

**PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY AND DEPARTMENT OF ENVIRONMENTAL PROTECTION  
CLEAN WATER STATE REVOLVING FUND  
FEDERAL FY2021 APPROPRIATION - PROJECT PRIORITY LIST  
UPDATED FOR THE APRIL 21, 2021 PENNVEST BOARD MEETING**

EXPLANATION OF HEADINGS

NEEDS CATEGORY:

- I - SECONDARY TREATMENT
- II - TREATMENT MORE STRINGENT THAN SECONDARY
- IIIA - INFILTRATION/INFLOW CORRECTION
- IIIB - MAJOR SEWER SYSTEM REHABILITATION
- IVA - NEW COLLECTOR SEWERS AND APPURTENANCES
- IVB - NEW INTERCEPTORS AND APPURTENANCES
- V - CORRECTION OF COMBINED SEWER OVERFLOWS

PROJECT TYPE:

- STP - SEWAGE TREATMENT PLANT
- STPMOD - SEWAGE TREATMENT PLANT MODIFICATION
- INT - INTERCEPTOR
- PS - PUMP STATION
- FM - FORCE MAIN
- SS - SEWER SYSTEM
- SSREH - SEWER SYSTEM REHABILITATION

|                 |   |
|-----------------|---|
| NPDES #:        | NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT NUMBER |
| PROJECT NUMBER: | DEP PROJECT IDENTIFICATION NUMBER                             |
| LOAN #:         | PENNVEST LOAN NUMBER OF FUNDED PROJECT                        |
| ELIG. COST:     | ESTIMATED ELIGIBLE NEEDS FOR PROJECT                          |

Note 1: Green projects pertain to those considered for funding after the issuance of EPA's "Procedures for Implementing Certain Provisions of the Fiscal Year 2010 Appropriation Affecting the Clean Water and Safe Drinking Water State Revolving Fund Programs" dated 4/21/2010.



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| APPLICANT INFORMATION   | NEEDS CATEGORIES   |                    |                          |  | PROJECT INFORMATION                   |
|---|--------------------|--------------------|--------------------------|--|---------------------------------------|
| CAPITAL REGION WATER - COLLECTION SYSTEM REHABILITATION (PRO-FI)<br>3003 North Front Street<br>Harrisburg, PA 17101 | COUNTY: Dauphin    | I: \$0             | IVA: \$0                 |  | PROJECT NO.: CS423254-01              |
|   | REGION: SC         | II: \$0            | IVB: \$0                 |  | PROJ. TYPE: SSREH                     |
|   | NPDES #: PA0027197 | IIIA: \$0          | V: \$0                   |  | DEP RATING: 49                        |
|   | LOAN #: 0          | IIIB: \$21,000,000 | ELIG. COST: \$21,000,000 |  | DEP RANKING: 1 of 16<br>PV RATING: 74 |

**PROB DESC:** CRW's collection system consists of combined sewage as well as separate sanitary and storm sewers. It collects and transports wastewater and stormwater originating within the City of Harrisburg to Capital Region Water's (CRW) treatment facilities. Much of the system is quite old (Civil War – 1950s) and constructed of brick and clay pipe that have outlived their expected service lives. The purpose of the projects is to rehabilitate priority defects to avoid failures using a variety of methods including conventional replacement and trenchless structural pipelining procedures in the most cost -effective manner possible. Pipe failures cause regulatory violations and catastrophic, expensive repair needs including sinkholes and street failures. CRW proactively cleans and televises the system to identify pipe defects so they may be addressed prior to failure.

**PROJ DESC:** CRW is planning to construct a series of sewer improvement projects that will rehabilitate and replace structurally deficient sewer pipes in the City of Harrisburg over the next five (5) years. CRW is proposing several projects for consideration under a PENNVEST's programmatic finance provision. The project phases are as follows:  
 Phase 1 – 2021 Sewer System Improvements Project  
 The project will rehabilitate and replace approximately 15,000 linear feet of deteriorated sewer pipe and associated manholes using traditional dig and replacement and cured-in-place pipelining construction methods. The project includes several locations in the City of Harrisburg: State St. from 20th to 13th St., Forster St. from James to Front St., Mulberry St. from Evergreen to Cameron St., Sycamore St. from Cameron to Rolleston St., Seneca St. from 7th to Front St., and 15th St. from Derry to Berryhill St. The estimated construction cost is approximately \$7,700,000.  
 Phase 2 – Interstate 83 Sewer Separation Project  
 The project includes the installation of a new stormwater piping system parallel to I-83 that will redirect stormwater runoff from 478 acres to Paxton Creek. The stormwater currently flows into combined sewers (wastewater and stormwater). The separation project will be constructed in coordination with PennDOT's I-83 Capital Beltway Project – Section 3 to save time and money. The project site is within the City of Harrisburg. The estimated construction cost is approximately \$2,400,000.  
 Phase 3 - 2023 Sewer System Improvements Project  
 The project will rehabilitate and replace deteriorated sewer pipe and associated manholes using traditional dig and replacement and cured-in-place pipelining construction methods. The project will include several locations within the City of Harrisburg. Specific locations will be made available for public viewing on the Capital Region Water website during the design phase. The estimated construction cost is approximately \$7,100,000.  
 Phase 4 - 2024 Sewer System Improvements Project  
 The project will rehabilitate and replace deteriorated sewer pipe and associated manholes using traditional dig and replacement and cured-in-place pipelining construction methods. The project will include several locations within the CRW sewer service area. Specific locations will be made available for public viewing on the

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**APPLICANT INFORMATION**

**NEEDS CATEGORIES**

**PROJECT INFORMATION**

Capital Region Water website during the design phase. The estimated construction cost is approximately \$3,800,000. Environmental Benefits include reducing untreated or inadequately treated sewage sent to the Authority's waterways during wet weather.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

JOHNSTOWN CITY - CENTRAL BUSINESS  
 DISTRICT SANITARY/STORM WATER  
 SEPARATION PROJECT

COUNTY: Cambria

I:

\$0

IVA:

\$0

PROJECT NO.: CS423236-01

401 Main Street

REGION: SW

II:

\$0

IVB:

\$0

PROJ. TYPE: SSREH

Johnstown, PA 15901

NPDES #: PA0026034

IIIA: \$10,900,000

V:

\$0

DEP RATING: 49

LOAN #: 75374

IIIB:

\$0

ELIG. COST: \$10,900,000

DEP RANKING: 2 of 16

PV RATING: 74

**PROB DESC:** The City of Johnstown owns approximately 520,000 linear feet of sewer pipe and has identified over 20 original overflows within the City's collection system. A Consent Order and Agreement was enacted between the City and the Pennsylvania Department of Environmental Protection (DEP) on July 14, 2010 in order to eliminate all sanitary sewer overflows (SSO) from the City's collection system. Under the Consent Order and Agreement, the City is obligated to implement a rehabilitation plan that will reduce the amount of infiltration and inflow (I/I) entering the City's collection system during wet weather events and thus eliminate SSO discharges of raw sewage into the waters of the Commonwealth.

**PROJ DESC:** This project will rehabilitate approximately 26,000 linear feet of 8-inch to 18-inch sewer line and manholes. All service laterals will be installed with 6-inch diameter pipe. Treatment is provided at the existing Johnstown – Dornick Point Sewage Treatment Plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways during wet weather.

Green Project:

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|---|--------------------|--------------------|-----|--------------------------|---------------------|--------------------------|
| ELIZABETH TOWNSHIP - BUENA VISTA<br>AND BOSTON PUMP STATION PROJECT<br>522 Rock Run Road<br>Elizabeth, PA 15037 | COUNTY: Allegheny  | I:                 | \$0 | IVA:                     | \$0                 | PROJECT NO.: CS423238-01 |
|   | REGION: SW         | II:                | \$0 | IVB:                     | \$0                 | PROJ. TYPE: PS           |
|   | NPDES #: PA0026913 | IIIA: \$17,300,000 |     | V:                       | \$0                 | DEP RATING: 44           |
|   | LOAN #: 75377      | IIIB:              | \$0 | ELIG. COST: \$17,300,000 |                     | DEP RANKING: 3 of 16     |
|   |                    |                    |     |                          |                     | PV RATING: 59            |

**PROB DESC:** This project will eliminate capacity-related sewage overflows at the WWTP. The Boston pump station is also being upgraded to accept the flows from the new Buena Vista pump station and to eliminate capacity-related overflows that occur at the Boston pump station. Environmental benefits include reducing untreated or inadequately treated sewage sent to the Township's waterways during wet weather.

**PROJ DESC:** The proposed project will eliminate the Buena Vista wastewater treatment plant (WWTP) by constructing a new pump station and equalization basin and upgrading the existing Boston pump station. The proposed new Buena Vista pump station will have a capacity of 3.9 million gallons per day (MGD). The associated equalization basin will have a capacity of 3 million gallons per day. The upgraded Boston pump station will have a capacity of 17.5 MGD. Flow will be sent from the Buena Vista pump station to the Boston pump station via a new single force main. A new force main will also be constructed from the Boston pump station along the Great Allegheny Passage to an existing pipe junction. Sewage will flow to the Municipal Authority of the City of McKeesport's sewage treatment plant.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|---|--------------------|-------------------|-------------------------|--|---------------------------------------|
| GEN. AUTH. OF THE CITY OF FRANKLIN -<br>VENANGO COUNTY - 15TH STREET SAN.<br>SEWER CSO ELIMINATION PROJECT<br>430 13th Street<br>Franklin, PA 16323 | COUNTY: Venango    | I: \$0            | IVA: \$0                |  | PROJECT NO.: CS423241-01              |
|   | REGION: NW         | II: \$0           | IVB: \$0                |  | PROJ. TYPE: SSREH                     |
|   | NPDES #: PA0026174 | IIIA: \$543,468   | V: \$543,469            |  | DEP RATING: 42                        |
|   | LOAN #: 75378      | IIIB: \$3,260,813 | ELIG. COST: \$4,347,750 |  | DEP RANKING: 4 of 16<br>PV RATING: 57 |

**PROB DESC:** The existing system owned and operated by the Authority is estimated to be approximately 70-100 years old and is comprised mostly of clay pipe and brick manholes. The treatment plant is hydraulically overloaded during wet weather events as documented in the Chapter 94 reports. Basement backups are occurring as well. A corrective action plan has been established with the Department of Environmental Protection for the illegal discharge from manhole A-108. Environmental benefits include reducing untreated or inadequately treated sewage sent to the Authority's waterways during wet weather.

**PROJ DESC:** This project consists of replacing approximately 13,000 linear feet of 8-in and 3,000 linear feet of 12-in sanitary sewer, rehabilitating approximately 4,500 linear feet of 8-in and 500 linear feet of 16-in to 24-in sanitary sewer, rehabilitating approximately 80 brick manholes, and rehabilitating / replacing approximately 3,200 linear feet of 6-in service laterals.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|--|----------------------|-------|-----|-------------|---------------------|---------------------------------------|
| PHILADELPHIA - PRETREATMENT FACILITY (Construction)<br>1101 Market Street<br>Philadelphia, PA 191407 | COUNTY: Philadelphia | I:    | \$0 | IVA:        | \$0                 | PROJECT NO.: CS423244-02              |
|  | REGION: SE           | II:   | \$0 | IVB:        | \$0                 | PROJ. TYPE: CSO                       |
|  | NPDES #: PA0078267   | IIIA: | \$0 | V:          | \$100,115,000       | DEP RATING: 42                        |
|  | LOAN #: 71448        | IIIB: | \$0 | ELIG. COST: | \$100,115,000       | DEP RANKING: 5 of 16<br>PV RATING: 67 |

**PROB DESC:** The City of Philadelphia, Philadelphia Water Department (PWD) is under a Consent Order and Agreement with DEP for violations under the Clean Streams Law and under an Administrative Order for Compliance on Consent with the EPA for violations under the Clean Water Act. Environmental Benefits include reducing untreated or inadequately treated sewage sent to the Delaware River during wet weather.

**PROJ DESC:** This is the construction portion of a Pro Fi project. Design costs of \$5.1M should be subtracted and are being funded with state funds (ME#77103). The City of Philadelphia, Philadelphia Water Department (PWD) has developed a long-term control plan that includes conveying additional combined sewer overflow (CSO) to the City's Northeast Water Pollution Control Plant (WPCP) for treatment. CSO is a combination of sanitary sewage and stormwater that historically has overflowed to the Delaware River untreated. As part of this effort, PWD is undergoing a major construction project to build a conduit to bypass primary treated effluent around the secondary treatment process. The bypassed flow will be disinfected. The other part of this major infrastructure improvement project is the design and construction of new preliminary treatment facilities consisting of screening and grit removal in advance of existing primary sedimentation. The combination of these two major infrastructure improvements will provide PWD with the facilities necessary to treat additional CSO flow and comply with the Department of Environmental Protection's (DEP) June 1, 2011 Consent Order and Agreement and the U.S. Environmental Protection Agency's (EPA) September 21, 2012 Administrative Order for Compliance on Consent.

Green Project:

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|--|----------------------|--------------------|--------------------------|------|---------------------|---------------------------------------|
| WESTERN WESTMORELAND MUNICIPAL AUTHORITY (WWMA) - COA IMPROVEMENT PROJECT-PHASE III<br>12441 Route 993<br>North Huntington, PA 15642 | COUNTY: Westmoreland | I:                 | \$0                      | IVA: | \$0                 | PROJECT NO.: CS423235-01              |
|  | REGION: SW           | II:                | \$0                      | IVB: | \$0                 | PROJ. TYPE: INTMOD                    |
|  | NPDES #: PA0027570   | IIIA: \$11,025,000 |                          | V:   | \$0                 | DEP RATING: 42                        |
|  | LOAN #: 75375        | IIIB: \$0          | ELIG. COST: \$11,025,000 |      |                     | DEP RANKING: 6 of 16<br>PV RATING: 57 |

**PROB DESC:** The Western Westmoreland Municipal Authority (WWMA) is under a Consent Order and Agreement (COA) with the Pennsylvania Department of Environmental Protection that requires WWMA to eliminate the sanitary sewer overflows (SSO) during wet weather events. The COA requires three (3) phases of construction, with the first two (2) phases being complete. As part of the Phase III Project, approximately half of the WWMA interceptor system will be upgraded to provide additional interceptor capacity to eliminate hydraulic restrictions. As part of this work, two (2) of the old diversion chambers will be closed.

**PROJ DESC:** This project includes replacing approximately 17,500 linear feet of 8-inch, 15-inch, 18-inch and 30-inch polyvinyl chloride (PVC) sanitary sewer and 80 manholes. Sewage treatment is provided at the existing Western Westmoreland Municipal Authority Sewage Treatment Plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.

Green Project:

Green Category:

Business Case Req'd:

Green Funding: \$0.00



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|---|--|-------------------|-------------------------|--|---------------------------------------|
| MASONTOWN MA - 2018 CORRECTIVE ACTION PLAN - PHASE 1<br>1 East Church Avenue<br>Masontown, PA 15461 | COUNTY: Fayette  | I: \$0            | IVA: \$0                |  | PROJECT NO.: CS423248-01              |
|   | REGION: SW   | II: \$0           | IVB: \$0                |  | PROJ. TYPE: SSREH                     |
|   | NPDES #: PA0023906 PA  | IIIA: \$0         | V: \$0                  |  | DEP RATING: 41                        |
|   | LOAN #: 0  | IIIB: \$9,976,000 | ELIG. COST: \$9,976,000 |  | DEP RANKING: 7 of 16<br>PV RATING: 56 |
| PROB DESC:  | Hydraulic overloading of the existing sanitary sewer system exists during wet weather at Masontown Municipal Authority's wastewater treatment facilities. Televised inspection of the sanitary sewer collection and conveyance system revealed extensive infiltration from vitrified clay pipe as well as inflow issues. The project replaces failing infrastructure and will eliminate stormwater connections to the sanitary sewer system in an attempt to eliminate the hydraulic overloading.  |                   |                         |  |                                       |
| PROJ DESC:  | There are four (4) construction contracts with this project. Two (2) construction contracts are proposed for the Big Run Service Area. Contract #1, servicing four (4) sewersheds, consists of removing and replacing approximately 16,000 linear feet of sanitary sewer. Contract #2, servicing three (3) sewersheds, consists of removing and replacing approximately 21,000 linear feet of sanitary sewer. Downspout and sump pump connections will also be removed in the Big Run Service Area via Contracts #1 and #2. Contract #3, servicing all four (4) sewersheds within the Bessemer Run service area, involves removing and replacing approximately 15,000 linear feet of sanitary sewer. Contract #4 is for storm sewer improvements. Approximately 1,400 linear feet of an existing 48-inch x 36-inch pipe arch, currently undersized and restricting channel infiltration, will be removed while the original channel will be restored to accommodate increased storm flows from the project area. In addition, a new aluminum pipe arch will be constructed at North Redwood Street. Environmental Benefits include reducing untreated or inadequately treated sewage sent to the Authority's waterways during wet weather. |                   |                         |  |                                       |
| Green Project:  | No   |                   |                         |  | Green Category:                       |
| Business Case Req'd:  |  |                   |                         |  | Green Funding: \$0.00                 |

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|---|--------------------|--------------------|--------------------------|------|---------------------|---------------------------------------|
| CAPITAL REGION WATER -<br>WASTEWATER TREATMENT CAPITAL<br>IMPROVEMENT PROGRAMMATIC<br>FINANCING | COUNTY: Dauphin    | I:                 | \$0                      | IVA: | \$0                 | PROJECT NO.: CS423230-01              |
| 212 Locust Street, Suite 500<br>Harrisburg, PA 17101  | REGION: SC         | II: \$20,700,000   |                          | IVB: | \$0                 | PROJ. TYPE: SSREH STPMOD              |
|   | NPDES #: PA0027197 | IIIA: \$0          |                          | V:   | \$0                 | DEP RATING: 40                        |
|   | LOAN #: 75376      | IIIB: \$44,300,000 | ELIG. COST: \$65,000,000 |      |                     | DEP RANKING: 8 of 16<br>PV RATING: 65 |

**PROB DESC:** This is a programmatic financing project that will address several needs of Capital Region Water's wastewater treatment and conveyance system. Environmental benefits include reducing untreated or inadequately treated sewage sent to the City's waterways during wet weather.

**PROJ DESC:** Phase 1 - Arsenal Boulevard Sewer Improvements  
 This project is necessary to address two sanitary sewer overflows (SSO). An SSO occurred in a wooded area in the vicinity of a 10-inch sewer that crosses under a creek and the other in the vicinity of a 12-inch sewer that crosses under a creek. The broken pipes causing the SSOs resulted in a Notice of Violation being issued by the PA DEP. The project will address pipe defects including cracks, fractures, broken pipe, offset joints, and infiltration. The project will also relocate the sewer currently located directly beneath the creek.

**Phase 2 – Advanced Wastewater Treatment Facility (AWTF) Energy Recovery Improvements**  
 Methane produced in Capital Region Water's (CRW) AWTF anaerobic digestion process is utilized as fuel for boilers and two 400-HP engines that generate electricity sold to the grid. The boilers and engines heat the anaerobic digesters and buildings on the AWTF campus. The combined heat and power system is over 35 years old (installed in 1984) and has exceeded its useful life. Maintenance and parts have become increasingly problematic. The project is necessary to make process improvements to condition digester gas, retire the existing engines and provide backup power generation for the AWTF while continuing the vitality of CRW's biosolids beneficial re-use (land application) program.

**Phase 3 - Paxton Creek Interceptor Rehabilitation**  
 The Paxton Creek Interceptor (PCI) is a cast in place concrete intercepting sewer constructed in 1902. This critical sewer is approximately 13,000 linear feet in length, runs parallel to Paxton Creek and conveys flow to the Front Street Pumping Station. The critical sewer was inspected using multi-sensor equipment (sonar, laser, and CCTV) in 2013 to assess its condition and was found to be structurally compromised and critically in need of rehabilitation. The project is necessary to repair and rehabilitate pipe defects including missing pipe, exposed rebar, fractures, cracks, holes, break-in tap connections and address active infiltration. The work is identified as a required early action project in CRW's partial consent decree with US Department of Justice (USDOJ), US Environmental Protection Agency (USEPA) and PA Department of Environmental Protection (PADEP).

**Phase 4 - Front St Interceptor Rehabilitation**  
 The Front Street Interceptor (FSI) is a cast-in-place concrete intercepting sewer constructed in 1913. This critical sewer is approximately 14,000 linear feet in length, runs parallel to the Susquehanna River and conveys flow to the Front Street

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**NEEDS CATEGORIES**

**PROJECT INFORMATION**

Pumping Station. The critical sewer was inspected using multi-sensor equipment (sonar, laser, and CCTV) in 2013 to assess its condition and was found to be structurally compromised and critically in need of rehabilitation. The project is necessary to repair and rehabilitate pipe defects including exposed rebar, fractures, cracks, holes, break-in tap connections and address active infiltration. The work is identified as a required early action project in CRW's partial consent decree with USDOJ, USEPA and PADEP.

**Phase 5 - AWTF Primary Clarifier Improvements**

The primary clarifiers at the AWTF remove settled solids. All mechanical equipment associated with these units has outlived its useful life and results in inefficient operation of the sludge collection system which negatively impacts downstream treatment processes. The project is necessary to replace failing mechanical equipment including chains, flights, drives, gear boxes, sludge pumps, and associated equipment. The project also includes surficial and structural repair of the clarifier concrete floors and walls and installation of hydraulic baffling which will increase the peak flow capacity of the AWTF headworks.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|--|--------------------|-----------------|--------------------------|--|---------------------------------------|
| NEW CASTLE SANITATION AUTHORITY<br>WASTEWATER TREATMENT PLANT<br>UPGRADES PHASE II<br>102 East Washington Street<br>New Castle, PA 16101 | COUNTY: Lawrence   | I: \$32,000,000 | IVA: \$0                 |  | PROJECT NO.: CS423223-01              |
|  | REGION: NW         | II: \$0         | IVB: \$0                 |  | PROJ. TYPE: STPMOD                    |
|  | NPDES #: PA0027511 | IIIA: \$0       | V: \$0                   |  | DEP RATING: 40                        |
|  | LOAN #: 71447      | IIIB: \$0       | ELIG. COST: \$32,000,000 |  | DEP RANKING: 9 of 16<br>PV RATING: 64 |

**PROB DESC:** The Department of Environmental Protection issued a Consent Order and Agreement to eliminate secondary bypassing of flows as well as to provide general upgrades to the system and eliminate wet weather bypasses of blended sewage to the waters of the Commonwealth.

**PROJ DESC:** This is a construction project. Architectural and engineering services are being funded by ME# 77102. The existing headworks building will be renovated. New mechanical and a manual bar screen will be installed in the renovated flow channel. The primary and secondary scum pump stations will be demolished, and two new scum pump stations will be constructed. The primary and final clarifiers and digesters will be repaired. An anoxic tank will be constructed and a new fat, oil, and grease (FOG) and sludge receiving area will be built. Environmental benefits include reducing the flow of inadequately treated sewage to the Authority's waterways during wet weather.

Green Project:

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|--|--------------------|-------|-----|-------------|---------------------|--|
| PITTSBURGH WATER & SEWER<br>AUTHORITY (PWSA) - 2020 SMALL<br>DIAMETER SEWER REHABILITATION<br>1200 PENN AVENUE<br>PITTSBURGH, PA 15222 | COUNTY: ALLEGHENY  | I:    | \$0 | IVA:        | \$0                 | PROJECT NO.: CS423245-01               |
|  | REGION: SW         | II:   | \$0 | IVB:        | \$0                 | PROJ. TYPE: CSREH                      |
|  | NPDES #: PA0217611 | IIIA: | \$0 | V:          | \$7,750,000         | DEP RATING: 39                         |
|  | LOAN #: 75373      | IIIB: | \$0 | ELIG. COST: | \$7,750,000         | DEP RANKING: 10 of 16<br>PV RATING: 54 |

**PROB DESC:** The 100 year old vitrified clay pipe sewers in the Brighton Heights, Southside Slopes and Hazelwood areas of the City of Pittsburgh are at the end of their useful lives and contributing to wet weather sewage overflows in Pittsburgh Water and Sewer Authority's collection system. Environmental Benefits include reducing untreated or inadequately treated sewage to the tributaries of the Monogahela and Ohio Rivers during wet weather.

**PROJ DESC:** The proposed project includes the full manhole to manhole lining of approximately 40,000 linear feet of sewer lines (36" inches in diameter or less) within the Brighton Heights, Southside Slopes and Hazelwood areas of the City of Pittsburgh. To facilitate lining, planned work also includes raising 32 manholes to grade, installing 25 new manholes on existing junctions, and performing 14 open cut spot excavation repairs (typically about 6 feet in length). The majority of the open cut work is taking place in paved rights-of-way with a select few occurring in unimproved rights-of-way or easements. All work is intended to rehabilitate the sewer in the existing location and maintain the existing sewer diameter.

Green Project:

Green Category:

Business Case Req'd:

Green Funding: \$0.00

**PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY AND DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 CLEAN WATER STATE REVOLVING FUND  
 FEDERAL FY2021 APPROPRIATION - PROJECT PRIORITY LIST  
 UPDATED FOR THE APRIL 21, 2021 PENNVEST BOARD MEETING**

| APPLICANT INFORMATION   | NEEDS CATEGORIES   |           |                          |  | PROJECT INFORMATION                    |
|---|--------------------|-----------|--------------------------|--|--|
| CLAIRTON MUNICIPAL AUTHORITY -<br>WWTP UPGRADES<br>1 North State Street<br>Clairton, PA 15025 | COUNTY: Allegheny  | I: \$0    | IVA: \$0                 |  | PROJECT NO.: CS423237-01               |
|   | REGION: SW         | II: \$0   | IVB: \$0                 |  | PROJ. TYPE: STPMOD                     |
|   | NPDES #: PA0026824 | IIIA: \$0 | V: \$23,000,000          |  | DEP RATING: 34                         |
|   | LOAN #: 75379      | IIIB: \$0 | ELIG. COST: \$23,000,000 |  | DEP RANKING: 11 of 16<br>PV RATING: 49 |

**PROB DESC:** This project is being implemented for the City of Clairton to comply with its Long-term Control Plan (LTCP). This project will reduce CSO bypasses within the system and eliminate sanitary sewer overflows (SSO) that occur from the Peters Creek interceptor. Environmental benefits include reducing untreated or inadequately treated sewage sent to Peters' Creek during wet weather.

**PROJ DESC:** The construction project will modify the Clairton Municipal Authority Sewage Treatment Plant to eliminate untreated wet weather sewage overflows. The existing conventional activated sludge process is being converted to a membrane bioreactor (MBR) process. Two existing primary clarifiers will be converted to MBR effluent water storage tanks and a back-up MBR chlorine contact tank. Four existing aeration tanks will be converted to MBR tanks while four existing secondary clarifiers will be converted to combined sewer overflow (CSO) storage and primary clarifiers. Two existing chlorine contact tanks will be converted to CSO disinfection. The existing chlorine gas disinfection will be converted to liquid sodium hypochlorite for chlorination and liquid sodium bisulfite for de-chlorination. Design peak flow will be 38.23 million gallons per day (MGD).

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|---|----------|----------------|-------|-----|------------------|-------------|--|
| LEWIS TOWNSHIP - SCHELL AND KOCH ROAD PROJECT<br>1428 Rovendale Drive<br>Watsontown, PA 17777 | COUNTY:  | Northumberland | I:    | \$0 | IVA:             | \$1,502,000 | PROJECT NO.: CS423253-01               |
|   | REGION:  | NC             | II:   | \$0 | IVB:             | \$0         | PROJ. TYPE: SS                         |
|   | NPDES #: | PA0111741      | IIIA: | \$0 | V:               | \$0         | DEP RATING: 32                         |
|   | LOAN #:  | 0              | IIIB: | \$0 | ELIG. COST:      | \$1,502,000 | DEP RANKING: 12 of 16<br>PV RATING: 37 |

**PROB DESC:** This project addresses a needs area in the Schell Road and Koch Road area of Lewis Township, Northumberland County, which consists of 26 equivalent dwelling units (EDUs). The Township found that fourteen (14) of the twenty six (26) EDUs exhibit confirmed malfunctions. The finalized service area addressed by the project will serve 19 EDUs including all 14 of the malfunctions.

**PROJ DESC:** The project includes the installation of approximately 1,440 linear feet of 8-inch gravity sewer mains, 850 linear feet of 1.5-inch high-density polyethylene (HDPE) low pressure sewer mains, 840 linear feet of 1.25-inch HDPE low pressure sewer mains, and 3,700 linear feet of 3-inch HDPE force mains. The project also includes construction of a pump station to convey wastewater from the 19 homes served in the project area to the existing Lewis Township wastewater treatment plant. Environmental Benefits include eliminating the potential of inadequately treated sewage sent to the Township's waterways from malfunctioning onlot systems in the service area.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|--|--------------------|-------|-----|-------------|---------------------|--|
| LONDONDERRY TOWNSHIP -<br>LONDONDERRY ESTATES/WOODCREST<br>SEWER EXTENSION<br>783 South Geyers Church Road<br>Middletown, PA 17057 | COUNTY: Dauphin    | I:    | \$0 | IVA:        | \$600,000           | PROJECT NO.: CS423255-01               |
|  | REGION: SC         | II:   | \$0 | IVB:        | \$0                 | PROJ. TYPE: SS                         |
|  | NPDES #: PA2220405 | IIIA: | \$0 | V:          | \$0                 | DEP RATING: 20                         |
|  | LOAN #: 0          | IIIB: | \$0 | ELIG. COST: | \$600,000           | DEP RANKING: 13 of 16<br>PV RATING: 25 |

**PROB DESC:** The Londonderry Estates area of the Township consists of 50 existing on-lot septic systems, some of which have failed while others are suspected to be failing. A new public sewer system will convey all flow collected in the service area to DTMA's Clearwater Road wastewater treatment plant for treatment and disposal.

**PROJ DESC:** A 1.25-inch to 3-inch diameter low-pressure sanitary sewer main will be installed in the Londonderry Estates area of the Township. The public portion of the sewer line will be approximately 4,425 linear feet in length and designed to carry the flow to the existing Derry Township Municipal Authority's (DTMA) collection and conveyance system. The project also includes installing approximately four (4) air release valves inside of concrete manholes, terminal cleanout assemblies, in-line clean-out assemblies, and corrosion protection lining systems in three existing manholes downstream of the low-pressure sewer connection. Environmental Benefits include eliminating the potential of inadequately treated sewage sent to the Township's waterways from malfunctioning onlot systems in the service area.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00



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|--|--------------------|-------------------|-------------|-------------|---------------------|--|
| SUMMIT TOWNSHIP SA - OLIVER ROAD<br>PUMP STATION, FORCE MAIN, GRAVITY<br>SEWER UPGRADE<br>8890 Old French Road<br>Erie, PA 16509 | COUNTY: Erie       | I:                | \$0         | IVA:        | \$0                 | PROJECT NO.: CS423252-01               |
|  | REGION: NW         | II:               | \$0         | IVB:        | \$0                 | PROJ. TYPE: PS SSREH                   |
|  | NPDES #: PA0026301 | IIIA:             | \$0         | V:          | \$0                 | DEP RATING: 17                         |
|  | LOAN #: 0          | IIIB: \$2,500,000 | ELIG. COST: | \$2,500,000 |                     | DEP RANKING: 14 of 16<br>PV RATING: 22 |

**PROB DESC:** The existing pump station on Oliver Road has reached the end of its useful design life. Recent development in the area has caused capacity issues at both the pump station and in the gravity sewer system. The Summit Township Sewer Authority (STSA) is under a corrective action plan to increase sewage capacity in the project area. The proposed project will provide increased capacity to serve existing and future growth.

**PROJ DESC:** This project consists of replacing the pump station on Oliver Road and increasing its design capacity from 180 gallons per minute (gpm) to 800 gpm. It also includes replacing the following approximated quantities: a 4-inch force main with 2,000 linear feet of 8-inch force main, 4,100 linear feet of 8-inch gravity sewer with 12-inch sewer, and 2,600 linear feet of 12-inch gravity sewer with 15-inch gravity sewer. Environmental Benefits include reducing untreated or inadequately treated sewage sent to the Township's waterways.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|---|--------------------|-------|-------------|-------------|---------------------|--|
| DUNCANSVILLE MUNICIPAL<br>AUTHORITY - UPGRADE SLUDGE<br>DEWATERING SYSTEM<br>1146 3rd Avenue<br>Duncansville,, PA 16635 | COUNTY: Blair      | I:    | \$0         | IVA:        | \$0                 | PROJECT NO.: CS423256-01               |
|   | REGION: SC         | II:   | \$1,250,000 | IVB:        | \$0                 | PROJ. TYPE: STPMOD                     |
|   | NPDES #: PA0032883 | IIIA: | \$0         | V:          | \$0                 | DEP RATING: 7                          |
|   | LOAN #: 0          | IIIB: | \$0         | ELIG. COST: | \$1,250,000         | DEP RANKING: 15 of 16<br>PV RATING: 22 |

**PROB DESC:** The 24-year old belt filter press, progressive cavity cake pump and sludge feed pumps are unreliable as they have reached the end of their useful lives. The belt filter press building is in poor condition but salvageable. In addition, the existing water service line was sized for the original facility built in 1967 but is undersized by today's standards.

**PROJ DESC:**

1. Remove the existing belt filter press and polymer feed system including concrete curbing. Rehabilitate the existing belt press building by repairing damaged walls, replacing a door, performing a thorough general cleaning and repainting. The building will be used by the sewer/water department as a workshop, garage, and storage.
2. Convert a portion of the existing sludge storage building into the new rotary press building.
3. The existing sludge feed pumps will be replaced with new variable speed double disc sludge pumps from Penn Valley.
4. Yard piping and utilities will be extended to the new rotary press building.
5. The existing water service line under Blair Gap Run is from the original 1967 plant construction and is only a 2-inch line. It will be replaced by an 8-inch service line to improve water service at the plant and to meet the fire code requirement. Environmental Benefits include reducing the chance of solids released to the Authority's waterways.

Green Project: No

Green Category:

Business Case Req'd:

Green Funding: \$0.00

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|---|--------------------|------------------|--------------------------|--|--|
| ALTOONA WATER AUTHORITY -<br>BIOSOLIDS TREATMENT IMPROVEMENTS<br>900 Chestnut Avenue<br>Altoona, PA 16601 | COUNTY: Blair      | I: \$0           | IVA: \$0                 |  | PROJECT NO.: CS423232-01               |
|   | REGION: SC         | II: \$36,615,700 | IVB: \$0                 |  | PROJ. TYPE: STPMOD                     |
|   | NPDES #: PA0027022 | IIIA: \$0        | V: \$0                   |  | DEP RATING: 3                          |
|   | LOAN #: 75380      | IIIB: \$0        | ELIG. COST: \$36,615,700 |  | DEP RANKING: 16 of 16<br>PV RATING: 18 |

**PROB DESC:** Altoona Water Authority is addressing land application of residuals and weather-induced limitations on sludge storage. The Authority would like to modify the Westerly facility to create a water resource recovery facility (WRRF) that converts biosolids and high strength organic waste (HSOW) into renewable energy in the form of biogas. The existing aerobic digestion system is not suitable to treat significant quantities of HSOW, which are available locally for feedstock to the digesters. The recommended improvements project will focus on converting the existing sludge processing facilities from aerobic to anaerobic while allowing for the acceptance of additional HSOW and beneficial use of biogas. Anaerobic digestion coupled with sludge drying will raise sludge quality to a Class-A biosolid while dramatically reducing the volume. Environmental benefits include biogas utilization and upgrading the biosolids to a Class-A salable product.

**PROJ DESC:** The proposed Altoona Westerly wastewater treatment facility improvements project consists of:

- Constructing HSOW receiving facilities and install associated equipment
- Converting an existing aerobic digester to a new HSOW and thickened waste activated sludge (TWAS) blend tank and installing associated equipment
- Constructing two (2) new anaerobic digesters and installing associated equipment
- Converting an existing aerobic digester to a digestate storage tank and repurposing aerated sludge holding tanks
- Constructing a new digester control building
- Refurbishing the existing gravity belt filter
- Replacing the existing belt filter press with a new, larger-capacity solids dewatering centrifuge
- Adding a new receiving bunker to accept cake from other wastewater treatment facilities
- Adding a new cake drying system, cake conveying system, and pumping systems
- Constructing a beneficial biogas utilization system to provide heat for the cake drying system

Green Project: Yes

Green Category: Energy Efficiency

Business Case Req'd:

Green Funding: \$32,458,294.00