AMENDED AND RESTATED SERVICE AGREEMENT

This AMENDED AND RESTATED SERVICE AGREEMENT (this "Agreement"), dated as of day of ________, 2018, by and between the CITY OF ALEXANDRIA, VIRGINIA SANITATION AUTHORITY d/b/a Alexandria Renew Enterprises (the "Authority"), a public body politic and corporate organized and created under the Virginia Water and Waste Authorities Act, Chapter 51, Title 15.2 of the Code of Virginia of 1950, as amended (the "Act"), and the CITY OF ALEXANDRIA, VIRGINIA (the "City"), provides that:

WHEREAS, the Authority and the City entered into an Agreement dated as of the 1st day of September, 1954 ("**1954 Agreement**") pursuant to which the Authority has accepted, collected and treated the sewage entering the Authority System (as hereinafter defined);

WHEREAS, the Authority and the City entered into a "Supplemental Sewage Service Agreement" made and entered into on the 25th day of June, 1974 ("**1974 Agreement**") pursuant to which the maximum volume of City flow was increased from 12.6 MGD (as hereinafter defined) to 18.55 MGD;

WHEREAS, the Authority and the Board of Supervisors of Fairfax County, Virginia entered into an Amended and Restated Service Agreement dated as of the 1st day of October, 1998 ("Fairfax Service Agreement")

WHEREAS, up to 21.6 MGD of average capacity at the Sewage Treatment Plant, as further provided herein, is available to the City based on the existing Authority System and the allocation of existing treatment plant capacity between Fairfax County and the Authority;

WHEREAS, the Authority and City wish to update and restate their agreements consistent with current regulatory requirements and good practices;

WHEREAS, under Virginia law, the Authority is authorized to generate and trade pollutant credits; including nitrogen and phosphorus with the City and with others.

NOW THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements hereinafter set forth, the Authority and the City covenant and agree as follows:

Article I. GENERAL PROVISIONS

Section 1.01 Definitions: The following words and terms as used in this Agreement shall have the following meanings:

"Agreement" has the meaning set forth in the preamble to this Agreement. "Authority" has the meaning set forth in the preamble to this Agreement.

"Authority System" means the complete sewage collection, treatment, conveyance, storage and disposal system owned and operated by the Authority, as it may at any time

exist, including, but not limited to, the Sewage Treatment Plant, the Four Mile Run Pump Station and wet weather storage tanks, the Commonwealth Interceptor, Potomac Interceptor, Potomac Yard Interceptor, the Mill Road and Bush Hill Service Chambers, the Slaters Lane pump station, the Potomac Yard Pump Station, the Hooff's Run Junction Chamber, Royal Street Regulator, other CSO associated control structures, and the Holmes Run Trunk Sewer. The existing infrastructure that is included in the Authority System is shown on **Exhibit A**.

"City" has the meaning set forth in the preamble to this Agreement.

"City Collection System" means the sewage collection system owned or operated by the City, as it may at any time exist, used to convey sewage to the Authority System.

"DEQ" means the Department of Environmental Quality of the Commonwealth of Virginia or any agency of the Commonwealth of Virginia which may succeed to its duties.

"Effective Date" means July 1, 2018.

"Fiscal Year" means the period of twelve months established by the Authority as its annual accounting period.

"Joint Use Facility" means the same as such term is defined in the Fairfax Service Agreement.

"MGD" means million gallons per day.

"1954 Agreement" has the meaning set forth in the preamble to this Agreement.

"1974 Agreement" has the meaning set forth in the preamble to this Agreement.

"Pollutant Credit" shall have the meaning as to total nitrogen and total phosphorous as found in § 62.1-44.19:13 and as the parties may establish in accordance with Virginia DEQ requirements regarding total suspended solids.

"Prudent Utility Practice" means any of the practices, methods or acts which, in the exercise of reasonable judgment, in the light of the facts, including but not limited to the practices, methods or acts engaged in or approved by a significant portion of the wastewater utility industry prior thereto, known at the time the decision was made, would have been expected to accomplish the desired result at a reasonable cost consistent with reliability, safety and expedition. It is recognized that Prudent Utility Practice is not to be interpreted to mean the optimum practice, method or act at the exclusion of all others, but rather is a spectrum of possible practices, methods or acts which could have been expected to accomplish the desired result at a reasonable cost consistent with reliability, safety and expedition.

"Sewage" means the water-carried wastes created in and carried, or to be carried, away from residences, hotels, schools, hospitals, industrial establishments, commercial

establishments or any other private or public buildings, together with such surface or ground water and household and industrial wastes as may be present.

"Sewage Treatment Plant" means the Authority's sewage treatment plant located in the City generally along Hooff's Run, and north of the Capital Beltway (I-95), as it may at any time exist.

"DEQ Permits" means the Virginia Pollutant Discharge Elimination System (VPDES) discharge permits for the Sewage Treatment Plant and Combined Sewer System, VPDES Watershed General Permit for Nutrient Discharges to the Chesapeake Bay and other permits regulating discharges issued for the Authority System by the DEQ.

Section 1.02 Agreement to Provide Sewer Service

(a) **Operation and Maintenance of the System**: The Authority agrees that it will manage, operate and maintain the Authority System in an efficient and economical manner in accordance with Prudent Utility Practice and all applicable legal requirements, and as further provided herein.

(b) Sewage Treatment Plant Hydraulic Capacity Limitations and Maximum Design Flows:

The Authority agrees to accept flows from the City Collection System at the Sewage Treatment Plant in an amount not to exceed 21.6 MGD of annual average daily flow at the treatment plant, and the City likewise agrees not to contribute flows exceeding this maximum amount except as provided in Section 1.02(b)(ii). The City's annual average flow shall be the sum of metered daily flow from the City as measured by the Authority's influent flow meters divided by the number of calendar days in the year.

Furthermore, the Authority and the City agree and hereby establish maximum design flows ("MDF") on a peak hourly basis as provided for on **Exhibit B**. The MDFs on the pump stations and interceptor sewers shall be monitored upon installation of flow meters by the Authority for each such facility and measured on a peak hourly flow basis. In the event that changes to the applicable discharge permits or related regulations change the total permitted capacity of the Authority System or its components, representatives of the City and the Authority shall meet in good faith to discuss, coordinate and cooperate regarding revising the capacity limitations and MDFs contained herein.

(i) Exceeding of Plant Hydraulic Capacity Limitations and MDFs:

In the event that the City exceeds any of the plant capacity limitations or MDFs provided for in Section 1.02(b), the Authority shall provide the City notice of such exceedance within one hundred twenty (120) days of the Authority becoming aware of such exceedance and the City and the Authority hereby agree that within thirty (30) days of the first notice of such exceedance to the City that representatives of the City and the Authority shall meet in good faith to discuss the circumstances and

significance of any such exceedance. Unless such exceedance was caused by an extreme wet weather event, the City and Authority shall coordinate and cooperate regarding methods to alleviate, reduce and eradicate any such exceedances. Remedies for such exceedances may include agreements between the City and the Authority regarding the design, construction and funding of improvements to the Authority System and/ or the City Collection System and commitments within the City's program to limit excessive inflow and infiltration, to increase the MDF or otherwise decrease the peak flows. In the event the City and Authority do not agree whether a particular storm meets the definition of an extreme wet weather event and the exceedance caused or contributed to a sanitary sewer overflow, either party may request a determination by the Virginia Department of Environmental Quality. Remedies for Joint Use Facilities may include, but are not limited to, agreements between Fairfax County and the Authority and the City and the Authority to reallocate capacity.

(ii) Treatment of Flow Exceeding Plant Hydraulic Capacity Limitations and MDF's:

Provided the City in good faith continues to pursue remedies for exceedances as described above, the Authority agrees to accept, convey and treat Sewage from the City Collection System in volumes above those stated in this Section 1.02(b), to the extent 1) practicable and consistent with Prudent Utility Practice and 2) such flows do not cause any sanitary sewer overflows or violations of the Authority's DEQ Permits.

Sewage Treatment Plant Load Limitations: The Authority agrees to accept (c) Sewage from the City Collection System at the Sewage Treatment Plant containing loads up to the amounts set forth in Exhibit C. The City shall not discharge into the Authority System Sewage which cumulatively exceeds the City's share (as set forth in Exhibit C), of the maximum plant design loadings of the Sewage Treatment Plant ("Plant Loading"). The City's share of the total Plant Loading may be modified pursuant to Article IV, Section 4.04 or by amendment of this Agreement. Similarly, the Authority shall require that Other Jurisdictions not exceed their respective share of the Plant Loading. In the event that the plant loadings received at the Sewage Treatment Plant from all sources exceed 90% of any design capacity load limit, the City shall cooperate in good faith with the Authority and Fairfax County to determine the source of such plant loadings. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made to in this Agreement shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", where applicable, and the standards as established by state and federal regulatory agencies having jurisdiction over the Authority System, and shall be determined based upon representative samples. The Authority, City and Fairfax County shall jointly agree upon and implement a sampling plan.

(i) **Exceeding of Plant Loading Limitations**:

In the event that the sampling results indicate that the City's pollutant discharge exceeds its share of Plant Loading as provided for in this Agreement, the City shall coordinate with the Authority to identify any measures as may be necessary to bring its discharges into compliance with this Agreement. The City and the Authority hereby agree that within thirty (30) days of the receipt of sampling results indicating such exceedance by the City representatives of the City and the Authority shall meet in good faith to discuss, coordinate and cooperate regarding methods to alleviate, reduce and eradicate any exceedance of such Plant Loading limitations as appropriate or to increase the Plant Loading Limitations by expanding or upgrading the Sewage Treatment Plant.

(ii) Treatment of Loads Exceeding Plant Treatment Capabilities:

Provided the City in good faith continues to pursue remedies for exceedances as described above, the Authority agrees to accept, convey and treat Sewage from the City Collection System containing loads above those stated in Exhibit C, to the extent 1) practicable and consistent with Prudent Utility Practice and 2) such flows do not cause any violations of the Authority's DEQ Permits.

Section 1.03 Connections to the City System and Authority System:

- (a) **New Connections to City System**: The City shall be responsible for reviewing and approving new connections to the City Collection System. The City shall provide the Authority with a summary of the connections that generate additional flow to the City Collection System with the annual forecast in Section 1.03(c).
- (b) New Connections to Authority System: No new connection to the Authority System shall be permitted without the prior approval of the Authority. Direct lateral connections to the Authority System shall be reviewed and approved by both the City and the Authority. New connections of the City System to the Authority System shall be documented by amendment of Exhibit A and Exhibit B.
- (c) Cooperation and Annual Forecast: The Authority and the City shall cooperate in the planning and review of future growth in sanitary sewer demand within the City to assure that the necessary capacity is available in the Authority System (including pump stations and interceptor sewers as well as the treatment facility). Toward that end, the City shall provide to the Authority annually a forecast of future growth and development for a minimum ten year period. The forecast shall provide population and employment data in units that can be correlated to sewer drainage areas and, if feasible, include projected flow entering the Authority System at each point the City Collection System connects to the Authority System. Specific developments or projects which may deliver significant loads or volumes will be identified. The City and Authority shall meet at least annually to review these future growth projections.
- (d) **Collection of Connection fees (Availability Charges)** /**Funding Agreement**: In the event that the City and the Authority deem it necessary to expand or upgrade

the Authority System to accommodate growth beyond the current capacity, the City and the Authority may enter into a funding agreement which shall provide for the funding of such expansion or upgrade to the Authority System, which such funding (in addition to the connection fees used by the City for the City Separate Sanitary Collection System) may include, but is not limited to, the City levying and collecting connection fees that shall be paid to the Authority for such expansion or upgrade of the Authority System.

Section 1.04 Metering: The Authority agrees to provide and maintain at the Authority's expense continuously throughout the term of this Agreement metering facilities to measure continuously and accurately the City's flow to the Authority System and Fairfax County's flow at such points mutually agreed by the City and the Authority. The City and the Authority hereby agree that authorized employees and agents of both parties may, from time to time and at reasonable times, inspect the metering facilities and all metering data and results. The City shall timely notify the Authority of any inspection or entry by its employees or agents of Authority metering facilities. The City and the Authority shall meet at least annually to review the observed flow rates as the result of metering in conjunction with the annual forecast meeting described in Section 1.03(c).

Section 1.05 Setting of User Rates: Pursuant to the Virginia Water and Waste Authorities Act, the Authority will fix, charge and collect rates, fees and other charges for the use of and for the services and facilities furnished or to be furnished by the Authority System, such rates, fees and charges will be charged to and collected by it or its agents from the owner, tenant, or occupant, including the City and any department or agency thereof, who uses or occupies any real estate within or without the City from or on which originates Sewage which enters the Authority System from the City. The City will fix, charge and collect rates, fees and other charges for the use of the City Collection System. The Authority may, by separate agreement, provide billing and collection services to the City.

Article II. INFRASTRUCTURE

Section 2.01 Ownership of Infrastructure: The Authority and the City agree that the Authority System is owned, managed, operated and maintained by the Authority and that the City Collection System is owned, managed, operated and maintained by the City and that nothing in this Agreement shall imply that the Authority has an obligation to maintain the City Collection System or the City has an obligation to maintain the Authority System.

Section 2.02 Authority System

(a) Authority Acceptance of New Infrastructure: From time to time it may be necessary for the City, or developers pursuant to City development requirements, to build new infrastructure, including, but not limited to, pump stations, tanks, service chambers or interceptors, necessary to connect to the Authority System. The City shall determine whether any such new infrastructure shall be part of the City Collection System or the Authority System based on function and location in relation to existing elements of the City Collection System and the Authority System. If the new infrastructure is to become a part of the Authority System, the Authority reserves the right to ensure that the infrastructure meets all required design and construction standards before accepting the new infrastructure. The Authority's review shall be limited to whether the new infrastructure is consistent with 1) its design and construction requirements, 2) Prudent Utility Practice and 3) requirements of the Authority's DEQ Permits. The Authority shall provide to the City its design and construction requirements for new infrastructure upon request. Before any new infrastructure will be accepted by the Authority, the City shall :

- Provide the Preliminary Development Site Plan showing the new infrastructure shall be reviewed and conceptually approved by the Authority before the application is approved by the City;
- Provide the Final Site Plan showing the design of the new infrastructure shall be reviewed and approved by the Authority before the Final Site Plan is released;
- Provide the building Permit plans showing the design and construction plans for the new infrastructure shall be reviewed and approved by the Authority before the Building Permit is issued;
- Allow the Authority to inspect the construction at the time of completion of the construction of new infrastructure and approve the new infrastructure as complying with the design and construction standards before release of public improvement bonds by the City;
- Transfer to the Authority all as-built plans, all operating manuals and assign to the Authority all warranties.

Upon acceptance by the Authority, the City shall convey the new infrastructure by deed to the Authority.

Section 2.03 City Collection System

(a) Maintenance and Operation of City Collection System:

(i) The City agrees that it will manage, operate and maintain the City Collection System in a manner consistent with the Authority's rules and/or regulations which will provide for the proper utilization of the Authority System (including pump stations and interceptor sewers); that it will permit any authorized agent of the Authority to make examinations of the City Collection System and to install or adjust any regulatory devices on any connections between the City Collection System and the Authority System in a manner consistent with Prudent Utility Practices and as may be necessary to assure the proper utilization of the Authority System; that, upon notice by the Authority, it will take available legal steps to cause any person, firm, or corporation to cease and desist from any unauthorized utilization of the Authority System and in case of failure to do so, will disconnect, or will permit the Authority to disconnect, the premises of such person, firm, or corporation from the City Collection System; and that it will promptly make any improvements, changes, or repairs to the

City Collection System as may be necessary pursuant to Prudent Utility Practices and necessary to assure the proper utilization of the Authority System.

- (ii) The City agrees that it will not construct, acquire, or utilize any facility other than the Authority System for the treatment and disposal of sewage from the City Collection System except other facilities which are already in use as of the Effective Date or are required to provide for needs other than those provided herein by the Authority;
- (b) **Pretreatment:** The Authority shall be responsible for developing and implementing the pretreatment program required for the Authority System and the City Collection System pursuant to the federal requirements of 40 C.F.R. Part 403 and the Virginia requirements of 9 VAC 5-25-31-730, et seq.
 - (i) Revisions to Legal Authority: At the Authority's request the City shall adopt updates and revisions to the existing Ordinances regarding discharges into the City Collection System and POTW, City Code Sections 5-6-101 ("Sewer Use Ordinance") including pretreatment requirements and other changes as necessary and convenient to comply with the federal and Virginia legal requirements within the City Collection System, for implementation and enforcement by the Authority and the City.
 - (ii) Cooperation: The Authority will have primary responsibility for administration and enforcement of the Pretreatment Program. The City and Authority shall cooperate in the administration and enforcement of the Sewer Use Ordinance. The City and Authority shall immediately notify the other of the discovery of Prohibited Discharges into the City Collection System and shall promptly notify the other of the discovery of violations of the Sewer Use Ordinance.
 - (iii) **Enforcement**: The City and the Authority shall review any violations and determine whether enforcement action is necessary and which entity shall be responsible for addressing the violation.
- (c) **Prohibition of Trucked Wastes**: The City shall not allow the establishment of septage receiving stations for the discharge of trucked wastes into the City Collection System without the prior written approval of the Authority.
- (d) **Unauthorized substances**: the City agrees that it will prohibit in its sewer use ordinance the discharge into the Authority System of any substances in violation of federal pretreatment requirements.

(e) **Control Structures**:

(i) The City shall require grease, oil and sand separators and traps to be installed and maintained when such grease, oil and sand separators and

traps are required pursuant to any applicable law, rule, ordinance or regulation.

- (ii) The City shall inspect the control structures on a regular basis to assure that the control structures are functioning and being operated as intended. The City shall provide the Authority an annual report of inspections and list of all control structures for the preceding year no later than January 10. The City and the Authority shall meet at least once a year to review the City's implementation of its Fats, Oil and Grease (FOG) program.
- (f) **Inspections**: The City agrees that it will permit any authorized agent or agents of the Authority to inspect at any reasonable time the City Collection System, without expense to the City, so often as the same may be desired by the Authority. The Authority agrees that it will permit any authorized agent or agents of the City to inspect at any reasonable time the Authority System, without expense to the Authority, so often as the same may be desired by the City.

(g) Storm Water/Combined Sewer

- (i) The City and the Authority agree that the discharge of storm water or surface runoff wastes into the Authority System from those parts of the City Collection System existing as of September 1, 1954 which are combined sewers will be permitted to the extent flows are consistent with section 1.02 or that the Authority System can accommodate the collection, treatment and disposal thereof; provided, however, that the City shall not permit storm water or surface runoff wastes into the Authority System from the City Collection System to the extent that such storm water or surface runoff wastes will impair the usage of or damage the Authority System or cause violations of the DEQ Permits.
- (ii) The City shall not construct any additions, extensions or improvements to any of its combined sewer system, except in the case of improvements to reduce inflow and infiltration and/or meet regulatory requirements set forth in applicable permits, policies or rules;
- (iii) The City and Authority shall allocate compliance with the Virginia Pollutant Discharge Elimination System Permit for the combined sewer system in accordance with the Agreement Between the City of Alexandria, Virginia and the City of Alexandria, Virginia Sanitation Authority Concerning Allocation of Combined Sewer System Regulatory Compliance Responsibilities ("NMC Agreement") attached as Exhibit D. Amendments to the NMC Agreement may be adopted by the City Manager and Chief Executive Officer of the Authority without amendment of this Agreement.

(iv) The City and Authority shall promptly share with the other all written communications with state or federal agencies relating to the combined sewer system.

(h) Infiltration/Inflow

The City and the Authority acknowledge and agree that excessive inflow and infiltration into the City Collection System, combined with excessive inflow and infiltration from Fairfax County, has the potential to cause wet weather flows that exceed the capacity in the Authority System. The City will develop and implement remedies for any excessive infiltration and inflow from the sanitary sewer portion of the City's collection system, as needed to prevent wet weather-related capacity exceedances during ordinary wet weather events. Proper operation and maintenance of the combined system will be addressed through applicable DEQ Permits and/or agreements.

Section 2.04 Use of public right of way

- The City hereby permits, and will permit, the Authority to locate, construct, (a) manage, operate and maintain sewers, force mains, and appurtenant structures included as part of the Authority System and, subject to the approval of the City, any enlargement, extension or improvement thereof, including buried sewer communications systems or reclaimed water distribution pipes and appurtenant structures, within the rights of way of the streets, roads, highways, alleys, or other public ways of the City and over, upon, across, or under any other lands owned by it or under the control and jurisdiction of it; provided, however that the Authority shall restore or arrange with the City to restore such streets, roads, highways, alleys, public ways and other lands to a condition 1) at least equal to that which existed before disturbance by the Authority and 2) in compliance with all applicable legal requirements. For purposes of this Section 2.04, the Authority System shall include Joint Use Facilities but shall not include facilities exclusively serving property located outside of the City. Any relocation of Authority facilities located within City rights of way or City owned land at the request of the City shall be at the City's cost.
- (b) **Relocation**. Authority shall remove from or relocate within a Public Way, at its own expense and within 90 days of written notice provided by City, or any such longer time as reasonably requested by the Authority and consented to by the City, any facilities or appurtenant facilities that are not part of the Authority System at the time of execution of this Agreement and whose main purpose is not related to the sanitary sewer collection ("Non Sewer Facilities") identified in said written notice, whenever City determines that (i) the identified facilities interfere, disturb or conflict with the operation, relocation, improvement, repair, construction or maintenance of present or future streets, alleys or other Public Ways, public grounds, storm drainage systems, sewer systems, water mains, other public facilities or private utility systems which were in operation at the time the facilities were constructed. Any relocation of identified facilities shall be subject

to all the provisions, terms and conditions of this Agreement, and to all applicable laws and regulations. Notwithstanding the foregoing, the City shall reimburse the Authority for any such relocation expense if such reimbursement is required by any applicable law.

Article III. REGULATIONS/TREATMENT

Section 3.01 Rules and regulations adopted by the Authority: The City agrees that it will comply with all rules and regulations adopted by the Authority for the use of the Authority System that pertain to the collection, treatment and disposal of Sewage from City-owned property ("Authority Regulations") including rates for service and payment of charges.

Section 3.02 Enforcement of City Ordinances relating to sewage disposal: The City agrees that it will enforce all of the provisions of the ordinances of the City Council of Alexandria now in effect, or as they may hereafter be amended, requiring the connection of premises to the City Collection System where the City Collection System is available to such premises and will promulgate such other ordinances, rules and regulations regarding the use of the City Collection System as may be necessary to assure the proper utilization of the Authority System.

Section 3.03 Pollutant Credits

Credits generated through the operation of the combined sewer system are addressed in the Outfall Transfer Agreement Between the City of Alexandria, Virginia and the City of Alexandria, Virginia Sanitation Authority dated May 1, 2018. Prior to each future transaction selling or trading any other Pollutant Credits generated by the Sewage Treatment Plant, the Authority shall grant to the City the right of first offer to acquire such additional credits that are not already obligated. Such credits offered to the City shall be based on a planning process developed by the Authority that is both consistent with the Virginia Nutrient Credit Exchange and allows flexibility in credit allocation to the Authority protective of long term TMDL compliance.

Article IV. RELATIONSHIP WITH OTHER JURISDICTIONS

Section 4.01 Fairfax: The Authority and the City acknowledge and agree that there is an Agreement between the Authority and Fairfax County dated October 1, 1998, which allocates to Fairfax County a share of the capacity of the Sewage Treatment Plant and certain interceptors. The Authority agrees that it will pursue a timely update of the Fairfax County Service Agreement to be consistent with the approach to capacity allocation and other provisions in this Agreement applicable to joint use facilities.

Section 4.02 Arlington: The City and the Authority acknowledge that there is an agreement dated July 1, 1977 between the Authority, the City and Arlington County for the collection, treatment and disposal of Sewage flows from the Four Mile Run Area. The City and the Authority acknowledge and agree that the collection system that carries the flows to the Arlington County collection system is owned, operated and is the responsibility of the City including any inflow and infiltration reduction that is required by Arlington County or any

relevant state code provision. The City and the Authority acknowledge and agree that the Authority is responsible to pay the charges and other payments due to Arlington for carriage, treatment, treatment and disposal pursuant to the agreement with Arlington. The City and the Authority acknowledge and agree that the City and the Authority have a continuing obligation to maintain such service agreement with Arlington County.

Section 4.03 Agreements for Federal facilities: The City and the Authority acknowledge that there are existing and may from time to time be additional properties within the City that are owned and operated by the Federal Government. The City agrees that if these federally-owned properties are connected to the City Collection System that flows into the Authority System, this flow will count towards the City's capacity limitations as outlined in this Agreement. The City and the Authority hereby agree that any properties that become federally-owned after the date of this Agreement shall be required to obtain a sewer service agreement among the City, the Authority and the federal agency prior to connection. Such agreement shall require that federal facilities are subject to all applicable Authority and City requirements.

Article V. MISCELLANEOUS PROVISIONS

Section 5.01 Effective Date: This Agreement shall become effective on the Effective Date.

Section 5.02 Term: This Agreement shall continue in full force and effect and without termination, and the rights and duties of the parties hereto shall continue to be as provided in this Agreement.

Section 5.03 Status of former agreements: This Agreement amends and restates the 1954 Agreement and supersedes the Supplemental Sewage Service Agreement dated June 25, 1974, between the Authority and the City.

Section 5.04 Headings: The headings or titles of various articles and sections of this Agreement are for references only and do not constitute part of this Agreement.

Section 5.05 Applicable Law: The interpretation of this Agreement shall be governed by the laws of the Commonwealth of Virginia.

Section 5.06 Severability: If any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not affect any other provision.

Section 5.07 Amendments: This Agreement shall not be supplemented or amended without the written consent of each of the parties hereto and the parties hereto acknowledge and agree that the approval of the City Council of the City as well as the approval of the Board of Directors of the Authority are required to supplement or amend this Agreement. Notwithstanding the foregoing, the Chief Executive Officer of the Authority and the City Manager of the City may mutually amend the Exhibits as they deem necessary.

Section 5.08 Representations: The Authority and the City each represents and warrants that it has full power and authority to enter into and perform this Agreement.

Section 5.09 Notices. Any notices, elections or designations required or permitted hereunder shall be in writing and shall be delivered by hand, via overnight courier, or sent by certified or registered mail, return receipt requested, postage and charges prepaid, addressed to the parties hereto as follows, unless such address is changed by a party by written notice to the other parties:

To the Authority:	City of Alexandria, Virginia Sanitation Authority 1800 Limerick Street Alexandria, Virginia 22314 Attention: Chief Executive Officer
	With a copy to: Jonathan P. Rak, Esq. McGuireWoods LLP 1750 Tysons Boulevard, Suite 1800 McLean, Virginia 22102
To the City:	City of Alexandria, Virginia c/o City Attorney 301 King Street, Suite 1300 Alexandria, VA 22314
	With a copy to: Director Transportation and Environmental Services 301 King Street, Suite 3000 Alexandria, VA 22314

Notices delivered by hand or by courier shall be deemed effective on the date of delivery; notices by mail as aforesaid shall be deemed effective on the third (3rd) business day subsequent to the postmark date, or the date of actual receipt thereof by the addressee, whichever shall be the earlier.

Section 5.10 Binding upon Successors: This Agreement shall inure to the benefit of and be binding upon all successors of each of the parties hereto.

Section 5.11 Default and Dispute Resolution: In the event that either party is in breach of any of the provisions of this Agreement, the non-breaching party shall provide written notice to the breaching party outlining such breach. The non-breaching party shall have thirty (30) days from the date of receipt of such notice to cure. In the event that such breach is not cured within such thirty (30) day period, the City and the Authority hereby agree that for a period of ninety (90) days thereafter to engage in good faith mediation to amicably resolve such breach. Should such mediation not result in a mutually agreeable resolution of such breach, the dispute may be submitted for resolution by a court of competent jurisdiction of the Commonwealth of Virginia. Notwithstanding the foregoing, the parties may mutually agree to arbitration.

IN WITNESS WHEREOF, the City of Alexandria, Virginia Sanitation Authority has caused this Agreement to be executed by its Chairman and its corporate seal to be affixed and attested by its Secretary-Treasurer and the City of Alexandria has caused this Agreement to be executed by the City Manager for the City of Alexandria, and the official seal of such office to be affixed and attested by the City Clerk for the City of Alexandria.

Signatures to follow.

CITY OF ALEXANDRIA, VIRGINIA SANITATION AUTHORITY d/b/a Alexandria Renew Enterprises

BY:

Chairman

(SEAL)

ATTEST:

Secretary-Treasurer

CITY OF ALEXANDRIA

BY: _____

City Manager

(SEAL)

ATTEST:

City Clerk

LIST OF EXHIBITS

EXHIBIT A	AUTHORITY SYSTEM
EXHIBIT B	PUMP STATION AND INTERCEPTOR DESIGN FLOWS
EXHIBIT C	TREATMENT PLANT DESIGN LOADS
EXHIBIT D	NINE MINIMUM CONTROLS AGREEMENT







PARKWAY GEORGE WASHINGTON MEMORIAL

INTERCEPTOR SYSTEM ASSET INTERFACE EXHIBIT JUNE 2018



NOTE:

ALEXRENEW OWNS POTOMAC YARDS GRAVITY MAIN, PUMP STATION, FORCE MAIN AND TRUNK SEWER SHOWN IN THIS EXHIBIT.

		INTERCEPTOR SYSTEM
EXHIBIT	A-4	ASSET INTERFACE EXHIBIT JUNE 2018













AMENDED AND RESTATED SERVICE AGREEMENT

EXHIBIT B INTERCEPTOR SYSTEM FLOW LIMITS

Exhibit B-1: Holmes Run Trunk Sewer

Reach	Upstream	Downstream	Year Modified	Inside Pipe Diameter (inches)	City of Alexandria Peak Flow Limit ⁽¹⁾ (MGD)
1	Mill Road	Hooffs Run Junction Chamber	1989	60	28.4 ⁽²⁾⁽³⁾
2	W. of Swamp Fox Road	Mill Road	2003	72	27.8
3a	Taylor Drive	W. of Swamp Fox Road	1954	60	20.8
3	WMATA MH-17	Taylor Drive	1954	60	20.8 ⁽²⁾⁽³⁾
4	Fairfax HRS Connection	WMATA MH-17	1975	72	20.8
5a	W. of Fairfax HRS Connection	Fairfax HRS Connection	1975	48	8.3
5b	S. of Original Cameron Station Connection	W. of Fairfax HRS Connection	1954	54	8.3
5c	Original Cameron Station Connection	S. of Original Cameron Station Connection	2008	34.2	8.3
5d	S. of S. Jenkins Street	Original Cameron Station Connection	2008	34.2	8.3
6	N. Paxton Street	S. of S. Jenkins Street	2008	34.2	8.3
7	N. Van Dorn Street	N. Paxton Street	2008	30.8	7.9
8	Dora Kelley Park	N. Van Dorn Street	1954	30	5.7
9	Dowden Terrace Diversion	Dora Kelley Park	1954	36	1.7

Notes:

(1) Peak flow limits are based on the following assumptions:

a. 5-year design storm

- b. Future conditions per Scenario 3.1 of Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015)
- c. Wet Weather Plan and Fairfax Holmes Run Sewer upgrades are complete per the recommendations established in Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015) and the Documentation for Determination of Cost Allocation Technical Memorandum (July 23, 2015).
- d. Calibrated Manning's "n" values as defined in Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015)
- e. Free flowing (non-surcharging) conditions, except as noted.
- (2) Peak flow limits are based on surcharge capacity during a 5-year design storm.
- (3) Current effective pipe capacity not sufficient to carry total peak flows from County and City during a 5-year design storm.

Exhibit B-2: Commonwealth Interceptor

Reach	Upstream	Downstream	Year Modified	Inside Pipe Diameter (inches)	City of Alexandria Peak Flow Limit ⁽¹⁾ (MGD)
1	Junction Chamber A	WRRF Influent	1954	72	N/A ⁽³⁾
2	Hooffs Run Junction Chamber	Junction Chamber A	1954	72	N/A ⁽³⁾
3	Duke Street Siphon Outfall	Hooffs Run Junction Chamber	1954	36 / 42	30.4 ⁽²⁾
4	Walnut Street	Duke Street	2008	34.6	21.6 ⁽²⁾
5	Braddock Road	Walnut Street	2002	31.7	11.7
6	Caton Avenue	Braddock Road	2002	28.9	10.9
7 ⁽⁴⁾	Four Mile Run Pump Station	Caton Avenue	1954	24	9.4

Notes:

- (1) Peak flow limits are based on the following assumptions:
 - a. 5-year design storm
 - b. Future conditions per Scenario 3.1 of Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015)
 - c. Wet Weather Plan upgrades are complete per the recommendations established in Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015)
 - d. Calibrated Manning's "n" values as defined in Task Order No. 14-2005: Wet Weather Management Evaluation Update (April 2013)
 - e. Free flowing (non-surcharging) conditions
- (2) Current effective pipe capacity not sufficient to carry total peak flow from City during a 5-year design storm
- (3) Peak flow limits in these reaches are not assigned as there are no existing or planned connections from the City collection system
- (4) Reach 7 is a force main

Exhibit B-3: Potomac Interceptor

Reach	Upstream	Downstream	Year Modified	Inside Pipe Diameter (inches)	City of Alexandria Peak Flow Limit ⁽¹⁾ (MGD)
1	Route 1	WRRF Influent	1954	42	17.7
2	Royal Street	Route 1	2008	42	17.1
3	Cameron Street	Royal Street	1954	42	14.5
4	Pendleton Street	Cameron Street	1954	36	13.9
Notes:	Notes:				
(1)	Peak flow limits are based	on the following assumption	ptions:		
	a. 5-year design storm				
	b. Future conditions per Scenario 3.1 of Task Order No. 16-2005: Wet Weather Management				
	Evaluation Update (July 2015)				

c. Wet Weather Plan upgrades are complete per the recommendations established in Task Order No. 16-2005: Wet Weather Management Evaluation Update (July 2015)

d. Manning's "n" value of 0.013

e. Free flowing (non-surcharging) conditions

Exhibit B-4: Potomac Yard Trunk Sewer

Reach	Upstream	Downstream	Year Modified	Inside Pipe Diameter (inches)	City of Alexandria Peak Flow Limit ⁽¹⁾ (MGD)
1	Manhole S24 (North of East Glendale Avenue)	WRRF Influent	2002	30	17.3 ⁽¹⁾
2	Manhole S33A	Manhole S24 (North of East Glendale Avenue)	2002	24 / 27	11.7 ⁽²⁾
3	Potomac Yard Pump Station	Manhole S33A	2007	18	10.5 ⁽³⁾
4	East Glebe Road	Potomac Yard Pump Station	2009	24	10.5 ⁽⁴⁾
5	Four Mile Run Pump Station	East Glebe Road	2009	20	4.0

Notes:

- (1) Peak flow limit is based on the following assumptions:
 - a. Diameter and slopes from Potomac Yard Offsite Sanitary Trunk Sewer, 100% Design Drawings (January 2002)
 - b. Manning's "n" value of 0.0105
 - c. Free flowing (non-surcharging) conditions
- (2) Peak flow limit is based on the sum of flows delivered by Potomac Yard Pump Station (10.5 MGD), Slaters Lane Pump Station (0.75 MGD) and Projected Future Flows from Potomac Yard (0.4 MGD)
 - a. Potomac Yard Pump Station System Curve provided in Potomac Yard Pump Station, 100% Design Submission on Drawing P-1 (August 2007)
 - b. Slaters Lane Pump Station capacity provided in Potomac Yard Onsite Sanitary Sewer Collection System Phase I, Drawing #6 (September 2001)
- (3) Reach 3 is a force main, with flow delivered from the Potomac Yard Pump Station
- (4) Peak flow limits are based on the total flow delivered to the Potomac Yard Pump Station
- (5) Reach 5 is a force main, with flow delivered from the Four-Mile Rune Pump Station (4 MGD). Capacity of Four-Mile Run Pump Station provided in Potomac Yard Onsite Sanitary Sewer – Collection System – Phase I, Drawing #6 (September 2001)

Facility	Design Capacity (MGD)		
Four Mile Run	9.4(1)		
Slaters Lane	0.75		
Potomac Yards	10.5		
Holiday Inn (Bush Hill)	0.43		
Mill Road 0.53			
Notes:			
(1) Wet weather detention storage at the Four Mile Run			
Pump Station is provided in two underground tanks			
having approximately 1,000,000 gallons of capacity.			

Exhibit B-5 Pump Stations & Service Chambers

Exhibit B Table of Amendments

Original Version	June 2018

AMENDED AND RESTATED SERVICE AGREEMENT EXHIBIT C Sewage Treatment Plant Load Design Capacity

Sewage Treatment Plant Load Design Capacity City of Alexandria Share based on 40% of total capacity

Parameter	Annual Average Daily	Monthly Maximum (30-day Rolling Average)
Biochemical Oxygen Demand (BOD ₅)	33,840 lb/day	44,000 lb/day
Suspended Solids (TSS)	44,000 lb/day	61,600 lb/day
Total Kjeldahl Nitrogen (TKN)	6,320 lb/day	7,600 lb/day
Total Phosphorous (TP)	1,040 lb/day	1,456 lb/day

	Pounds	s/ Day
Parameter	Annual Average Daily	Monthly Maximum (30-day Rolling Average)
Biochemical Oxygen Demand (BOD ₅)	33,840	44,000
Suspended Solids (TSS)	44,000	61,600
Total Kejeldahl Nitrogen (TKN)	6,320	7,600
Total Phosphorous (TP)	1,046	1,456

EXHIBIT D

ALLOCATION OF COMBINED SEWER SYSTEM REGULATORY COMPLIANCE RESPONSIBILITIES

- 1. **Ownership and Operation.** As agreed in the Service Agreement and Outfall Transfer Agreement, the City and Alexandria Renew shall each operate and maintain the portion of the CSO collection system which they own.
- 2. **Permittee.** Alexandria Renew shall be the Permittee for the CSS Permit upon transfer by VDEQ.
- 3. Allocation of Conditions. Upon transfer of the CSS Permit, the Parties shall be responsible for compliance with the conditions of the CSS Permit as follows, except for sections a, b., and c. which include dates certain:
 - a. <u>Effluent Monitoring Requirements Outfalls 001/002/003/004 Combined Sewer</u> <u>Overflows (CSOs)</u>. The city shall continue to be responsible for the effluent monitoring and reporting until the last day of the month following the date of transfer of the CSS permit. Commencing at midnight on the first day of the next month, Alexandria Renew shall be responsible for effluent monitoring and reporting.
 - b. <u>Quantification Levels and Compliance Reporting.</u> Same as above.
 - c. <u>Verification of Predicted Events.</u> Same as above.
 - d. Long Term Control Plan
 - i. Conduct Proper Operations and Regular Maintenance Programs
 - 1. Designation of a Manager for the CSS. The Parties shall each be responsible for designating a manager for their respective portions of the CSS and shall each inform the other of their designation.
 - 2. Inspection and Maintenance of CSS. Alexandria Renew shall be responsible to inspect and maintain all CSS structures, regulators and tide gates to ensure proper working condition, adjusted to minimize CSOs and tidal inflow and comply with permit requirements. The City shall be responsible to inspect and maintain all collection system sewers connected to the CSS system.
 - 3. Provision for Trained Staff. The Parties shall each be responsible for the availability of trained staff for their respective portions of the CSS.
 - 4. Allocation of funds for O&M. The Parties shall each be responsible to allocate adequate funds specifically for their respective CSS operation and maintenance activities.
 - ii. *Maximize Use of the Collection System for Storage*. Alexandria Renew shall be responsible for maximizing use of the tunnel system and interceptors for storage. The City shall be responsible for maximizing the use of its collection system for storage.
 - iii. *Control of Non-domestic Discharges*. Consistent with the Service Agreement, the Parties shall each exercise their powers under the

Pretreatment Program and Sewer Use Ordinance to minimize the impact of non-domestic discharges and control illicit dischargers and/or improper disposal to the CSS via detection and elimination. Alexandria Renew shall maintain records documenting this evaluation and implementation of the selected CSO controls to minimize CSO impacts resulting from nondomestic discharges and shall educate Significant Industrial Users (SIUs) discharging to the CSS to minimize, to the extent practicable, batch discharges during wet weather conditions; and

- **iv.** *Maximize Flow to POTW.* Alexandria Renew shall be responsible for maximizing flow to the POTW from the CSS system of tunnels that it owns and the City shall maximize flows from the remaining portions of the CSS which it owns.
- v. *Prohibit Combined Sewer Overflows during Dry Weather*. The City shall operate its collection system, and Alexandria Renew shall operate its system to minimize dry weather overflows. Alexandria Renew shall be responsible for documentation and reporting of dry weather CSO events from its four CSS outfall locations. The City shall be responsible for reporting any sewer system releases for its portion of the CSS. Each party shall be responsible for fines and/or penalties imposed as a result of dry weather overflows from its portion of the CSS, except for dry weather overflows resulting from the negligence of the other party.
- vi. *Control Solid and Floatable Materials*. The City shall continue to implement measures to control solid and floatable materials in the CSS. Such measures shall include, but not be limited to:
 - 1. Regular catch basin and street cleaning within the CSS sewershed; and
 - 2. Cleaning of the trunk lines and structures to prevent accumulation of solids; and
 - 3. To the extent not already addressed by the City, Alexandria Renew shall consider technologies for entrapment and baffling devices to reduce discharges of solids and floatable materials.
 - 4. In the event either party identifies excess solid and floatable materials in the CSS that interfere with maintenance and proper operation of the structures, regulators or tide gates, the city will revise its source control and prevention program to minimize to the extent practicable such excess material from entering the CSS.
- vii. Develop and Implement Pollution Prevention Program. The City shall continue to implement the pollution prevention (P2) program to reduce the impact of CSOs on receiving waters. The City shall maintain records to document the pollution prevention implementation activities and shall submit a summary of such activities to Alexandria Renew for information and provide copies of such records on an annual basis in time for Alexandria Renew to submit the required CSS annual report. Specific P2 measures include, but are not limited to:
 - 1. Street sweeping and catch basin cleaning at an appropriate frequency to prevent large accumulations of pollutants and debris;

- 2. A public education program that informs the public of the City's household hazard waste recycling program; and
- 3. A waste oil and antifreeze recycling/referral service or collection program.
- viii. *Public Notification*. Alexandria Renew shall implement a public notification plan to inform citizens of when and where CSOs occur.
 - ix. *CSO Monitoring*. Alexandria Renew shall monitor pollutants of concern at each CSS outfall pursuant to its requirements in its VPDES permit.
- e. Other Requirements and Special Conditions
 - i. Water Quality Criteria Reopener. N/A
 - ii. *No New Combined Sewers Requirement*. The City shall not allow new combined sewers to be built outside the existing combined sewer system service areas of the City. This requirement shall not be construed to prevent the connection of new sanitary sewers to combined sewers within the existing combined sewer service area for the purpose of conveying sewage to the POTW. No new connections shall be made to the combined sewers where those connections would cause overflows during dryweather flow conditions or exacerbate CSO events. As part of the regular site plan and development special use permit process, the City will provide Alexandria Renew the opportunity to review and comment on new or modified connections within the CSS.
 - iii. Reopener Clause. N/A
 - iv. Long Term Control Plan Update (LTCPU). The City and Alexandria Renew have submitted a 2018 LTCPU. Alexandria Renew shall be responsible for implementation of the 2018 LTCPU via its Facility Planning process as approved by VDEQ in accordance with the Outfall Transfer Agreement.
 - v. *Additional Public Notification Requirements*. Alexandria Renew shall be responsible for additional public notification requirements.
 - vi. *Public Information Meeting*. The Parties have complied with this condition.
 - vii. *Funding*. The Parties shall each be responsible for funding their obligations under this Agreement. Alexandria Renew shall be responsible for reporting expenditures to VDEQ. To the extent required in order for Alexandria Renew to report to VDEQ, the City shall provide Alexandria Renew annual information on City expenditures related to its compliance by February 1 each year.
 - viii. *Stormwater and E. coli Loading Management*. The City shall remain responsible to comply with the requirements in Sections E.7, 8, and 9 to the extent those requirements have not been satisfied or unless the Virginia DEQ confirms in writing that these requirements have been superseded by the 2017 CSO Legislation and are no longer operative.
 - ix. *Annual Bacteria Load Reporting*. If required, Alexandria Renew shall report the estimated total annual loading of *E. coli* from each outfall for each calendar year.
 - x. Annual Reports. Alexandria Renew shall submit to DEQ-NRO for review

and comment annual reports for the previous calendar year. By February 1 each year, the city shall provide the following information for inclusion in the annual reports:

- 1. Staff training records.
- 2. Street sweeping;
- 3. Catch basin cleaning;
- 4. CSS trunk sewer flushing;
- 5. Stormwater and E. Coli loading management, if required by DEQ;
- 6. Status of Green Infrastructure projects evaluated and implemented, if required by DEQ;
- 7. Payne and Fayette sewer separation project update, if required by DEQ.
- 4. Amendment. Upon amendment of the CSS Permit, the Parties shall cooperate in good faith to update this Exhibit to allocate any new or changed conditions in accordance with Section 5.07 of the Service Agreement.
- 5. **Penalties.** To the extent either Party incurs any penalties for violation of the CSS permit which are solely attributable to the action or omission by the other Party ("Defaulting Party"), the Defaulting Party shall reimburse the other Party for the cost of such Penalty.

City Initials_____ Alexandria Renew Initials_____

Table of Amendments

Original Version	May 29, 2018