic of the plant to blend in the surrounding community • Enhances safety of working personnel inside the WRRF
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• SOP-X-NMF Odor Control System Carbon Replacement (by CH2M 12/30/15) • Website Reinvention Business Case (12/19/17) • GHD Site Visit report from 06/14/2018	• Updated to reflect rehabilitation timing changes.

IRR: Collection System Projects (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations & Maintenance	Various	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	20-50 years	$165,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$150,000
Financing												
AlexRenew	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$60,000
Fairfax	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000	$90,000

Project Description and Justification

Need: Continued improvement, rehabilitation, and replacement of joint use collection system assets.

Background: This subprogram covers all improvement, rehabilitation and replacement needs for collection system assets that serve both the City and Fairfax County to maintain their useful life.

Project Components: Undetermined

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Full redundancy and reliability of all assets	• Operational Excellence
Key Milestones for FY 23	**Impact on Operations or Community**
• N/A	• Coordination with O&M for any work
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• N/A	• Costs updated

IRR: Compliance Laboratory (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Laboratory	G2 - Laboratory	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	5-15 years	$175,500 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$45,500	$50,000	$20,000	$0	$20,000	$0	$20,000	$0	$20,000	$0	$175,500
Financing												
AlexRenew	$0	$18,200	$20,000	$8,000	$0	$8,000	$0	$8,000	$0	$8,000	$0	$70,200
Fairfax	$0	$27,300	$30,000	$12,000	$0	$12,000	$0	$12,000	$0	$12,000	$0	$105,300

Project Description and Justification

Need: To replace existing old instruments, equipment, and upgrade to technologically advanced model

Background: This will replace the existing older equipment because of its age, model, and parts no longer being manufactured. Replacement instrumentation or equipment will normally correspond to the best available proven technology.

Project Components: pH meter, DO meter, Balance, Detectors for auto analyzer instruments, Ion chromatography (IC), automatic titrator, Steam scrubber dishwasher, Flask scrubber dishwasher, Refrigerator, Digital camera (for microscope), and Uninterruptible power supply (UPS).

Procurement Method: Varies as appropriate

Benefits	Strategic Outcome Area
• Improves/maintains laboratory performance and efficiency • This equipment will improve sample throughput, reproducibility of regulatory analyses, process optimization, and enhance the quality of ongoing regulatory and research programs through instrument modernization, computerization and automation. • For reliability and redundancy • Provide valuable information about the condition of microorganisms in the various phases of the treatment process	• Operational Excellence
Key Milestones for FY 23	**Impact on Operations or Community**
• Replacement of pH meter, DO meter • Replacement of Dishwasher and Refrigerator	• Improves/maintains lab performance and efficiency
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• N/A	• New project

IRR: Information Technology Projects (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Information Technology	Various	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	5 years	$13,100,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,350,000	$3,000,000	$2,000,000	$1,800,000	$1,000,000	$500,000	$500,000	$1,500,000	$0	$500,000	$0	$10,800,000
Financing												
AlexRenew	$540,000	$1,200,000	$800,000	$720,000	$400,000	$200,000	$200,000	$600,000	$0	$200,000	$0	$4,320,000
Fairfax	$810,000	$1,800,000	$1,200,000	$1,080,000	$600,000	$300,000	$300,000	$900,000	$0	$300,000	$0	$6,480,000

Project Description and Justification

Need: Centralized budget that funds ongoing lifecycle replacement and expansion of information technology assets.

Background: AlexRenew's infrastructure assets are approaching end of life and will no longer be supported by vendor.

Project Components: Application upgrades like CMMS, LIMS, HVAC, SCADA. Hardware upgrades of switches, routers, access points, servers, and general infrastructure. Telecom and communication upgrades like VOIP, Call Managers, audio/video conferencing. Battery and UPS replacements along with workstations and end user devices. Storage including primary and backup datacenters. Cyber security enhancements.

Procurement Method: Various cooperative contracts

Benefits	Strategic Outcome Area
• Increased cybersecurity • Upgrades to supported versions of hardware and software	• Operational excellence

Key Milestones for FY 23	Impact on Operations or Community
• Upgrade datacenters (primary, secondary, off site) • Upgrade applications • Upgrade SCADA systems • Upgrade networking	• Increased stability of environment • Increased network security • Increased productivity

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Upgrades are underway as of December 2021	• New project established December 2021 to support upgrades of the environment

IRR: Preliminary/Primary Infrastructure (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	WRRF	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	6 Years for raw sewage pump Yearly for probes and instruments 10 years for >100 Hp Motors 10 years for Large VFDs	$1,799,069 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$80,000	$80,800	$85,648	$86,504	$87,370	$34,948	$35,297	$35,650	$36,007	$36,367	$36,730	$554,958
Financing												
AlexRenew	$32,000	$32,320	$34,259	$34,602	$34,948	$13,979	$14,119	$14,260	$14,403	$14,547	$14,692	$222,129
Fairfax	$48,000	$48,480	$51,389	$51,903	$52,422	$20,969	$21,178	$21,390	$21,604	$21,820	$22,038	$333,193

Project Description and Justification

Need: To maintain the full functionality of the preliminary and primary treatment processes.

Background: This subprogram covers all improvement, rehabilitation and replacement projects associated with liquid unit processes in preliminary and primary facilities.

Project Components: This includes, but is not limited to settling tanks, probes, motors, pumps and instrumentation.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Reliability of the preliminary/primary infrastructure • Improve accuracy on flow, level, pressure, etc. • Improved and advanced automation	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete replacement or repair of process instruments • Complete rebuilt or replacement of a Raw Sewage Pump • Replacement of motors with >100 Hp	• Decreases future O&M costs • Reduces risk • Increase equipment availability to process

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• PST rehabilitation moved to separate project

IRR: PLC Equipment and Network Upgrades (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering IT	Various	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	5 years	$3,000,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$3,000,000
Financing												
AlexRenew	$0	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$1,200,000
Fairfax	$0	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$1,800,000

Project Description and Justification

Need: To replace PLCs with modern hardware and associated appurtenances as they become obsolete.

Background: PLCs need to be replaced as they reach the end of their useful lives and/or are no longer supported by the manufacturer. The next series of PLCs will require continuous renewal as technology continues to change rapidly. This upgrade will provide for ongoing, phased renewal of the PLCs assets as they age.

Project Components: PLC hardware and programming

Procurement Method: TBD

Benefits	Strategic Outcome Area
Installing new PLC hardware as needed will ensure the plant control system remains operational and hardware remains supported by the manufacturer.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Replace 1-2 ageing/obsolete PLCs	• Will require process outages for each PLC upgrade

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• N/A

IRR: Safety and Security (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Human Resources	Various	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	N/A	$1,420,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$355,000	$355,000	$0	$0	$0	$355,000	$355,000	$0	$0	$0	$1,420,000
Financing												
AlexRenew	$0	$142,000	$142,000	$0	$0	$0	$142,000	$142,000	$0	$0	$0	$568,000
Fairfax	$0	$213,000	$213,000	$0	$0	$0	$213,000	$213,000	$0	$0	$0	$852,000

Project Description and Justification

Need: Continue to improve the overall safety and security of AlexRenew Employee, Vendors, Contractors, and other visitors at the Plant.

Background: Safety committee conducts monthly inspection around the Plant and provides recommendation of measures that need to be implemented/adopted to enhance safety and security at the Plant. Funds are required for implementation of measures that are essential for the overall safety and security of the Plant employee and functioning of the Plant.

Project Components: Engineering studies to evaluate options, system upgrades such as Fire Panels

Procurement Method: Varies as needed

Benefits	Strategic Outcome Area
• Enhanced Safety and Well-being of the Plant employee • Fewer reportable injuries at worksite • Lower workers compensation • Site security during construction to prevent injuries, thefts, etc.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Address and implement safety recommendations	• Enhanced security measures at the Plant and safety/well-being of the Plant employees

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New project

IRR: Secondary Infrastructure (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	12 years - BRB actuators 5 years - large BRB mixers 10 years - small BRB mixers 5 years - RAS pumps 10 years - VFDs 15 years - NMF actuators 6 years - BRB mix liquor pumps	$18,173,899 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,638,000	$1,737,099	$1,754,470	$1,772,015	$1,789,735	$1,807,633	$1,825,709	$1,843,965	$1,862,405	$1,881,029	$1,899,840	$18,173,902
Financing												
AlexRenew	$655,200	$694,840	$701,788	$708,806	$715,894	$723,053	$730,284	$737,586	$744,962	$752,411	$759,936	$7,269,561
Fairfax	$982,800	$1,042,259	$1,052,682	$1,063,209	$1,073,841	$1,084,580	$1,095,425	$1,106,379	$1,117,443	$1,128,618	$1,139,904	$10,904,340

Project Description and Justification

Need: Funds are needed to cover costs for all improvement, rehabilitation and replacement projects associated with liquid unit processes in secondary facilities.

Background: This subprogram covers all improvement, rehabilitation, and replacement projects associated with liquid unit processes in secondary facilities.

Project Components: BRB AUMA actuators, NMF actuators, BRB mixers, VFDs, motors, pumps and instrumentation repair and replacement, air flow monitoring in SST channels

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improve accuracy on flow, level, pressure, etc. • Reliable diversion and transfer of flow using NMF • Reliability and efficiency of the secondary infrastructure	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete rebuilt or replacement of Low Speed (1) and Compact Mixer (15) for the BRB • Complete rebuilt or replacement of 1 Mixed Liquor Pump and high/Low Capacity Drain Pumps • Complete replacement of all actuators for one (1) BRB Tank • Complete replacement or repair of process instruments • One NMF Actuator to be installed, tested and online • Replace 4 of the 12 RAS pumps • Robicon VFDs replacement to be completed	• Increase equipment availability to process • Increase equipment availability for high flow events

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4)	• Change in funding to meet new replacement/rehabilitation schedule

IRR: Solids Infrastructure (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	WRRF	Improv., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	Yearly for probes 2 years for screen presses 12 years for heat exchanger actuators 10 years for >100 hp motors	$11,000,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,635,500	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,200,000	$1,200,000	$1,200,000	$1,200,000	$1,200,000	$11,00,000
Financing												
AlexRenew	$654,200	$400,000	$400,000	$400,000	$400,000	$400,000	$480,000	$480,000	$480,000	$480,000	$480,000	$4,400,000
Fairfax	$981,300	$600,000	$600,000	$600,000	$600,000	$600,000	$720,000	$720,000	$720,000	$720,000	$720,000	$6,600,000

Project Description and Justification

Need: To maintain the full functionality of solids treatment processes

Background: This subprogram covers all improvement, rehabilitation and replacement projects associated with the solids processing flow train.

Project Components: Project components include, but not limited to, digesters, actuators, motors, screen presses, pumps, probes and instrumentation

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Full redundancy and reliability of the solids processing equipment • Maintain AlexRenew Bio-solids Class A output • Extended equipment life associated with polymer feed • Maintain consistent solids percentage • Full optimization of the Methane Gas supply generation • Reduce Carbon Emissions • Reduced pump maintenance due to excessive ragging • Reduced pump and pipe maintenance due to excessive ragging	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• 2 Polymer Feed Pumps installed, tested and online • 8-10 VFDs installed, tested and online • Complete 1 screen press replacement • Complete rebuild of one (1) TCEN • Complete rebuild of one (1) DCEN	• Increase equipment availability for high flow events • Increase equipment availability for solids process • Increase equipment reliability for future RiverRenew Project • Requires DMR reporting at sample point of compliance and evaluating process equipment to ensure no negative impacts to process or equipment from Pre-

• Complete rehab of one (1) digester tank • Complete replacement of all actuators for one (1) Pre-Past Heat Exchanger • Delivery of 4 new and rebuilt Seepex Pumps • Complete rebuilt of two 30HP Explosion Proof Heat Exchangers motor • Complete rehab of one (1) Thickening Tank • Complete replacement of one (1) Centrate Recycle pump • Complete investigation on maintaining AlexRenew Bio-solids Class A output • Complete replacement or repair of process instruments • Replace 1 dewatering centrifuge feed pump • Rebuild 2 dewatering centrifuge pump • Replace 14 centrifuge air actuated diverter gate	Pasteurization temperatures.
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• Biosolids testing/sampling action plan approved October 2019 Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2 2019-3, Task 4)	• Change in rehabilitation/replacement timing

IRR: Tertiary Infrastructure (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	WRRF	Improv., Rehab., and Replacement ☐ Alexandria Only ☒ Joint Use	6 years for UV system parts Yearly for probes 10 years for >100 Hp motors 10 years for Inter. PS pumps 10 years for VFD replacements	$11,571,200 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$358,000	$2,240,700	$2,252,100	$1,763,900	$1,776,000	$683,500	$696,400	$453,700	$597,400	$611,500	$496,000	11,571,200
Financing												
AlexRenew	$143,200	$896,280	$900,840	$705,560	$710,400	$273,400	$278,560	$181,480	$238,960	$244,600	$198,400	$4,628,480
Fairfax	$214,800	$1,344,420	$1,351,260	$1,058,340	$1,065,600	$410,100	$417,840	$272,220	$358,440	$366,900	$297,600	$6,942,720

Project Description and Justification

Need: To maintain the full functionality of tertiary treatment process

Background: This subprogram covers all improvement, rehabilitation and replacement projects associated with liquid unit processes in tertiary and disinfection treatment facilities. This includes, but is not limited to, UV system parts, instruments, probes, motors, pumps, VFDs replacements.

Project Components: Various

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Redundancy and reliability of the tertiary and disinfection systems • Improve accuracy on flow, level, pressure, etc. • Improved and advanced automation	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Building G/3: Install TST Solids Meters • Building G/3: Pilot Program for New Solids Meters • Complete rebuilt or replacement of an Intermediate Pump • Complete rebuilt or replacement of equipment for a Tertiary Tank • Complete rebuilt or replacement one (1) Wash Water Pump • Installation, and testing of Robicon VFD replacements • Replace of motors with >100 Hp • Replacement or repair of process instruments • UV System Parts installed, tested and online • Replace or rebuild 1 wash water pump • Replace or rebuild 1 waste wash water pump	• Increase equipment availability to process • Increase equipment reliability for future high flow events

• Replace or rebuild filter backwash waste pumps • Replace Sludge pumps • Replace Gear boxes for mixers • Replace 4 MCC (motor control center) • Replace 1 discharge valves for intermediate pumps	
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4)	• Projects delayed due to Covid. New components added due to change in rehabilitation/replacement timing.

IRR: UV System Rehabilitation (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	Building N	WRRF System Improvements ☐ Alexandria Only ☒ Joint Use	4-5 years (Lamps and Peripherals)	$1,621,839 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$675,000	$225,000	$0	$0	$325,810	$0	$0	$0	$396,029	$0	$0	$946,839
Financing												
AlexRenew	$270,000	$90,000	$0	$0	$130,324	$0	$0	$0	$158,412	$0	$0	$378,736
Fairfax	$405,000	$135,000	$0	$0	$195,486	$0	$0	$0	$237,617	$0	$0	$568,103

Project Description and Justification

Need: AlexRenew's Main Plant Ultraviolet (UV) Disinfection System needs replacements of consumable equipment (UV lamps and related items) and repairs/maintenance to continue to provide reliable operation and performance.

Background: AlexRenew's Main Plant UV System serves to disinfect the Water Resources Recovery Facility (WRRF) effluent flow, prior to discharge. The lamps and other equipment items are reaching the end of their useful life and need to be replaced.

Project Components: Engineering & SCADA Support, UV System OEM replacement parts (lamps and peripherals, sensors and modules, ballasts, wiper cannisters, and probes), Installation & Startup/Commissioning. Note that the lamps have a projected 4-year life under normal operation. Replacement of the lamps is therefore shown every 4-5 years.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Replacement of consumable equipment to ensure reliable disinfection performance	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Completion of equipment replacements and startup/commissioning	• Equipment replacements and additional SCADA enhancements will ensure performance (discharge water quality) and reduce current O&M burden due to aging equipment

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• TBD	• New project

IRR: Warehouse and Inventory Upgrades (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Finance	Existing Warehouse, Building G Potential Space, Building F	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	25-30 years	$1,350,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$150,000	$500,000	$500,000	$150,000	$25,000	$0	$0	$0	$25,000	$0	$1,350,000
Financing												
AlexRenew	$0	$60,000	$200,000	$200,000	$60,000	$10,000	$0	$0	$0	$10,000	$0	$540,000
Fairfax	$0	$90,000	$300,000	$300,000	$90,000	$15,000	$0	$0	$0	$15,000	$0	$810,000

Project Description and Justification

Need: AlexRenew currently maintains a warehouse in Building G that houses small, often used parts, with an inventory valued at approximately $290,000 as of June 30, 2021. Larger, critical parts and assets are housed in a variety of other locations around the facility. AlexRenew desires to bring all inventory into one central location, with the appropriate security and climate control needed for often used as well as critical and long lead time asset management.

Background: Space in Building F has been identified as a potential area for warehouse consolidation. An engineering/architectural firm will be retained to define the warehousing requirements, review the current structure and code requirements of Bldg. F and ensure the space can be designed to meet them. Operations and Maintenance are the clients and will be consulted regarding regularly used parts and critical and long lead time assets critical to maintaining permit compliance.

Project Components: Design and Installation/Construction of the new space; upgrading of existing Bldg F to accommodate people and secure, climate controlled equipment storage and transition of old space; Security Enhancements; Procuring and Stocking Inventory; Training and Business Processes (such as economic reorder points and pick lists); Documenting in Computerized Maintenance Management System (CMMS)

Procurement Method: Various; Engineering and design services may be procured from existing contracts while parts and equipment may be procured as small purchases or under a variety of existing or future competitively bid contracts as appropriate.

Benefits	Strategic Outcome Area
• Ensures AlexRenew has the parts and equipment it needs in a timely manner to maintain the facility's assets appropriately • Supports effective operations of future assets by cataloguing and safeguarding spare parts until they are needed • Providing space and processes for staging parts and equipment contributes to more effective planning, scheduling, and execution of work • A well-organized warehouse can help streamline repetitive jobs	• Effective Financial Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Establish location; space plan and needed renovations for storage, people and code requirements • Prioritize list of inventory enhancements and place orders as appropriate	• Effective warehousing is central to the maintenance of AlexRenew's assets and supports the core mission of cleaning water to protect public health and the environment

• Incorporate warehousing plans with implementation of CMMS • Enhance security and other physical safeguards as appropriate • Enhance process for incorporation of spare parts for capital projects into inventory	
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• N/A	• New project based on emerging needs

IRR: WRRF Fire Alarm Upgrade (Joint Use)

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Safety	WRRF	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	15 years	$1,550,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$50,000	$300,000	$1,000,000	$0	$0	$0	$0	$0	$1,350,000
Financing												
AlexRenew	$0	$0	$0	$20,000	$120,000	$400,000	$0	$0	$0	$0	$0	$540,000
Fairfax	$0	$0	$0	$30,000	$180,000	$600,000	$0	$0	$0	$0	$0	$810,000

Project Description and Justification

Need: The WRRF Fire Alarm System needs upgrades.

Background: The WRRF Fire Alarm System was scheduled to be upgraded in FY18/19, but was delayed. Some panels are obsolete, and parts availability is becoming difficult.

Project Components: TBD

Procurement Method: AlexRenew has an existing NJPA contract vehicle to use for future work.

Benefits	Strategic Outcome Area
• Full redundancy and reliability of the WRRF Fire Alarm System	• Adaptive Culture

Key Milestones for FY 23	Impact on Operations or Community
• Complete upgrade of the WRRF Fire Alarm System	• Increase employee safety within the campus buildings and grounds

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Johnson Controls' Memo on existing panels being obsolete.	• Project moved to start in FY2024 from FY2026

Environmental Center – Upgrades and 5th/6th Floor Modifications

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Strategy and Policy	Environmental Center	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use	40 years	$1,450,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,000,000	$500,000	$150,000	$150,000	$1,200,000	$0	$0	$0	$0	$0	$0	$2,000,000
Financing												
AlexRenew	$510,000	$255,000	$76,500	$76,500	$612,000	$0	$0	$0	$0	$0	$0	$1,020,000
Fairfax	$490,000	$245,000	$73,500	$73,500	$588,000	$0	$0	$0	$0	$0	$0	$980,000

Project Description and Justification

Need: When the EC was built, the 5th floor was not built out to provide flexibility for future needs. The COVID-19 pandemic has created a need to upgrade A/V equipment on the 6th floor for hybrid meetings. The EC also requires general renewals as it ages.

Background: AlexRenew's EC Facilities are used by the local community for meetings and trainings. AlexRenew hosts many educational programs each year. Renewals are needed to manage aging related wear and tear.

Project Components: 5th floor design and engineering, 6th floor AV evaluation, construction, and equipment installation

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Optimize use of existing infrastructure and community benefits	• Public Engagement & Trust

Key Milestones for FY 23	Impact on Operations or Community
• 6th floor AV design and upgrade • HVAC system review and maintenance	• Increased value to community and usage of facilities.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• Change in project time

Environmental Center – Outdoor Exhibit Upgrade

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Communications	Environmental Center	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use (49% to Fairfax)	10 years	$200,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$50,000	$150,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$150,000
Financing												
AlexRenew	$25,500	$76,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$76,500
Fairfax	$24,500	$73,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$73,500

Project Description and Justification

Need: Update indoor and outdoor educational exhibits about AlexRenew as its mission has expanded with RiverRenew.

Background: The Environmental Center's educational exhibits in the lobby have been a highly used space at educating visitors about the important work AlexRenew does. Updating these static exhibits and extending them to the outdoors provides more educational opportunities for community members.

Project Components: Final design, permitting, and installation of exhibits

Procurement Method: Under development

Benefits	Strategic Outcome Area
• Expands outdoor educational exhibits for community members to engage with AlexRenew's mission	• Public Engagement & Trust

Key Milestones for FY 23	Impact on Operations or Community
• Complete installation of educational exhibits	• Increased value to community and usage of facilities.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New project

Holland Lane Pavement Reconstruction

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Holland Lane	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use	N/A	$300,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$300,000	$0	$0	$0	$0	$0	$0	$300,000
Financing												
AlexRenew	$0	$0	$0	$0	$120,000	$0	$0	$0	$0	$0	$0	$120,000
Fairfax	$0	$0	$0	$0	$180,000	$0	$0	$0	$0	$0	$0	$180,000

Project Description and Justification

Need: Holland Lane needs to be upgraded to comply with City of Alexandria roadway standards.

Background: Holland Lane was installed as part of the EC's construction. It currently does not comply with updated City of Alexandria roadway standards and changes in future uses and needs to be reconstructed.

Project Components: Reconstruction is being planned to occur following the construction of the RiverRenew Tunnel Project.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Compliance with roadway standards	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Project is being coordinated to take place following RiverRenew.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• None

South Carlyle Partnership

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	AlexRenew Environmental Center	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use	40 years	$1,500,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$700,000	$400,000	$300,000	$100,000	$0	$0	$0	$1,500,000
Financing												
AlexRenew	$0	$0	$0	$0	$476,000	$272,000	$204,000	$68,000	$0	$0	$0	$1,020,000
Fairfax	$0	$0	$0	$0	$224,000	$128,000	$96,000	$32,000	$0	$0	$0	$480,000

Project Description and Justification

Need: Engineering services and inspection and design and construction for any structural modifications affiliated with coordinating Carlyle Plaza II's construction as it builds the connections to the EC.

Background: The Environmental Center (EC) was designed in coordination with the future development planned for the site on the north of Limerick St. The plan provides additional public park space and supports with the Eisenhower East Small Area Plan for connecting open spaces. The site is currently in use by the RiverRenew Tunnel Project but is planned for development following AlexRenew's use. The design includes a park and playground that connects into the green roof about the EC's garage.

Project Components: Deck Connector and other structural modifications

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• This ensures proper coordination and physical connections to AlexRenew infrastructure.	• Watershed Stewardship
Key Milestones for FY 23	**Impact on Operations or Community**
• N/A	• Project ensures protection of AlexRenew structures and connection of open spaces.
External or Internal Adopted Plan or Recommendation	**Changes from Prior Year CIP**
• Eisenhower East Small Area Plan	• Consideration of potential structural modifications necessary to complete development.

WRRF: HVAC Automation System Upgrade

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	Non-Process Facilities ☐ Alexandria Only ☒ Joint Use	N/A	$1,000,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$50,000	$0	$0	$0	$500,000	$500,000	$0	$0	$0	$0	$1,050,000
Financing												
AlexRenew	$0	$20,000	$0	$0	$0	$200,000	$200,000	$0	$0	$0	$0	$420,000
Fairfax	$0	$30,000	$0	$0	$0	$300,000	$300,000	$0	$0	$0	$0	$630,000

Project Description and Justification

Need: To fund a study for evaluating all HVAC units campus wide and recommend measures to improve their efficiency/performance.

Background: The project goal is to upgrade the WRRF HVAC system. A study is needed to evaluate the HVAC system elements and recommend improvements. An upgrade is required to consolidate/upgrade and optimizing the HVAC controls. The upgrade process needs to incorporate the requirements of the RiverRenew HVAC system (operation starts in 2025).

Project Components: HVAC system computer software, field devices

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Full redundancy and reliability of the HVAC System	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Increase equipment availability to process

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• None

RiverRenew Tunnel Project – Joint Use

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
RiverRenew	AlexRenew and Multiple Locations in Alexandria	RiverRenew ☐ Alexandria Only ☒ Joint Use	Tunnel - 100 years	$391,600,000 Grant/Debt Funded? Yes

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$93,220,649	$57,800,000	$73,700,000	$90,900,000	$9,300,000	$0	$0	$0	$0	$0	$0	$231,700,000
Financing												
AlexRenew	$81,816,958	$49,400,000	$63,500,000	$76,300,000	$8,500,000	$0	$0	$0	$0	$0	$0	$197,700,000
Fairfax	$11,403,691	$8,400,000	$10,200,000	$14,600,000	$800,000	$0	$0	$0	$0	$0	$0	$34,000,000

Project Description and Justification

Need: In April 2017, a Virginia law was passed that required Alexandria's four existing combined sewer outfalls be brought into compliance by July 1, 2025.

Background: In June 2018, the Virginia Department of Environmental Quality approved a Plan that complied with the new law through the design and construction of a tunnel system to capture and convey combined sewage to AlexRenew for treatment. In July 2018, the Plan was re-branded as RiverRenew.

Project Components: The RiverRenew Tunnel System includes:

- Waterfront Tunnel: 2-mile long, 12'-0" diameter segmentally lined tunnel.
- Hooffs Run Interceptor: 2,700-foot long, 6'-0" open-cut sewer.
- Four diversion chambers to direct combined sewer flows to the Waterfront Tunnel and Hooffs Run Interceptor.
- Four shafts ranging from 35-feet to 65-feet in diameter.
- Tunnel Dewatering and Wet Weather Pumping Station: 20-mgd tunnel dewatering and 130-mgd wet weather pumping station, including a new superstructure at AlexRenew.

Procurement Method: In November 2020, AlexRenew awarded a fixed-price design-build contract to Traylor-Shea Joint Venture in the amount of $454.4 million following a 2-step (RFQ/RFP) procurement process.

Benefits	Strategic Outcome Area
• Significant reduction of CSOs to local waterways • Site restoration includes community amenities in two locations	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Major design submittals complete • Tunnel mining begins	• Coordination with O&M and the community during construction • O&M will operate and maintain pumping station once system is operational.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Long Term Control Plan Update, Approved 2018	• Updated costs

Coliphage Study

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Strategy and Policy	Various	Regulatory Compliance ☐ Alexandria Only ☒ Joint Use	15-20 years	$100,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$50,000	$50,000	$0	$0	$0	$0	$0	$0	$0	$100,000
Financing												
AlexRenew	$0	$0	$20,000	$20,000	$0	$0	$0	$0	$0	$0	$0	$40,000
Fairfax	$0	$0	$30,000	$30,000	$0	$0	$0	$0	$0	$0	$0	$60,000

Project Description and Justification

Need: To comply with potential regulatory drivers.

Background: EPA is researching disinfection markers; studies have indicated that coliphage is a better indicator of potential human health impacts from wastewater exposure than E.coli. Based on this research the EPA has published draft methods and may publish draft updates for comment to the 2012 Recreational Water Quality Indicators in Spring 2022. Once these criteria are made final, Virginia can elect to adopt them, and will then include the new criteria in new VPDES permits.

Project Components: Organizational Readiness Assessment: Laboratory Feasibility Analysis, Process/Engineering Analysis, UV Disinfection Testing

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Will allow for an organized transition to coliphage as disinfection indicator as triggered by regulatory processes	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• EPA publishes draft Criteria Update	• Improved water quality and designated use attainment for local impaired waters

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• In Progress	• New project

Emerging Contaminant Analysis

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Various	Regulatory Compliance ☐ Alexandria Only ☒ Joint Use	10 years	$300,000 Grant/Debt Funded. Yes

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$50,000	$50,000	$100,000	$100,000	$0	$0	$0	$0	$0	$0	$300,000
Financing												
AlexRenew	$0	$50,000	$50,000	$100,000	$100,000	$0	$0	$0	$0	$0	$0	$300,000
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: Funds are required to perform research and analysis regarding potential regulations on emerging contaminants in wastewater

Background: EPA is currently in the process of conducting scientific studies to better understand emerging contaminants and suggest alternatives/strategies to eliminate them.

Project Components: EPA/State regulations, Treatment technology, Design and Construction/Implementation, Operation, and Maintenance

Procurement Method: Request For Proposal

Benefits	Strategic Outcome Area
• Protection of aquatic life and human health from effects of emerging contaminants	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Formulate a plan that will define research objectives and steps to accomplish these specific goals	• This will directly benefit human health.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New project

Total Nitrogen Limits Compliance Study

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Strategy and Policy	Various	Regulatory Compliance ☐ Alexandria Only ☒ Joint Use	15-20 years	$325,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$75,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$325,000
Financing												
AlexRenew	$0	$0	$30,000	$100,000	$0	$0	$0	$0	$0	$0	$0	$130,000
Fairfax	$0	$0	$45,000	$150,000	$0	$0	$0	$0	$0	$0	$0	$195,000

Project Description and Justification

Need: To comply with potential regulatory drivers

Background: To comply with future regulatory drivers from the Chesapeake TMDL, AlexRenew needs to potential future nitrogen discharge reductions. AlexRenew's VPDES next permit will be renewed in 2026; this program will evaluate the impact of RiverRenew on nutrient removal and capped limits and the ability to treat the city's additional capacity cost effectively.

Project Components: Feasibility, Process/Engineering Analysis, Rate Impact Analysis, Human Capital Analysis

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• This project will prepare the organization contingent event of meeting more stringent nitrogen discharge standards • Improve effluent quality	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Need for Operations training to achieve increased nitrogen reductions • Potential for water quality improvements

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New Project

Climate Resilience Initiatives

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Strategy and Policy	WRRF	Sustainability & Resilience ☐ Alexandria Only ☒ Joint Use	20 years	$2,380,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$133,000	$243,000	$489,000	$150,000	$445,000	$325,000	$95,000	$500,000	$0	$0	$2,380,000
Financing												
AlexRenew	$0	$53,200	$97,200	$195,600	$60,000	$178,000	$130,000	$38,000	$200,000	$0	$0	$952,000
Fairfax	$0	$79,800	$145,800	$293,400	$90,000	$267,000	$195,000	$57,000	$300,000	$0	$0	$1,428,000

Project Description and Justification

Need: AlexRenew must reduce energy consumption and greenhouse gas emissions to meet city sustainability goals.

Background: AlexRenew is working to reducing energy use by 25% by 2025 and reducing greenhouse gas emissions by 50% by 2050 over the 2005 baseline. To achieve these goals, AlexRenew will focus on projects to increase energy efficiency, generate renewable energy, reduce emissions from operations, and bolster administrative processes supporting these projects.

Project Components: Increase efficiency of WRRF systems through infrastructure upgrades/replacements, identify and address sources of energy and water waste, invest in innovative technologies to maximize energy efficiency or generate renewable energy, replace the vehicle fleet with electric/hybrid models where applicable and associated charging infrastructure, and ensure energy management and GHG accounting systems are accurate, comprehensive, and well-documented.

Benefits	Strategic Outcome Area
• Make progress towards renewable energy use and GHG reduction goals • Increases resilience, reliability, and operability of AlexRenew facilities	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Reprogramming HVAC Control Systems • Weather stripping on exterior doors and windows • Replace one gas-powered AlexRenew vehicle with an electric model and install an electric vehicle charging station onsite • Conducting all-hazards vulnerability assessment	• Supports AlexRenew's sustainability initiatives and commitment to environmental stewardship • Demonstrates leadership among water utilities • Ensures accountability for AlexRenew operations

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• City of Alexandria Environmental Action Plan 2040 • DOE Better Plants Challenge • DOE Better Buildings Challenge • AlexRenew Building Energy Analysis (CH2M, 2016)	• New project

Stormwater System - Structural and Nonstructural Best Management Practices

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering Strategy and Policy	WRRF	Sustainability & Resilience ☐ Alexandria Only ☒ Joint Use	40 years	$850,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$50,000	$400,000	$400,000	$0	$0	$0	$0	$0	$850,000
Financing												
AlexRenew	$0	$0	$0	$20,000	$160,000	$160,000	$0	$0	$0	$0	$0	$370,000
Fairfax	$0	$0	$0	$30,000	$240,000	$240,000	$0	$0	$0	$0	$0	$480,000

Project Description and Justification

Need: AlexRenew has a permitted stormwater system on its plant site and will continue to add stormwater best management practices (BMPs) to meet water quality and quantity needs.

Background: The AlexRenew WRRF storm sewer system is subdivided into seven drainage areas that discharge directly to Hooff's Run, to the Virginia Department of Transportation (VDOT) Municipal Separate Storm Sewer System (MS4), and to the City of Alexandria MS4. Given the expectations of more frequent and severe precipitation events, AlexRenew will continue to invest in sound stormwater management on its sites. This project involves an updated study and design to accommodate infrastructure changes since the original study 2016 and the cost of construction and maintenance of stormwater BMPs.

Project Components: Studies, design and construction of stormwater BMP's and regular maintenance/cleaning.

Benefits	Strategic Outcome Area
• Alternative treatment facilities to support AlexRenew's sustainability initiatives and commitment to environmental stewardship.	• Watershed Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Potential to increase O&M costs to annual cost of approx. 5% of construction costs • Results in reduction of pollutant loading of permitted stormwater conveyed

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Stormwater Improvement Analysis Report for Alexandria Renew Enterprises (URS Corp, 2016)	• Costs updated

Centrate Pretreatment Facility Improvements

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	WRRF	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	N/A	$21,400,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$258,000	$500,000	$5,000,000	$7,000,000	$6,000,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$19,700,000
Financing												
AlexRenew	$103,200	$200,000	$2,000,000	$2,800,000	$2,400,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$7,880,000
Fairfax	$154,800	$300,000	$3,000,000	$4,200,000	$3,600,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$11,820,000

Project Description and Justification

Need: To restart Centrate Pretreatment Process

Background: The centrate pre-treatment facility uses the DEMON™ process to reduce the nitrogen content of the dewatering centrate prior to return to the BRBs. The facility was placed into operation in 2015 and operates well. Improvements are needed for efficiency include replacing the existing cyclone feed pumps and implementing some modifications to the centrate transfer piping.

Project Components: Undetermined

Procurement Method: The project is proposed to be procured through a Design-Bid-Build method with AlexRenew using on-call contractors. Some of the work will be done by the blower vendor (Neuros) on their equipment.

Benefits	Strategic Outcome Area
• Increase reliability of the system. • Reduce downtime and maintenance needed on the pumps and process upsets caused by poor quality centrate.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Have all CPT vendors come on-site to complete assessment of equipment associated with CPT • Procure all existing equipment that is missing, damaged, needs to be replaced to get CPT running • Look into engineering and design concerns with CPT • Replace equipment	• Improving capture of dirty centrate away from the CPT system would reduce the amount of manual cleaning that has to be performed on the strainers and the pumps by plant personnel. • Automating the blower operation would reduce/eliminate the need for manual cycling/exercising of the blowers and improve air flow control and process performance. • Operations and maintenance personnel should be engaged in identifying possible solutions and selecting alternatives to be implemented.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Centrate Pre-Treatment Recycle Pumps Performance Deterioration TM (CH2M, May 2016) • Summary of Centrate Pre-Treatment Blower Failure Investigation, • Evaluation and Recommendations TM (CH2M, February 2017)	• New project to restart CPT

Building 22: Primary Weir Observation House

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 22	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	20 years	$4,620,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$660,000	$990,000	$1,980,000	$990,000	$0	$0	$0	$0	$0	$0	$4,620,000
Financing												
AlexRenew	$0	$264,000	$396,000	$792,000	$396,000	$0	$0	$0	$0	$0	$0	$1,848,000
Fairfax	$0	$396,000	$594,000	$1,188,000	$594,000	$0	$0	$0	$0	$0	$0	$2,772,000

Project Description and Justification

Need: Rehabilitation of the Primary Weir Observation House to address deterioration of building components due to corrosion. Project also addresses scum removal deficiencies within the Primary Settling Tanks.

Background: The Primary Weir Observation House has experienced deterioration of building components due to the corrosive nature of the space. The project consists of rehabilitating various building components and a new exterior walkway. The rotating scum collectors have operational challenges and were also studied during the PPSU Project and need replacement.

Project Components: New roof panels, sandblasting and repainting of deteriorated steel supports, replacement of various lighting components, electrical panels, and conduit, new exterior walkway for access to scum collectors, and new scum collector equipment.

Procurement Method: Scope and procurement strategy will be confirmed during the Program Definition Phase of the PPSU project

Benefits	Strategic Outcome Area
• Maintains functionality of the Primary Weir Observation House. • Increases lifetime of existing asset	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete final design	• Maintains operational efficiencies/improves operator safety.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• Budget updated to reflect recommendations from PPSU project

Building G/4: Tertiary Filter Repairs

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building G/4	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	20 years	$10,304,875 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$2,520,000	$2,713,375	$2,541,500	$330,000	$2,200,000	$0	$0	$0	$0	$0	$10,304,875
Financing												
AlexRenew	$0	$1,008,000	$1,085,350	$1,016,600	$132,000	$880,000	$0	$0	$0	$0	$0	$4,121,950
Fairfax	$0	$1,512,000	$1,628,025	$1,524,900	$198,000	$1,320,000	$0	$0	$0	$0	$0	$6,182,925

Project Description and Justification

Need: Maintain efficient and effective tertiary filter system.

Background: The Condition Assessment and Proposed Repair Plan Technical Memorandum was completed in FY22, which identified several aspects of tertiary filters 1-12 that are either damaged or beyond their useful life. The filter media was also found to be in poor condition.

Project Components: Design and construction for removing and replacing filter media, repairing concrete surfaces, replacing valves, and repairing air piping in one filter at a time to maintain plant operations.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improves/maintains filter performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Design media replacement and structural rehabilitation plan for filters 1-12 • Design structural repair and replacement of filter troughs and valves	• Improves/maintains filter performance

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4) • Condition Assessment and Proposed Repair Plan Technical Memorandum: AlexRenew Effluent Filters and Primary Settling Tank Effluent Channel (BOA 20-001B-01, Task 3)	• Scope/timeline has moved up to begin in FY 2023

Building F: Plant Effluent Water (W3) System Improvements

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building F	WRRF Improvements Program ☐ Alexandria Only ☒ Joint Use	TBD	$3,716,700 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$1,027,425	$906,255	$1,710,391	$0	$31,907	$0	$0	$0	$0	$40,722	$3,716,700
Financing												
AlexRenew	$0	$410,970	$362,502	$684,156	$0	$12,763	$0	$0	$0	$0	$16,289	$1,486,680
Fairfax	$0	$616,455	$543,753	$1,026,235	$0	$19,144	$0	$0	$0	$0	$24,433	$2,230,020

Project Description and Justification

Need: Components of AlexRenew's plant effluent water (W3) system needs upgrading.

Background: An evaluation of the RW and W3 systems recommended improvements to the system to increase efficiency. These recommendations include operational changes, additional studies, and system upgrades. This project will address the recommended additional studies and system upgrades.

Project Components: Pressure monitoring equipment, booster pump enhancements, automated valves & switches, SCADA-integrated flow meters, testing of meters and pumps, isolation valves, future condition assessments, and pump system upgrades

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Increased reliability and efficiency of AlexRenew's W3 system	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Install pressure monitoring equipment on W3 line entering methanol building and in W3 loop • Conduct Performance Testing for W3 Pumps • Automate BRB spray headers • Install W3 header flow meters	• Reduced maintenance and operations needs

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• W3/RW System Performance Evaluation - Existing & Planned Demands Through 2025 (BOA 20-001-D_05, DRAFT)	• New project

Building L: Centrifuge Replacement

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building L	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	N/A	$13,635,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$1,461,000	$1,461,000	$4,591,000	$4,591,000	$1,531,000	$0	$0	$0	$13,635,000
Financing												
AlexRenew	$0	$0	$0	$584,400	$584,400	$1,836,400	$1,836,400	$612,400	$0	$0	$0	$5,454,000
Fairfax	$0	$0	$0	$876,600	$876,600	$2,754,600	$2,754,600	$918,600	$0	$0	$0	$8,181,000

Project Description and Justification

Need: To replace the existing dewatering & thickening centrifuges.

Background: Four thickening centrifuges (two duty, two standby) are used to thicken WAS and three dewatering centrifuges (two duty, one standby) are used to dewater digested sludge. Both systems are part of the WRRF's solids handling process and were placed into service in 2003. Both systems are expected to reach the end of their useful lives in the next few years.

Project Components: Centrifuges and associated appurtenances.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Maintains solids process performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• None	• Maintains solids process performance.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Planned equipment replacement.	• None

Campus-Wide Electrical Upgrade Sub-Program

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	10 years	$14,992,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$781,000	$3,334,000	$3,278,000	$4,301,000	$2,652,000	$646,000	$0	$14,992,000
Financing												
AlexRenew	$0	$0	$0	$0	$312,400	$1,333,600	$1,333,600	$1,720,400	$1,060,800	$258,400	$0	$5,996,800
Fairfax	$0	$0	$0	$0	$468,600	$2,000,400	$2,000,400	$2,580,600	$1,591,200	$387,600	$0	$8,995,200

Project Description and Justification

Need: To support plant reliability and safety of the plant's electrical grid.

Background: This project involves recommended rehabilitation tasks previously identified during the process of evaluating energy use on campus.

Project Components: Switchgear replacements and other upgrades related to electrical systems

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• To ensure aging infrastructure does not compromise electrical reliability	• Effective Financial Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• None	• This project will reduce future maintenance costs and renew existing assets

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• None	• Project has been delayed until after tunnel construction is complete

HMI Upgrade

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering IT	Various	Improve., Rehab., Replacement ☐ Alexandria Only ☒ Joint Use	5 years	$4,216,273 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$1,336,425	$1,600,000	$1,200,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$3,050,000
Financing												
AlexRenew	$540,000	$640,000	$480,000	$100,000	$	$0	$0	$0	$0	$0	$0	$1,220,000
Fairfax	$810,000	$960,000	$720,000	$150,000	$0	$0	$0	$0	$0	$0	$0	$1,830,000

Project Description and Justification

Need: Upgrade and modification of the Human Machine Interface (HMI) technology associated with the WRRF Control System.

Background: The current HMI needs upgrades.

Project Components: Replacement of WinCC with Factory Talk View SE. Update of HMI Screens and PLC code to meet new standards.

Procurement Method: Existing Contract

Benefits	Strategic Outcome Area
• Reduce the number of HMI screens to provide concise graphical information • Reduce the number of ghost alarms • Eliminate stability issues inherent to WinCC • Develop scalable control system to meet future demands • Improve fault tolerance	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Modify the HMI associated with the PLCs that were upgraded as part of the PLC Upgrade/Replacement Project	• Increased operational efficiency through improved user experience • Increased system reliability • Reduced ghost alarms

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• 2016 SCADA Master Plan	• Project schedule extended (re: Covid19 impacts).

Main Campus Galleries Improvements

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	10 years	$1,300,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$0	$0	$500,000	$500,000	$300,000	$0	$0	$0	$1,300,000
Financing												
AlexRenew	$0	$0	$0	$0	$0	$200,000	$200,000	$120,000	$0	$0	$0	$520,000
Fairfax	$0	$0	$0	$0	$0	$300,000	$300,000	$180,000	$0	$0	$0	$780,000

Project Description and Justification

Need: AlexRenew's walkable gallery system, some of which was constructed as early as the 1950s, houses mechanical and electrical utilities and piping and needs updating.

Background: This project involves recommended rehabilitation tasks previously identified during the process of creating a unified map of utilities within the system.

Project Components: Undetermined

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• This project will help better identify, quantify and maintain existing assets	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• None	• This project will reduce future maintenance costs and renew existing assets

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• None	• Project delayed 2 years

Odor Control System Upgrade

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	WRRF Improvement Program ☐ Alexandria Only ☒ Joint Use	TBD	$2,500,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$500,000	$0	$0	$1,000,000	$1,000,000	$0	$0	$0	$2,500,000
Financing												
AlexRenew	$0	$0	$0	$200,000	$0	$0	$400,000	$400,000	$0	$0	$0	$1,000,000
Fairfax	$0	$0	$0	$300,000	$0	$0	$600,000	$600,000	$0	$0	$0	$1,500,000

Project Description and Justification

Need: To assess the plant odor control system and identify capital improvement needs.

Background: This project involves the assessment of the odor control system and identification of needs for new capital improvements to ensure AlexRenew is minimizing odors leaving the plant. Includes study in FY25 and any resulting work in FY28-29. Will incorporate needs from RiverRenew.

Project Components:

- Analyze entire system (confirm air loads/ventilation rates)
- Update dispersion modeling
- Re-balance entre system

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Minimizes the likelihood of receiving odor complaints.	• Public Engagement & Trust

Key Milestones for FY 23	Impact on Operations or Community
• None	• This project will ensure AlexRenew remains a good neighbor by minimizing the likelihood of customers experiencing odors near the facility

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• None	• None

Purified Water System Upgrade

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Strategy and Policy	Building F	WRRF System Improvements ☐ Alexandria Only ☒ Joint Use	TBD	$2,109,474 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$158,760	$951,568	$999,146	$0	$0	$0	$0	$0	$0	$2,109,474
Financing												
AlexRenew	$0	$0	$158,760	$951,568	$999,146	$0	$0	$0	$0	$0	$0	$2,109,474
Fairfax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Project Description and Justification

Need: AlexRenew's purified water system is in need of upgrades.

Background: AlexRenew's existing purified water system is designed to treat a maximum of 2.0 MGD. It was placed into service in 2015 and needs updating. The evaluation of this system with use projections through 2031 is in progress.

Project Components: Project components include new pumps, motors, drives, upgraded UV and booster systems, instrumentation, and related improvements.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Increases purified water system capacity to meet demands	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• None	• An increase in purified water supply will allow additional use of purified water in the surrounding community and enable potential revenue source

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• TBD	• New project

Power Distribution Monitors

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	WRRF	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	10 years	$500,000 Grant/Debt Funded? Undetermined

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$50,000	$100,000	$250,000	$100,000	$0	$0	$0	$0	$0	$0	$500,000
Financing												
AlexRenew	$0	$20,000	$40,000	$100,000	$40,000	$0	$0	$0	$0	$0	$0	$200,000
Fairfax	$0	$30,000	$60,000	$150,000	$60,000	$0	$0	$0	$0	$0	$0	$300,000

Project Description and Justification

Need: Replacement of existing power monitors with Ethernet connectivity and network replacement of DH+ with Ethernet.

Background: AlexRenew's SCADA system is equipped with electrical power monitors designed to provide real-time and historical electricity consumption data for unit systems throughout the plant. The current power distribution monitors are obsolete and rely on proprietary communication technology. Power monitor audit will begin in FY 2025 and the results will determine the number and location of additional monitors needed.

Project Components: Phased approach: programming and testing new modules, installing network infrastructure, updating reference documents, and updating the SCADA dashboard with energy usage data.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Enhance the system so that data interpretation can be used to make operational changes. • Enhance understanding of resource consumption	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Develop a plan for phased power monitor updates based on data needs for sustainability and O&M. • Conduct proof of concept conditioning. Initial concept would include upgrade of up to 5 power monitors for high-energy consuming systems.	• A series of outages will be necessary to transition every device onto the new system. • Identification of cost savings opportunities in terms of power consumption

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• SCADA Master Plan	• New project

Preliminary/Primary System Upgrades

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building A Building K	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	20 years	$51,869,270 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$8,249,270	$9,110,000	$9,350,000	$18,690,000	$9,350,000	$0	$0	$0	$0	$0	$0	$46,520,000
Financing												
AlexRenew	$3,299,708	$3,644,000	$3,740,000	$7,476,000	$3,740,000	$0	$0	$0	$0	$0	$0	$18,608,000
Fairfax	$4,949,562	$5,466,000	$5,610,000	$11,214,000	$5,610,000	$0	$0	$0	$0	$0	$0	$27,912,000

Project Description and Justification

Need: Many of the system components of the Preliminary and Primary Treatment Systems have reached the end of their useful life. The completion of the RiverRenew Tunnel System will increase combined sewer flows to the head of the plant and will have impacts to system performance.

Background: The Program Definition Phase of the PPSU project identified several needed updates to the preliminary and primary treatment systems. The updates needed include but are not limited to coarse screening updates, improved access to coarse screening components, raw sewage pump flow capacity, condition assesmments of suction and discharge conduits, improvements to fine screening and grit removal equipment, improvements to grit and screening loading system, improvements to scum concentration system, and replacement of the primary sludge pumping equipment,

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Enhance the system so that data interpretation can be used to make operational changes. • Enhance understanding of resource consumption	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete final design	• Maintains operational efficiencies/improves operator safety.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• TBD	• Costs updated

Primary Settling Tank Rehabilitation

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Primary Settling Tanks 1 through 8	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	20 years	$5,000,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$5,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000,000
Financing												
AlexRenew	$0	$2,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000,000
Fairfax	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000,000

Project Description and Justification

Need: To replace equipment within Primary Settling Tanks 1 through 8 that is beyond its service lifetime.

Background: The equipment is heavily used and is at its useful life. It is also a critical component to successful operation of the new RiverRenew infrastructure.

Project Components: New drive chain, new longitudinal & cross collector mechanisms, new drive units, new sprocket motion monitoring system, new control stations for PST 5-8, and other miscellaneous parts replacements. Project also includes necessary electrical and structural modifications, engineering support, SCADA integration, and associated startup, certification, training, etc.

Procurement Method: Equipment will be procured by AlexRenew directly from supplier. Installation work will be separately procured by AlexRenew via existing on-call contract.

Benefits	Strategic Outcome Area
• Improved reliability of the primary settling tank infrastructure • Improved treatment performance	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Equipment fabrication, delivery, and installation.	• Decreases future O&M costs • Reduces risk • Increase equipment availability to process

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New project

Secondary Settling Tanks Refurbishment

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Operations and Maintenance	Secondary Settling Tanks 1 through 6	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	20 years	$7,725,000 Grant/Debt Funded. No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$7,500,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$7,725,000
Financing												
AlexRenew	$0	$3,000,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$3,090,000
Fairfax	$0	$4,500,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$4,635,000

Project Description and Justification

Need: Funds are needed to replace Chain and Flight Equipment in Secondary Settling Tanks

Background: There are six (6) secondary settling tanks consisting of four (4) cells each. The existing Chain and Flight Equipment has reached the end of its useful life. This equipment is critical in the proper processing of sediment/scum from bottom of the secondary settling tanks and is a key factor for the operational excellence of the overall wastewater treatment process.

Project Components: Secondary Settling Tanks, Chain and Flight Equipment

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improve the overall performance of the secondary settling tanks • Reliability and efficiency of the secondary infrastructure	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Complete replacement of the existing Polychem Chain and Flight Equipment in all the 24 cells of the secondary settling tanks	• Improve the overall performance of the treatment process • It leads to overall improvement of Operational Excellence

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• New project

Security Services During Construction

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Safety	WRRF	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	5 years	$2,000,000 Grant/Debt Funded. Yes

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$400,000	$400,000	$400,000	$400,000	$400,000	$0	$0	$0	$0	$0	$0	$1,600,000
Financing												
AlexRenew	$160,000	$160,000	$160,000	$160,000	$160,000	$0	$0	$0	$0	$0	$0	$640,000
Fairfax	$240,000	$240,000	$240,000	$240,000	$240,000	$0	$0	$0	$0	$0	$0	$960,000

Project Description and Justification

Need: Funds are needed to maintain stringent security measures during the ongoing RiverRenew Tunnel Project.

Background: Stringent security measures are required during the ongoing RiverRenew Tunnel project to provide a safe, secure and reliable work environment for AlexRenew employees and all the contractors.

Project Components: Infrastructure improvements and security measures to enhance security at the WRRF and AlexRenew construction sites.

Procurement Method: Invitation to Bid

Benefits	Strategic Outcome Area
• Maintenance of safety and security during the ongoing RiverRenew Tunnel Project • A safe and reliable work environment for all employees	• Public Engagement & Trust

Key Milestones for FY 23	Impact on Operations or Community
• Maintain efficient security services during the start of tunnel boring activities at the WRRF.	• Enhances safety and security for staff, contractors, and the surrounding community

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• N/A	• N/A

Solids Management: Solids Master Plan

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building L Building 55	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	N/A	$1,000,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$750,000	$700,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$950,000
Financing												
AlexRenew	$300,000	$280,000	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$380,000
Fairfax	$450,000	$420,000	$150,000	$0	$0	$0	$0	$0	$0	$0	$0	$570,000

Project Description and Justification

Need: To create a master plan for solids handling at AlexRenew's WRRF.

Background: Components of the WRRF biosolids process have been evaluated in the recent past. This program provides a holistic study of the system. Solids management, to include solids handling, disposal and volume reduction options, will be explored in the context of sustainability and regulatory drivers, available technologies, and best practices. The following CIP/IRR projects may be affected by the results of the plan:

- Solids Management: Building 55: Additional Cooling for Digesters
- Solids Management: Building 55: Replace Valves on W3 Cooling System
- Solids Management: Solids/Resource Recovery
- Odor Control System Upgrade
- Pre-Pasteurization System Improvements

Project Components: Undetermined

Procurement Method: Request for Proposal

Benefits	Strategic Outcome Area
• Creates a written plan outlining the measures needed to ensure the longevity and performance of the WRRF biosolids system.	• Effective Financial Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• Solids Master Plan kick off	• Ensure reliability and longevity of the WRRF biosolids system.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Solids Handling and Energy Optimization Update to the Long Range Plan (CH2M, January 2017) • AlexRenew BOA 14-017-2 Task Order WA2-2015-4, Pre-pasteurization System Evaluation, Heat Exchangers Recommendations – Draft, January 2016 • AlexRenew BOA 14-017-2 Task Order WA2-2015-4, Pre-pasteurization Tank Exhaust System Replacement, Preliminary Design, December 2015 • Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2 2019-3, Task 4)	• Costs extended to FY24

Solids Management: Building 55 - Additional Cooling for Digesters

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 55	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	TBD	$3,494,500 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$3,276,100	$218,400	0	0	0	0	0	0	0	0	$3,494,500
Financing												
AlexRenew	$0	$1,310,440	$87,360	$0	$0	$0	$0	$0	$0	$0	$0	$1,397,800
Fairfax	$0	$1,965,660	$131,040	$0	$0	$0	$0	$0	$0	$0	$0	$2,096,700

Project Description and Justification

Need: This project will install a new chiller system, pumps, and a heat exchange to increase the cooling capacity in the summer. The need for this project will be further confirmed under the Solids Master Plan project.

Background: Historically, the heat exchangers have used plant effluent water and have been unable to cool the pasteurized sludge to mesophilic anaerobic digestion temperatures (95° F) during summer months. Digester upset will occur if the digesters operate above the healthy digester operating range.

Project Components: A new chiller system, pumps, and a heat exchanger.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improves digester performance during summer months. • Minimizes risk of digester upset.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Install a new chiller system, pumps, and a heat exchange	• Improved solids operations during summer months.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Solids Handling and Energy Optimization Update to the Long Range Plan (CH2M, January 2017) • Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2 2019-3, Task 4)	• Budget increased based on inflation and scope

Solids Management: Building 55 - Replace Valves on W3 Cooling System

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 55	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	10 years	$21,500 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$21,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$21,500
Financing												
AlexRenew	$0	$8,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,600
Fairfax	$0	$12,900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,900

Project Description and Justification

Need: To replace the pressure regulating valves on the pre-pasteurization system and establish their performance settings. The need for this project will be confirmed under the Solids Master Plan project.

Background: Pre-pasteurization heat exchanges have not been able to cool sludge to the desired temperature in summer.

Project Components: Pressure regulating valves

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improves pre-pasteurization system performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Replace the pressure regulating valves on the pre-pasteurization system • Establish their performance settings	• Increased operational efficiency.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4	• Adopted from FY 22. Budget adjusted with inflation.

Solids Management: Building 55 - Solids Screen Replacement

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 55	WRRF Improvements ☐ Alexandria Only ☒ Joint Use	10 years	$882,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$533,400	$348,600	$0	$0	$0	$0	$0	$0	$0	$0	$882,000
Financing												
AlexRenew	$0	$213,360	$139,440	$0	$0	$0	$0	$0	$0	$0	$0	$352,800
Fairfax	$0	$320,040	$209,160	$0	$0	$0	$0	$0	$0	$0	$0	$529,200

Project Description and Justification

Need: To replace the existing solids screens with a new technology to improve solids capture. The need for this project will be confirmed under the Solids Master Plan project.

Background: The thickened sludge screens are required to operate the pre-pasteurization system and are undersized for when operated at full flows.

Project Components: Solid screen

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improves solids system performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• Replacement of the current solid screen	• Increased operational efficiency.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Solids Handling and Energy Optimization Update to the Long-Range Plan (CH2M, January 2017) • Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4)	• Budget adjusted with inflation and scope

Solids Management: Solids/Resource Recovery Upgrades

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building L Building A Building C	WRRF Improvements Program ☐ Alexandria Only ☒ Joint Use	20 Years for Equipment	$20,824,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$0	$0	$3,039,000	$5,628,000	$5,628,000	$5,628,000	$901,000	$0	$0	$0	$20,824,000
Financing												
AlexRenew	$0	$0	$0	$1,215,600	$2,251,200	$2,251,200	$2,251,200	$360,400	$0	$0	$0	$8,329,600
Fairfax	$0	$0	$0	$1,823,400	$3,376,800	$3,376,800	$3,376,800	$540,600	$0	$0	$0	$12,494,400

Project Description and Justification

Need: To implement recommendations related to improved carbon utilization and resource recovery at the WRRF.

Background: In FY2017, an update to the Long-Range Plan (LRP) was performed for the WRRF solids handling processes. The following studies and evaluations were recommended in the LRP Update:

- Gravity Thickener Evaluation
- Digestion Evaluation
- Combined Heat and Power (CHP) Study
- Co-Digestion FOG Evaluation

Project Components: To be developed as part of Solids Master Planning effort underway.

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Explores measures needed to ensure the longevity and performance of Sub-processes within the WRRF solids system.	• Effective Financial Stewardship

Key Milestones for FY 23	Impact on Operations or Community
• N/A	• Improved solids system performance

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Solids Handling and Energy Optimization Update to the Long Range Plan, CH2M January (2017)	• None

Solids Management: Pre-Pasteurization System Improvements

Managing Department and Champion	Project Location	Program and Project Category	Estimated Useful Life	Lifetime Budget
Engineering	Building 55	WRRF Improvements Program ☐ Alexandria Only ☒ Joint Use	N/A	$18,000 Grant/Debt Funded? No

Expenditure	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Yr. Total
Total	$0	$18,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,000
Financing												
AlexRenew	$0	$7,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,200
Fairfax	$0	$10,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,800

Project Description and Justification

Need: This project will adjust controls in the pre-pasteurization system to allow all three heat exchangers to operate simultaneously at a lower capacity per unit. The system would operate without redundancy in this condition.

Background: Pre-pasteurization provides the pathogen reduction required to produce Class A solids by heating and holding the sludge to a set temperature (158° F).Pre-pasteurization capacity is currently limited by the number of heat exchanger units that can be operated simultaneously in auto-mode.

Project Components: Undetermined

Procurement Method: Undetermined

Benefits	Strategic Outcome Area
• Improves pre-pasteurization system performance.	• Operational Excellence

Key Milestones for FY 23	Impact on Operations or Community
• TBD	• Increased operational efficiency.

External or Internal Adopted Plan or Recommendation	Changes from Prior Year CIP
• Risk Review of Processes and Assets, Risk Review Assessment (BOA WA2-2019-3, Task 4)	• New Project.

Indenture and Financial Policy Compliance

The schedule below demonstrates AlexRenew's financial profile according to the current, proposed and estimated budget projections, as measured by its two major financial metrics – cash reserves and debt service coverage.

As it relates to liquidity, AlexRenew's Indenture requires it to maintain at least 60 days cash on hand in the Operating Fund and an additional 60 days cash on hand in the General Reserve sub-fund, for a total cash reserve requirement of at least 120 days of operating expenses. As it relates to debt service coverage, AlexRenew's Indenture requires that net revenues cover annual debt service payments by 1.1x while the Financial Policies require a more stringent 1.5x. In both cases, the proposed budget forecasts compliance with these policies and indicate a healthy financial profile.

Indenture and Financial Policy Compliance	Adopted FY2022	Proposed FY2023	Estimated FY2024	Estimated FY2025	Estimated FY2026	Estimated FY2027
Cash Reserve Requirement						
Operating Fund						
60 Days Current Year Budgeted Expenses	4,666,355	5,004,327	5,154,457	5,309,090	5,415,272	5,523,577
Projected Ending Balance	4,666,355	5,004,327	5,154,457	5,309,090	5,415,272	5,523,577
Excess (Deficiency)	-	-	-	-	-	-
General Reserve sub-Fund						
60 Days Current Year Budgeted Expenses	4,666,355	5,004,327	5,154,457	5,309,090	5,415,272	5,523,577
Projected Ending Balance	4,666,355	5,004,327	5,154,457	5,309,090	5,415,272	5,523,577
Excess (Deficiency)	-	-	-	-	-	-
Total Cash Reserve Requirement - 120 Days	**9,332,710**	**10,008,655**	**10,308,914**	**10,618,182**	**10,830,545**	**11,047,154**
Debt Service Coverage (DSC) Requirement						
Wastewater Treatment Charges	$ 47,814,540	$ 50,922,485	$ 53,621,377	$ 56,302,446	$ 59,004,963	$ 60,067,052
Fairfax County Operating Expense Charge	10,785,305	11,694,706	12,045,729	12,407,287	12,655,433	12,910,752
Interest Income	115,000	115,000	115,000	115,000	115,000	115,000
Gross Revenue Available for Debt Service:	$ 58,714,845	$ 62,732,191	$ 65,782,106	$ 68,824,733	$ 71,775,396	$ 73,092,805
Operating Expenses	$ (28,386,991)	$ (30,442,988)	$ (31,356,278)	$ (32,296,966)	$ (32,942,905)	$ (33,601,763)
Net Revenues Available for Debt Service	$ 29,827,854	$ 31,789,203	$ 33,925,828	$ 36,027,767	$ 38,332,490	$ 38,991,041
Total Annual Debt Service	$ 13,919,620	$ 14,739,509	$ 16,448,494	$ 19,126,687	$ 21,347,774	$ 21,495,144
All-in Debt Service Coverage	**2.15x**	**2.16x**	**2.07x**	**1.89x**	**1.80x**	**1.82x**
Financial Policy Target	**1.50x**	**1.50x**	**1.50x**	**1.50x**	**1.50x**	**1.50x**
Indenture Target	**1.10x**	**1.10x**	**1.10x**	**1.10x**	**1.10x**	**1.10x**

Appendix A – Financial Policies

Alexandria Sanitation Authority
Financial Policies
Adopted August 17, 2010
Affirmed January 27, 2022

The Alexandria Sanitation Authority (ASA or Authority) is a special purpose governmental unit created by the City Council of Alexandria, Virginia (City Council) in 1952 for the purpose of constructing, operating and maintaining a wastewater treatment system (System) for the City of Alexandria, Virginia (City). ASA is governed and administered by a Board of Directors (Board) with five members who serve staggered terms and are appointed by the City Council. The General Manager oversees ASA's operations and plans for the construction, maintenance, repair and financing of the System. ASA operates as an enterprise fund, has no taxing power and receives no financial assistance from the City.

ASA recognizes that one of the keys to sound financial management is the development of a formal financial policy. This view is confirmed by bond rating agencies, investors and the Government Finance Officers Association. Establishing formal financial policies is also a common practice among comparable water and wastewater authorities throughout the Commonwealth and the United States.

The financial policy is designed to help protect ASA's financial resources by:

1. Promoting sound financial management;
2. Guiding ASA and its managers in policy and debt issuance decisions;
3. Establishing appropriate levels of operating cash reserves;
4. Developing a system to efficiently finance necessary capital improvements;
5. Ensuring the legal and prudent use of ASA's debt issuance authority;
6. Providing a framework for ASA to achieve a strong credit rating, and
7. Maintaining reasonable and well justified levels of rates and fees in accordance with the financial policy.

In general, these financial policies are more restrictive and require higher standards than the legal requirements contained in the Master Indenture of Trust (Bond Indenture), which is the agreement between ASA and debt holders. These financial policies will be reviewed periodically and updated as appropriate.

The following are the financial policies that will guide ASA's financial management, capital planning and debt financing.

1. Debt Service Coverage

a. For FY2011 through and including FY2013, ASA will adopt budgets that it projects will enable ASA to maintain annual debt service coverage (Coverage) of 1.40 times Net Revenues, as defined in the Bond Indenture, on all senior and parity debt. Beginning in FY2014 and thereafter, ASA will maintain Coverage of at least 1.50 times on all senior and parity debt.

2. Reserves

a. An important metric of ASA's financial flexibility is its liquidity as measured by available cash and reserves. These reserve policies identify amounts available for

known risks and obligations and set minimum funding goals that may be used in emergency or other unexpected situations as they arise. The reserves represent an earmarking for budgetary and financial policy purposes. These reserves are in addition to existing legal reserves required by the Master Indenture of Trust (Bond Indenture) and any funds earmarked for capital improvements.

b. ASA will maintain a balance equal to at least 120 days of the current years budgeted amount for operating and maintenance expenses. As required by the Bond Indenture, one sixth of the current year's budgeted amount for operating expenses (60 days) will be held in the Operating Fund. The remainder of the reserves will be held in the General Reserve Fund, a subfund of the General Fund. In the event the General Reserve Fund is used to provide funding for unanticipated expenses or otherwise drops below the policy level, the General Manager will submit a plan in writing to the Board that will restore the General Reserve Fund to the policy level over a period not to exceed four years.

c. All other funds will be funded as required by the Bond Indenture, with a summary as follows:
    i. Senior Debt Service Fund: An amount that will cause the balance on deposit to be sufficient to pay the principal and interest on the respective payment dates.
    ii. Improvement, Renewal and Replacement Fund (IRR): An amount equal to the Alexandria portion (40%) of the annual calculation of the required contribution to the IRR Fund.
    iii. General Fund: Any remaining amounts after the required deposits.
    iv. Debt Service Reserve Fund: For senior debt, an amount equal to the Debt Service Reserve Fund Requirement as defined in the Bond Indenture. There is no Debt Service Reserve Fund Requirement for ASA's parity debt.

d. When necessary and prudent, ASA may create additional accounts within the General Fund for specific purposes. These accounts could include accounts for capital projects, risk management and revenue stabilization, among others.

3. Budgetary Principles

a. Annual Operating Budget Proposals
    i. Per Section 9.3 of the Bond Indenture, ASA is required to adopt a budget for the System for the ensuing fiscal year before the beginning of each fiscal year. The annual budget is required to be prepared in such a manner as to show in reasonable detail the estimated revenues, operating expenses, IRR amounts, debt service amounts, other costs and expenses and the amount of Net Revenues available to meet the Revenue Covenant per the Bond Indenture.
    ii. In conjunction with the budget requirements in the Bond Indenture, the Board will strive to adopt an operating budget that:
        1. Is structurally balanced whereby current budgetary revenues are sufficient to meet current budgetary expenses (those that are ongoing in nature);
        2. Has fees and user charges at levels intended to support the direct and indirect cost of the activity;
        3. Sets fees and user charges with the intent to provide the lowest reasonable fees and user charges over time, not necessarily the lowest fees and user charges right now.
        4. Is at a level necessary to ensure the adequate maintenance and operations of the wastewater system;

5. Includes amounts necessary to maintain the required reserve balances as defined in these policies;
6. Enables ASA to meet the debt service coverage policy defined herein; and
7. Funds at least 15 percent of its capital improvement program in cash.

iii. Capital Improvement Program (CIP)

1. Each year ASA will adopt a ten-year CIP that identifies projects to be undertaken over next ten years to meet projected needs for infrastructure renewal, expansion, and replacing old or new facilities.
2. The term of any debt financing will not exceed the aggregate useful lives of the related projects.
3. The CIP will identify anticipated capital improvement costs and associated operating costs.

b. Long-Range Financial Forecast

i. Beginning with the planning for the FY2012 budget and in each fiscal year thereafter, the General Manager will submit to the Board at least a three year financial forecast of anticipated revenues and expenses.

4. Debt Management

a. ASA may issue long-term debt per the guidelines in this financial policy. Long-term borrowing will not be used to finance current operations. Long-term debt will be structured such that the term of financial obligations will not exceed the aggregate expected useful lives of the assets financed.

b. Short-term borrowing may be utilized for the temporary funding of operational cash flow deficits or interim construction requirements.

c. Permitted Debt by Type: ASA may issue the debt instruments described below. The most appropriate instrument for a proposed sale of debt shall Be determined by financing needs and expected market conditions at the time of sale.

i. Lease Financing – ASA may use lease financing for equipment if (i) it can be demonstrated that this is the most cost effective or appropriate way to secure financing, or (ii) on projects that do not warrant entry into the bond market.

ii. Bond Anticipation Notes (BANs) - which include Commercial Paper, are typically an interim means of financing and, by their very nature, expose ASA to interest rate risk upon renewal. BANS may be used to (i) to finance projects until such time as the project or projects can be incorporated into a long-term bond sale, (ii) during times of high interest rates and when the expectation is that interest rates will stabilize in the future or trending downward, (iii) when market conditions are such that a BAN may be more readily received in the market than long-term debt, or (iv) on an interim basis during the construction period for a project until such time as the project is placed into service.

iii. Long-Term Revenue Bonds - ASA may issue long-term revenue bonds to fund capital projects. These bonds may be issued by ASA in a number of ways, including, but not limited to, those listed below. ASA will evaluate multiple methods for issuing long-term revenue bonds and use the method that is most advantageous to ASA.

1. ASA may issue the bonds through a public sale under its own name in the capital markets.
2. ASA may issue the bonds through a private placement under its own name.
3. ASA may issue the bonds to the Virginia Resources Authority (VRA) under one of VRA's loan programs.

iv. Revenue Anticipation Notes (RANs) - may be issued to meet ASA's operational cash flow needs.

v. Lines of Credit - may be considered as an alternative to other short-term borrowing options.

d. Guidelines on Debt Issuance

i. Bond Indenture – ASA will abide by the covenants contained in the Bond Indenture. ASA considers these covenants to be minimum requirements, and generally expects to exceed the requirements of each covenant.

ii. Authorization – Prior to the issuance of debt, the Board will pass a resolution authorizing the financing arrangements and setting appropriate limits and parameters for the anticipated financing in accordance with applicable laws.

iii. Lowest Cost Financing – ASA intends to pursue the lowest cost of financing within the parameters of these financial policies, the Bond Indenture and ASA's enabling legislation.

iv. Method of Issuance – Prior to each debt issuance, ASA will evaluate the available methods of issuance and pursue the method of issuance that is most advantageous to ASA, whether a stand-alone issue by ASA or use of a third party financing approach such as Revolving Fund Loans or pooled borrowing programs available through the Virginia Resources Authority (VRA). Some considerations for evaluating the method of issuance, particularly when determining whether to issue debt through VRA or under ASA's name, include:

1. Financing Cost. This analysis should evaluate the overall cost of the financing, including borrowing rates, upfront fees (such as the cost of obtaining a credit rating), whether a Debt Service Reserve Fund is required, ongoing costs and any other costs of the financing.
2. Permitted Uses of Funds. Some project costs are not eligible to be funded through certain financing programs. For example, land purchase costs are not eligible to be funded through the Department of Environmental Quality's Revolving Loan Fund program that ASA has used in the past.
3. Structural Flexibility. When selecting a financing program, ASA will consider the flexibility of debt features available under each program. For example, ASA will consider how flexible repayment features, call provisions, and borrowing terms are under each program.

v. Project Costs Prior to Debt Issue – If project costs are incurred prior to the issuance of debt, the Board will pass a resolution documenting its intent to be reimbursed from bond proceeds as appropriate.

vi. Variable Rate Debt (VRD) – VRD carries inherent interest rate risk. Such securities historically have interest rates lower than long-term fixed rate securities and offer the potential for lower debt service costs over the term of the bond issue. ASA will consider using VRD when it: (i) Improves matching of assets and liabilities, (ii) potentially lowers debt service costs, (iii) adds flexibility to ASA's capital structure, or (iv) diversifies ASA's investor base.

1. Debt service on VRD will be budgeted at a conservative rate based on historical fluctuations in interest activity and current market assumptions. Before issuing VRD, ASA will determine how potential spikes in the debt service will be funded and consider the impact of various interest rate scenarios on its financial position and on various debt ratios.
2. ASA will not issue VRD in excess of 20 percent of its total debt portfolio. This limitation does not apply to other VRD which ASA has endeavored to offset with an operating investment portfolio intended to act as an economic hedge to interest rate fluctuations associated with the VRD.

This limitation also excludes any VRD that may be hedged through an appropriate derivative agreement, if such technique is approved by the ASA Board.

e. Method of Sale

i. ASA will select a method of sale (competitive, negotiated, or private placement) it believes is the most appropriate in light of financial, market, transaction-specific and ASA-related conditions.

f. Term of Debt

i. ASA will not issue debt with a term or final maturity longer than the aggregate useful lives of the projects being financed. ASA does not expect to issue debt with a final maturity more than 40 years from the date of issuance. Factors to be considered when determining the final maturity of debt include: the average life of the assets being financed, relative level of interest rates, and the year-to-year differential in interest rates.

g. Debt Structure

i. Interest Rate Structure – ASA may use both variable and fixed rate debt in accordance with limitations set forth in this policy.

ii. Maturity Structure – ASA's long-term debt may include serial and term bonds. Other maturity structures may also be considered when demonstrated to be advantageous to ASA.

iii. Coupon Structure – Fixed rate debt may include par, discount, premium and capital appreciation bonds.

iv. Redemption Features – In order to preserve flexibility and refinancing opportunities, ASA debt shall generally be issued with call provisions. ASA may consider call provisions that are shorter than traditional and/or non-callable debt when warranted by market conditions and opportunities. For each transaction, various call option scenarios will be evaluated so that the most beneficial can be utilized.

v. Credit Enhancement – ASA may use bond insurance and/or line and letters of credit for credit enhancement when it is economically advantageous to do so.

vi. Debt Service Reserve Fund – ASA will fund a Debt Service Reserve Fund (DSRF) if required by the Bond Indenture.

vii. Capitalized Interest – By definition, capitalization of interest increases the amount of debt that is issued. ASA will capitalize interest for a period not longer than 12 months after the project being financed is expected to be placed in service.

viii. Refinancing of Debt – ASA will refinance debt from time to time to achieve debt service savings as market opportunities arise. Since federal regulations limit a tax-exempt issue to one advance refunding (a refinancing more than 90 days prior to a bond's call date), ASA will ensure that the advance refunding results in a significant present value savings. A proposed refinancing must achieve a minimum cumulative, net present value savings of 3 percent of the amount refinanced. An exception to this minimum refinancing savings policy will be if the refinancing is being done for debt restructuring purposes and the Board determines that it is in the best interests of ASA to complete the refinancing without achieving the refinancing savings policy. In addition, ASA will consider the efficiency of a proposed refinancing transaction. The efficiency evaluation will consider the value realized by ASA when exercising its option to redeem its bonds early calculated under a variety of different interest rate environments, versus the savings garnered. In general, ASA will

consider refinancing bonds when the aggregate efficiency is equal to or greater than 70 percent.

ix. In any refinancing transaction, ASA maintains a bias to not extend maturities.

h. Escrow Structuring

i. ASA will utilize the least costly securities available in structuring refinancing escrows. Unless state and local government securities (SLGS) are used, a certificate will be provided by a third party agent stating that the securities were procured through an arms-length, competitive bid process (in the case of open market securities), and that the price paid for the securities was reasonable within federal guidelines.

ii. Under no circumstances will an underwriter, agent or financial advisor or ASA affiliates or affiliated accounts of an underwriter or financial advisor to ASA sell escrow securities to ASA from its own account.

i. Hiring of Professionals – All members of the financial advisory team including underwriter, financial advisor, bond counsel, and other professionals will be selected in a manner consistent with ASA's procurement policy for professional services.

i. Underwriter Selection

1. Senior Manager Selection – ASA will select a senior manager for any proposed negotiated sale. The selection criteria will include but not be limited to the following:
   a. The firm's ability and experience in managing transactions similar to that contemplated by ASA.
   b. Prior knowledge and experience with ASA.
   c. The firm's ability and willingness to risk capital and demonstration of the firm's capital availability and underwriting of unsold balances.
   d. Quality and experience of personnel assigned to ASA's engagement.
   e. Financing plan presented.
   f. Cost including underwriting fees and anticipated
   g. pricing.
2. Co-Manager Selection – Co-manager may be selected on the same bases as the senior manager with the exception of underwriting fees, which are determined by the senior manager. In addition to their qualifications, co-managers appointed to specific transactions will be a function of transaction size and the necessity to ensure maximum distribution of ASA's bonds.
3. Underwriter's Counsel – In any negotiated sale of ASA debt in which legal counsel is required to represent the underwriter, the appointment will be made by the Senior Manager with final approval from ASA.
4. Underwriter's Discount – ASA will evaluate the proposed underwriter's discount against comparable issues in the market. If there are multiple underwriters in the transaction, ASA will determine the allocation of underwriting liability and management fees. The allocation of fees will be determined prior to the sale date. A cap on management fees, expenses and underwriter's counsel fee will be established and communicated to all parties by ASA. The senior manager shall submit an itemized list of expenses.
5. Evaluation of Underwriter Performance – ASA will evaluate each bond sale after completion to assess the following: costs of issuance including underwriters' compensation, pricing of the bonds in terms of the overall

interest cost and on a maturity-by-maturity basis, and the distribution of bonds.

6. Syndicate Policies – For each negotiated transaction, ASA will establish syndicate policies that will describe the priority of orders and designation policies governing the upcoming sale.

   ASA shall require the senior manager to:

   a. Fairly allocate bonds to other managers and selling group.
   b. Comply with the Municipal Securities Rulemaking Board's (MRSB) regulations governing the priority of orders and allocations.
   c. Within 10 working days after the sale date, submit to ASA a detail of orders, allocations and other relevant information pertaining to ASA's sale.

ii. Consultants

1. Financial Advisor – ASA will select a financial advisor to assist in its debt issuance and debt administration processes. Selection of the ASA's financial advisor will be based on, but not limited to, the following criteria:
   a. Experience in providing consulting services to entities
   b. similar to ASA.
   c. Knowledge and experience in structuring and
   d. analyzing bond issues.
   e. Experience and reputation of assigned personnel.
   f. Fees and expenses.
2. Bond Counsel – ASA will include a written opinion by legal counsel affirming that ASA is authorized to issue the proposed debt, that ASA has met all legal requirements necessary for issuance, and a determination of the proposed debt's federal income tax status. The approving opinion and other documents relating to the issuance of debt will be prepared by counsel with extensive experience in public finance and tax issues. The Bond Counsel will be selected by ASA.
3. Conflicts of Interest – ASA requires that its consultants and advisors provide objective advice and analysis, maintain the confidentiality of ASA financial plans, and be free from any conflict of interest that has not been fully disclosed to, and waived by, ASA. In no case will ASA's financial advisor be permitted to underwrite any portion of ASA's bond issues, whether sold competitively or negotiated.
4. Disclosure by Financing Team Members – All financing team members will be required to provide full and complete disclosure, relative to agreements with other financing team members and outside parties. The extent of disclosure may vary depending on the nature of the transaction. However, in general terms, no agreements will be permitted which could compromise the firm's ability to provide independent advice which is solely in ASA's best interests or which could reasonably be perceived as a conflict of interest.

j. Communication and Disclosure

i. Continuing Disclosure – ASA recognizes that accurate and complete disclosure is imperative. ASA will comply with all state and federal disclosure obligations and will meet its disclosure requirements in a timely and thorough manner.

k. Arbitrage Compliance

i. ASA will maintain a system of record keeping and reporting in order to comply with the Arbitrage Rebate Compliance Requirements of the Internal Revenue Code of 1986, as amended.

5. Derivatives

a. Derivatives such as interest rate swaps and options are financial tools that can help ASA meet important financial objectives, however they introduce multiple risks which must be understood and managed. Properly used, these instruments may increase ASA's financial flexibility, provide opportunities for interest rate savings or enhanced investment yields, and help ASA manage its balance sheet through matching of assets and liabilities.

b. ASA will not enter into any financial derivative or swap until the following have occurred:

i. The Board has adopted a comprehensive derivatives/swaps policy outlining the following related to the use of derivatives/swaps:

1. Approach and Objectives
    a. Specific objectives for utilizing swaps
    b. Prohibited swap features
2. Legal Authority
3. Permitted Instruments
4. Procedure for Submission and Execution
5. Swap Analysis and Participant Requirements
    a. Swap risks
    b. Counterparty risk assessment
    c. Benefit expectation
6. Legal and Contractual Requirements
    a. Legal terms of swaps
    b. Notional amount
    c. Final maturity
    d. Termination provisions
    e. Collateral
7. Ongoing Management
8. Ongoing Reporting Requirements
9. Acceptable Collateral

ii. The Board has approved the execution of the specific financial derivative or swap transaction.

Appendix A – Definitions

Bond Anticipation Note (BANs): Notes which are paid from the proceeds of the issuance of long-term bonds. Typically issued for capital projects.

Call Provisions: The terms of the bond giving the issuer the right to redeem all or a portion of a bond prior to its stated date of maturity at a specific price, usually at or above par.

Capital Improvement Program (CIP): Plan for major non-recurring facility, infrastructure, or acquisition expenditures that expand or improve the system and/or community assets. Projects included in the CIP include physical descriptions, implementation schedules, year of expenditure cost and funding source estimates, and an indication of priorities and community benefits.

Capitalized Interest: A portion of the proceeds of a bond issue which is set aside to pay interest on the same bond issue for a specific period of time. Interest is commonly capitalized for the construction period of the project.

Commercial Paper: Short-term, unsecured promissory notes issued by corporations to finance receivables for a maturity specified by the purchaser that ranges from three days to 270 days. Notes are generally sold at a discount, and carry credit ratings issued by an NRSRO.

Competitive Sale: A sale/auction of securities by an issuer in which underwriters or syndicates of underwriters submit sealed bids to purchase the securities. Contrast to a negotiated sale.

Continuing Disclosure: The principle that accurate and complete information material to the transaction which potential investors would be likely to consider material in making investment decisions with respect to the securities be made available on an ongoing basis.

Credit Enhancement: Credit support purchased by the issuer to raise the credit rating of a debt issue. The most common credit enhancements consist of bond insurance, direct or standby letters of credit, and lines of credit.

Debt Service Reserve Fund: The fund in which moneys are placed which may be used to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements.

Derivatives: A financial product whose value is derived from some underlying asset value.

Designation Policies: Outline how an investor's order is filled when a maturity is oversubscribed when there is an underwriting syndicate. The senior managing underwriter and issuer decide how the bonds will be allocated among the syndicate. There are three primary classifications of orders which form the designation policy: Group Net Orders; Net Designated orders and Member orders.

Escrow: A fund established to hold moneys pledged and to be used to pay debt service on an outstanding issue.

Expenses: Compensates senior managers for out-of-pocket expenses including:

underwriters counsel; DTC charges, travel, syndicate expenses, dealer fees, overtime expenses, communication expenses, computer time and postage.

Letters of Credit: A bank credit facility wherein the bank agrees to lend a specified amount of funds for a limited term.

LIBOR: The London InterBank Offered Rate is the rate on U.S. dollar denominated deposits with maturities from 1 day to 12 months transacted between banks in London. LIBOR is the benchmark swap floating index in the taxable or corporate swap market.

Liquidity: The ability of ease with which an asset can be converted into cash without a substantial loss of value.

Management Fee: The fixed percentage of the gross spread which is paid to the managing underwriter for the structuring phase of a transaction.

Maturity: The date upon which the principal or stated value of an investment becomes due and payable.

Members: Underwriters in a syndicate other than the senior underwriter.

Nationally Recognized Statistical Rating Organization (NRSRO): A credit rating agency which issues credit ratings that the U.S. Securities and Exchange Commission (*the "SEC")* permits other financial firms to use for certain regulatory purposes. Examples include Moody's Investor Service, Standard & Poor's and Fitch Ratings.

Negotiated Sale: A method of sale in which the issuer chooses an underwriter to negotiate terms pursuant to which such underwriter will purchase and market the bonds.

Original Issue Discount: The amount by which the original par amount of an issue exceeds its public offering price at the time it is originally offered to an investor.

Portfolio: Collection of securities held by an investor.

Present Value: The current value of a future cash flow.

Private Placement: The original placement of an issue with one or more investors versus being publicly offered or sold.

Revenue Bonds: Bonds secured by a specific revenue pledge of rates, rents or fees.

Securities and Exchange Commission ("SEC")*:* Agency created by Congress to protect investors in securities transactions by administering securities legislation.

Selling Groups: The group of securities dealers who participate in an offering not as underwriters but rather who receive securities less the selling concession from the managing underwriter for distribution at the public offering price.

SIFMA: The Securities Industry and Financial Markets Association is a high grade market index of 7-day variable rate demand notes that is produced by Municipal Market Data.

SIFMA is the benchmark swap floating index in the tax-exempt swap market.

Syndicate Policies: The contractual obligations placed on the underwriting group relating to distribution, price limitations and market transactions.

Underwriter: A dealer that purchases new issues of municipal securities from the Issuer and resells them to investors.

Underwriter's Discount: The difference between the price at which bonds are bought by the Underwriter from the Issuer and the price at which they are offered to investors, representing the compensation earned by the Underwriter for placing the bonds with investors.

What's happening on the cover?

In FY21, AlexRenew finished preparations at our wastewater treatment plant for the RiverRenew Tunnel Project, a water quality project designed to prevent millions of gallons of combined sewer overflows from polluting Hooffs Run, Hunting Creek, and the Potomac River. Use of our plant is essential to constructing and operating the Project. All tunnel mining will be occur at AlexRenew, a commitment made to the community to minimize impacts. At completion, the tunnel will convey flows captured to AlexRenew for treatment. At the time of this report's issuance, construction on two 12-story-deep shafts needed to launch the machine that will build the tunnel was about to start, illustrated on the front cover. Use your phone's camera to scan the QR code on the left to discover how we'll begin Building for the Future of Alexandria's Waterways.

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