

**PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY AND DEPARTMENT OF ENVIRONMENTAL PROTECTION
FEDERAL FY 2015
DRINKING WATER PROJECT PRIORITY LIST
APRIL 22, 2015**

EXPLANATION OF HEADINGS (EXCEPT THOSE THAT ARE SELF-EXPLANATORY)

PROJECT TYPE:

- SRC - SOURCE
- TRANS - TRANSMISSION SYSTEM
- PS - PUMP STATION
- WS - WATER STORAGE
- DS - DISTRIBUTION SYTEM
- METERS- WATER METERS
- LDE - LEAK DETECTION SYSTEM

PWSID - PUBLIC WATER SYSTEM ID NUMBER

PROJECTS WITH DEP PROJECT RATING OF 00* INDICATE PROJECTS WERE RANKED USING OLD RANKING SYSTEM. RATING DETAIL FOR THESE PROJECTS IS AVAILABLE IN APRIL 22, 2014 PROJECT PRIORITY LIST

LEGEND FOR PROJECT TYPE:

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APRIL 22, 2015

APPLICANT NAME: HAZLETON CITY AUTH.-STOCKTON 6&8 WATER	REGION: II	DEP PROJECT RATING: 87
STREET ADDRESS: 400 E. ARTHUR GARDNER PARKWAY	PWSID: 2408001	PROJRANK: 1
CITY: HAZLETON	FUND SOURCE: DWSRF	PROJECT COST: \$2,210,181
COUNTY: LUZERNE	MTGDATE: 4/22/2015	PROJECT TYPE: SRC, DS

PROJ. DESCRIPTION: HCA proposes the abandonment of the existing unfiltered, untreated surface water source of supply and connecting via a 12-inch waterline extension (10,535 LF) (including hydrants, meters, and curb stops) the residents of Stockton #6 and #8 (43 connections) to HCA's existing distribution system. The waterline extension includes 12-inch waterline approximately 2 miles east along Club 40 Road from an existing waterline located near the intersection of Broad Street and Club 40 Road including all necessary appurtenances. The Department has sampled in July 2014 the existing source serving the customers of the defunct Stockton Water Authority and confirmed the presence of giardia lamblia, the organism responsible for giardiasis. The system is considered a community PWS system and is regulated by the Department as such. The current water system serving the residents of Stockton is not in compliance with the Department's Safe Drinking Water Act (Chapter 109.202 which requires a PWS to provide adequate treatment to reliably protect users from adverse health effects of microbiological contaminants, including pathogenic bacteria, viruses and protozoan cycts and provide as a minimum, continuous filtration and disinfection for surface water sources.)

PROB. DESCRIPTION: The purpose of the project is to provide potable water service via a 12-inch waterline extension (hydrants and meters) to the customers (43 connections) of the defunct Stockton Water Association located in Hazle Township, Luzerne County. Current water service to the affected residents is from an untreated, unfiltered, not-disinfected surface water source of supply. The system is considered a community PWS system and is regulated by the Department as such. The current water system serving the residents of Stockton is not in compliance with the Department's Safe Drinking Water Act (Chapter 109.202 which requires a PWS to provide adequate treatment to reliably protect users from adverse health effects of microbiological contaminants, including pathogenic bacteria, viruses and protozoan cycts and provide as a minimum, continuous filtration and disinfection for surface water sources.) In July 2014, sampling of the source was conducted and confirmed the presence of giardia cysts. The Department prepared a notice indicating the presence of giardia lamblia, the organism responsible for giardiasis, and hand-delivered the notices to each home in Stockton #6 and #8. The notice also highlighted sample results confirming the presence of high total coliform bacteria (340 colonies/100 ml), turbidity (1.25 NTU), and the presence of aluminum (0.307 mg/l).

POPULATION: 38,022	PV RATING: 112
GREEN PROJECT: No	GREEN CATEGORY: N/A
BUSINESS CASE: N/A	GREEN AMOUNT: \$0

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APPLICANT NAME: EAST DUNKARD WA -DVJMA CUST. ACQUISITIO	REGION: V	DEP PROJECT RATING: 87
STREET ADDRESS: PO BOX 241, ROUTE 88	PWSID: 5300012	PROJRANK: 2
CITY: DILLINER	FUND SOURCE: DWSRF	PROJECT COST: \$9,483,896
COUNTY: GREENE	MTGDATE: 7/22/2014	PROJECT TYPE: DS, WS, METERS

PROJ. DESCRIPTION: The proposed project will provided reliable water supply and improve quality of water quality to the DVJMA customer base. The following components will be constructed: 200,000 gallon Donley Tank, 200,000 gallon Able Tank and 360,000 gallon Griffin Tank, Eight storage tank mixers, two tank altitude valves, 25 fire hydrants, 20 blow offs, 1,400 feet of 10" DI pipe, 51,100 feet of 8" PVC pipe, 15,900 feet of 6" PVC pipe and 4,100 feet of 2 " PVC pipe and 466 new water meters.

PROB. DESCRIPTION: Dunkard Valley Joint Municipal Authority has an outdated water treatment system and a progressively deteriorating potable water delivery system (mostly cast iron pipes). Currently, the water losses from Dunkard Valley Joint Municipal Authority distribution system are greater than 50 percent. The ability to maintain adequate water supply to customers of Dunkard Valley Joint Municipal Authority is greatly compromised by on-going breaks and leakage in the distribution system.

Water supply and pressure issues throughout the system greatly jeopardize the public safety by lack of available water for firefighting in the service area. Access for flushing the existing water distribution system is extremely limited. Some of the system is over forty years old and has never been able to be adequately flushed.

The project will also address water quality issues in the existing East Dunkard Water Authority distribution system that will directly affect EDWA's ability to reliably service the DVJMA customers once they are added to the East Dunkard Water Authority water system.

Once the Dunkard Valley Joint Municipal Authority's water system is repaired, East Dunkard Water Authority will acquire the entire water system and its customers.

POPULATION: 3,962
GREEN PROJECT: No
BUSINESS CASE:

PV RATING: 122
GREEN CATEGORY:
GREEN AMOUNT: \$0

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APPLICANT NAME: FORD CITY BOROUGH WATER TREATMENT PL	REGION: V	DEP PROJECT RATING: 75
STREET ADDRESS: P.O. BOX 112, NEALE AVE	PWSID: 5030005	PROJRANK: 3
CITY: FORD CITY	FUND SOURCE: DWSRF	PROJECT COST: \$3,196,800
COUNTY: ARMSTRONG	MTGDATE: 4/22/2015	PROJECT TYPE: TREAT

PROJ. DESCRIPTION: Water treatment plant renovation is needed and includes the following: construction of new building, installation of two water softener units, two reverse osmosis units, chemical addition system to replace the gas chlorination system with liquid sodium hypochlorite system, water meters, rehabilitation work associated with the ground water sources and an emergency generator.

PROB. DESCRIPTION: Water treatment plant renovation is required and the existing WTP plant is old and needs to be decommissioned/abandoned - due to numerous documented compliance problems.

POPULATION: 3,410	PV RATING: 100
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency
BUSINESS CASE: Not Required	GREEN AMOUNT: \$339,000

APPLICANT NAME: PATTON MUNICIPAL AUTHORITY WATER INTER	REGION: V	DEP PROJECT RATING: 68
STREET ADDRESS: P.O. BOX 175	PWSID: 4110024	PROJRANK: 4
CITY: PATTON	FUND SOURCE: DWSRF	PROJECT COST: \$2,500,000
COUNTY: CAMBRIA	MTGDATE: 10/22/2014	PROJECT TYPE: DS, PS, WS

PROJ. DESCRIPTION: This project will eliminate the surface source and develop groundwater wells. It will also regionalize the system with an interconnection with Elder Township and Hastings Borough. This will involve the construction of approximately 12,500 feet of 8-inch waterline and appurtenances, a meter vault, a booster pump station with disinfection, and the construction of a 125,000 gallon finished water storage tank with a PAX mixing system.

PROB. DESCRIPTION: Patton Borough has been in violation of TTHM MCL's since 2005 due to the Chest Creek surface source. A Consent Order & Agreement was signed on June 25, 2012 which required the Authority to eliminate the surface source.

POPULATION: 2,700	PV RATING: 99
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

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APPLICANT NAME: RENOVO BOROUGH WATER AUTHORITY 2015	REGION: IV	DEP PROJECT RATING: 66
STREET ADDRESS: FIFTH STREET	PWSID: 4180058	PROJRANK: 5
CITY: RENOVA	FUND SOURCE: DWSRF	PROJECT COST: \$4,045,758
COUNTY: CLINTON	MTGDATE: 4/22/2015	PROJECT TYPE: DS, WS, METERS

PROJ. DESCRIPTION: Renovo Borough Water Authority is proposing to replace approximately 10,850 l.f. of cast iron water main, much of which was originally constructed in 1906. The water main will be replaced with C900 DR-18 PVC pipe and the diameters will be exact replacement, mostly 8" and 10" waterline. The project includes replacing all the service lines (approximately 130) on the replaced mains and 22 fire hydrants. All replaced service connections will also receive remote radio read technology water meters. A welded steel 300,000 gallon water storage tank that was constructed in 1989 is proposed to be re-coated since significant corrosion is beginning to occur. A meter pit is also proposed as part of this project on the 10" water line from Renovo Borough to Drury's Run to determine water consumed and/or lost on this long portion of distribution main.

PROB. DESCRIPTION: The waterline to be replaced has been experiencing increasing water outages; 14 since 2006 with most outages lasting from 10 to 18 hours to repair. One outage in 2014 was longer than 18 hours. The water mains provide the majority of the service area with water so well over 10% of the service area is affected by the water outages. The water main to be replaced is a significant contributor of the water system's 61% unaccounted for water loss. New service lines and meters are necessary since currently one service connection and meter provides water to two to three residential units. Also, leaded joints are used to connect the main line to the service lines; Renovo has been having increasing lead levels in their distribution system; this project will remove 5,000 lbs of lead. The project will also include a valve exercising machine and a leak correlator to begin implementing an active leak detection and repair program. Friction loss is becoming a major issue (due to iron buildup) in the system where pressures are being increased to the point of the pumps in the pump station rising above the cut off pressure before the 300,000 gallon water storage tank is filled. This causes less water to be available for potable use and fire flow and causes pressure reduction within the system. This project will eliminate this issue.

POPULATION: 2,000	PV RATING: 97	
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency	
BUSINESS CASE: Not Required	GREEN AMOUNT: \$149,500	

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APPLICANT NAME: LEWISTOWN BORO MUN AUTH - HILLSIDE TER	REGION: III	DEP PROJECT RATING: 65
STREET ADDRESS: 70 CHESTNUT ST. PO BOX 68	PWSID: 4440010	PROJRANK: 6
CITY: LEWISTOWN	FUND SOURCE: DWSRF	PROJECT COST: \$4,000,000
COUNTY: MIFFLIN	MTGDATE: 7/22/2014	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project will extend MABL service to the Hillside Terrace MHP. Also the project will extend service to pick up other residents in the township that have well sources that are compromised.

PROB. DESCRIPTION: Two areas of Derry Township are not served by the Municipal Authority of the Borough of Lewistown (MABL). One of these two areas is Hillside Terrace Mobile Home Park that does not have 4-log inactivation of viruses at the existing source. Project will supply potable water to extended service area.

POPULATION: 21,576	PV RATING: 85
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

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APPLICANT NAME: HASTINGS MUNICIPAL AUTHORITY WATER SYS	REGION: V	DEP PROJECT RATING: 65
STREET ADDRESS: P.O. BOX 559	PWSID: 4110013	PROJRANK: 7
CITY: HASTINGS	FUND SOURCE: DWSRF	PROJECT COST: \$5,233,164
COUNTY: CAMBRIA	MTGDATE: 7/22/2014	PROJECT TYPE: SRC, TREAT, DS, W

PROJ. DESCRIPTION: Water interconnection, approximately 9,900 L.F. 8" ductile iron waterline. Slickport waterline replacement 1,486 8" ductile iron waterline, 4,190 6" ductile iron waterline and 6 fire hydrants. Mine Spring No. 1 Source Withdrawal System upgrade test well no. 9 into a production well, installation of a VFD well pump, construction of a new control building, improvements to the storage tank and access road. Raw water transmission main replacement 7,685 L. F. 8" ductile iron waterline. Water Treatment Plant rehabilitation and improvements include control system upgrades, replacement of the plant's filtration system. and a rebuild of several ozone destructor and air compressor components.

PROB. DESCRIPTION: Construction of a water system interconnection between Hastings Municipal Authority (HMA) and Elder Township Municipal Authority (ETMA) to provide a supplemental, secondary source of supply to the HMA system. Replacement of the existing water distribution system in the Slickport area of Elder Township. Rehabilitation/restoration/modification of the existing mine spring raw water source withdrawal system. Installation of a dome roof over the existing uncovered ground level. concrete mine spring No. 1 raw water reservoir. Replacement of the existing raw water transmission main from mine spring raw water reservoir to the existing Hastings water treatment plant. Installation of upgrades to the water treatment plant controls and telemetry systems. Replacement of the existing tri-media water filtration tanks and filter media in the water treatment plant, rebuild of the ozone pre-treatment system and miscellaneous minor equipment rehabilitation

POPULATION: 2,240	PV RATING: 88
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

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APPLICANT NAME: BEAR VALLEY FRANKLIN COUNTY PA JA. WATE **REGION:** III **DEP PROJECT RATING:** 62
STREET ADDRESS: P O BOX 294 **PWSID:** 7280043 **PROJRANK:** 8
CITY: ST THOMAS **FUND SOURCE:** DWSRF **PROJECT COST:** \$11,500,000
COUNTY: FRANKLIN **MTGDATE:** 1/15/2015 **PROJECT TYPE:** SRC, TREAT, METER

PROJ. DESCRIPTION: The proposed project includes the construction of five (5) new groundwater sources (Well Nos. 3, 4, 5, 7, and 8 @ 200, 50, 100, 100, and 50 gpm respectively), a 1.0 MGD membrane filtration treatment plant with pre-treatment and wastewater facilities, clearwell, bulk water loading station, and system wide meter replacement.

PROB. DESCRIPTION: The Authority and DEP entered into COAs dated Nov. 15, 2004 and Dec. 18, 2007 among other things, these COAs required the Authority to develop additional source capacity to meet maximum daily demand and initiate efforts to reduce unaccounted for water loss. Project will provide sufficient quantity of water to the service area.

POPULATION: 9,000 **PV RATING:** 67
GREEN PROJECT: Yes **GREEN CATEGORY:** Water Efficiency
BUSINESS CASE: Not Required **GREEN AMOUNT:** \$1,100,000

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APPLICANT NAME: BLACKLICK VALLEY MA - WATER SYSTEM IMPR	REGION: V	DEP PROJECT RATING: 58
STREET ADDRESS: P.O. BOX 272	PWSID: 4110077	PROJRANK: 9
CITY: TWIN ROCKS	FUND SOURCE: DWSRF	PROJECT COST: \$1,998,000
COUNTY: CAMBRIA	MTGDATE: 10/22/2014	PROJECT TYPE: DS, WS, METERS

PROJ. DESCRIPTION: This water system improvements project consists of approximately 10,687 LF of 8 inch diameter water main, internal treatment systems to reduce disinfection byproducts in the existing 365,000 and 300,000 gallon capacity water storage tanks (Pindleton and Vintondale), 856 water service meters, tank control equipment and related appurtenances. Total project cost is calculated to be \$1,998,000.00. The project will add 21 customers and existing customers along State Route 271 and Cardiff Road, all in Blacklick Township and Vintondale Borough who have inadequate water pressure and fire flow.

PROB. DESCRIPTION: The Authority's proposed project will serve new (21 customers in Blacklick Township) and existing residences in Blacklick Township and Vintondale Borough who currently have inadequate water pressure and fire flow and the project will also reduce disinfection byproducts in the 365,000 gallon Pindleton and 300,000 gallon Vintondale tanks with the installation of a PAX mixing system. Approximately 856 water service meters will be installed as well as tank control equipment. The Authority will be installing approximately 10,687 LF of 8-inch diameter PVC water main pipe. The new and replacement water mains will follow the alignment of the existing roads. A survey was performed to indicate the need for this water line replacement. The following is the results of the survey: 1. Number of new customers on existing wells: 22, 2. Number of existing wells sampled: 9, 3. Number of existing well samples exhibiting iron or bacteria contamination: 6.

POPULATION: 2,140	PV RATING: 77
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency
BUSINESS CASE:	GREEN AMOUNT: \$350,960

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APPLICANT NAME: UNION CITY MA - GREENSAND FILTR SYS & WA **REGION:** VI **DEP PROJECT RATING:** 55
STREET ADDRESS: 12 SOUTH MAIN STREET **PWSID:** 6250064 **PROJRANK:** 10
CITY: UNION CITY **FUND SOURCE:** DWSRF **PROJECT COST:** \$2,690,000
COUNTY: ERIE **MTGDATE:** 10/22/2014 **PROJECT TYPE:** TREAT, DS

PROJ. DESCRIPTION: The water after passing through the proposed greensand filter system will be delivered to the existing North Storage Tank, per the current flow regime. The chlorination system at the existing treatment plant will be used to maintain a continuous free chlorine residual to oxidize manganese prior to the greensand filter system and regenerate the greensand media. Additionally the Authority also plans to replace existing water mains in seven (7) locations within the service area of the Boro, due to insufficient capacity. Each of these water mains is being increased from 4-inch to 6-inch diameter water mains.

PROB. DESCRIPTION: During the summer and fall months, the Municipal Authority of the Borough of Union City (Authority) experiences high levels of manganese in the raw water supply from the reservoir. The current method of reducing manganese levels is to chlorinate the raw water, oxidize manganese and remove it through the existing gravity filters. However, the treatment method generates disinfection byproducts and has caused violations with DEP distribution byproduct standards. In order to achieve continuous compliance with the PA DEP standards, the Authority must remove the manganese and/or reduce the prechlorination prior to the gravity filters. Complete elimination of pre chlorination is not the sole solution due to the fact that some pre chlorination is needed on top of the gravity filters to prevent excessive biologic growth due to high organics.

POPULATION: 3,900 **PV RATING:** 78
GREEN PROJECT: No **GREEN CATEGORY:**
BUSINESS CASE: **GREEN AMOUNT:** \$0

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APPLICANT NAME: HAWTHORN REDBANK AREA WTER LINE REPL.	REGION: VI	DEP PROJECT RATING: 55
STREET ADDRESS: BOX 241	PWSID: 6160026	PROJRANK: 11
CITY: HAWTHORN	FUND SOURCE: DWSRF	PROJECT COST: \$4,019,850
COUNTY: CLARION	MTGDATE: 4/22/2015	PROJECT TYPE: DS

PROJ. DESCRIPTION: In order for HRRMA to effectively operate and maintain the system, a replacement of 44,900 lineal feet of existing waterlines and hydrants in Hawthorn Borough, Alcola and Shermin Heights areas of (Redbank Township Clarion County) and Walker Flats area of (Redbank Township, Armstrong County) has become evident. Project will replace approximately 76.8% of total water mains within the system.

PROB. DESCRIPTION: The distribution system is over 50 years old. The majority of the waterlines are transite pipe. HRRMA has experienced several breaks over the years. Unaccounted-for water (UAFW) losses is about 45%.

POPULATION: 950	PV RATING: 90
GREEN PROJECT: Yes	GREEN CATEGORY: Water & Energy Efficie
BUSINESS CASE: Required	GREEN AMOUNT: \$4,019,850

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APPLICANT NAME: SUBURBAN LOCK HAVEN WATER AUTHORITY -	REGION: IV	DEP PROJECT RATING: 54
STREET ADDRESS: 326 MAIN STREET	PWSID: 4180049	PROJRANK: 12
CITY: MILL HALL	FUND SOURCE: DWSRF	PROJECT COST: \$1,658,000
COUNTY: CLINTON	MTGDATE: 10/22/2014	PROJECT TYPE: DS, PS, WS

PROJ. DESCRIPTION: The project includes slip lining 1,450 l.f. of the LHU river crossing with 12" PVC or HDPE waterline; constructing a 54,000 gallon aboveground bolted steel tank; replacing the Sunset Pines pumps (in-kind); upgrading the Irwin Street booster station with higher capacity pumps and upgrading the Salona distribution main by replacing 10" D.I. pipe with 4,850 l.f. of 16" D.I., 1,350 l.f. of 12" D.I. and 230 l.f. of 8" D.I. waterline.

PROB. DESCRIPTION: Suburban Lock Haven Water Authority (SLHWA) provides water service north across the West Branch Susquehanna River to Woodward and Colebrook Townships. Service is provided with two waterlines: the Piper River Crossing and the LHU River Crossing. The ~100 year old LHU River Crossing experienced a major break in April 2013. Currently, water service to the communities in Woodward and Colebrook Townships are only served by the Piper River Crossing that has also experienced minor breaks recently (last documented in spring of 2013). The LHU River Crossing served as a water loop to decrease the water age and prevent DBP formation at Farrandville, which is at the far end of the service area. SLHWA is having a hard time maintaining chlorine residual because of the increased water age since the system on the north side of the river is now operating as a dead end. This is causing SLHWA to blow off large quantities of water to lower the water age. The proposal to slip line the LHU River Crossing will correct the redundancy concerns, the water age problems, water wasting and DBP formation concerns. The Sunset Pines storage tank, Irwin Street booster pump station and Salona distribution main are at the end of their useful life and are also at their maximum capacity and will not be able to provide future domestic demand. This is especially an issue since the Irwin Street pumps supply the Lock Haven Hospital and Susque View Home. Also, the Sunset Pines tank is below ground and does not provide 20 psi of pressure to some parts of the system it serves (1 - 80 psi). This project does not significantly improve inadequate fire flows in the respective pressure zones.

POPULATION: 9,000	PV RATING: 84
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

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APPLICANT NAME: PA AMERICAN - WASHINGTON COUNTY MAIN E **REGION:** V **DEP PROJECT RATING:** 53
STREET ADDRESS: 800 WEST HERSHEY PARK DRIVE **PWSID:** 5630035 **PROJRANK:** 13
CITY: HERSHEY **FUND SOURCE:** DWSRF **PROJECT COST:** \$8,370,000
COUNTY: WASHINGTON **MTGDATE:** 7/22/2014 **PROJECT TYPE:** DS

PROJ. DESCRIPTION: The proposed project includes the installation of approximately 100,000 linear feet of 8" and 12" diameter water main to provide service to at least 234 potential customers in Amwell Township, Buffalo Township, Cecil Township, Chartiers Township, Independence Township, Jefferson Township, Mount Pleasant Township, North Strabane Township and Smith Township. A booster pump station will be installed to increase the pressure to the customers on Courson Hill Road. Pennsylvania-American Water Company (PAWC) has received requests to extend public water supply and public fire protection service to the areas included in this project. All areas included in this project are part of a Public Utility Commission order that requires the lines be installed by June 30, 2015.

PROB. DESCRIPTION: The problems experienced in these areas include water quality and quantity deficiencies in groundwater sources and a lack of public fire protection facilities. Private wells and springs in these areas do not produce sufficient quantities of water for normal daily use and the water they do produce is of poor quality. In some instances, there are no public sewerage systems. Areas served by on-lot septic systems can cause contamination of the wells and springs. Some families in the project area haul water and others collect roof runoff. Many residents travel to coin-operated laundromats and purchase bottled water.

POPULATION: 10,255 **PV RATING:** 58
GREEN PROJECT: No **GREEN CATEGORY:**
BUSINESS CASE: **GREEN AMOUNT:** \$0

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APPLICANT NAME: WILLIAMSPORT MUN WATER AUTH - 2014-16 S	REGION: IV	DEP PROJECT RATING: 52
STREET ADDRESS: 253 WEST FOURTH STREET	PWSID: 4410173	PROJRANK: 14
CITY: WILLIAMSPORT	FUND SOURCE: DWSRF	PROJECT COST: \$9,000,000
COUNTY: LYCOMING	MTGDATE: 7/22/2014	PROJECT TYPE: WS, DS

PROJ. DESCRIPTION: The South Williamsport Tank and Main Improvements Project consists of creating a new "Mountain Pressure Zone" that consists of a new pump station, ~four miles of 8" and 12" water main and a new 500,000 gallon storage tank. The project is meant to improve fire flow in South Williamsport (including the Little League World Series Complex) and increase pressures during fire flow in addition to connecting new customers to the system. There are areas in the system where pressures drop below 20 psi during fire flows. The Loyalsock Township project consists of replacing approximately one mile of 8" water main with 12" DI water main along Four Mile Drive and LaFayette Parkway. This line has experienced numerous breaks when flow is reversed from the Grampian High Service pressure zone to the Loyalsock pressure zone during Loyalsock pump station outage.

PROB. DESCRIPTION: 25 Pa. Code Section 109.607 requires that pressures in water mains be at least 20 psig. Much of the East 7th Avenue Pressure Zone in South Williamsport is well below 20 psig during fire flows. The Loyalsock water main experiences several breaks every time flow is reversed and fed from the Grampian pressure zone. This occurs when the Loyalsock pump station is down. Project will supply potable water with sufficient pressure to the service area.

POPULATION: 55,000	PV RATING: 82
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

SRC = SOURCE TRANS = TRANSMISSION SYSTEM TREAT=TREATMENT WS = WATER STORAGE DS = DISTRIBUTION SYSTEM

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APPLICANT NAME: HAZLETON CTY AUTH - 2015 TANK AND PUMP	REGION: II	DEP PROJECT RATING: 41
STREET ADDRESS: 400 E. ARTHUR GARDNER PARKWAY	PWSID: 2408001	PROJRANK: 15
CITY: HAZLETON	FUND SOURCE: DWSRF	PROJECT COST: \$2,671,500
COUNTY: LUZERNE	MTGDATE: 10/22/2014	PROJECT TYPE: WS, TREAT

PROJ. DESCRIPTION: HCA proposes the rehabilitation (cleaning, painting exterior and interior, and installation of required tank appurtenances) of two existing finished water storage tanks (the 0.10 MG McKinley Tank and 0.5 MG Council Crest Tank) due to their deteriorating condition and to provide much needed security (fencing and video surveillance) and OSHA mandated safety features. HCA also proposes the replacement of the three existing raw water pumps and main electrical gear at their Hudsondale raw water pump station, ancillary site piping work, and various building improvements. Project includes the elimination of one diesel engine driven pumping unit and replacing it with an new electrically driven pump identical to the other two new replacement pumping units proposed. The existing facilities are aging and in need of repair and rehabilitation. The proposed project will improve HCA's ability to operate and maintain the system and increase the reliability of service. Also, by replacing the raw water pumps with newer more energy efficient models, a savings in energy will be realized.

PROB. DESCRIPTION: HCA proposes the rehabilitation (cleaning and painting exterior and interior) of two existing finished water storage tanks (the 1.0 MG McKinley Tank and 0.5 MG Council Crest Tank) due to their deteriorating condition and to provide much needed security and OSHA mandated safety features as well as the replacement of the original raw water pumps and main electrical gear at their Hudsondale raw water pump station. The existing facilities are aging and in need of repair and rehabilitation. The proposed project will improve HCA's ability to operate and maintain the system effectively and increase the reliability of service and available quantity of water. Also, by replacing the three existing raw water pumps with newer more energy efficient models, a savings in energy will be realized.

POPULATION: 38,022	PV RATING: 66
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: MIDDLETOWN BOROUGH AUTHORITY - SR 230	REGION: III	DEP PROJECT RATING: 40
STREET ADDRESS: 60 WEST EMAUS STREET	PWSID: 7220038	PROJRANK: 16
CITY: MIDDLETOWN	FUND SOURCE: DWSRF	PROJECT COST: \$1,970,000
COUNTY: DAUPHIN	MTGDATE: 10/22/2014	PROJECT TYPE: DS

PROJ. DESCRIPTION: The Project includes replacement of water facilities from the Wood Street and Hoffer Street intersections with Main Street (approximate locations). Work includes replacement of approximately 4,520 LF of 8" and 12" cast iron pipe with similar sized ductile iron pipe, installation of approximately 34 valves and related appurtenances and replacement of approximately 8 fire hydrants. Replace approximately 2,480 LF of ¾" to 2" service line located in public rights-of-way.
•Replace approximately 126 curb stops located in public rights-of-way.
Replacement of the pipeline is vital to restore structural integrity to the system, minimize leaks and allow for the provision of continual water service

PROB. DESCRIPTION: Middletown is seeking to replace an existing pipeline, along State Route 230 installed between 1920 and 1940, which has reached the end of its useful life. This pipeline is the main source of water from the High Street Tank to the western portion of the system. Multiple annual repairs due to pipeline failures are resulting in significant water loss, loss of water volume and pressure to existing customers and limit the potential economic opportunities in the SR 230 corridor. An existing, and ongoing, pipeline break cannot be repaired due to failed valves.

POPULATION: 9,254	PV RATING: 55
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: MAWC - BELL TOWNSHIP WATER MAIN EXTEN	REGION: V	DEP PROJECT RATING: 38
STREET ADDRESS: PO BOX 730	PWSID: 5650032	PROJRANK: 17
CITY: GREENSBURG	FUND SOURCE: DWSRF	PROJECT COST: \$200,000
COUNTY: WESTMORELAND	MTGDATE: 7/22/2014	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project will involves the installation of approximately 11,725 lineal feet of 8-inch diameter potable water main and ten fire hydrants.

PROB. DESCRIPTION: The project will extend potable municipal water mains to replace existing private water supplies that are inadequate due to quality and/or quantity issues. The project will also provide fire protection.

POPULATION: 130,000	PV RATING: 43
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

APPLICANT NAME: PA AMERICAN - FAIRVIEW WATER MAIN EXTEN	REGION: III	DEP PROJECT RATING: 35
STREET ADDRESS: 4349 CARLISLE PIKE	PWSID: 7670126	PROJRANK: 18
CITY: CAMP HILL	FUND SOURCE: DWSRF	PROJECT COST: \$5,357,480
COUNTY: YORK	MTGDATE: 7/22/2014	PROJECT TYPE: DS

PROJ. DESCRIPTION: The Fairview Water Main Extension Project (Project) will include construction of approximately 34,000 lineal feet of new water mains, approximately 350 new services, 52 new fire hydrants, new meter pits, and will replace a Pressure Reducing Valve (PRV) vault to extend water service in Fairview Township, York County.

PROB. DESCRIPTION: The project will provide safe and potable water to residents which currently have contaminated wells in Timber Ridge, Fairview Farms and Bunker Hills Areas.

POPULATION: 16,250	PV RATING: 40
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: SCMA - MAHANNOY BUSINESS PARK WATERLIN	REGION: II	DEP PROJECT RATING: 00*
STREET ADDRESS: 221 S CENTRE STREET	PWSID: 3540038	PROJRANK: 19
CITY: POTTSVILLE	FUND SOURCE: DWSRF	PROJECT COST: \$4,000,000
COUNTY: SCHUYLKILL	MTGDATE: 1/21/2014	PROJECT TYPE: DS, WS

PROJ. DESCRIPTION: The proposed project consists of the installation of approximately 21,000 LF of 6-inch, 8-inch, and 12-inch waterline and shall start at the west end of the Village of New Boston and traverse along SR 1008 (Morea Rd.) into the Village of New Vulcan. The new waterline shall service the industrial lots along the north side of I-81, the residents of the Village of New Vulcan, and sporadic residential and commercial properties along the route. The project shall also consist of the construction of a 500,000 gallon finished water storage tank and fire hydrants.

PROB. DESCRIPTION: The Mahanoy Business Park is located in Mahanoy Township, Schuylkill County. The park has approximately 11 industrial lots available for development. The continued development of the park is dependent on providing public water and sewer to the area. SCMA evaluated several alternatives for providing these services to the park. The selected alternative proposed is to construct an extension of SCMA's Mount Laurel System through the Village of New Boston along Morea Rd. to the park. A 500,000 gallon finished water storage tank is also proposed. The project will provide protection for a potential water outage for which no water is available from the tap from the system's permitted sources (including private wells), in a proposed service area (Vulcan Village) affecting 10% or less of the service connections for periods less than 72 hours. Also, it will increase the availability of water (through the construction of the 500,000 gallon storage tank and adequately sized mains with fire hydrants) and the reliability of service to Vulcan Village which currently is served by inadequately sized 2-inch mains with no fire protection. It will provide increased water quantity and pressures to Vulcan Village.

POPULATION: 31,850	PV RATING: 48
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: BOGGS TOWNSHIP - OLD ERIE PIKE WATERLIN	REGION: IV	DEP PROJECT RATING: 00*
STREET ADDRESS: P O BOX 707	PWSID: 4140087	PROJRANK: 20
CITY: PHILLIPSBURG	FUND SOURCE: DWSRF	PROJECT COST: \$3,100,000
COUNTY: CLEARFIELD	MTGDATE: 1/21/2014	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project includes extending an 8 inch DI waterline along the Old Erie Pike to provide potable water to the residents that live along this road. The extension includes 25,500 l.f. of 8 inch DI waterline, 1,650 l.f. of 6 inch DI waterline, 20-8 inch gate valve assemblies, three-6 inch gate valve assemblies, 10 fire hydrants and four pressure reducing valve vaults. The waterline extension will connect to the PA American System at three points: Valley Road (in the west), Drane Highway and on Old Erie Pike in the east in West Decatur. Boggs Township will own the line and PA American will supply the water and operate the system. A contract to this effect has been entered into on November 7, 2013

PROB. DESCRIPTION: There are 46 residences on Old Erie Pike between West Decatur and Valley Road in Boggs Township, Clearfield County that use private wells and springs for potable water. 31 of the 46 residences (67%) responded to a survey regarding their water quantity and quality. 35% of the respondents had water outages that occurred for more than 72 hours. Two respondents provided water quality results. High iron and/or low pH seem to be the typical issues; with one well at 4.6 pH, another well at 9.7 mg/l Fe. Extensive coal mining occurs in the region and on both sides of Old Erie Pike. In addition, sewage disposal is accomplished by on-lot treatment; it is suspected that a number of these on-lot systems are malfunctioning.

POPULATION: 18,000	PV RATING: 61
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: CRESSON TWP. MA - WATER SYSTEM IMPROV **REGION:** V **DEP PROJECT RATING:** 00*
STREET ADDRESS: 740 PORTAGE ROAD **PWSID:** 4110038 **PROJRANK:** 21
CITY: CRESSON **FUND SOURCE:** DWSRF **PROJECT COST:** \$1,335,000
COUNTY: CAMBRIA **MTGDATE:** 4/24/2013 **PROJECT TYPE:** WS, PS, DS, METER

PROJ. DESCRIPTION: The project includes construction of a 295,000 gallon water storage tank and pump station; installation of approximately 2,819 feet of 12", 8" and 4" waterline; and system wide water metering.

PROB. DESCRIPTION: This proposed project will afford Cresson Township complete control/oversight on the entire water treatment system and will eliminate existing cross connection and compliance problems.. Project will result in increased fire protection, significantly reduce water loss/leakage and eliminate existing system water pressure problems (12" main installed at the new tank)

POPULATION: 3,504

PV RATING: 65

GREEN PROJECT: Yes

GREEN CATEGORY: Water Efficiency

BUSINESS CASE: Not Required

GREEN AMOUNT: \$320,000

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: HEMLOCK FARMS COMMUNITY -WELL #4 TREA	REGION: II	DEP PROJECT RATING: 00*
STREET ADDRESS: BOX 1007 HEMLOCK FARMS	PWSID: 2520033	PROJRANK: 22
CITY: HAWLEY	FUND SOURCE: DWSRF	PROJECT COST: \$1,200,000
COUNTY: PIKE	MTGDATE: 4/22/2014	PROJECT TYPE: TREAT

PROJ. DESCRIPTION: The applicant proposes the construction of an oxidation/filtration water treatment system for iron and manganese reduction at Well 4 including a 3,000 gallon buried sludge holding tank. Sludge will be pumped out of tank and properly disposed of at a POTW. It will also entail the relocation of the existing corrosion inhibitor feed system from the Well 4 building to the new filter building and relocate the feed point after the new iron and manganese treatment facilities.

PROB. DESCRIPTION: Hemlock Farms Community Association (HFCA) is served in part by Well 4. Well 4's raw and finished water have shown elevated levels of manganese in excess of the Department's secondary maximum contaminant level (SCML) of 0.05 mg/l despite existing corrosion control treatment at Well 4. Elevated levels of manganese and customer complaints have been documented in sample analysis results and in inspection reports by the Department's Pocono District Office. In 2013 elevated levels of manganese have been found in both the raw water and finished water after treatment with the existing corrosion control facilities (polyphosphate sequestration). EP Well 4 samples collected on 9/26/2013 showed a manganese level of 0.178 mg/l. Project will eliminate secondary MCL violation and will serve community with better quality potable water.

In accordance with Title 25, Section 109.202(b)(1), a PWS system shall supply drinking water that complies with the secondary MCLs adopted by the EQB under the act (except for pH, which represents a reasonable goal for water quality). For example, samples collected on 8/30/2011 showed manganese levels in excess of 4 times the SMCL at a concentration of 0.201 mg/l. In 2013, levels above the SCML for manganese have continued. If no action is taken, it is likely that the elevated levels in excess of SCML would continue in violation of the aforementioned section. Customer complaints would also continue to occur.

POPULATION: 7,518	PV RATING: 41
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: NORTHERN CAMBRIA M.A.- WATER SYSTEM IM	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: 1202 PHILADELPHIA AVE.	PWSID: 4110003	PROJRANK: 23
CITY: NORTHERN CAMBRIA	FUND SOURCE: DWSRF	PROJECT COST: \$3,458,776
COUNTY: CAMBRIA	MTGDATE: 10/23/2013	PROJECT TYPE: TREAT

PROJ. DESCRIPTION: The Authority is proposing to modify their existing water treatment plant. The proposed modifications will include the disconnection of the existing raw water sources into the plant, the elimination of the raw water softening system and the removal of the existing clearwell. Following completion of the modifications, the facility will be operated solely as a distribution system pumping and chlorine booster station. A new sodium hypochlorite chemical feed system will replace the existing gas chlorination system. Project will consist of 1. Krumenacker Test Well #2 - conversion to a production well with the capacity of 144,000 gpd. 2. Spangler Water Treatment Plant Capacity Expansion - increase treatment capacity from 208gpm to 400gpm. Add additional storage tank 128,700 gallon capacity. 3. Cherry Ridge Water High Service Water Tank Replacement - construct a new 500,000 gallon storage tank. 4. Northern Cambria Water Treatment Plant Modifications - disconnection of all existing raw water sources to the plant and elimination of the raw water softening system. The facility will now be operated solely as a distribution system pumping and chlorine booster station. 5. Water System Interconnections (4) - Construction of 4 interconnections between the Northern Cambria and Spangler distribution systems using approximately 1,000 L.F. of water main.

PROB. DESCRIPTION: The NCMA sources have consistently exceeded sulfate concentrations and have been deemed surface water effected. The Authority has experienced insufficient supply of water for its customers over periods of days, has 30% unaccounted for water loss, and has an unsafe finished water storage tank. The proposed project is a result of a consent order and agreement, dated March 8, 2011 and amended twice on January 10, 2012 and May 16, 2012 between the Northern Cambria Municipal Authority and the DEP. The COA established requirements for the development of an additional groundwater source or sources, expansion of the existing Spangler WTP to accommodate the additional sources, interconnection of the Northern Cambria and Spangler water systems and utilization, on an interim basis, the remaining Northern Cambria Municipal Authority sources to supplement the Spangler water supply.

POPULATION: 2,770
GREEN PROJECT: No
BUSINESS CASE: Not Required

PV RATING: 84
GREEN CATEGORY: Water Efficiency
GREEN AMOUNT: \$1,032,025

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: DUNCANSVILLE MUNICIPAL WATER SYSTEM IM **REGION:** III **DEP PROJECT RATING:** 00*
STREET ADDRESS: 1146 THIRD AVE. **PWSID:** 4070012 **PROJRANK:** 24
CITY: DUNCANSVILLE **FUND SOURCE:** DWSRF **PROJECT COST:** \$2,500,000
COUNTY: BLAIR **MTGDATE:** 7/16/2013 **PROJECT TYPE:** WS, DS

PROJ. DESCRIPTION: Proposed project includes construction of a 380,000 gallons water storage tank, which will replace the existing failing 350,000 tank. New water mains will be built to replace existing corroded and inadequate water mains. Approximate total new water main length is 7,630 linear feet.

PROB. DESCRIPTION: The existing distribution system is old, most areas are estimated at over 100 years old. Piping is internally corroded and tuberculated with mineral deposits. The existing cast iron line is extremely corroded and tuberculated and does not provide required fire flows based on flow testing at fire hydrants. 28 out of 52 hydrants (54%) have operating pressures less than 20 psig and flow rates less than ISO requirements due to undersized and tuberculated pipe. Valving is inadequate, if valves exist they are not in reliable working order.
The existing 350,000 gallon water storage tank was built in 1967. This tank has not been painted since original construction. The tank is in need of repairs due to corrosion at its base along with the repainting of interior and exterior. The original paint is believed to contain lead, so lead paint removal and disposal will be necessary. Rather than repairing/repainting, it is more cost effective to abandon this tank and replace with a new 380,000 gallon water tank.

POPULATION: 2,000 **PV RATING:** 65
GREEN PROJECT: No **GREEN CATEGORY:**
BUSINESS CASE: N/A **GREEN AMOUNT:** \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: GLENDALE VLY MA - YEAROUND WATER INTER	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: BOX 89	PWSID: 4110060	PROJRANK: 25
CITY: FLINTON	FUND SOURCE: DWSRF	PROJECT COST: \$1,290,000
COUNTY: CAMBRIA	MTGDATE: 4/22/2014	PROJECT TYPE: DS, PS

PROJ. DESCRIPTION: The proposed water interconnection will consist of approximately 8,000 linear feet of water main connecting the two systems. A booster pump station will also be installed to push water to the elevation of the existing year-around storage tank.

PROB. DESCRIPTION: Water quality issues have troubled the year-around system since purchase by the Authority in 2008. High levels of manganese, hydrogen sulfide and distribution line sediment are some of the issues causing water quality complaints. Efforts to treat these issues, primarily in the operation of a greensand filter, have been costly and ineffective. This project will eliminate the need for operation of the greensand filter in favor of purchase of finished water from the Reade Township Municipal Authority (RTMA). RTMA water will be purchased at the Reade/White Township boundary and will be used to serve all GVMA water customers.

POPULATION: 236	PV RATING: 47
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: SUNBURY CITY MUN AUTH - HYDRO-TREATER	REGION: IV	DEP PROJECT RATING: 00*
STREET ADDRESS: 225 MARKET STREET	PWSID: 4490007	PROJRANK: 26
CITY: SUNBURY	FUND SOURCE: DWSRF	PROJECT COST: \$3,085,000
COUNTY: NORTHUMBERLAND	MTGDATE: 4/24/2013	PROJECT TYPE: TREAT

PROJ. DESCRIPTION: Project includes replacement of all mechanical equipment in both hydrotreater units with current high rate solids contact clarifier technology (WesTech Engineering, Inc., Monroe Environmental Corporation, or Ovivo USA, LLC). The upgrade will include concrete tank rehabilitation, installation of new solids contact clarification mechanical equipment, renovation of piping and valves and electrical and control systems. A cover/roof structure will be installed to protect the hydrotreaters. Piping renovation includes installing a sludge line to the sludge basins (reservoirs 2 and 3) and an overflow line to the sludge basins. A new room will also be constructed on a platform currently between the hydrotreater units.

PROB. DESCRIPTION: The mechanical equipment in both of the hydro-treater units have exceeded their useful life (they are 50 years old). In addition, the hydro-treater concrete, piping, valves, electrical and control systems are in need of replacement. Specifically, the center drum is misaligned (from past repair jobs) on one unit and the seal gaskets do not mate properly and leak on both hydrotreater units needing maintenance several times per year. The rotating distributing arms, tank wall baffles, turnbuckles and brackets are severely corroded. The v-notched weir rings on both units are severely corroded.

POPULATION: 13,000	PV RATING: 65
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: PITTSBURGH WSA - WATER IMP. PROJECT PHA	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: 441 SMITHFIELD ST.	PWSID: 5020038	PROJRANK: 27
CITY: PITTSBURGH	FUND SOURCE: DWSRF	PROJECT COST: \$4,960,000
COUNTY: ALLEGHENY	MTGDATE: 4/24/2013	PROJECT TYPE: DS

PROJ. DESCRIPTION: The proposed Water Improvement Project, Phase VIII includes the installation of approximately 5,950 linear feet of 8-inch ductile iron waterline, new water service connections, new fire hydrants and cartway drainage improvements at the following locations in the City; Langtry Street, Buena Vista Street, Clayton Avenue, and Kincaid Street.

PROB. DESCRIPTION: The project addresses the undersized 6-inch obsolete existing lines that pose a public health and safety risk relative to diminished fire flow capacity and interruption of water service to these areas. In recent years, these lines have broken frequently causing large amounts of damage to private property and roadway services. Several of these waterlines serve high priority locations including the Carnegie Library (Woods Run Branch), U.S. Postal Service Bulk Distribution Facility, Columbus Middle School and Clayton Elementary School.

POPULATION: 370,000

PV RATING: 65

GREEN PROJECT: No

GREEN CATEGORY:

BUSINESS CASE:

GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: INDIANA CTY MSA.- WATER RENOVATION 15-A	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: P O BOX 155	PWSID: 5320007	PROJRANK: 28
CITY: CHERRY TREE	FUND SOURCE: DWSRF	PROJECT COST: \$2,540,000
COUNTY: INDIANA	MTGDATE: 7/16/2013	PROJECT TYPE: TREAT, DS, METERS

PROJ. DESCRIPTION: Project which will provide an interconnection to Alverda from the ICMSA's Pine Twp. Water Plant water line and does not involve any treatment renovations as capacity is more than sufficient to serve the extension. The second part of the project to provide an interconnection to Uniontown from ICMSA's Cherry Tree does involve water line construction and the renovation of the filter units at the Cherry Tree Plant. The existing filter train is old and in non-compliance and must be replaced in its entirety to serve the extension to Uniontown. Wastewater upgrades are also part of the Cherry Tree water treatment plant.

PROB. DESCRIPTION: The Alverda Water Assn. in Pine Twp. serves 52 residential customers from a well system. The 4" water mains are extremely old and deteriorated, and have produced numerous water outages in the course of the last 5 years. The system continues to be in non-compliance with monitoring requirements and in violation with operating the system without a certified operator. The Alverda Water Assn. recently entered in to a consent order with DEP in which they will abandon their system and do an interconnection with ICMSA. ICMSA would propose to integrate the Alverda system into their Pine Twp. system. The best option is to extend the water mains from Brownstown to Alverda, and replace the existing Alverda water mains. The project also involves metering the 52 Alverda customers plus the new 65 customers that would be picked up in extending the water main from Brownstown to Alverda. The project also will involve replacing the ICMSA Brownstown Storage Tank, which is in need of major rehabilitation.

The second component of this project involves integrating the East Green Township Water System (Uniontown) into the ICMSA's Cherry Tree Water System where 40 customers are currently served by a well developed by the coal company. Likewise there is a DEP consent order between East Green and DEP because the system continues to operate in non-compliance relative to the Safe Water Drinking Act. The Authority proposes to install a new filtering train in the Cherry Tree Plant because of compliance issues and pump directly to the Uniontown distribution system. In addition the Authority will need to meter the 40 customers in Uniontown and 10 new customers that will be picked up with the interconnection.

POPULATION: 400	PV RATING: 76
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency
BUSINESS CASE: Not Required	GREEN AMOUNT: \$95,000

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: INDIANA CTY MSA. WR 16 - PARKWOOD & WIN	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: 827 WATER STREET	PWSID: 5320109	PROJRANK: 29
CITY: INDIANA	FUND SOURCE: DWSRF	PROJECT COST: \$4,400,000
COUNTY: INDIANA	MTGDATE: 7/16/2013	PROJECT TYPE: WS, DS

PROJ. DESCRIPTION: ICMSA owns and operates 9 water systems, and has a total of 4645 connections located in the municipalities listed in the Project Site Section. The Parkwood Extension, which will incorporate West Lebanon, will pick up 14 new customers including 8 in Armstrong Township and 6 in Young Township, as well as serving the existing 56 customers in West Lebanon, which is in Young Township.

PROB. DESCRIPTION: This project has 2 major components. The first one is called Parkwood and consists of a water main extension from the Village of Parkwood in Armstrong Township to the Village of West Lebanon, Young Township along with needed water storage tanks. West Lebanon has a small surface supply system serving 56 connections which continues to be in non-compliance of the Safe Drinking Water Act for TOC removal, and is the subject of a DEP Consent Order. The Parkwood Extension and connection to West Lebanon will eliminate the West Lebanon Water Treatment Plant and eliminate the non-compliance issue. The water for the Parkwood Extension will come from the ICMSA Crooked Creek System (PWS 5320109) which is in compliance. In order to serve the Parkwood Extension, two storage tanks are needed with one being at Parkwood (250,000 gals) and the other being at the end of the Shelocta (250,000 gals), where the Parkwood main originates.

The second component is the building of a new storage tank (800,000 gallon) along with a 12 inch main to serve the new commerce park, Windy Ridge. It will provide fire protection at the rate of 1500 gpm and will supply the new Creps Publication Complex where 180 full time jobs are being preserved. The old Creps facilities were completely destroyed by fire in the fall of 2012. The facilities will also serve the rest of the Commerce Park that expects approximately 15 commercial ventures. This component (Windy Ridge) will seek a Letter of No Prejudice.

POPULATION: 8,743
GREEN PROJECT: No
BUSINESS CASE: N/A

PV RATING: 74
GREEN CATEGORY:
GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

SRC = SOURCE TRANS = TRANSMISSION SYSTEM TREAT=TREATMENT WS = WATER STORAGE DS = DISTRIBUTION SYSTEM

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APPLICANT NAME: NEW KENSINGTON CITY MA - 2013 CAP IMPRO **REGION:** V **DEP PROJECT RATING:** 00*
STREET ADDRESS: P O BOX 577, 920 BARNES STREET **PWSID:** 5650070 **PROJRANK:** 30
CITY: NEW KENSINGTON **FUND SOURCE:** DWSRF **PROJECT COST:** \$6,739,150
COUNTY: WESTMORELAND **MTGDATE:** 10/23/2013 **PROJECT TYPE:** DS, TREAT

PROJ. DESCRIPTION: This project will consist of replacing approximately 38,250 feet of existing old waterline in the City of New Kensington, Lower Burrell and city of Arnold. The new waterlines in these areas will be 6-inch, 8-inch and 12 inch in diameter. The applicant will also extend about 10,200 feet of new 8-inch waterlines in Allegheny Township. The new waterline will serve 62 homes along Melwood Road, White Cloud Road and Small Road. Additionally, the filter control system will be upgraded at the plant.

PROB. DESCRIPTION: The existing cast iron waterlines in the City of New Kensington, City of Arnold and Lower Burrell are aged and condition of the lines and appurtenances are such that they have become a major liability to the Authority. The Authority's waterlines in the project areas have suffered numerous leaks (54) creating severe damage to the streets, unaccounted water losses (>23%) and service disruption to the users. The service lines in these areas include lead services which need upgraded. Also, there are about 62 homes in Allegheny Township that use private water wells. Water quality and quantity of wells in this area is significantly impacted.

POPULATION: 47,350 **PV RATING:** 70
GREEN PROJECT: No **GREEN CATEGORY:**
BUSINESS CASE: **GREEN AMOUNT:** \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: EMPORIUM WATER CO.- BRITTON RD TNK,MAI	REGION: VI	DEP PROJECT RATING: 00*
STREET ADDRESS: P.O. BOX 227	PWSID: 6120002	PROJRANK: 31
CITY: EMPORIUM	FUND SOURCE: DWSRF	PROJECT COST: \$2,500,000
COUNTY: CAMERON	MTGDATE: 10/23/2013	PROJECT TYPE: DS, PS, WS

PROJ. DESCRIPTION: A new pump station, 417 ft. of 8" DIP waterline and 150,000 gallon storage tank is proposed for the Sylvan Heights area in order to meet storage requirements and meet ISO recommendations for fire flows. A 500,000 gallon Britton Road tank is being proposed along with 1,250 ft. of 10" DIP connecting waterline to allow repairs to the existing 500,000 gallon General Storage Area tank (Wheaton Hollow Rd.). A SCADA system and emergency generator at treatment plant is being proposed to eliminate water outages and control issues.

PROB. DESCRIPTION: Emporium Water Company has no water storage for the Sylvan Heights Area; only a closed loop pump station. The existing pump station is too small to pump the necessary fire flows. The 6" waterline from the existing pump station is also too small to carry the necessary fire flows. The existing General Storage Area tank (Wheaton Hollow Tank) is in need of repairs and upgrades. In order to maintain required storage including fire flows, the Britton Road tank is proposed to be constructed. Power outages and lack of central control system has caused water outages in the past. Project will supply uninterrupted potable water to the service area with sufficient water pressure.

POPULATION: 3,660	PV RATING: 55
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE: N/A	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: RIMERSBURG BORO M. A. - RT 68 WATER LINE	REGION: VI	DEP PROJECT RATING: 00*
STREET ADDRESS: BOX 413 104 ACME STREET	PWSID: 6160012	PROJRANK: 32
CITY: RIMERSBURG	FUND SOURCE: DWSRF	PROJECT COST: \$1,468,825
COUNTY: CLARION	MTGDATE: 4/24/2013	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project includes installation of approximately 15,000 feet of 8" PVC waterline along SR 68, Hillis Road, Reigel School Road, Carwick Road, Rock Lane, and Mim Royd Lane in Toby Township (north of Rimersburg Borough) will serve about 120 residences.

PROB. DESCRIPTION: The water line extension to serve 120 homes will eliminate an imminent health problems associated with Fecal contamination. Fire hydrant will be added to protect these homes from fire hazards. 26 Samples from private sources in the service area were collected and analyzed for Fecal contamination. 7 samples have positive fecal contamination (27%).

POPULATION: 1,540	PV RATING: 30
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: CLEARFIELD MA - WATER SYSTEM IMPROVEM	REGION: IV	DEP PROJECT RATING: 00*
STREET ADDRESS: 107 EAST MARKET STREET	PWSID: 6170008	PROJRANK: 33
CITY: CLEARFIELD	FUND SOURCE: DWSRF	PROJECT COST: \$8,095,000
COUNTY: CLEARFIELD	MTGDATE: 4/24/2013	PROJECT TYPE: WS, DS, PS, METER

PROJ. DESCRIPTION: The project involves constructing a 1.5 MG Montgomery Run storage tank, a 1.5 MG Hillsdale storage tank, a 0.5 MG Wolf Run storage tank, replacing approximately 12,000 L.F. of water line, replacing the existing Wolf Run pump station and replace 5,902 residential flow meters. This project will address inadequate storage, fire protection, water outages, unaccounted for water loss and maintenance safety issues. Also, meter replacement will address inaccuracies, ensure more consistent meter reading (electronic transmittal of flow data) and elimination of lead contact.

PROB. DESCRIPTION: Clearfield Municipal Authority (CMA) is experiencing reduced reliability of their water system due to aging infrastructure. The 40 year old Hillsdale tank is no longer structurally sound and repairs are difficult to make since parts of the system rely solely on this tank for supply. Because of this only short term measures were ever performed on the tank so that the tank could stay in service. Due to the Wolf Run pump station's age, it is breaks down frequently interrupting supply. The existing Wolf Run tank is no longer adequate for the increased system demand. The Montgomery Run line is prone to breakage and is heavily tuberculated. The Wolf Run water line experiences numerous line breaks between the pump station and storage tank. These breaks frequently drain the Wolf Run tank. Due to the depth of this line being 15 feet below grade right along a state highway, repairs are difficult and unsafe. Unaccounted for water loss is increasing and is currently around 43%. Existing flow meters are over 20 years old and contain lead. Despite the high potential for inaccuracies in measurement, these meters require extensive manpower to conduct meter reading and has caused flow estimating practices to be put in place.

POPULATION: 14,500	PV RATING: 82
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency
BUSINESS CASE:	GREEN AMOUNT: \$900,000

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: HUSTON TWP WATER AUTH - PENFIELD TO HO	REGION: IV	DEP PROJECT RATING: 00*
STREET ADDRESS: P O BOX 166	PWSID: 6170024	PROJRANK: 34
CITY: PENFIELD	FUND SOURCE: DWSRF	PROJECT COST: \$645,000
COUNTY: CLEARFIELD	MTGDATE: 10/23/2013	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project involves replacing 17,100 LF of existing water line from Penfield to Hollywood along SR 255 with an 8" C-900 PVC water line. Also, approximately 1,500 LF of new water line will be installed to loop the water line in the eastern portion of the replacement project to be able to isolate sections of the water line and add a few new users. A new concrete meter pit will replace the existing leaking makeshift pit at Pine Valley Mobile Home Park.

PROB. DESCRIPTION: The water main that provides water to Huston Township, Clearfield County along State Route 255 from Penfield to Hollywood is an 8" PVC pipe installed in 1974. This pipe experiences a large amount of leakage and is the cause of numerous water outages. In 2012 there were two major line breaks and several smaller breaks. Unaccounted for water loss is near 65%. Valves on the water line do not work, thereby eliminating the ability to isolate the line for repairs. Calcification in the lines has minimized flow and fire protection ability. The Pine Valley Mobile Home Park meter pit is a deteriorated cut-out drum. The meter needs to be replaced annually because of excessive leakage into the pit.

POPULATION: 960	PV RATING: 62
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE: N/A	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: UNION CITY MA - WATER SYSTEM IMPROVEME	REGION: VI	DEP PROJECT RATING: 00*
STREET ADDRESS: 12 SOUTH MAIN STREET	PWSID: 6250064	PROJRANK: 35
CITY: UNION CITY	FUND SOURCE: DWSRF	PROJECT COST: \$7,500,000
COUNTY: ERIE	MTGDATE: 10/23/2013	PROJECT TYPE: TRANS, TREAT, STO

PROJ. DESCRIPTION: The project includes previously constructed facilities for which a Letter of No Prejudice was granted. These previously constructed facilities (known as Phase 1) include a new raw water transmission main, new finished water transmission main and new water storage tank. The project also includes proposed upgrades and expansion of the water treatment facilities including addition of a third treatment train to provide redundancy required by the PA DEP. The third treatment train will consist of a new mix tank, flocculator tank, sedimentation tank and filter. This is known as Phase 2. The existing treatment facilities are over 60 years old and will be upgraded to include new Headworks Building, chemical feed facilities, flocculator mixers, valves, piping and pumps. The 2 existing filters will be completely refurbished. A standby electric generator and plant computer monitoring/control system will be installed. The existing backwash water treatment system will be replaced. The prior and proposed construction has and will allow the Authority to comply with PA DEP drinking water standards. The new water storage tank (constructed in Phase 1) has also dramatically improved system fire fighting capabilities. The project will also include purchase of new water meters for all customers.

PROB. DESCRIPTION: The Authority water system serves a population of 5,126. The system is supplied by the Union City Reservoir. The current capacity of the treatment facility is 1.0 MGD, with a permitted safe yield of 0.7 MGD. The proposed project will allow the plant to have redundancy to assume that the systems demands could be met by operating two (2) treatment trains while the third is offline for any reason (repair/ maintenance, etc.)

The Municipal Authority of the Borough of Union City is mandated by the PA DEP through a Consent Order and Agreement to make improvements to its water system to comply with disinfection byproduct drinking water standards and upgrade its water treatment facilities to meet current design standards. The proposed project will address PA DEP requirements through construction of new water transmission mains, storage tank and water treatment facilities.

POPULATION: 3,900	PV RATING: 84
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: NORTH WARREN MUN AUTH- VILLAGE OF N W	REGION: VI	DEP PROJECT RATING: 00*
STREET ADDRESS: 404 STATE STREET	PWSID: 6620028	PROJRANK: 36
CITY: NORTH WARREN	FUND SOURCE: DWSRF	PROJECT COST: \$2,280,000
COUNTY: WARREN	MTGDATE: 10/23/2013	PROJECT TYPE: DS

PROJ. DESCRIPTION: The project consists of the replacement of 17,500 LF water distribution pipelines via directional drilling method, 320 service connections, 18 fire hydrants and 35 gate valves.

PROB. DESCRIPTION: The existing distribution system within the Village of North Warren was installed in 1940 and consists of AC pipes. Due to frequent line breaks and age, AC pipes became brittle. The unaccounted for water is up to 50%. About 310 single family residences and business rely on the this PWS system. Project will supply consistent potable water to the service area without frequent line breakage and water outages.

POPULATION: 1,700	PV RATING: 50
GREEN PROJECT: Yes	GREEN CATEGORY: Water Efficiency
BUSINESS CASE: Required	GREEN AMOUNT: \$2,280,000

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: MIDDLETOWN BOROUGH AUTHORITY - WATER	REGION: III	DEP PROJECT RATING: 00*
STREET ADDRESS: 60 WEST EMAUS STREET	PWSID: 7220038	PROJRANK: 37
CITY: MIDDLETOWN	FUND SOURCE: DWSRF	PROJECT COST: \$1,275,000
COUNTY: DAUPHIN	MTGDATE: 1/21/2014	PROJECT TYPE: SRC, DS

PROJ. DESCRIPTION: The existing capacity of the groundwater facilities will not be expanded by this project. However, the project does propose to flood proof existing well sites (Nos. 1, 2, & 6), provide electrical upgrades to outdated equipment and relocate the new and existing electrical components above the Lee flood level along with providing an electrical generator (for Wells 1 & 2) to improve daily operations and prevent future impairment during future natural disasters. The project will also replace 2,000 ft. of old and undersized 4" line with an 8" line along Spring St. and provide for the installation of 1,200 ft. of new 12" line to provide water to the new Amtrak Train Station and high density Penn State student housing while looping the system to provide redundancy and increased fire protection.

PROB. DESCRIPTION: Middletown's system consists of six groundwater wells that supply an average of 960,000 gallons per day. Each well has its own treatment with water pumped to three system storage tanks. The wells are operated on a rotation basis with at least one well always offline. Problems primarily relate to the location of multiple wells in the floodplain. During Tropical Storm Lee at least three of the six wells were affected by flooding leaving only the three lowest yield wells operational.

POPULATION: 9,254	PV RATING: 73
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

APPLICANT NAME: THE KITTANNING-PLUMCREEK WATER AUTH -	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: R.D.#1, BOX 114K	PWSID: 5030013	PROJRANK: 38
CITY: KITTANNING	FUND SOURCE: STATE BYPASS	PROJECT COST: \$150,000
COUNTY: ARMSTRONG	MTGDATE: 7/16/2013	PROJECT TYPE: DS

PROJ. DESCRIPTION: The proposed project will consist of relocating about 1,900 linear feet of 8-inch waterline out of the right-of-way S.R. 422 and construction of a meter/interconnection vault with Manor Township Joint Municipal Water Authority.

PROB. DESCRIPTION: PennDOT is expanding and realigning a portion of S.R. 422 to resolve on going traffic/transportation safety issues on this portion of the highway. Road realignment will improve traffic safety.

POPULATION: 400	PV RATING: 38
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE: N/A	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

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APPLICANT NAME: CARMICHAELS BORO MA - FILTER BACKWASH	REGION: V	DEP PROJECT RATING: 00*
STREET ADDRESS: 104 N PINE ST PO BOX 401	PWSID: 5300005	PROJRANK: 39
CITY: CARMICHAELS	FUND SOURCE: DWSRF	PROJECT COST: \$610,000
COUNTY: GREENE	MTGDATE: 1/21/2014	PROJECT TYPE: TREAT, WS

PROJ. DESCRIPTION: The purpose of this project is to restore treatment process efficiency and improve overall water quality by 1) replacing of the existing filter backwash controls to improve backwash efficiency and consistency, 2) installing spray aeration to remove trihalomethanes, and 3) mixing and chlorine booster system to improve water quality consistency in the Authority's two existing water storage tanks.

PROB. DESCRIPTION: The filter backwash controls at the Authority water treatment plant have never functioned as originally intended. This problem affects inconsistent filter washes, reducing treatment efficiency. Additionally, the Authority has experienced trihalomethane levels in excess of the MCL in the past. While operational adjustments have helped, there is still concern that the Authority will be able to maintain regular compliance in the long term.

POPULATION: 4,700	PV RATING: 41
GREEN PROJECT: No	GREEN CATEGORY:
BUSINESS CASE:	GREEN AMOUNT: \$0

LEGEND FOR PROJECT TYPE:

SRC = SOURCE TRANS = TRANSMISSION SYSTEM TREAT=TREATMENT WS = WATER STORAGE DS = DISTRIBUTION SYSTEM