PENNSYLVANIA 42 (STATE) (NUMBER)

#### PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY AND DEPARTMENT OF ENVIRONMENTAL PROTECTION CLEAN WATER STATE REVOLVING FUND FEDERAL FY2020 PROJECT PRIORITY LIST UPDATED FOR THE APRIL 22, 2020 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.

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Confluence Borough Sewer System Improvement Project	COUNTY:	Somerset	l:	\$239,900	IVA:	\$8,855,850	PROJECT NO.: CS423177-01
711 Logan Place	REGION:	SW	II:	\$0	IVB:	\$580,500	PROJ. TYPE: SS, PS, STPMOD
Confluence, PA 15424	NPDES #:	PA0038164	IIIA:	\$0	V:	\$0	DEP RATING: 56
	LOAN #:	75341	IIIB:	\$0	ELIG. COST:	\$9,676,250	DEP RANKING: 1 of 62 PV RATING: 71

- PROB DESC: Due to the condition of the existing collection system, the ground and surface water runoff (infiltration and inflow) enters the existing collection system. The excess infiltration and inflow has caused a hydraulic overloading of the sewage treatment plant and unpermitted discharge to the recreational waters of the Youghiogheny River.
- PROJ DESC: Replace the existing collection system with a low-pressure sewer system. Treatment will be provided at the existing Confluence Borough sewage treatment plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways.

Green Project:

Business Case Reg'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
BEDFORD BOROUGH MA - SANITARY SEWER IMPROVEMENTS PROJECT	COUNTY:	Bedford	l:	\$0	IVA:	\$0	PROJECT NO.: CS423193-01
244 West Penn Street	REGION:	SC	11:	\$0	IVB:	\$0	PROJ. TYPE: SS
Bedford, PA 15522	NPDES #:	PA0022209	IIIA:	\$0	V:	\$0	DEP RATING: 52
	LOAN #:	75350	IIIB:	\$5,560,000	ELIG. COST:	\$5,560,000	DEP RANKING: 2 of 62 PV RATING: 67

- PROB DESC: The Borough of Bedford experiences occasional wet weather overflows that discharge from a permitted combined sewer overflow. The aging vitrified clay pipe is subjected to infiltration and inflow. Although it is nearly impossible to accurately determine the reduction in flowrate before project implementation, reducing the treated water volume reduces pumping energy. The project manager determined the construction costs to be eligible under Green Project Reserve.
- PROJ DESC: This is a sanitary sewer rehabilitation project to correct existing defective sewers in the Borough of Bedford and a small portion of Bedford Township. The Borough plans to replace approximately 30,000 linear feet of sewer collection line with polyvinyl chloride pipe. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways during wet weather.

Green Project: Yes

Business Case Req'd: No

Green Category: Energy Efficiency

Green Funding: \$4,280,000.00

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
LOWER YODER TOWNSHIP - SANITARY/STORM SEWER SEPARATION PROJECT PHASE III	COUNTY:	Cambria	l:	\$0	IVA:	\$0	PROJECT NO.: CS423221-01
128 J Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SSREH
Johnstown, PA 15906	NPDES #:	PA0026034	IIIA:	\$4,000,000	V:	\$0	DEP RATING: 51
	LOAN #:	75362	IIIB:	\$0	ELIG. COST:	\$4,000,000	DEP RANKING: 3 of 62 PV RATING: 56

- PROB DESC: Lower Yoder Township has entered into a Consent Order and Agreement with Pennsylvania Department of Environmental Protection (PADEP) to reduce the amount of infiltration/inflow (I/I) entering the sewer system within the Township. Closed circuit television (CCTV) inspections were used to evaluate the condition of the current sewer system. As a result of these inspections, many class 3, 4, and 5 defects were found, and a plan was generated to correct these defects. Lower Yoder Township plans to replace the existing sewer lines, manholes, and laterals to within five feet of each structure if an easement is signed for them to do so. The existing pipe sizes will be used for the construction of the new lines. This project is the last of three phases being implemented by Lower Yoder Township to reduce I/I and eliminate Lower Yoder's contribution to sanitary sewer overflow (SSO) activity downstream.
- PROJ DESC: This project will rehabilitate approximately 18,000 linear feet of sanitary sewer line using a combination of pipe bursting, cured-in-place pipe (CIPP), and conventional cut and cover construction methods along with 72 manholes. The laterals to collect wastewater from each of the homes will be extended to within five feet of each structure with this project as well totaling approximately 1,900 linear feet of pipe. In addition to the sanitary sewer replacement, this project will also add approximately 1,350 linear feet of storm water collection system.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
SHENANGO TOWNSHIP MA - SANITARY SEWAGE IMPROVEMENT PROJECT, PHASES 2 AND 3	COUNTY:	Mercer	l:	\$884,276	IVA:	\$9,078,616	PROJECT NO.: CS423174-01
155 Campground Road	REGION:	NW	11:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD SS PS
West Middlesex, PA 16159	NPDES #:	PA0103471	IIIA:	\$0	V:	\$0	DEP RATING: 50
	LOAN #:	71439	IIIB:	\$0	ELIG. COST:	\$9,962,892	DEP RANKING: 4 of 62 PV RATING: 65

PROB DESC: These Phase 2 and Phase 3 projects address areas with high rates of on-lot septic system malfunctioning and will also provide sewer service to Oakleaf Estates Mobile Home Park which consists of 100 residential equivalent dwelling units (EDUs), thereby allowing the elimination of their WWTP. Study Areas 2, 3, and 4 will be served by sewers and contain 133 households. A sanitary survey of these Study Areas revealed a 61% confirmed on-lot malfunction rate. These systems leach untreated and partially treated wastewater onto the ground surface and into the waters of the Commonwealth. This project will eliminate these malfunctioning sewage systems, thereby improving the areas' water quality. The Shenango Township Municipal Authority is under a Consent Order and Agreement (CO&A) with the Department regarding this project.

PROJ DESC: This project includes both Phases 2 and 3. These phases will result in the extension of the existing sewage collection/conveyance system into Study Areas 2, 3, and 4 as identified in their approved Act 537 Plan. They will result in the installation of approximately 33,038 feet of 8-inch diameter gravity sewage main, five sewage pump stations, and 9,731 feet of 2-inch and 4-inch diameter forcemain. The additional wasteflow created will be treated at Shenango Township Municipal Authority's existing wastewater treatment plant. This project also contains improvements at the wastewater treatment plant which include a new headworks facility and a new UV disinfection system. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

					S CATEGORIES		PROJECT INFORMATION	
SHENANGO TOWNSHIP MA- SANITARY SEWAGE IMPROVEMENT PROJECT, PHASE 1	COUNTY:	Mercer	l:	\$0	IVA:	\$9,322,204	PROJECT NO.: CS423166-01	
155 Campground Road	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS, PS	
West Middlesex, PA 16159	NPDES #:	PA0103471	IIIA:	\$0	V:	\$0	DEP RATING: 50	
	LOAN #:	71437	IIIB:	\$0	ELIG. COST:	\$9,322,204	DEP RANKING: 5 of 62	
							PV RATING: 55	

PROB DESC: This Phase 1 project addresses an area with a high rate of on-lot septic system malfunctions and includes extending sewers to the Oak Tree Land Company. The area to be served includes 156 households. In addition, the Oak Tree Land Company has 62 residential units and 8 commercial units within their system. Both the Shenango Township Municipal Authority and the Oak Tree Land Company are under separate Consent Order and Agreements (CO&A) with the Department. A sanitary survey of this phase's area revealed a 53% confirmed on-lot malfunction rate. These systems leach untreated and partially treated wastewater onto the ground surface and into the waters of the Commonwealth. This project will eliminate the malfunctioning sewage systems thereby improving the areas water quality. Additionally, this phase of the project will allow Oak Tree Land Company to comply with their CO&A to abandon their existing wastewater treatment plant and become part of Shenango Township Municipal Authority's new sewer system.

PROJ DESC: This is Phase 1 of what is envisioned to be a 3 phase project. This phase of the project will result in the construction of a new sewage collection system within Study Area 1 located in the northwest corner of the Township. It will result in the installation of approximately 27,510 feet of 8-inch diameter gravity sewer main, 3 sewage pump stations, 18 on-lot grinder pumps and 14,399 feet of 2-inch and 4-inch diameter forcemain. The wasteflow will be treated at Shenango Township Municipal Authority's existing wastewater treatment plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Reg'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
JOHNSTOWN CITY - FAIRFIELD AVENUE SANITARY/STORM SEWER SEPARATION PROJECT	COUNTY:	Cambria	l:	\$0	IVA:	\$0	PROJECT NO.: CS423199-01
401 Main Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS REHAB
Johnstown, PA 15901	NPDES #:	PA 0026034	IIIA:	\$5,200,000	V:	\$0	DEP RATING: 49
	LOAN #:	71442	IIIB:	\$0	ELIG. COST:	\$5,200,000	DEP RANKING: 6 of 62 PV RATING: 74

- PROB DESC: Under a Consent Order and Agreement, the City is obligated to implement a rehabilitation plan that would reduce the amount of infiltration and inflow entering the City's collection system during wet weather events and thus eliminate sanitary sewer overflow discharges of raw sewage into the waters of the Commonwealth.
- PROJ DESC: This is a sanitary sewer rehabilitation project to correct existing defective sewers in the Fairfield Avenue area of the City of Johnstown. The City plans to replace or rehabilitate approximately 2,465 linear feet of 8-inch and 4,500 linear feet of 6-inch sewer collection line. Manholes within the design will also be replaced or rehabilitated. Private storm sewer lines will be separated from the sanitary sewer system. Treatment will be 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:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Johnstown City - Old Conemaugh Borough Sanitary/Storm Water Separation Project	COUNTY:	Cambria	l:	\$0	IVA:	\$0	PROJECT NO.: CS423180-01
401 Main Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS REHAB
Johnstown, PA 15901	NPDES #:	PA0026034	IIIA:	\$10,900,000	V:	\$0	DEP RATING: 49
	LOAN #:	71441	IIIB:	\$0	ELIG. COST:	\$10,900,000	DEP RANKING: 7 of 62
							PV RATING: 74

- PROB DESC: Under a Consent Order and Agreement, the City is obligated to implement a rehabilitation plan that would reduce the amount of infiltration and inflow entering the City's collection system during wet weather events and thus eliminate sanitary sewer overflow discharges of raw sewage into the waters of the Commonwealth.
- PROJ DESC: This is a sanitary sewer rehabilitation project to correct existing defective sewers in the Old Conemaugh and Hornerstown areas of the City of Johnstown. The City plans to replace or rehabilitate approximately 30,000 linear feet of 8-inch, 10-inch, and 12-inch sewer collection line. Construction methods will include open cut and trenchless/slip lining technologies. Manholes within the design will also be replaced and rehabilitated. All existing laterals will be replaced within the public right-of-way (the collection line to the property line). The City will take the appropriate steps to ensure that all customers have their lateral line either televised or pressure tested upon reconnecting to the newly installed system. Treatment will be 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:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
JOHNSTOWN REDEVELOPMENT AUTH. FAIRFIELD AVE INTERCEPTOR REHABILITATION & STORM WATER SEPARATION	COUNTY:	Cambria	l:	\$0	IVA:	\$0	PROJECT NO.: CS423200-01
401 Washington Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: INT REHAB
Johnstown, PA 15901	NPDES #:	PA 0026034	IIIA:	\$11,125,000	V:	\$0	DEP RATING: 49
	LOAN #:	75349	IIIB:	\$0	ELIG. COST:	\$11,125,000	DEP RANKING: 8 of 62
							PV RATING: 74

- PROB DESC: Under a Consent Order and Agreement, the Authority is obligated to implement a rehabilitation plan that would reduce the amount of infiltration and inflow entering the Authority's collection system during wet weather events and thus eliminate sanitary sewer overflow discharges of raw sewage into the waters of the Commonwealth.
- PROJ DESC: This is a sanitary sewer rehabilitation project to correct existing defective sewers in the Fairfield Avenue area of the City of Johnstown. The Authority plans to replace or rehabilitate approximately 8,425 linear feet of 8-inch, 10-inch, 12-inch, 18-inch, and 24-inch sewer collection line. Construction methods will include open cut and trenchless/slip lining technologies. The project includes the cleaning and televising of approximately 6,000 linear feet of 54-inch interceptor. Treatment will be provided at the existing Johnstown Dornick Point 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:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Lower Paxton Twp - Mini-Basins Bc-2A/B/C, 5B & Sc-2B Sanitary Sewer Replacement	COUNTY:	Dauphin	I:	\$0	IVA:	\$0	PROJECT NO.: CS423189-01
425 Prince Street, Suite 139	REGION:	SC	11:	\$0	IVB:	\$0	PROJ. TYPE: SS
Harrisburg, PA 17109	NPDES #:		IIIA:	\$13,278,195	V:	\$0	DEP RATING: 49
	LOAN #:	75343	IIIB:	\$0	ELIG. COST:	\$13,278,195	DEP RANKING: 9 of 62 PV RATING: 54

- PROB DESC: The collection system in the Beaver Creek's mini-basins 2A, 2B, 2C & 5B are required to reduce I/I as required under The Second Amendment to the Second Consent Decree and CAP, and in the Spring Creek mini-basin 2B is required to control I/I to reduce peak flow.
- PROJ DESC: The proposed construction projects are part of Lower Paxton's inflow and infiltration (I/I) reduction program. Sewer collection system repair, rehabilitation, replacement, and lining work will be performed for the mini-basins in Lower Paxton's Beaver Creek (BC 2A, 2B, 2C and 5B) and Spring Creek (SP 2B) basins to meet the expectations described in The Second Amendment to the Second Consent Decree and corrective action plan (CAP) for significant and cost-effective I/I reductions. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
JOHNSTOWN CITY - KERNVILLE SANITARY/STORM WATER SEPARATION PROJECT	COUNTY:	Cambria	l:	\$0	IVA:	\$0	PROJECT NO.: CS423170-01
401 Main Street	REGION:	SW	11:	\$0	IVB:	\$0	PROJ. TYPE: SS Rehab
Johnstown, PA 15901	NPDES #:	PA 0026034	IIIA:	\$10,900,000	V:	\$0	DEP RATING: 49
	LOAN #:	71435	IIIB:	\$0	ELIG. COST:	\$10,900,000	DEP RANKING: 10 of 62 PV RATING: 74

PROB DESC: Existing wet weather sanitary sewer overflows.

PROJ DESC: The City plans to replace/rehabilitate approximately 31,000 linear feet of 8", 10", and 12" antiquated sewer collection line by method of open cut and trenchless /slipping lining technologies. In addition, all manholes within the design will also be replaced and rehabilitated and all existing laterals will be replaced within the public right-of-way from the collection line to the property line. The City will take the appropriate steps to ensure that all customers have their lateral line either televised or pressure tested upon reconnecting to the newly installed system. Remove excess infiltration and reduce SSO's during wet weather ---- A multi-phase project ---- Treatment provided at the existing Johnstown — Dornick Point STP NPDES # PA 0026034. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
NEW CASTLE SANITATION AUTHORITY WASTEWATER TREATMENT PLANT UPGRADES	COUNTY:	Lawrence	I: \$32	,000,000	IVA:	\$0	PROJECT NO.: CS423202-02
102 East Washington Street	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
New Castle, PA 16101	NPDES #:	PA0027511	IIIA:	\$0	V:	\$0	DEP RATING: 49
	LOAN #:	71443	IIIB:	\$0	ELIG. COST:	\$32,000,000	DEP RANKING: 11 of 62 PV RATING: 64

- PROB DESC: This project is part of a Consent Order and Agreement from the Department of Environmental Protection to eliminate secondary bypassing of flows as well as general upgrades. This project provides the elimination of wet weather bypasses of blended sewage to the waters of the Commonwealth.
- PROJ DESC: This is a design and construction project. The project is a new headworks and wet weather treatment facility project. The existing headworks will be replaced with a new headworks that will consist of two new mechanical bar screens and two new vortex grit chambers. One new aeration tank will be added to the existing six tanks. A new final clarifier will be added to the existing six, and the four primary clarifiers and chlorine contact tank will remain as is for Phase I. A wet weather Biologically Enhanced High Rate Clarification facility will be constructed for flows in excess of the plant design capacity. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
HALIFAX AWSA - WASTEWATER TREATMENT PLANT UPGRADE	COUNTY:	Dauphin	l:	\$0	IVA:	\$0	PROJECT NO.: CS423197-01
P O Box 443	REGION:	SC	11:	\$7,384,000	IVB:	\$0	PROJ. TYPE: STPMOD PS
Halifax, PA 17032	NPDES #:	PA0024457	IIIA:	\$0	V:	\$0	DEP RATING: 48
	LOAN #:	75368	IIIB:	\$0	ELIG. COST:	\$7,384,000	DEP RANKING: 12 of 62
							PV RATING: 63

- PROB DESC: The Halifax Area Water and Sewer Authority's existing wastewater treatment plant has reached or exceeded its useful life. Projected sanitary sewer extensions for failing onlot systems will also increase needed capacity.
- PROJ DESC: As required by the April 20, 2018 consent order and agreement (CO&A) between Halifax Area Water and Sewer Authority and the Pennsylvania Department of Environmental Protection (PA DEP), a new sequencing batch reactor (SBR) wastewater treatment facility with a hydraulic design capacity of 0.280 million gallons per day (MGD) will be constructed. Additional activities include main pumping station improvements as well as installing a new ultraviolet light disinfection system and chemical feed systems and constructing a new headworks building. Concrete tanks will be repurposed for aerobic sludge holding and the control building and laboratory area will be renovated and modified as necessary.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Knox Twp MA -SS System & Recirculating Sand Filter Treatment Plant Project	COUNTY:	Clarion	l:	\$1,639,350	IVA:	\$1,499,650	PROJECT NO.: CS423186-01
27345 Route 66, P.O. Box 64	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: STP, SS
Lucinda, PA 16235	NPDES #:	PA0265021	IIIA:	\$0	V:	\$0	DEP RATING: 48
	LOAN #:	75345	IIIB:	\$0	ELIG. COST:	\$3,139,000	DEP RANKING: 13 of 62 PV RATING: 53

- PROB DESC: This project addresses the sewage needs of approximately 72 properties located in the Lucinda area of the Township. Confirmed on-lot malfunctions were determined at 57.5% of the properties. These systems leach untreated and partially treated wastewater onto the ground surface and into the waters of the Commonwealth. This project will eliminate the malfunctioning sewage systems thereby improving water quality.
- PROJ DESC: The proposed project includes the construction of 10,100 feet of 8-inch diameter sanitary sewer main and 43 concrete manholes through Lucinda to serve as the collection system. Six-inch diameter polyvinyl chloride laterals will be installed to each property to facilitate their connection. A duplex grinder pump is required to allow one of the connections. The grinder pump will discharge through 780 feet of high-density polyethylene pipe to a manhole. This gravity collection system will discharge into a recirculating sand filter wastewater treatment plant for treatment. After treatment, the discharge enters the waters of Step Creek. Overall, the project will serve 63 residential houses, seven small businesses and a church complex. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Perry Twp, Mercer County - Act 537 Project Implementation	COUNTY:	Mercer	l:	\$1,827,000	IVA:	\$3,273,000	PROJECT NO.: CS423184-01
1096 Fredonia Road, P.O. Box 69	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: STP, SS
Hadley, PA 16130	NPDES #:	PA0271501	IIIA:	\$0	V:	\$0	DEP RATING: 48
	LOAN #:	27913	IIIB:	\$0	ELIG. COST:	\$5,100,000	DEP RANKING: 14 of 62 PV RATING: 53

- PROB DESC: This project addresses sewage needs for the Hadley, Camp Perry and Clarks Mills areas of Perry Township that are currently served by on-lot systems. These are the more heavily developed areas within the Township. A malfunction rate of approximately 84% exists. This includes a wildcat sewer currently serving seven homes. The recommended solution of installing a WWTP and low-pressure sewers for the Hadley and Camp Perry areas and gravity sewers and a community on-lot system for the Clarks Mills area will address these issues. These on-lot systems leach untreated and partially treated wastewater onto the ground surface and into the waters of the Commonwealth. This project will eliminate the malfunctioning sewage systems thereby improving water quality.
- PROJ DESC: The proposed project includes the construction of the following: the Hadley service area consists of 25,800 linear feet of pressure mains, 120 simplex grinder pumps, one triplex grinder pump, pressure service laterals and a 0.046 million gallon per day extended aeration wastewater treatment plant (WWTP); the Clarks Mills service area consists of a pumping station, approximately 2,100 linear feet of 8-inch diameter gravity sewer and a community on-lot disposal system. The project will serve 128 equivalent dwelling units (EDUs) in the Hadley service area and 14 EDUs in the Clarks Mills service area. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
SHENANGO TOWNSHIP MA - SANITARY SEWAGE IMPROVEMENT PROJECT, PHASE 3	COUNTY:	Mecer	l:	\$914,760	IVA:	\$3,243,240	PROJECT NO.: CS423231-01
155 Campground Road	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD PS SS
West Middlesex, PA 16159	NPDES #:	PA0103471	IIIA:	\$0	V:	\$0	DEP RATING: 47
	LOAN #:	12767	IIIB:	\$0	ELIG. COST:	\$4,158,000	DEP RANKING: 15 of 62 PV RATING: 52

PROB DESC: Failing onlot septic systems exist in the project area. The Shenango Township Municipal Authority is under a Consent Order and Agreement from the Department of Environmental Protection to address the issue.

PROJ DESC: The project includes installing approximately 9,515 linear feet of 8-inch diameter gravity sewage mains, two sewage pump stations, and 4,190 linear feet of 2-inch and 4-inch diameter forcemains. Phase 3 also includes the improvements to the wastewater treatment plant including a new headworks facility and a new UV disinfection system.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
CAPITAL REGION WATER - GREEN STORMWATER INFRASTRUCTURE PROGRAMMATIC FINANCING	COUNTY:	Dauphin	I:	\$0	IVA:	\$0	PROJECT NO.: CS423209-01
212 Locust Street, Suite 500	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: CSO
Harrisburg, PA 17101	NPDES #:	PA0027197	IIIA:	\$0	V:	\$17,454,323	DEP RATING: 45
	LOAN #:	72819	IIIB:	\$0	ELIG. COST:	\$17,454,323	DEP RANKING: 16 of 62 PV RATING: 45

PROB DESC: The purpose of the projects, developed with this financing, is to simulate natural systems in an urban environment to manage stormwater flows for the broader purposes of: (1) Water quality improvement (direct impact of stormwater treatment through natural systems & indirect impact of CSO activity reduction as a result of stormwater attenuation and infiltration). (2) Localized flood control (interception and attenuation of stormwater peak flows upstream of combined stormwater/wastewater collection and conveyance systems). (3) Triple bottom line project co-benefits (neighborhood redevelopment projects establishing parks and other maintained green spaces in blighted neighborhoods).

PROJ DESC: Under our City Beautiful H2O Program Plan (Integrated Stormwater/Wastewater Plan, including Combined Sewer Overflow Long Term Control Plan Update), Capital Region Water (CRW) is committed to local control strategies placed within CRW's collection system to address both neighborhood flooding and water quality impacts of discharges to receiving waters. Local control strategies use decentralized or local planning basin area approaches that implement various combinations of the grey control technologies and the green control technologies that were selected through the previously completed control technology screening process. The decentralized controls (green-grey) within neighborhoods and individual catchment areas will reduce CSOs and unauthorized discharges (basement back-ups).

CRW uses the term greened acre, a measurement to quantify the amount of impervious surface management by green stormwater infrastructure to reduce combined sewer overflows and meet water quality compliance. Capital Region Water defines a greened acre as 1.4 inches of rainfall managed over an acre of impervious surface.

With the Programmatic Financing, CRW estimates achieving 50 greened acres which will help improve CSO Control by capturing a volume of approximately 20 to 40 million gallons per year under typical year rainfall over the CRW service area. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways during wet weather.

Green Project: Yes

Business Case Req'd: No

Green Category: Green Infrastructur

Green Funding: \$13,000,000.00

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
CAPITAL REGION WATER - FRONT STREET PUMP STATION UPGRADE	COUNTY:	Dauphin	l:	\$0	IVA:	\$11,427,661	PROJECT NO.: CS423171-01
212 Locust Street	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: PS
Harrisburg, PA 17101	NPDES #:	PA0027197	IIIA:	\$0	V:	\$0	DEP RATING: 42
	LOAN #:	71436	IIIB:	\$0	ELIG. COST:	\$11,427,661	DEP RANKING: 17 of 62
							PV RATING: 77

PROB DESC: The pumps, bar screens, electrical equipment, and majority of ancillary equipment is original. The major components of the Pump Station have reached the end of their useful lives and need to be replaced. Specifically, two pump impellers have broken and have needed expensive custom fabrication, resulting in long periods of down time. There have been multiple electrical system failures and the screenings handling equipment is not functioning properly due to condition. The original hydraulic system controlling valves and gates is failing and replacement parts are obsolete.

PROJ DESC: Replace the four (4) solids handling pumps and motors, Provide new VFDs for the pumps (4), Replace discharge pipe and valves inside the Pump Station, Replace the two (2) existing bar screen units and screenings handling equipment, Replace the existing hydraulic (oil) system with new actuated valves, Provide effluent flow meters, Replace the Motor Control Center, Replace the electric switch-gear/emergency power generation, Upgrade the existing SCADA telemetry, Replace HVAC equipment, Miscellaneous building repairs including brick, tiles, handrails, toe plates, egress, etc., Upgrades necessary to meet OSHA, NFPA or other code requirements, Electrical Improvements, Plumbing Improvements, Install a 40' x 40' green roof, and Replace 65 feet of force main. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways during wet weather.

Green Project: Yes

Business Case Req'd: No

Green Category: Green Infrastructur Green Funding: \$200,000.00

APPLICANT INFORMATION				NEEDS CATEGORIES			PROJECT INFORMATION
JACKSON EAST TAYLOR SEWER AUTHORITY - FORDS CORNER AREA WASTEWATER SYSTEM	COUNTY:	Cambria	l:	\$0	IVA:	\$4,125,000	PROJECT NO.: CS423215-01
2603 William Penn Ave	REGION:	SW	II:	\$0	IVB:	\$1,375,000	PROJ. TYPE: SS, PS
Johnstown, PA 15909	NPDES #:	PA0025399	IIIA:	\$0	V:	\$0	DEP RATING: 42
	LOAN #:	75360	IIIB:	\$0	ELIG. COST:	\$5,500,000	DEP RANKING: 18 of 62 PV RATING: 42

PROB DESC: There are existing malfunctioning on-lot septic systems. These malfunctioning on-lot systems may have an impact on public health and water quality and will be eliminated as a result of the project.

PROJ DESC: This is a sanitary sewer extension project in the Fords Corner, Pike Road, and Chickaree areas of Jackson Township. The Township plans to install approximately 24,000 linear feet of sewer collection line to capture 98 homes and three businesses. Along the sewer extension, the Authority will be constructing a new pump station and replacing pumps in two existing pump stations. The Authority office will be replaced. Treatment will be provided at the existing Johnstown – Dornick Point sewage treatment plant. Environmental benefits include reducing or eliminating surface water contamination resulting from malfunctioning on-lot systems.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
MIDDLE TAYLOR TWP SA - WASTEWATER COLLECTION SYSTEM	COUNTY:	Cambria	I:	\$0	IVA:	\$3,195,000	PROJECT NO.: CS423201-01
504 Waterfall Drive	REGION:	SW	11:	\$0	IVB:	\$0	PROJ. TYPE: SS
Johnstown, PA 15906	NPDES #:	PA0026034	IIIA:	\$0	V:	\$0	DEP RATING: 42
	LOAN #:	75351	IIIB:	\$0	ELIG. COST:	\$3,195,000	DEP RANKING: 19 of 62
							PV RATING: 47

PROB DESC: Existing 148 residences currently served by wildcat sewers and malfunctioning on-lot systems with over 50% malfunction rate.

PROJ DESC: Proposed construction of 25,760 linear feet of 8-inch PVC Sewers, 1,671 linear feet of 8-inch High-density Polyethylene (HDPE) Sewers, 1,963 linear feet of 4-inch PVC Laterals, 904 linear feet of 4-inch High-density Polyethylene (HDPE) Laterals, 150 Precast Concrete Manholes to serve 148 existing residences in Middle Taylor Township – Benshoff Hill Road Area and West Taylor Township – Prosser Hollow Road Area. Treatment will be provided at the existing City of Johnstown sewage treatment plant (STP) (NPDES Permit No. PA0026034). Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways. Environmental benefits include reducing the flow of untreated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORM		NEED	S CATEGORIES	PROJECT INFORMATION			
Rochester Area JSA Long Term Control Plan	COUNTY:	Beaver	I:	\$0	IVA:	\$0	PROJECT NO.: CS423182-01
395 Adams Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: STP MOD, PS
Rochester, PA 15074	NPDES #:	PA0026140	IIIA:	\$0	V:	\$38,232,512	DEP RATING: 42
	LOAN #:	71440	IIIB:	\$0	ELIG. COST:	\$38,232,512	DEP RANKING: 20 of 62
							PV RATING: 57

- PROB DESC: Most of the collection system in Rochester Borough is a combined sewer system conveying both storm water runoff and sanitary sewage. Peak flows to the Freedom pump station occasionally result in sanitary sewer overflows (SSOs) which are not permitted. Consequently, flows to the treatment facility are greatly affected by precipitation events. While the wastewater treatment plant (WWTP) is neither hydraulically nor organically overloaded as defined in 25 Pa. Code Chapter 94, the conveyance system remains hydraulically overloaded, causing peak flows to exceed the carrying capacity of certain portions of the system resulting in combined sewer overflows (CSOs) and SSOs. Periods of high flow are attributed to above average precipitation and snow melt. The motive behind the WWTP upgrade project is to provide greater control of the CSOs and eliminate SSOs in accordance with the Department approved CSO LTCP.
- PROJ DESC: This is a construction project to modify the existing Rochester Borough sewage treatment plant (STP), Center Street pump station, West Madison Street pump station and force main, and Freedom Borough pump station and force main in compliance with a Department approved Combined Sewer Overflow Long Term Control Plan (CSO LTCP). Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

				NEED	S CATEGORIES	PROJECT INFORMATION	
EAST CARROLL TWP - WASTEWATER COLLECTION SYSTEM EXTENSION	COUNTY:	Cambria	I:	\$0	IVA:	\$1,520,000	PROJECT NO.: CS423194-01
3350 Brick Road	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS
Carrolltown, PA 15722	NPDES #:	PA 0110469	IIIA:	\$0	V:	\$0	DEP RATING: 42
	LOAN #:	75352	IIIB:	\$0	ELIG. COST:	\$1,520,000	DEP RANKING: 21 of 62 PV RATING: 47

- PROB DESC: The East Carroll Township has limited availability of soils suitable for on-lot system development. There are existing malfunctioning on-lot septic systems and direct surface discharges that may have an impact on public health and water quality and will be eliminated as a result of the project.
- PROJ DESC: This is a sanitary sewer project to connect 50 existing customers in the Magee Road, Beech Road, and Carroll Road areas of East Carroll Township. The Township plans to install approximately 13,000 linear feet of 8-inch sewer collection line. Treatment will be provided at the existing Patton Borough sewage treatment plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
WESTFIELD BOROUGH WASTEWATER TREATMENT PLANT UPGRADE	COUNTY:	Tioga	l:	\$6,843,659	IVA:	\$0	PROJECT NO.: CS423208-01
1488 Broughton Hollow Road	REGION:	NC	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Westfield, PA 16950	NPDES #:	PA0021881	IIIA:	\$0	V:	\$0	DEP RATING: 41
	LOAN #:	75357	IIIB:	\$0	ELIG. COST:	\$6,843,659	DEP RANKING: 22 of 62 PV RATING: 56

- PROB DESC: The Westfield Borough Wastewater Treatment Plant receives over two times more wastewater than it was designed to handle. As a result, the plant's discharge chronically violates ammonia-nitrogen limits. Under a Consent Order and Agreement, the Borough is obligated to upgrade and increase the capacity of its wastewater treatment facility to comply with effluent limits. Effluent from the upgraded wastewater treatment facility is expected to comply with regulatory limits. This will provide environmental benefits by reducing pollutant loads to the Cowanesque River.
- PROJ DESC: The project is a wastewater treatment plant upgrade project. The upgrades include a new influent pump station, a mechanically cleaned influent screen, a bypass bar screen, an aerated grit removal system, an oxidation ditch, two secondary clarifiers, two sludge digestion tanks, a chemical feed system, and a new chlorine disinfection system. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
ELIZABETHVILLE AREA AUTHORITY - SMITH AVENUE PUMP STATION	COUNTY:	Dauphin	l:	\$0	IVA:	\$0	PROJECT NO.: CS423218-01
P.O. Box 271	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: PS
Elizabethville, PA 17023	NPDES #:	PA0037737	IIIA:	\$0	V:	\$0	DEP RATING: 41
	LOAN #:	75363	IIIB:	\$1,100,000	ELIG. COST:	\$1,100,000	DEP RANKING: 23 of 62 PV RATING: 56

- PROB DESC: Currently, wastewater in excess of pump station capacity overflows directly to a nearby stream. This is due to old, malfunctioning and under-sized sewage pumps, controls, and related equipment. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.
- PROJ DESC: This project consists of upgrading the existing pump station with two new 50 horsepower variable speed pumps sized approximately 500 gallons per minute each. The upgraded pump station will include a new wet well and related equipment. A comminutor / grinder is included to handle rags and debris at the pump station reducing manpower requirements. Work will also include a complete upgrade to the electric service and power distribution system including a new emergency generator.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Elizabeth Borough Municipal Authority Pump Station Project	COUNTY:	Allegheny	l:	\$0	IVA:	\$0	PROJECT NO.: CS423179-01
1 Locust Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: PS
Elizabeth, PA 15037	NPDES #:	PA0028436	IIIA:	\$0	V:	\$8,800,000	DEP RATING: 39
	LOAN #:	75344	IIIB:	\$0	ELIG. COST:	\$8,800,000	DEP RANKING: 24 of 62
							PV RATING: 54

PROB DESC: Wet weather overflows in excess of the Department approved CSO LTCP occur in the system. In addition, the pump station is near the end of its useful life.

PROJ DESC: Replace the existing Elizabeth Borough pump station for a new capacity of 1.2 million gallon per day (MGD). The pump station will be constructed with additional wet well and channel capacity to accommodate future wet weather flows as approved by the Department in the Combined Sewer Overflow Long-Term Control Plan (CSO LTCP) and Act 537 plan update. The screening and grit removal capacity will be 5.3 MGD. Treatment will be provided at the existing Elizabeth Borough sewage treatment plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

				NEEDS CATEGORIES			PROJECT INFORMATION	
MUN AUTH OF CITY OF SUNBURY - SLUDGE HOLDING TANK TO CSO EQUALIZATION TANK PROJECT	COUNTY:	Northumberland	l:	\$0	IVA:	\$0	PROJECT NO.: CS423222-01	
462 South Forth Street	REGION:	NC	II:	\$0	IVB:	\$0	PROJ. TYPE: CSO	
Sunbury, PA 17801	NPDES #:	PA0026557	IIIA:	\$0	V:	\$950,000	DEP RATING: 38	
	LOAN #:	75364	IIIB:	\$0	ELIG. COST:	\$950,000	DEP RANKING: 25 of 62 PV RATING: 43	

PROB DESC: The Municipal Authority of the City of Sunbury (SMA) is 95% combined. High precipitation events increase flows above the permitted capacity of the plant causing overflows to Shamokin Creek and the Susquehanna River during wet weather.

PROJ DESC: The SMA proposes to convert an existing sludge holding tank and aeration basin into additional combined sewer overflow (CSO) equilization tanks. This will capture and treat a greater portion of the combined flow. This project is consistent with the approved Long-Term Control Plan.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
LANCASTER CITY WASTEWATER CONVEYANCE SYSTEM IMPROVEMENTS	COUNTY:	Lancaster	l:	\$0	IVA:	\$0	PROJECT NO.: CS423212-01
120 North Duke Street	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: PS, SSREH
Lancaster, PA 17602	NPDES #:	PA0026743	IIIA:	\$0	V:	\$0	DEP RATING: 38
	LOAN #:	75359	IIIB:	\$11,200,000	ELIG. COST:	\$11,200,000	DEP RANKING: 26 of 62
							PV RATING: 38

PROB DESC: The City of Lancaster's wastewater conveyance system, which includes both separate sanitary and combined sewers, has facilities that have exceeded their useful life and must be rehabilitated, upgraded, or replaced. Key projects for this application are: Engleside Combined Sewer Rehabilitation, Maple Grove Pumping Station and Interceptor Upgrade, and Eden Manor Interceptor Replacement.

The Engleside 120-in concrete combined sewer is over 100-yrs old and a recent inspection showed significant deterioration that will require rehabilitation. The invert of the pipe has eroded away in multiple locations, and there is also cracking and spalling of the concrete. There is the potential for detrimental failure of the existing pipe if it is not rehabilitated. This could result in a multitude of issues, including sinkholes, line blockages, sewage overflows, and flooding. This is a highly critical component of the conveyance system that must be rehabilitated.

The Maple Grove Pumping Station pumping, electrical, and HVAC equipment is at the end of its useful life and must be replaced. The capacity of the station must also be increased to handle potential peak hourly flows, which could result in sanitary sewer overflows. Within the last few years there was a sanitary sewer overflow in the upstream interceptor due to capacity issues. The interceptors are constructed of clay pipe that is also beyond its useful life and not sized appropriately to accommodate the peak hourly flow, so the upstream and downstream interceptors must be replaced.

Recent inspections of the existing Eden Manor Interceptor's 8-in asbestos concrete pipe showed that the pipe walls are deteriorating, which has contributed to line blockages that resulted in two sanitary sewer overflows during 2018. The pipe is past its useful life and must be replaced to prevent future blockages and overflows.

PROJ DESC: The proposed project includes 3 segments as follows: (1) 1,300 LF of the 120-in Engleside Combined Sewer will be rehabilitated with invert reconstruction and a cementitious polymer liner for the full circumference of the pipe. (2) The Maple Grove Pumping Station will be upgraded from 8.0 MGD to 9.7 MGD. 2,400 LF of the upstream Little Conestoga Creek Interceptor will be upgraded to accommodate 9.7 MGD. The existing 24-in clay pipe will be replaced with 30-in PVC pipe. 4,500 LF of the downstream Maple Grove Interceptor will be upgraded to accommodate 12.9 MGD. The existing 18-in to 24-in clay pipe will be replaced with 24-in to 30-in PVC pipe. (3) 3,200 LF of the Eden Manor Interceptor will be replaced to accommodate the average daily flow of 220,000 gpd. The existing 8-in asbestos cement pipe will be replaced with 10-in PVC. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	<b>PROJECT INFORMATION</b>	
AC Valley Development Corporation Sewage	COUNTY:	Butler	l:	\$0	IVA:	\$0	PROJECT NO.: CS423183-01
P.O. Box 311	REGION:	NW	II:	\$920,570	IVB:	\$0	PROJ. TYPE: STP
Foxburg, PA 16036	NPDES #:	PA0221317	IIIA:	\$0	V:	\$0	DEP RATING: 36
	LOAN #:	75342	IIIB:	\$0	ELIG. COST:	\$920,570	DEP RANKING: 27 of 62
							PV RATING: 56

- PROB DESC: The current system does not have the capability to meet the required National Pollutant Discharge Elimination System effluent limits on a consistent basis. As a result, a Consent Order and Agreement was entered into to obtain compliance by December 31, 2019. This will be achieved by combining a portion of the existing treatment train with the proposed new one. This will be aided by the inclusion of a flow equalization tank and an aerated sludge holding tank.
- PROJ DESC: The proposed project includes the construction of one 42,000 gallons per day (GPD) sewage pump station and a 22,500 GPD extended aeration wastewater treatment plant (WWTP). The WWTP will be used in conjunction with one existing train from the existing plant to maintain the current 45,000 GPD desired treatment capacity. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Valley's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
HARBORCREEK TWP SA - 6 MILE PUMP STATION/EQ TANK AND IROQUOIS AVE./E. LAKE RD. INTERCEPTOR	COUNTY:	Erie	l:	\$0	IVA:	\$0	PROJECT NO.: CS423219-01
5601 Buffalo Road	REGION:	NW	11:	\$0	IVB:	\$3,072,200	PROJ. TYPE: SS PS INT
Harborcreek, PA 16421	NPDES #:	PA0026301	IIIA:	\$0	V:	\$0	DEP RATING: 36
	LOAN #:	71445	IIIB:	\$4,177,800	ELIG. COST:	\$7,250,000	DEP RANKING: 28 of 62 PV RATING: 41

- PROB DESC: Sanitary sewer overflows exist at the Six Mile Creek pump station. The proposed project is part of the Corrective Action Plan from the Department of Environmental Protection to eliminate these overflows. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.
- PROJ DESC: This project consists of a sewer extension from Nagle Road to East Lake Road and sewer replacement from East Lake Road to the City of Erie's east side interceptor connection at Franklin Avenue. The scope also includes replacing the Six Mile Creek pump station and constructing a 750,000-gallon equalization storage tank.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
LEMON TWP & TUNKHANNOCK TWP JOINT MUNI SEWER AUTH	COUNTY:	Wyoming	I:	\$10,864,000	IVA:	\$1,505,000	PROJECT NO.: CS423145-02
113 Tunkhannock Township Drive	REGION:	NE	11:	\$1,836,000	IVB:	\$0	PROJ. TYPE: STP
Tunkhannock, PA 18657	NPDES #:		IIIA:	\$0	V:	\$0	DEP RATING: 35
	LOAN #:	75361	IIIB:	\$0	ELIG. COST:	\$14,205,000	DEP RANKING: 29 of 62 PV RATING: 35

- PROB DESC: The homes surrounding Lake Carey dispose of their wastewater via on-lot sewage disposal systems. Many systems malfunction and pollute the groundwater or Lake Carey itself. Many systems cannot be repaired and/or replacement on-lot systems cannot be built because of a high groundwater table and lack of land.
- PROJ DESC: This funding application is for construction of a low-pressure sewage collection system and a Wastewater Treatment Plant (WWTP). It is expected that an Orbal WWTP, with a permitted hydraulic capacity of 0.120 million gallons per day (MGD) to initially serve about 382 equivalent dwelling units (EDUs) will be built. The WWTP will discharge to the Tunkhannock Creek located within the Chesapeake Bay Watershed. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to Lake Carey.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION					S CATEGORIES	PROJECT INFORMATION	
UPPER AUGUSTA TOWNSHIP - MOUNT PLEASANT SEWER EXTENSION	COUNTY:	Northumberland	l:	\$0	IVA:	\$1,274,600	PROJECT NO.: CS423206-01
2087 Snydertown Road	REGION:	NC	II:	\$0	IVB:	\$1,959,400	PROJ. TYPE: SS, INT, PS
Sunbury, PA 17801	NPDES #:	PA0026557	IIIA:	\$0	V:	\$0	DEP RATING: 34
	LOAN #:	75358	IIIB:	\$0	ELIG. COST:	\$3,234,000	DEP RANKING: 30 of 62
							PV RATING: 39

- PROB DESC: The existing Mount Pleasant wastewater treatment facility discharges treated sewage effluent to an unnamed tributary to the Susquehanna River. As currently configured, this treatment facility is unable to consistently meet effluent limitations for ammonia-nitrogen. Under a Consent Order and Agreement, Upper Augusta Township agreed to initiate corrective action to comply with effluent limits. Eliminating the 46 residential onlot systems is expected to improve public health by eliminating the risk that these systems may fail. Eliminating the non-compliant wastewater treatment facility will provide environmental benefits by reducing nitrogen loading to the Susquehanna River.
- PROJ DESC: The project is a sanitary sever replacement and extension project to convey domestic wastewater from the village of Mount Pleasant to the Sunbury Municipal Authority's (SMA) collection system for disposal at the SMA wastewater treatment facility. The project is being undertaken to eliminate 46 residential onlot systems and the existing Mount Pleasant wastewater treatment plant. The plant has consistently failed to achieve compliance with discharge limits. Transfer of flows to the SMA facility will provide for better treatment of wastewater from this area. The Borough plans to construct a new sanitary sewage pumping station, a booster pump station, and a total of 14,500 linear feet of sewage pipeline. The Borough will also decommission 46 onlot systems. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES		PROJECT INFORMATION
WASHINGTON TOWNSHIP SEWER EXTENSIONS	COUNTY:	Clarion	l:	\$0	IVA:	\$1,964,000	PROJECT NO.: CS423226-01
P.O. Box 113	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS PS
Fryburg, PA 16326	NPDES #:	PA0103373	IIIA:	\$0	V:	\$0	DEP RATING: 34
	LOAN #:	75370	IIIB:	\$0	ELIG. COST:	\$1,964,000	DEP RANKING: 31 of 62 PV RATING: 39

- PROB DESC: Numerous failing on-lot septic systems exist in the project area. Also, during a sewage needs survey it was noted that gray water or inadequately treated sewage was being discharged to roadway and stormwater ditches.
- PROJ DESC: The project includes two sewer extensions namely the Northern Extension with low pressure sewer and a booster pump station and the Southern Extension with gravity sewer). The Northern Extension includes Old Fryburg Road, the eastern side of Route 208 at the northern end of Fryburg, the northern side of Route 208, and Dempseytown Road. The Southern Extension covers State Route 208 south of Hargenrader Lane to Toms Lane.

Green Project:

Business Case Req'd:

Green Category:

				NEED	S CATEGORIES		PROJECT INFORMATION
UPPER AUGUSTA TOWNSHIP - MT. PLEASANT SEWER EXTENSION TO SUNBURY	COUNTY:	Northumberland	l:	\$0	IVA:	\$1,274,600	PROJECT NO.: CS423214-01
2087 Snydertown Road	REGION:	NC	II:	\$0	IVB:	\$1,959,400	PROJ. TYPE: SS, INT, PS
Sunbury, PA 17801	NPDES #:	PA0112470	IIIA:	\$0	V:	\$0	DEP RATING: 34
	LOAN #:	27917	IIIB:	\$0	ELIG. COST:	\$3,234,000	DEP RANKING: 32 of 62 PV RATING: 34

- PROB DESC: The existing meadow/marsh treatment system is failing and unable to meet current discharge requirements. The existing small diameter septic tank effluent collection system is outdated and in need of replacement. The project will construct a new pump station and force main to transport the sewage to a neighboring facility.
- PROJ DESC: There will be two new pump stations serving 46 EDU's (at start-up) at approximately 4,900 gallons per day of domestic sewage. The main pump station will achieve 51 gpm at 65 feet of total dynamic head. The booster pump station will achieve 51 gpm at 65 ft of total dynamic head. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Townships' waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
BLACKLICK VLY MA - WASTEWATER SYSTEM EXTENSIONS	COUNTY:	Cambria Indiana	l:	\$359,000	IVA:	\$6,817,000	PROJECT NO.: CS423167-01
PO Box 272	REGION:	SW	11:	\$0	IVB:	\$0	PROJ. TYPE: SS PS STPMOD
Twin Rocks, PA 15960	NPDES #:	PA0218723	IIIA:	\$0	V:	\$0	DEP RATING: 32
	LOAN #:	75338	IIIB:	\$0	ELIG. COST:	\$7,176,000	DEP RANKING: 33 of 62 PV RATING: 37

PROB DESC: Existing residences currently served by on-lot septic systems with 48% malfunction rate.

PROJ DESC: Proposed construction of sewage treatment plant (STP) Sludge Dewatering Press to replace existing dewatering bag system and sanitary sewers and Pump Stations No. 5 and No. 6 in the Route 422 Area of Blacklick Township. The project includes two Sludge Dewatering Presses, Variable Frequency Drives (VFD) for existing Pump Stations No. 1, No. 2, and No. 3, two new Pump Stations (No. 5 and No. 6), 2,200 linear feet of 4-inch PVC force main, 1,115 linear feet of 2-inch High-density Polyethylene (HDPE) force main, 58,500 linear feet of 8-inch PVC sewer, 4,200 linear feet of 4-inch PVC lateral sewer, 225 manholes, 187 lateral connections to serve 187 existing residences in Blacklick Township. Treatment will be provided at the existing Blacklick Valley Municipal Authority STP (NPDES Permit # PA0218723). Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

				NEED	S CATEGORIES	PROJECT INFORMATION	
CONNELLSVILLE MUNICIPAL AUTHORITY WASTEWATER TREATMENT PLANT EXPANSION PROJECT	COUNTY:	Fayette	l:	\$0	IVA:	\$0	PROJECT NO.: CS423204-02
PO Box 925	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: STP, PS, INT
Connellsville, PA 15425	NPDES #:	PA0026905	IIIA:	\$0	V:	\$19,095,255	DEP RATING: 32
	LOAN #:	71444	IIIB:	\$0	ELIG. COST:	\$19,095,255	DEP RANKING: 34 of 62 PV RATING: 47

- PROB DESC: The Connellsville Municipal Authority (CMA) has 19 Combined Sewer Overflows that discharge during wet weather to the Youghiogheny River. These CSOs impact a public beach and are also upstream of a public water supply drinking water intake. CMA must construct additional treatment facilities to facilitate compliance with the presumptive approach as listed in Section 3.2.1.2 of the EPA's Long-Term Control Plan (LTCP). This project will provide for meeting the objectives of the LTCP by addressing three specific areas: 1 Having no more than four (4) Combined Sewer Overflows (CSOs) events in any given year; 2 Eliminating and/or capturing no less than 85% by volume of the combined sewage collected in the sewage system during precipitation events; or 3 Eliminating and/or removing pollutants identified as causing water quality impairment in receiving waters.
- PROJ DESC: This is a design and construction project. The project is a wastewater improvements project to increase capacity and eliminate combined sewer overflows (CSOs). The proposed project will expand the existing hydraulic capacity of the wastewater treatment plant from 3.24 million gallons per day (MGD) to 4.4 MGD; expand the peak hydraulic capacity from 7.0 MDG to 24.0 MGD; reduce the quantity and frequency of CSO discharges to less than 85%; add one new pump station along Connell Run; and upgrade the existing West Side Pump Station along with new forcemains and interceptors. 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:

APPLICANT INFORMATION				NEED	S CATEGORIES		PROJECT INFORMATION
DECATUR TOWNSHIP - NEW LIBERTY AREA SEWER EXTENSION PROJECT	COUNTY:	Clearfield	I:	\$0	IVA:	\$1,893,000	PROJECT NO.: CS423168-01
575 Fairview Road	REGION:	NC	11:	\$0	IVB:	\$0	PROJ. TYPE: PS, FM, SS
Osceola Mills, PA 16666	NPDES #:	PA0037966	IIIA:	\$0	V:	\$0	DEP RATING: 32
	LOAN #:	71438	IIIB:	\$0	ELIG. COST:	\$1,893,000	DEP RANKING: 35 of 62 PV RATING: 37

- PROB DESC: The New Liberty Area in Decatur Township consists of 58 estimated dwelling units (EDUs), a sanitary survey was completed of all 58 EDUs which identified 2 confirmed malfunctions and 24 wildcat (direct discharge) systems. An additional 19 EDUs had suspected malfunctions.
- PROJ DESC: The New Liberty Area in Decatur Township consists of 58 estimated dwelling units (EDUs) that will be served by public sewer with final treatment and disposal at the Moshannon Valley Joint Sewer Authority sewage treatment plant. The project proposes the installation of 12,300 feet of gravity sewer, a pump station along Crago Lane, and 4,800 feet of force main to convey the sewage to the existing sewerage system. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
CITY OF ARNOLD COMBINED SEWER SEPARATION PROJECT	COUNTY:	Westmoreland	I:	\$0	IVA:	\$0	PROJECT NO.: CS423211-01
601 Drey Street	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS CSO
Arnold, PA 15068	NPDES #:	PA0027111	IIIA:	\$0	V:	\$1,797,027	DEP RATING: 32
	LOAN #:	75365	IIIB:	\$0	ELIG. COST:	\$1,797,027	DEP RANKING: 36 of 62
							PV RATING: 37

- PROB DESC: The US Environmental Protection Agency (USEPA) issued an Administrative Consent Order for the combined sewer overflows in the City of Arnold on December 31, 2009. As a result of the Order, the City of Arnold completed a physical survey and visual inspection of the sewer system via closed circuit television (CCTV). The City was required to perform an inspection of all lines that directly or indirectly send sewage to the MSANK sewage treatment plant. Repairs to the identified deficiencies are mandated by Pennsylvania Department of Environmental Protection (PADEP) to be completed no later than July 1, 2020. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the City's waterways during wet weather.
- PROJ DESC: The City of Arnold is repairing structurally deficient manholes, force mains, combined sewer regulators, diversion chambers and outfall pipes. This includes Moore Street and Drey Street combined sewers which are structurally deficient. Approximate quantities include 3,200 linear feet of pipe, 14 manholes, and a diversion chamber with a vortex valve. Treatment is provided at the existing Municipal Sanitary Authority of the City of New Kensington's (MSANK) Sewage Treatment Plant.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Peters Township Sanitary Authority - Conveyance System Improvements Projects	COUNTY:	Washington	I:	\$0	IVA:	\$0	PROJECT NO.: CS423181-01
111 Bell Drive	REGION:	SW	11:	\$0	IVB:	\$0	PROJ. TYPE: INT, SS, PS
McMurray, PA 15317	NPDES #:	PA0028703 PA	IIIA:	\$4,600,000	V:	\$0	DEP RATING: 32
	LOAN #:	75346	IIIB:	\$639,800	ELIG. COST:	\$5,239,800	DEP RANKING: 37 of 62 PV RATING: 57

- PROB DESC: As stipulated in the July 2015 Department approved Corrective Action Plan, the capacity of the Giant Oaks and Oakwood Road interceptors is to be expanded to address the hydraulic overloads and sanitary system surcharges experienced in the conveyance system during wet weather conditions. The existing interceptors are 45 to 55 years old and are at the end of their useful lives. The Hidden Brook area has failing gravity sewers.
- PROJ DESC: Install replacement sanitary sewers in the Shoreline Drive area, construct a new Shoreline Drive pump station and force main, and modify existing Giant Oaks interceptor and Oakwood Road interceptor. The Giant Oaks interceptor section of the project will include approximately 4,000 linear feet of in-trench replacement and 2,500 linear feet of new pipe alignment. The pipe size will be increased from 12-inch to 18-inch diameter. The Oakwood Road interceptor segment of the project will include approximately 3,600 linear feet of new pipe alignment. The pipe size will be increased from 12-inch to 21-inch to 21-inch diameter. Treatment will be provided at the existing Brush Run sewage treatment plant (STP) and Donaldson's Crossroad STP. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Benezette Township Wastewater Treatment Facility Improvements	COUNTY:	Elk	I:	\$600,000	IVA:	\$0	PROJECT NO.: CS423187-01
105 School House Road, P.O. Box 10	REGION:	NW	11:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Benezette, PA 15821	NPDES #:	PA0263711	IIIA:	\$0	V:	\$0	DEP RATING: 31
	LOAN #:	27911	IIIB:	\$0	ELIG. COST:	\$600,000	DEP RANKING: 38 of 62 PV RATING: 36

- PROB DESC: The project will correct a number of operational issues at the existing Benezette wastewater treatment facility. These issues have been the cause of many effluent discharge violations, resulting in a Consent Order and Agreement being entered into.
- PROJ DESC: The proposed project includes a number of improvements to their existing wastewater treatment facility. These improvements serve the purpose of bringing them into compliance regarding effluent violations while under a CO&A. Among the corrections are the addition of an effluent metering manhole, flow-paced chemical feed pumps for chlorination, air diffusers in the existing tanks, two new sludge dewatering reed beds, and a pretreatment system at the Benezette Campgrounds. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Hegins Hubley Authority Sanitary Design	COUNTY:	Schuylkill	l:	\$1,000,000	IVA:	\$1,000,000	PROJECT NO.: CS423188-01
915 West Maple Street	REGION:	NE	II:	\$0	IVB:	\$1,000,000	PROJ. TYPE: STP, PS, SS
Valley View, PA 17983	NPDES #:		IIIA:	\$0	V:	\$0	DEP RATING: 30
	LOAN #:	26001	IIIB:	\$0	ELIG. COST:	\$3,000,000	DEP RANKING: 39 of 62
							PV RATING: 35

- PROB DESC: A wastewater needs analysis conducted as part of the Hegins Township and Hubley Township Joint Act 537 Plan identified a need for a regional public sanitary sewer system to service portions of both municipalities. A needs analysis identified malfunctioning on-lot systems in the area which will be connected to the proposed public sewer system. The construction of the proposed sanitary sewer system will allow for the connection of these malfunctioning systems to a wastewater treatment plant and will provide a long-term method of sewage disposal.
- PROJ DESC: The proposed sanitary sewer system will service about 1,337 equivalent dwelling units (EDUs) in Hegins Township and 266 EDUs in Hubley Township. At 300 gallons per day per EDU, the system will generate about 480,900 gallons per day (GPD). The proposed wastewater treatment plant (WWTP) will be designed with a capacity of 600,000 GPD to accommodate existing and future flows. The WWTP will discharge treated effluent to Deep Creek, which drains to Pine Creek, which drains to Mahantango Creek, and finally enters the Main Branch of the Susquehanna River. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
PUNXSUTAWNEY BORO - INDIANA ST SANITARY & STORM WATER REPLACEMENT PROJECT	COUNTY:	Jefferson	l:	\$0	IVA:	\$258,025	PROJECT NO.: CS423224-01
301 East Mahoning Street	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS
Punxsutawney, PA 15767	NPDES #:	PA0020346	IIIA:	\$0	V:	\$0	DEP RATING: 29
	LOAN #:	75369	IIIB:	\$1,711,635	ELIG. COST:	\$1,969,660	DEP RANKING: 40 of 62 PV RATING: 44

PROB DESC: Televising the existing sanitary sever lines within the Indiana Street corridor confirmed the vitrified clay pipe is beyond it's useful life. This has contributed to combined sever overflows during wet weather events. In addition, the storm sewer needs to be upgraded to address historical storm water issues within the area including flooding issues and combined sever overflows during wet weather. Environmental benefits include eliminating the discharge of untreated or insufficiently treated sewage to the Borough's waterways during wet weather.

#### PROJ DESC: This project includes Installing 1,750 linear feet of 8-inch and 890 linear feet of 12-inch standard direct ratio (SDR) 35 gravity sewer line, 1,000 linear feet of sewer lateral, and 15 manholes and appurtenances (lengths are approximate). In addition, there will be approximately 125 linear feet of 15-inch, 875 linear feet of 18-inch, 320 linear feet of 24-inch and 260 linear feet of 36-inch smooth lined corrugated plastic pipe (SLCPP) installed as well as 27 storm sewer inlets and 1 storm sewer manhole.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
BOROUGH OF SINKING SPRING - BROAD STREET SANITARY SEWER IMPROVEMENT	COUNTY:	Berks	l:	\$0	IVA:	\$0	PROJECT NO.: CS423216-01
3840 Penn Avenue	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: SSREH
Sinking Spring, PA 19608	NPDES #:	PA0028649	IIIA:	\$0	V:	\$0	DEP RATING: 29
	LOAN #:	75366	IIIB:	\$1,750,000	ELIG. COST:	\$1,750,000	DEP RANKING: 41 of 62 PV RATING: 44

- PROB DESC: The Borough's sanitary sewer line on Broad Street has been in service for a long time and needs replaced. The pipe is near capacity and infiltration/inflow has become an issue. By replacing the pipe with a larger pipe additional capacity will be available and the infiltration/inflow will be reduced/eliminated. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways during wet weather.
- PROJ DESC: This is a sanitary sewer improvement project. The Borough will be replacing 2,950 linear feet of 10-inch diameter clay pipe with 15-inch diameter polyvinyl chloride pipe including 11 manholes. The carrying capacity of the sewer main is 1.02-million-gallon per day (MGD) and will increase to 3.015 MGD. The increase in capacity will reduce the chance of sanitary back-ups during flooding events such as those that occurred in 2018 and 2019. It will also provide capacity for downtown development proposed by the Borough's redevelopment plan.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFO		NEED	S CATEGORIES	<b>PROJECT INFORMATION</b>			
UNION TWP OVERLOOK SEWER PROJECT	COUNTY:	Washington	l:	\$0	IVA:	\$843,148	PROJECT NO.: CS423225-01
3904 Finley Elrama Road	REGION:	SW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS
Finleyville, PA 15332	NPDES #:	PA0027618	IIIA:	\$0	V:	\$0	DEP RATING: 25
	LOAN #:	27920	IIIB:	\$0	ELIG. COST:	\$843,148	DEP RANKING: 42 of 62
							PV RATING: 30

- PROB DESC: At present, over fifty percent of the residential properties located along Overlook Street and Library Road have on-lot sewage systems that are malfunctioning. In addition, a couple residents of Union Township have tapped into the South Park sanitary sewer lines without authorization and are thus receiving sewage treatment without payment. Environmental benefits include reducing insufficiently treated sewage sent to the community's waterways from malfunctioning on-lot systems.
- PROJ DESC: The sewer system will be extended to serve 26 equivalent dwelling units (EDUs) totaling 9,100-gallons per day. Construction will consist of approximately 2,600 linear feet of 8-inch diameter gravity sewer line, 16 manholes, two single residence pumps, and lateral service to within 150 linear feet of the residences. Treatment will be provided at the existing Piney Fork Sewage Treatment Plant.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEEDS CATEGORIES			PROJECT INFORMATION
FOREST HILLS MUNICIPAL AUTH. SOUTH OF SALIX SANITARY SEWER EXTENSION PROJECT	COUNTY:	Cambria	1:	\$0	IVA:	\$4,020,750	PROJECT NO.: CS423195-01
900 Locust Street	REGION:	SW	II:	\$0	IVB:	\$446,750	PROJ. TYPE: SS PS
Saint Michael, PA 15951	NPDES #:	PA0216941	IIIA:	\$0	V:	\$0	DEP RATING: 25
	LOAN #:	75356	IIIB:	\$0	ELIG. COST:	\$4,467,500	DEP RANKING: 43 of 62 PV RATING: 30

PROB DESC: Adams Township residents in the Luther/Salix Airport development area and along a portion of Peaceful Valley Road currently do not have access to public sewer service and rely on on-lot systems for sewer treatment. A number of these on-lot systems have started to show signs of failure and are increasingly becoming an environmental and public health concern. In order to address this issue, the Authority has planned to extend the municipal sanitary sewer collection system from Salix to the Salix Airport development and a portion of Peaceful Valley Road. The proposed project is anticipated to provide 145 residential homes access to public sanitary sewer service, thus eliminating the requisite use of on-lot systems within the project area.

PROJ DESC: The project is a sanitary sewer project within Adams Township, Cambria County. The Forest Hills Municipal Authority (FHMA) South of Salix Sanitary Sewer Extension Project proposes to install approximately 23,000 linear feet of gravity sanitary collection line, 200 linear feet of low-pressure sanitary line, approximately 1,900 linear feet of force main, 93 manholes, 8 cleanouts, 3 grinder pumps, and corresponding appurtenances along portions of Peaceful Valley Road, Krayn Road, Old Luther Street, Beech Street, Hemlock Street, and Oak Street. In addition, the proposed project includes the construction of a pump station and an associated electrical upgrade necessary to pump sewage from the new collection system to the existing gravity system in Salix. Flows from the project are then anticipated to be transported and treated by the FHMA South Fork Regional Wastewater Treatment Plant which has a design capacity of approximately 1.2 million gallons per day. Based on historic average daily flows received at the plant, there is more than enough reserve capacity available to accommodate additional flows upon project completion. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Green Category:

Business Case Req'd:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
GROVE CITY BOROUGH - WASTEWATER TREATMENT PLANT PROJECT PHASE IV	COUNTY:	Mercer	l:	\$10,980,200	IVA:	\$0	PROJECT NO.: CS423169-01
123 West Main Street	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Grove City, PA 16127	NPDES #:	PA0020257	IIIA:	\$0	V:	\$0	DEP RATING: 23
	LOAN #:	75336	IIIB:	\$0	ELIG. COST:	\$10,980,200	DEP RANKING: 44 of 62 PV RATING: 38

- PROB DESC: The capacity of the Borough of Grove City's wastewater treatment plant will be exceeded in the near future due to the needs of the tributary municipalities. In addition, it is organically overloaded and projected to continue to be organically overloaded in the next five years. The expansion of the wastewater treatment plant will eliminate the potential hydraulic overload and the existing organic overload condition.
- PROJ DESC: The project is an expansion of the wastewater treatment plant to increase the permitted hydraulic loading from 3.0 MGD to 3.342 MGD with a conventional singlestage activated sludge process preceded by primary clarification. Two new 60 foot diameter primary clarifiers will be constructed preceding the existing first and second stage activated sludge bioreactors. The existing first-stage activated sludge bioreactors will be repurposed as conventional singlebioreactors. A new 64 foot diameter primary anaerobic digester will be constructed. The existing 40 foot diameter primary digester will be repurposed as a secondary digester, and the existing 30 foot diameter secondary digester will be demolished. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the Borough's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION					S CATEGORIES	PROJECT INFORMATION	
Derry Twp MA - Keystone Area Sanitary Sewer Project	COUNTY:	Westmoreland	l:	\$0	IVA:	\$500,000	PROJECT NO.: CS423178-01
5760 Rte 982	REGION:	SW	II:	\$0	IVB:	\$2,102,000	PROJ. TYPE: SS, PS
New Derry, PA 15671	NPDES #:	PA0254088	IIIA:	\$0	V:	\$0	DEP RATING: 21
	LOAN #:	27912	IIIB:	\$0	ELIG. COST:	\$2,602,000	DEP RANKING: 45 of 62 PV RATING: 36

PROB DESC: The existing Keystone State Park STP is at the end of its useful life. In addition, malfunctioning on-lot septic systems exist in this community.

PROJ DESC: Construct a pump station, force main, and sanitary sewers to serve Keystone State Park and 37 existing residences with on-lot septic systems. Treatment will be provided at the existing New Alexandria sewage treatment plant (STP). Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
GREENFIELD TOWNSHIP SEWER AUTHORITY WASTEWATER TREATMENT PLANT WWTP UPGARDES	COUNTY:	Lackawanna	l:	\$2,000,000	IVA:	\$0	PROJECT NO.: CS423196-01
111 Lakeview Avenue	REGION:	NE	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Greenfield, PA 18405	NPDES #:	PA 0061671	IIIA:	\$0	V:	\$0	DEP RATING: 21
	LOAN #:	75353	IIIB:	\$0	ELIG. COST:	\$2,000,000	DEP RANKING: 46 of 62 PV RATING: 26

PROB DESC: Project involves upgrade of 30 yr. old 0.140 MGD WWTP which has been in chronic violation of its NPDES discharge permit requirements and effluent limits due to failure to initially construct the plant in accordance with its original design and DEP Part II construction permit, failure to properly maintain and operate the permit, and also due to apparent criminal activity (currently being investigated by FBI) surrounding the plant involving the Authority's prior consulting engineer along with Municipal/Authority workers historically involved.

PROJ DESC: Project includes new influent screen/splitter box, fine pore aeration system (SBR & aerobic digester), SBR decanters, sludge pumps, 15hp aeration blowers w/VFD's, UV disinfection control panel, miscelaneous electrical and mechanical improvements, and new control building roof. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Township's waterways.

Green Project: Yes

Business Case Req'd: No

Green Category: Energy Efficiency

Green Funding: \$595,000.00

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Franconia Sewer Authority - Morwood Area Sanitary Sewer System	COUNTY:	Montgomery	l:	\$0	IVA:	\$4,608,000	PROJECT NO.: CS423192-01
671 Allentown Road	REGION:	SE	II:	\$0	IVB:	\$0	PROJ. TYPE: SS
Franconia, PA 18924	NPDES #:		IIIA:	\$0	V:	\$0	DEP RATING: 20
	LOAN #:	75347	IIIB:	\$0	ELIG. COST:	\$4,608,000	DEP RANKING: 47 of 62
							PV RATING: 35

PROB DESC: The Village of Morwood and surrounding neighborhoods are plagued with failed and failing OLDS.

PROJ DESC: The proposed sewerage project will serve the Village of Morwood and other nearby neighborhoods. A sanitary sewer collection system will be constructed on the following roads to eliminate the use of failed on-lot disposal systems (OLDS): Morwood Road, Keller Creamery Road, Ridgeview Drive, Camp Road, Landis Road, Creamery Road, Hunsicker Road, Allentown Road, Indian Creek Road, and Godshall Road. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	<b>PROJECT INFORMATION</b>	
CENTRAL WAYNE REGIONAL AUTHORITY - CAPITAL IMPROVEMENTS PROJECTS	COUNTY:	Wayne	I:	\$1,368,875	IVA:	\$0	PROJECT NO.: CS423175-01
574 Bucks Cove Road	REGION:	NE	II:	\$0	IVB:	\$0	PROJ. TYPE: SS STPRehab
Honesdale, PA 18431	NPDES #:	PA0023469	IIIA:	\$0	V:	\$0	DEP RATING: 18
	LOAN #:	75339	IIIB:	\$4,354,125	ELIG. COST:	\$5,723,000	DEP RANKING: 48 of 62 PV RATING: 33

PROB DESC: Many of the main sewer collector lines are over 100 years old and beyond their useful service life. A SBR tank needs rehabilitated.

PROJ DESC: As noted within the PADEP approved Long Term Control Plan (LTCP) and the Act 537 Plan, the plans propose, among other action items, to repair or replace main collector sewer lines. The Authority has identified numerous deteriorated sanitary sewer lines that are in need to be replaced and/or rehabilitated. In addition, a project has also been identified at the WWTP site to address failures at the SBR treatment tanks. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEE	S CATEGORIES	PROJECT INFORMATION	
Slippery Rock MA - Sanitary Sewer Line Replacement Project	COUNTY:	Butler	I:	\$737,500	IVA:	\$0	PROJECT NO.: CS423185-01
116 Crestview Road, P.O. Box 157	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: SS
Slippery Rock, PA 16057	NPDES #:	PA0025569	IIIA:	\$0	V:	\$0	DEP RATING: 16
	LOAN #:	75348	IIIB:	\$885,000	ELIG. COST:	\$1,622,500	DEP RANKING: 49 of 62 PV RATING: 31

- PROB DESC: Slippery Rock Municipal Authority is proposing to upgrade portions of their sanitary sewer lines on State Route 108 and State Route 258. The sanitary sewer line replacements are necessary to upgrade antiquated pipes that are beyond their useful life and to address overflows and bottlenecking. In addition, the existing belt filter press will be replaced with a rotary press.
- PROJ DESC: Approximately 2,050 LF of sewage forcemain will be replaced at an existing forcemain with 6 inch HDPE SDR 21 pipe and will be installed parallel to the existing forcemain. Approximately 600 LF of 18 inch gravity sewer pipe will be replaced in-kind. In addition, the belt filter press will be replaced with a rotary press. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
YORK CITY SEWER AUTHORITY FILTER MEDIA AND EQUIPMENT PROJECT AND RELATED IMPROVEMENTS	COUNTY:	York	l:	\$0	IVA:	\$0	PROJECT NO.: CS423227-01
345 East Market Street	REGION:	SC	II:	\$7,500,000	IVB:	\$0	PROJ. TYPE: STPMOD
York, PA 17403	NPDES #:	PA0026263	IIIA:	\$0	V:	\$0	DEP RATING: 16
	LOAN #:	71446	IIIB:	\$0	ELIG. COST:	\$7,500,000	DEP RANKING: 50 of 62 PV RATING: 31

- PROB DESC: At times between 2012 and 2016, NPDES permit violations occurred resulting in Notices of Violation (NOVs) being issued. A Consent Order and Agreement was issued on July 12, 2017 indicating required actions. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.
- PROJ DESC: The proposed project includes the replacement of effluent filters which will be designed to a total suspended solids removal of less than 30 milligrams per liter (mg/l) and total Phosphorous of less than 0.8 mg/l at an average flow rate of 26 million gallons per day (MGD) and a peak flow of 54 MGD. New weir walls and weir gates will be designed for the hydraulics of the new filters. The motor control center (MCC) will be enlarged if necessary to accomodate the larger horsepower backwash pumps. The heating, ventilation and air conditioning (HVAC) equipment will be replaced for the entire building and all electrical wiring and control equipment will be replaced. The existing room will be inspected and architectural details such as window and doors will be inspected.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	<b>PROJECT INFORMATION</b>	
UNION TWP MA WASTEWATER TREATMENT FACILITY IMPROVEMENTS	COUNTY:	Mifflin	l:	\$2,500,000	IVA:	\$0	PROJECT NO.: CS423191-01
PO Box 5625	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Belleville, PA 17004	NPDES #:	PA0024708	IIIA:	\$0	V:	\$0	DEP RATING: 13
	LOAN #:	75355	IIIB:	\$0	ELIG. COST:	\$2,500,000	DEP RANKING: 51 of 62 PV RATING: 18

PROB DESC: The existing system is beyond its useful life. Digested sludge quality is poor affecting reed bed performance and allowing invasive species growth. The activated sludge return system is plagued by cold weather pump failures.

PROJ DESC: Replace the aerobic digester and aeration blowers. Replace three pumps and modify piping at the primary and waste activated sludge pumping station. Evacuate and replace the existing nine reed beds. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the Township's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
CHADDS FORD TWP SA TURNERS MILL EXPANSION AND RIDINGS CONVERSION	COUNTY:	Delaware	l:	\$0	IVA:	\$1,000,000	PROJECT NO.: CS423217-01
P.O. Box 816	REGION:	SE	II:	\$1,000,000	IVB:	\$0	PROJ. TYPE: STPMOD PS FM
Chadds Ford, PA 19317	NPDES #:		IIIA:	\$0	V:	\$0	DEP RATING: 12
	LOAN #:	75367	IIIB:	\$0	ELIG. COST:	\$2,000,000	DEP RANKING: 52 of 62 PV RATING: 17

- PROB DESC: The Ridings WWTP is an aging plant requiring constant maintenance and has reached the end of its useful life. The plant flows will be diverted to the Turners Mill WWTP which provides more effective treatment and requires less maintenance to operate. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.
- PROJ DESC: The 80,000 gallons per day (GPD) Ridings WWTP will be converted to a pump station and the sewer conveyed to the Turners Mill WWTP. Approximately 850 linear feet of new force main will connect the Ridings Pumping Station to the Turners Mill collection system. The Turners Mill wastewater treatment plant (WWTP) will be expanded from 140,000 (GPD) to 210,000 GPD to accommodate the additional flow.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
NORTH EAST BORO SA - WASTEWATER SYSTEM IMPROVEMENTS	COUNTY:	Erie	I:	\$0	IVA:	\$0	PROJECT NO.: CS423203-01
31 West Main Street	REGION:	NW	II:	\$14,618,000	IVB:	\$0	PROJ. TYPE: PS, STPMOD
North East, PA 16428	NPDES #:	PA0023043	IIIA:	\$0	V:	\$0	DEP RATING: 11
	LOAN #:	75354	IIIB:	\$0	ELIG. COST:	\$14,618,000	DEP RANKING: 53 of 62 PV RATING: 26

- PROB DESC: Sixteen Mile Creek provides little dilution for the treatment plant discharge, resulting in very stringent effluent limitations. The project will relieve Sixteen Mile Creek from being effluent dominated. The revised effluent limits, by moving the outfall, will result in numerous benefits including reducing operating costs, eliminating chemical additives and lowering the probability of effluent violations.
- PROJ DESC: This is a wastewater improvements project in North East Borough. The North East Borough Site 2 wastewater treatment plant currently discharges to Sixteen Mile Creek, approximately 4,000 linear feet upstream of its confluence with Lake Erie. The proposed project is for the installation of a new wastewater pump station, force main, and outfall to convey the treated wastewater from the North East Borough Site 2 treatment facility to a location approximately 2,700 feet offshore in Lake Erie. The effluent pump station will have a design capacity of approximately 3,500 gallons per minute. The force main will be approximately 6700 linear feet in total length and be 18-inches in diameter. The majority of installation will be by directional drilling with a small portion being open-cut. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the Borough's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
LONDONDERRY ESTATES/WOODCREST SEWER EXTENSION D& E Application	COUNTY:	Dauphin	l:	\$0	IVA:	\$392,000	PROJECT NO.: CS423220-01
783 South Geyers Church Road	REGION:	SC	11:	\$0	IVB:	\$0	PROJ. TYPE: SS
Middletown, PA 17507	NPDES #:		IIIA:	\$0	V:	\$0	DEP RATING: 10
	LOAN #:	26002	IIIB:	\$0	ELIG. COST:	\$392,000	DEP RANKING: 54 of 62 PV RATING: 15

- PROB DESC: Failing on-lot systems exist in Londonderry Estates. This is a need area identified by Act 537 planning. Environmental benefits include reducing insufficiently treated sewage sent to the community's waterways from malfunctioning on-lot systems.
- PROJ DESC: The Pennvest application is for the design engineering funding for the Londonderry Township's Sewage Facilities Plan Alternative which calls for a low pressure sewer system serving 46 existing homes in Londonderry Estates. The low pressure sewer system shall replace the use of the existing on-lot septic systems, some of which have failed. The project will include the installation of a 2-4 inch diameter low-pressure sanitary sewer main. The new 5,150 linear feet low-pressure sewer line will include approximately two air release valves located inside concrete manholes.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
PINE VALLEY MOBILE HOME PARK WWTP REPLACEMENT	COUNTY:	Union	l:	\$550,000	IVA:	\$0	PROJECT NO.: PR000061-01
215 West Church Street, Suite 105	REGION:	NC	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
King of Prussia, PA 19406	NPDES #:	PA0111538	IIIA:	\$0	V:	\$0	DEP RATING: 9
	LOAN #:	27915	IIIB:	\$0	ELIG. COST:	\$550,000	DEP RANKING: 55 of 62 PV RATING: 14

- PROB DESC: The existing treatment plant was installed in the early 1970's and needs replaced due to structural and other age related conditions. The existing facility is non-repairable. Failure of the plant would result in a potential discharge of raw sewage and the resulting potential public health threat.
- PROJ DESC: The existing wastewater treatment plant is a 30,000-gal per day extended aeration facility. The proposed replacement plant will be of identical size with a 10,000-gal equalization tank and a 5000-gal sludge storage tank added. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the community's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
JAMESTOWN MUNICIPAL AUTHORITY WPCP & LIBERTY STREET PUMP STATION IMPROVEMENTS PROJECT	COUNTY:	Mercer	l:	\$2,062,000	IVA:	\$0	PROJECT NO.: CS423198-01
414 Spring Street	REGION:	NW	II:	\$0	IVB:	\$0	PROJ. TYPE: PS STPMOD
Jamestown, PA 16134	NPDES #:	PA0029726	IIIA:	\$0	V:	\$0	DEP RATING: 9
	LOAN #:	27914	IIIB:	\$100,000	ELIG. COST:	\$2,162,000	DEP RANKING: 56 of 62 PV RATING: 24

- PROB DESC: The Borough of Jamestown is being proactive in addressing aged process equipment at both the Jamestown Municipal Authority Water Pollution Control Plant and the Liberty Street Pump Station.
- PROJ DESC: The project is a wastewater improvements project for the replacement of the Liberty Street Pump Station, and upgrade to the Jamestown Water Pollution Control Plant. The upgrades include replacement of the influent interceptor sewer, a new mechanical bar screen and channel, a new influent pump station, improvements to the aeration tanks, addition of four new clarifiers, repairs to the existing clarifiers, replacement of the disinfection system with ultraviolet disinfection system, and removal of existing sludge holding tank and replacement with two new sludge holding tanks with increased capacity. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEE	S CATEGORIES	PROJECT INFORMATION	
CHRISTIANA BOROUGH AUTHORITY - 2019 I&I PROJECT	COUNTY:	Lancaster	I:	\$0	IVA:	\$0	PROJECT NO.: CS423210-01
10 West Slokom Avenue, P. O. Box 135	REGION:	SW	11:	\$0	IVB:	\$0	PROJ. TYPE: SS, I/I
Christiana, PA 17509	NPDES #:	PA0025399	IIIA:	\$0	V:	\$0	DEP RATING: 9
	LOAN #:	27918	IIIB:	\$450,000	ELIG. COST:	\$450,000	DEP RANKING: 57 of 62
							PV RATING: 9

PROB DESC: The system experiences inflow and infiltration entering the Authority's sanitary sewer facilities. The system is hydraulically overloaded during wet weather.

PROJ DESC: The project will include the rehabilitation and repair of 19 existing sanitary sewer manholes and will also include the cured-in-place lining of approximately 3,150 linear feet of sanitary sewer main. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways during wet weather.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
THE MUNICIPAL AUTHORITY OF THE BOROUGH OF KITTANNING - MABK PLANT UPGRADES	COUNTY:	Armstrong	l:	\$425,000	IVA:	\$10,000	PROJECT NO.: CS423213-01
300 South McKean Street	REGION:	NW	11:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Kittanning, PA 16201	NPDES #:	PA0042234	IIIA:	\$0	V:	<b>\$</b> 0	DEP RATING: 7
	LOAN #:	27919	IIIB:	\$0	ELIG. COST:	\$435,000	DEP RANKING: 58 of 62 PV RATING: 7

PROB DESC: One of the plant's two trickling filter distribution systems has a significant leak in it, which has gotten worse over the years. It has existed for many years and results in less than optimal distribution of flow and treatment of the wastewater. If the leak continues to get worse it will eventually disrupt the microbes which are necessary for proper biological treatment of the sewage. The plant has two trickling filters which handle all biological treatment. The second trickling filter distribution mechanism also has leakage and uneven flow distribution in it, which if left unaddressed will result in treatment and effluent quality problems. The existing SCADA system is about 20 years old and is difficult to maintain. Critical alarms are no longer transmitted via telephone service as intended and previously executed. Concrete spalling on clarifier tanks has gotten worse over the years and rebar has been exposed and is rusting. The inlet in the parking lot has subsided over the years along with the adjacent area in the parking lot. Bricks have become loose and fallen out. The inlet needs to be rehabilitated before it continues to worsen and cause serious access issues at the plant.

PROJ DESC: Two trickling filter distribution mechanisms are being replaced in kind with rotary distributors and distribution arms with flow rate of 2,292 gpm to account for peak flow rates at the plant. Vital upgrades to the outdated SCADA system will be installed. Structural repair of clarifier concrete and stormwater inlet will occur at the plant. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Borough's waterways.

Green Project:

Green Category:

Business Case Req'd:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
Benton Municipal Water and Sewer Authority 2020 WWTP UPGRADES	COUNTY:	Columbia	l:	\$2,200,000	IVA:	\$0	PROJECT NO.: CS423229-01
P.O. Box 516 1A Third Street Extension	REGION:	NC	11:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD
Benton, PA 17814	NPDES #:	PA0115088	IIIA:	\$0	V:	\$0	DEP RATING: 5
	LOAN #:	75371	IIIB:	\$0	ELIG. COST:	\$2,200,000	DEP RANKING: 59 of 62 PV RATING: 20

- PROB DESC: Benton Municipal Water and Sewer Authority owns a sewage treatment plant built in 1994. Some components of that plant are nearing the end of their useful life. Additionally, part of the plant was converted from contact stabilization to conventional aeration in the late 1990's. To ensure compliance with future effluent limits, and extend the life of the plant, process equipment will be converted to allow the whole plant to function in conventional aeration mode.
- PROJ DESC: This project extends the useful life of the wastewater treatment plant though painting of tanks and replacement of pumps, air drops, ball valves and coarse bubble diffusers. The scope also includes complete facility conversion from contact stabilization to conventional aeration. This involves replacing three unit process blowers with new blowers operated by variable frequency drives and DO probes, a new blower for existing WAS/RAS air lift pumps, among other in-kind replacements at the plant. Additionally, the project will provide for equipment replacement at the pump station.

Green Project: Yes

Business Case Req'd: No

Green Category: Energy Efficiency Green Funding: \$34,000.00

APPLICANT INFORMATION			NEEDS CATEGORIES				PROJECT INFORMATION
CLINTON CO SEWER AUTH - BALD EAGLE CREEK FM REPLACEMENT/PUMP STATION UPGRADES	COUNTY:	Clinton	l:	\$0	IVA:	\$0	PROJECT NO.: CS423173-01
P.O. Box 453	REGION:	NC	II:	\$0	IVB:	\$0	PROJ. TYPE: PS FM
Lock Haven, PA 17745	NPDES #:	PA0025933	IIIA:	\$0	V:	\$0	DEP RATING: 4
	LOAN #:	75340	IIIB:	\$1,049,772	ELIG. COST:	\$1,049,772	DEP RANKING: 60 of 62 PV RATING: 19

- PROB DESC: The Clinton County Sewer Authority Regional Pump Station is located upstream of an 8-inch cast iron force main from the 1950s that is near the end of its useful life and creates a "bottleneck" that causes capacity issues for upstream users. Additionally, when the pumps were previously replaced at this pump station, the change in pump type caused the effective pumping capacities to be reduced below the permitted capacity, contributing additional problems to sewer capacity for upstream users.
- PROJ DESC: This proposal is located at the Clinton County Sewer Authority Regional Pump Station, and consists of the installation of a 16-inch force main under Bald Eagle Creek (to replace an 8-inch cast iron force main) and the replacement of four submersible pumps at the pump station along with associated upgrades. Environmental benefits include reducing the flow of untreated or inadequately treated sewage to the Authority's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION			NEEDS CATEGORIES				PROJECT INFORMATION
SHREWSBURY BOROUGH - CAPITAL CONTRIBUTION PROJECT NEW DEWATERING EQUIPMENT	COUNTY:	York	l:	\$2,015,000	IVA:	\$0	PROJECT NO.: CS423205-01
35 W. Railroad Ave	REGION:	SC	II:	\$0	IVB:	\$0	PROJ. TYPE: CC
Shrewsbury, PA 17361	NPDES #:	PA0043257	IIIA:	\$0	V:	\$0	DEP RATING: 4
	LOAN #:	27916	IIIB:	\$0	ELIG. COST:	\$2,015,000	DEP RANKING: 61 of 62 PV RATING: 19

PROB DESC: New Freedom Borough ("NFB") treats sewage for Shrewsbury Borough ("Borough"), Hopewell Township ("Hopewell") and Shrewsbury Township ("Shrewsbury"). The Borough and Shrewsbury Municipal Authority ("MA") owns, collects and transmits the Borough's, Hopewell's and Shrewsbury's sewage to NFB. NFB is replacing original 1972 equipment at the plant because it has reached the end of its useful life. The Borough is responsible for paying their proportionate share of the construction costs.

PROJ DESC: This project is for improvements to the sludge dewatering system. The project will consist of replacing the two existing belt filter presses with two volute presses. They were originally installed in the late 1970s and beginning 1980s. They have surpassed their equipment life considering them non-practicable to be retained and/or upgraded. Environmental benefits include eliminating the potential discharge of inadequately treated sewage to the Borough's waterways.

Green Project:

Business Case Req'd:

Green Category:

APPLICANT INFORMATION				NEED	S CATEGORIES	PROJECT INFORMATION	
EASTERN SNYDER COUNTY REGIONAL AUTHORITY (ESCRA) WWTP IMPROVEMENTS	COUNTY:	Snyder	l:	\$10,381,500	IVA:	\$0	PROJECT NO.: CS423228-01
870 South Front Street	REGION:	NC	II:	\$0	IVB:	\$0	PROJ. TYPE: STPMOD PS
Selinsgrove, PA 17870	NPDES #:	PA0110582	IIIA:	\$0	V:	\$0	DEP RATING: 2
	LOAN #:	75372	IIIB:	\$2,519,800	ELIG. COST:	\$12,901,300	DEP RANKING: 62 of 62
							PV RATING: 17

PROB DESC: The existing sewage treatment plant and pump stations for the Eastern Snyder County Regional Authority (ESCRA) were constructed in the late 1970s. While some upgrades to the biological process were made at the plant in 2003, many components of the plant are nearing or at their end-of-useful life. Additionally, many individual pieces of equipment no longer have replacement parts available, making repairs difficult. Furthermore, the belt filter press solids handling system is less efficient and effective than newer technologies.

PROJ DESC: This project consists of several upgrades and improvements that do not result in changes to hydraulic or organic capacities of the system and plant. Most of the project consists of "like-for-like" replacements. The project includes pump replacements and other rehabilitation efforts at the Shamokin Dam Pumping Station and the Main Pump Station. At the wastewater treatment plant, the project includes replacement of pumps and valves located throughout the plant, replacement of blowers, replacement of the belt filter press with screw presses for solids handling, upgrade of various electrical components, including control panels and lighting throughout the plant, and other various activities such as ventilation upgrades.

Green Project:

Business Case Req'd:

Green Category: