

Delaware

DRINKING WATER STATE REVOLVING FUND (DWSRF)

Intended Use Plan
FINAL | REVISED JULY 17, 2022

Delaware Health and Social Services
Intended Use Plan
2022 Federal Allocation *Revised July 17, 2022*

Federal Fiscal Year (FFY) 2022
State Fiscal Year (SFY) 2023

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Background

The Intended Use Plan (IUP) is a document that Delaware Health and Social Services (DHSS) submits annually as part of the grant application to US Environmental Protection Agency (EPA) to request the Drinking Water State Revolving Funds (DWSRF) Capitalization Grants under the Safe Drinking Water Act (SDWA) and Catalog of Federal Domestic Assistance (CFDA) 66.468.

DHSS is eligible for \$7,008,000 in federal base capitalization grant funds. DHSS will allocate \$5,008,134 in federal funds plus \$1,401,600 in state funds (20% required state match) for infrastructure improvement projects and subsidy requirements. \$1,999,866 will be used for Set-Aside activity support.

Additionally, DHSS is eligible for \$53,897,000 in federal Bipartisan Infrastructure Law (BIL) capitalization grant funds. There are three (3) distinct grants under the BIL, and they include: Supplemental, Emerging Contaminants and Lead Service Line Replacement Capitalization Grants. DHSS will allocate \$50,215,206 in federal funds plus \$1,799,200 in state funds (10% required state match for Supplemental funds only) for infrastructure improvement projects and subsidy requirements. \$3,681,794 will be used for Set-Aside activity support.

Under this IUP Delaware intends to show it has enough projects to apply for full allotment of each grant – Base, General Supplemental, LSL Replacement, and Emerging Contaminants. See **Figure 1** showing totals for the FFY2022 DWSRF Notice of Intent (NOI) solicitation:

Figure 1: Cumulative NOI Requests FFY22

	Actual Project Requests	State Match for Projects	Anticipated federal Award for Projects	
LSLR	\$27,642,500		\$27,887,331	LSLR Related
EC	\$6,378,574		\$6,378,574	EC Related
Supplemental	\$17,438,600	\$1,799,200	\$15,949,301	[17,748,501]
Base	\$6,242,081	\$1,401,600	\$5,008,134	[6,409,734] Plus Corpus

Goals

Long Term Goals are to:

- Assist Public Water Systems (PWSs) with achieving affordable compliance and public health protection through DHSS staff strategies and contracted Set-Aside activities
- Maintain the DWSRF in perpetuity by thoughtful use and management of the assets by expecting an adequate rate of return and positive cash flow trend
- Utilize resources and funds to target the most significant public health and compliance problems facing the State’s drinking water resources
- Manage the DWSRF fund with urgency and agency

Short Term Goals are to:

- Collaborate with the DHSS Capacity Development program to assist PWSs to develop and implement asset management plans (per AWIA 2018) via training or support from our technical assistance providers. The DWSRF program is currently considering the option of requiring proof of an implemented asset management plan from PWSs for consideration of DWSRF financial support.
- Manage the NFAA account judiciously, including reallocation of WIAC approved DWSRF grant allotments by annually, as need dictates
- Provide funding to upgrade infrastructure for PWS projects in Delaware
- Decrease public health risks in drinking water in 2022-2023 for about one third of Delaware residents
- Meet the Program Activity Measure of 96% of fund utilization rate, as negotiated with EPA by continuing to encourage quick spending with loan recipients and sub-grantees
- Contract with Delaware Rural Water Association (DRWA), to provide technical assistance, training, along with strategies to small and mid-size municipalities to maintain and return to compliance with state and federal regulations
- Provide operator education through contracts with Delaware Technical and Community College (DTCC)
- Offer Sustainability and Rate Analysis Assessments to PWSs through a contract with Kash Group LLC
- Utilize Set-Aside funds as outlined in the Work Plans
- Hold quarterly meetings with Set-Aside recipients to monitor activity progress and evaluate expeditious spending
- Provide support to the DNREC Water Supply Section (WSS) for their per- and polyfluoroalkyl substances sampling plan
- Provide support to the DNREC Source Water Protection (SWP) Crop Cover Ag Strategy
- Provide support to the DNREC Underground Injection Control (UIC) in the implementation of two new technologies in the: EQUIS and PFAS Tracing.
- Utilize resources in the DHSS Office of Engineering (OE) to ensure borrowers are following crosscutter requirements on construction projects
- Monitor the Drinking Water to Clean Water Transfer, with EPA assistance

Performance Evaluation Review (PER) Action Items

The review covered the period July 1, 2019, through June 30, 2020 (State Fiscal Year (SFY) 2020). The US Environmental Protection Agency (EPA) conducted its virtual review between April 15, 2021, to August 2, 2021.

EPA commends DPH and DNREC for resolving all SFY 2019 action items and developing plans to follow the first-in first-out (FIFO) policy, increase pace, and reduce the undisbursed ratio. There are no action items or recommendations. EPA looks forward to observing DPH and DNREC's progress on these items over the next year.

Prior Year Action Items

1. EPA requests that DPH draw grant funds according to EPA's FIFO policy.

Resolved. DNREC is evaluating their policies and procedures and the ASAP draw verification process. DNREC will make necessary staffing and policy changes to ensure compliance with these requirements in the future. DNREC discussed these procedures with EPA. EPA concurs and recognizes that the policy changes will take time and that FIFO issues may still linger in the short-term but will be ultimately resolved.

2. Over the last five years through SFY 2019, DPH's pace has been on a declining trend. Although there was a 1% increase from SFY 2018, an 88% cumulative pace for SFY 2019 is well below the 101% rate from SFY 2015. Additionally, Delaware's undisbursed ratio has significantly risen to 13.1; the ratio states are expected to work towards is 2.0. DPH should create a plan to use funds timely and expeditiously and market the program so there is a pipeline of shovel-ready projects.

Resolved. As discussed, Delaware submitted a cash flow model outlining their plan to increase pace and decrease the undisbursed ratio.

3. Since 2017, DPH has expressed interest in working with DNREC to modify the Operating Agreement (OA) to give DPH more control over the loan closing process. Per EPA and DPH's discussion on September 15, 2020, there has been movement to modify the OA. EPA requests DPH continue to update EPA throughout the process.

Resolved. DPH and DNREC will continue discussions to modify the OA. However, currently, there are no immediate plans to do so. EPA will be notified should anything changes.

DWSRF Infrastructure Project Selection

In May 2022, Notice of Intent (NOIs) were ranked and placed in priority order, based on public health protection and SDWA compliance. All projects listed on the PPL are considered equivalency projects. Projects have not yet had financial reviews. Anticipated subsidies are based on historical data only and are subject to change. Full applications are due on August 1, 2022.

Financial reviews will be performed at that time.

The Comprehensive, Fundable and by Capitalization Fund Grant Project Priority Lists (PPLs) are attached, as **Appendix A, B, and C**, respectively.

DHSS will use all the required subsidies. The exact amounts and projects for which those amounts will be applied will be known after **July 1, 2022**, once the State budget is final. DHSS has requested state funds to help supplement disadvantaged communities' financial burden.

Bypass Procedures

Upon written notice, DHSS can bypass a project on the fundable portion of the PPL based on the following:

- Project is withdrawn by the applicant
- Project is not ready to proceed
- System is unwilling to address any Significant Non-Compliance (SNC) issues
- System is lacking technical, managerial, or financial capacity
- System is out of compliance and demonstrates unwillingness to correct A133 Audit, Single Audit requirements, Davis Bacon, or Buy America Build America (BABA) Act.
- System is not current on loan repayments from prior closed loans
- An emergency project is approved

DHSS will reinstate bypassed projects if funds become available and the project meets all criteria above. Funds that become available due to project bypass will be offered to the next project on the PPL.

Emergency Project Requirements

EPA allows States to establish procedures to identify and prioritize Emergency Projects under consideration for DWSRF funding.

Projects necessary to alleviate emergency situations that result in an imminent threat to public health can be immediately elevated to the top of the PPL upon recommendation by DHSS and the concurrence of the WIAC.

Additionally, should an emergency project arise to mitigate a public health need and the project is not yet on the PPL; DHSS will elevate the project to NOI and review status. A potential fundable project may proceed, so long as it is captured in the Annual report and identified in the next available PPL.

As of June 1, 2022, DHSS has not received any emergency project applications.

Ranking Criteria

See 2022 [DWSRF Ranking Criteria](#) EPA-approved changes attached as **Appendix D**.

Tie-breaking procedures

The project with the greatest number of points under the Quality Deficiencies will receive the higher ranking. If there is still tie, the system with the greater population will receive the higher ranking, or, if the tie occurs with the same borrower, the borrower will be consulted before any decisions are made.

Subsidy Requirements

DHSS will meet minimum subsidy requirements by providing principal forgiveness or grants to: Communities identified as Disadvantaged.

- The next most ‘in need’ communities as identified by the financial review and affordability criteria mentioned herein and based on project priority
- Applicants who meet the 2022 Additional Subsidy Provisions, Part 1) Congressional Additional Subsidy Authority Provisions

A community considered for the DWSRF Disadvantaged Community Program may receive additional subsidies to the extent that that subsidy is available and within programmatic structure.

Disadvantaged Community (DAC) definition

A disadvantaged community is one that:

1. Meets the Affordability Criteria; or
2. Is identified by [EPA EJScreen](#) tool at 90% (USA) percentile or higher for Environmental Justice Indexes or for “Low Income” under the Socioeconomic Indexes; or
3. Is identified as disadvantaged by the [White House Climate and Economic Screening Tool](#); or
4. Is underserved.

Affordability Criteria –

Income Data – 1.5 percent of MHI will be considered affordable for a single wastewater or drinking water residential user rates; 3.0 percent of MHI will be considered affordable for combined wastewater and drinking water residential user rates. Delaware’s affordability criteria accounts for existing system costs relative to Operations and Maintenance (O&M) and Capital, as well as proposed project O&M and Capital costs as a function of MHI (1.5 percent water or wastewater, 3.0 percent if both services are provided) for the project area. MHI is based on the most recent census data for the municipality or county. DWSRF loan applicants whose MHI is not representative of the census data may be required to provide documentation to obtain principal forgiveness or additional subsidization. Documentation will be in the form of a representative income survey of the majority of the residents of the project area.

Underserved –

As defined in SDWA section 1459A (emphasis added): “(2) INCLUSIONS.—The term ‘underserved community’ includes a political subdivision of a State that either, as determined by the Administrator— ‘(A) does not have household drinking water or wastewater services; or ‘(B) is served by a public water system that violates, or exceeds, as applicable, a requirement of a national primary drinking water regulation issued under section 1412, including— ‘(i) a maximum contaminant level; ‘(ii) a treatment technique; and ‘(iii) an action level.”

In the PPL, you will find that borrowers may have been identified as DACs. If so, they will be demarcated using the identifier illustrated in **Figure 2**, which represents each of the four (4) components of the DAC definition.

Figure 2: DAC Identifiers on Project Priority List (PPL)

Disadvantaged Community Identifier
A= Affordability, pending final financial reviews
E= EPA Ejscreen
W= White House Climate and Economic Screening Tool
U= Underserved

Each of the four (4) capitalization grants have additional subsidy (Ad Sub) requirements. In **Figure 3**, the anticipated totals are illustrated.

Figure 3: Anticipated Ad Sub totals

Additional Subsidy Name	Total	Anticipated Award Ad Sub
LSLR DAC	\$13,891,500	\$13,891,500
EC	\$6,378,574	\$6,378,574
Supplemental DAC	\$8,816,080	\$8,816,080
Base DAC	\$2,406,000	840,960- 2,452,800
Base Congressional	\$981,120	\$981,120
	\$32,473,274	

Loan Projections

DHSS proposes to use a total of \$220,532,477 of federal and state funds in addition to other sources to provide low interest loans and grants to public water systems for infrastructure improvement projects.

Other Program Information

Interest Rate Policy

The criteria and interest rates, effective January 2021, apply to new public, private/public use, investor-owned, and private/private use WPCRF and DWSRF loan applications. Applicants may be able to obtain a lower interest rate based on projected residential user rates as a percentage of Median Household Income (MHI) above 1.5 percent, and 3.0 percent for wastewater and drinking water user rates combined.

Criteria:

- Interest rates shall be set at 1.0 percent per annum.
- Administrative Fees shall be set no lower than 1.0 percent per annum.
- A lower interest rate may be made available based on projected residential user rates as a percentage of Median Household Income (MHI) above 1.5 percent, and 3.0 percent for wastewater and drinking water user rates combined only after other alternatives such as extended repayment terms, principal forgiveness or supplemental grants are exhausted.
- Should any municipal applicant demonstrate that the municipal bond rate available to its organization is lower than the collective interest rate and administrative fee set by this policy, then DNREC/DHSS may match the lower bond rate by adjusting the interest rate.
- Should US Tax Reform (or other regulatory changes) have an impact on the pricing of tax-exempt bonds and their relative value to taxable bonds, this policy will be reviewed and adjusted.

Possible DWSRF Administrative Loan Fees

DWSRF Administrative Loan Fees have been waived for the 2022 PPL/applicants.

Leveraging

DHSS does not anticipate the need to reserve the right to transfer Capitalization Grant and loan repayments monies between the State's Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund programs, as necessary to ensure the full utilization of the federal assistance during this grant year.

State Match

The State Match for both the base and supplemental capitalization grants will be made using State of Delaware Bond Bill funds.

Cash Draw Ratio

As it relates to proportionality for cash draws, note that DHSS will draw the entire state match for infrastructure projects and then move on to the federal grant funds.

Cross Collateralization between SRF programs—Transfer Use

As of June 1, 2022, there is \$31,161,803 available for drinking water project loans and current loan disbursement. This 'transfer back' to the DWSRF may begin in calendar year 2022. DHSS will coordinate with DNREC to receive regular account summaries. Those summaries will be reported in the next corresponding Annual Report.

Cross Collateralization between SRF programs

In FFY 12 the DWSRF program transferred \$27,050,176 in Federal funds and \$5,410,035 in State funds to the CWSRF program. Of this, \$1,298,408 was used for administrative costs (4%). This leaves \$31,161,803 available for project loans.

It is the understanding between both DNREC and DHSS that these funds will be made available back to DHSS for payments on existing loans and to make additional loans when needed by the DWSRF program on a cash flow basis.

Funds for both new and existing DWSRF loans will be used in the following order: first from the Federal capitalization grants, second from the DWSRF repayment & interest fund, then when these funds are exhausted, from the previously transferred funds to the CWSRF program.

To date, no funds have been transferred back to the DWSRF program.

DWSRF Coordination of funding priorities with State Drinking Water Enforcement Agency

The DWSRF program coordinates with the Office of Drinking Water by performing a [Capacity Development review](#). In addition, offices collaborate throughout the year to offer technical assistance through Delaware Rural Water Association (DRWA) to systems that are on Public Notice.

Davis Bacon Compliance

DHSS agrees to comply with Davis Bacon requirements as outlined in guidance distributed by EPA. Additionally, DHSS performs site inspections during construction.

Green Project Reserve

DHSS is not participating in Green Project Reserve for 2022, as it is not in federal grant requirements. DHSS will use this coming year to learn more about this initiative and it's benefits to borrowers.

Sustainability Policy Description

Fix It First

DHSS does not fund projects that are primarily for growth. Applicants are encouraged to study existing infrastructure to determine most critical needs, and then base their DWSRF applications on those needs.

Capacity Development for Loan Applicants

The DWSRF program requires the Capacity Development Program, housed in the Office of Drinking Water, review the Capacity Development portion of each full application, work with systems to increase technical, managerial, and financial capacity; ensure creation and maintenance of asset management plans; and report any serious, outstanding problems to the DWSRF program so that they may be addressed before loan closing.

Asset Management

DHSS will begin to require Asset Management Plans (AMPs) for DWSRF consideration and financial support. To date, 17 systems have started an AMP and 2 additional systems have applied. The NFAA has funded the AMP Grant program. The maximum grant amount is \$100,000. Soon, the Capacity Development program will begin reviewing submitted AMPs as a new initiative.

Disadvantaged Business Enterprise Participation

Loans using the capitalization grant and state match funds will conform to Disadvantaged Business Enterprise (DBE) steps as outlined by EPA. Borrowers must document and demonstrate good faith efforts consistent with federal regulations.

Davis Bacon Act Participation

All DWSRF-assisted projects capitalization grant and state match funds will conform to Davis Bacon wage determinations, wages, and activities as outlined by EPA. Borrowers must document and demonstrate efforts consistent with federal regulations. Davis Bacon Act Participation.

Efficient Expenditure

- Loans- the DWSRF program will use a “First in-First Out” approach when making loan payments
- Set-Asides- the DWSRF program will prepare one-year set-aside budgets. During the second year of the grant, the program will review expenditures and re-budget set-aside funds for additional set-aside work or project loans per EPA approval. All funds will be expended by the end of the third of the grant.

Project Management

DHSS designates all loans to requirements of Single Audits, DBE, Crosscutters, Davis Bacon, Federal Funding Accountability and Transparency Act (FFATA), and BABA.

Reporting

DHSS will make all efforts to report all applicable information to: FFATA, Projects Benefits, Report, and NIMs in accordance with applicable due dates set forth by EPA.

Ag Strategy

Please refer to the 15% Base and Supplemental Capitalization Grant Set-Aside for information on the Cover Crop Program to learn how DHSS DWSRF Administration is meeting EPA’s Ag Strategy recommendations.

Sources and Uses

See Table below illustrating the Sources and Uses of the fund.

DWSRF SFY 23 Sources:	
Projected Fund Balance at 6/30/2022	\$ 88,762,259
Base Cap Grant	\$ 7,008,000
Base Cap Grant State Match	\$ 1,401,600
Supplemental Cap Grant	\$ 17,992,000
Supplemental Cap Grant State Match	\$ 1,799,200
Lead Cap Grant	\$ 28,350,000
Emerging Contaminants Cap Grant	\$ 7,555,000
Projected Repayments to the Fund	\$ 11,412,967
Projected Investment Income	\$ -
Total Sources for SFY 23:	\$ 164,281,026
DWSRF SFY 23 Uses:	
Disbursements Projects for Construction	\$ 91,837,291
2% Technical Assistance	\$ 549,223
4% Administration	\$ 1,401,213
10% Program Management	\$ 1,758,675
15% Local Assistance	\$ 4,020,396
Total Uses for SFY 23:	\$ 99,566,799
Total Projected Fund Balance 6/30/23	\$ 64,714,227

*note PPL exceeds expected disbursements

Set-Aside Activities

The SDWA allows states to use part of the Capitalization grant to support Set-Aside activities. Up to 31% of each Capitalization grant may be reserved for Set-Aside activities.

Delaware reserves its authority to apply remaining 2%, 4% and 10% set-asides from prior Base Grants to future capitalization grants. Delaware also reserves its authority to bank the 2%, 4% and 10% set-asides from future BIL - General Supplemental and LSL Replacement Grants.

See all Set Aside Work Plans attached as **Appendix E**.

Base Capitalization Grant Set-Asides

DWSRF Base Funding		
2% Technical Assistance	Delaware Rural Water Association (DRWA) Delaware Technical Community College (DTCC)	\$137,332.00
4% DWSRF Administration	3.45 FTE DHSS DWSRFAudit Fees	\$263,247.00
10% State Program Management	4.55 FTEs DHSS Office of Engineering Office of Drinking Water & Information Support Services PDHSS Public Water Supply Supervision Program DNREC Underground Injection Control Program	\$662,925.00
15% Local Assistance/Other Programs	4.35 FTEs DHSS Office of Engineering Office of Drinking Water Capacity Development Program New System and Existing Systems DRWA and DTCC Contracts	\$936,362.00

Small Systems Technical Assistance (2% Base)

Provide assistance to small systems through contractor personnel. Funds provide technical assistance to public water systems serving less than 10,000 people. Contracts with DRWA and DTCC continue to provide technical assistance and training.

DRWA contracts:

- Provide 80 on-site visits to small community water systems and municipal water systems to provide priority technical assistance to systems who are either already out of compliance or reaching non-compliance. DRWA will also provide technical assistance through public education and awareness regarding PFOS & PFAS and will assist systems with the new LLRC regulation.
- The on-site mobile training unit will be deployed upon request to demonstrate system specific needs to SRF systems for them to gain a better understanding of operational or testing methods to meet Safe Drinking Water Act (SDWA) compliance and public health benefits.
- DRWA will assist on-site with system water operators in providing the necessary technical information and guidance templates on how to establish and implement a workable cross-connection control plan management program. The program will provide quarterly CCC training to state drinking water EHS's, Food Service Inspectors, Plumbing Inspectors and the Direct Responsible in Charge of the water system with hands-on technical assistance, which includes data collection, program procedures, testing notifications, review of treatment and distribution system infrastructure site plans and providing recommendations on the types and placement of backflow prevention assemblies in the prevention of contamination into the water source. Will assist Community State Revolving Fund compliant systems in addressing potential contamination prevention from back-siphonage, backflows, cross-connections, and the need to prevent contamination of Delaware's drinking water systems. In addition, DRWA will provide two formal technical assistance training classes in identifying potential contamination sites around the treatment area and wellhead protection areas.

- Provide assistance to systems required to perform Public Notice, critical Sanitary Survey violations, systems with contamination exceedances and Emergency Response Planning
- Provide assistance and training for contamination prevention, compliance education, water operator training, and preventive maintenance planning

DTCC contracts:

- Certify and provide continuing education to Operators-In-Training and licensed water operators of small public water supply systems (non-profit)
- Provide tuition assistance for continuing education for approximately 115 Operators-In-Training and licensed water operators of small public water supply systems and provide tuition assistance for Base Level Water Operators Course to approximately 26 new operators
- Provide Base Level Water Operators with a basic math course if the student is in need
- Recruit students through advertisement in the local press to enter the Drinking Water Training program
- Administrative salary funding will be utilized for the following: to plan operations; recruit and interview prospective students; counsel students regarding course schedules; work with industry leaders to offer courses that meet the needs of operators; identify new courses needed; assist with tutoring needs; development of job building skills; assist with employment opportunities; and market program and courses to industry via varying methods. In addition, staff will assist with registering students, and will report and track the funding for students enrolled in this program

DWSRF Program Administration (4% Base)

The 4% Set-Asides will be used to fund the salaries, supplies and indirect costs of 3.45 DHSS DWSRF (Full Time Employees) FTEs and audit fees.

State Program Management (10% Base)

The 10% Set-Asides will be used to fund the salaries, supplies and indirect costs of 4.55 DHSS Office of Engineering, Office of Drinking Water, and Information Support Services FTEs.

The Public Water System Supervision (PWSS), Operator Certification, and UIC programs will be funded through this Set-Aside as follows:

Operator Certification

Operator Certification expenses are absorbed by funding positions with the EPA PWSS grant. DHSS could use the DWSRF grant as a source of funding to prop up the Operator Certification program. Proposed activities include:

- Monitor, track, and report water operator licensures
- Communicate with operators in providing assistance, training opportunities, industry and regulatory updates, and other information pertinent to drinking water
- Provide regulatory-related trainings to water operators by ODW staff
- Provide administrative review and processing of water operator licenses renewals
- Provide support and proctoring assistance to DTCC for Drinking Water Operator examinations
- Ensure public water systems that are required to have a licensed water operator do so, either by directly employing an operator or by contracting with an operator
- Assist licensed water operators in obtaining the proper endorsements for the water systems they operate
- Maintain licensed water operator data in a database
- Plan and prepare for updating aging database

Public Water Supply Supervision (PWSS)

- Monitor, track, and report compliance for approximately 470 Public Water Systems
- Upgrade from SDWIS/State 3.3 to SDWIS/State 3.4
- Develop a plan for private drinking water labs to submit their drinking water sample results electronically
- Continue to utilize EPA reporting under the Enforcement Response Policy and Enforcement Tracking Tool (ETT)
- Facilitate posting of all relevant public water systems information and sample results to Delaware's Drinking Water Watch public-facing webpage

Delaware Public Health Laboratory

- Continue analyzing samples for the presence of Legionella
- Purchase supplies and reagents to maintain higher levels of operational efficiencies and cost effectiveness
- Cross train for continuity of operations in the event of emergency situations, including flooding and other weather-related events
- Purchase benches on wheels to help in moving instruments in case of an emergency
- Continue to perform audits for the certification of drinking water testing laboratories within Delaware
- Purchase LIMS (Labwear) to reduce manual entry of sample results, will generate automated upload from instrument to LIMS
- Continue to perform in-house testing to include test samples for chemical analysis and bacteriological

Underground Injection Control

- Continue to work with DHSS and provide technical support as needed on identifying and managing potential impacts to groundwater from operations of major wastewater treatment and disposal facilities

- Develop and implement EQuIS data management application so facilities can submit data electronically and continuous monitoring data can be collected and reported in real-time
- Develop and implement real-time/contemporary web-based groundwater monitoring and UIC program management tools using MS Power BI
- Continue to perform inspections of Class V wells in Delaware

Local Assistance and Other State Programs (15% Base)

The 15% Set-Asides will be used to fund the salaries, supplies and indirect costs of 4.35 DHSS Office of Engineering and Office of Drinking Water FTEs.

The Capacity Development and Source Water Protection Programs will be funded through this Set-Aside as follows:

Capacity Development

- Provide assistance to all proposed public drinking water systems to ensure that the water system owner/operator has demonstrated adequate TMF capacity, and that the water meets all applicable SDWA requirements prior to operating
- Monitor and assist new public water systems in Lead and Copper Rule compliance
- Report the name of new and proposed PWSs for the Semi-Annual DWSRF Set-Aside reports
- Assist new CWSs and NTNCWs in their compliance with the requirement to operate under the supervision of a Delaware licensed water operator
- Provide in-depth training in CCR report creation to technical and managerial staff of CWSs in Delaware to increase compliance with the CCR
- Provide assistance to existing PWSs with an ETT score of 11 or higher or that are identified as being in need through routine regulatory activities conducted by ODW
- Evaluate and report the TMF capacities of at least one-third of Delaware's water systems
- Monitor, evaluate, train, and assist PWSs and operators in LCR compliance, schedules, and reporting
- Track and report existing PWSs appearing on the ETT report with scores of 5 and greater to technical assistance providers to facilitate achieving compliance

DRWA and DTCC Contracts through Capacity Development

- Provide small municipalities (population under 1000), municipal communities (population under 10,000), non-municipal communities, and seasonal water systems with 1:1 GIS technical assistance
- Conduct specialized emergency response training classes
- Conduct municipalities with Emergency Response Plans
- Create new online courses for Delaware water operators
- Revise and update existing online water operator courses
- Develop, host, and market webinars, topics include Addressing AWIA, Emerging Technologies, Drone Usage, and Addressing an Aging Workforce
- Assess and Purchase New Automated Training Devices – DTCC shall research, assess, and purchase training equipment, textbooks, curriculum, and/or software pertaining to water quality control and processes to enhance classroom instruction and improve field skills

Sustainability 1:1 Assistance and Cyber Security Programs

The DWSRF Program will continue to work with Kash Srinivasan Group, LLC to provide support to the Capacity Development and DWSRF programs by assisting Delaware’s public water systems (PWSs) with resources to meet EPA’s Financial capacity requirements, which in turn will assist PWSs achieve and maintain long-term sustainability and compliance with the national safe drinking water regulations.

Source Water Protection

- Source Water Assessment, Characterization and Monitoring – This includes providing assessments for any new system, revising, and updating existing source water assessments (e.g., delineation, contaminant sources, susceptibility assessment), providing technical assistance to solve source water problems including recommendations for potential DWSRF funded monitoring network/systems development, and resource characterization activities. The SWAP will continue the development of a statewide ambient groundwater monitoring program, including the deployment of long-term monitoring equipment with real time data telemetry capabilities, while utilizing existing DGS and DNREC Water Supply Section monitoring well infrastructure, and the Water Allocation Branch permitting process. For this grant cycle, contractual support will be utilized for miscellaneous groundwater sampling including raw water sampling of public water systems, as well as PFAS related sampling in collaboration and with guidance from the PFAS Steering Committee.
- Prioritization of State SWP activities – This includes support of local efforts to develop SWP ordinances and comprehensive plans or other local approaches, support to SWP-related UIC activities, and related needs.
- Integration of SWAPP with other state, federal, and local programs – This includes work with the federal, state agencies, private organizations, and local governments with regards to source identification, characterization, and prevention.
- Motivating Local SWP activities – This includes technical assistance, committee representation, information dissemination; review of local development plans and comprehensive land use plans as part of the Preliminary Land Use Service (PLUS) process.
- Manage data includes data collection, data storage, and recovery; including develop GIS data and tools, increase, and manage web availability, and improve efficiency of state and federal data reporting. Additionally, the SWAPP will work with systems to evaluate their needs for data management and operational enhancements (e.g., SCADA) that could benefit from potential DWSRF funding. For this grant cycle, contractual funding will be utilized to support the EQUIS Enterprise migration project which will be used by the Division of Water to store, share, and review analytical and permit data throughout the State including the Ambient Groundwater Monitoring project. The data stored in EQUIS will be used to inform future Division of Water permitting decisions while data stored in the WaterSTAR system will be used to increase data sharing and data access between interagency partners. Additionally, records collected as part of the “Public Well Missing Records Reconnaissance Project” will be shared between DNREC and DHSS to build a more complete database record for both DNREC and DHSS.

Ag Strategy Program

The Ag Strategy Program is expanding, including outreach to farmers who may not be in the Cover Crop program, exploration of expanded eligibilities, i.e., buffer zones, and pollinator plots. The program may also explore further incentives for farms that are close to municipal source water protection areas.

DHSS will continue work with DRWA and Sussex County Conservation District to improve upon and add GIS mapping layers.

Additionally, DHSS will explore opportunities to use existing monitoring well real-time data collection with DNREC partners which could provide beneficial data to public wells, i.e., contaminant alerts and flow in ground water.

Supplemental BIL Capitalization Grant

DWSRF Supplemental Funding		
2% Technical Assistance	DRWA Contracts	\$79,195.00
4% DWSRF Administration	3.5 FTEs DHSS DWSRF Office of Engineering	\$416,849.00
10% State Program Management	3 FTEs DHSS Division of Public Health Laboratory	\$363,202.00
15% Local Assistance/Other Programs	7 FTEs DNREC Source Water Protection DRWA Contract Sussex Conservation District Delaware Department of Transportation & DNREC Collaboration	\$1,183,453.00

Small Systems Technical Assistance (2% Supplemental)

Provide assistance to small systems through contractor personnel. Funds provide technical assistance to public water systems serving less than 10,000 people. Contracts with Delaware Rural Water Association continue to provide technical assistance and training on Contamination Prevention and Cross Connection Control and the SRF.

DRWA Contracts

- Will assist ten Community State Revolving Fund compliant systems in addressing potential contamination prevention from back siphonage, backflows, cross connections, and the need to prevent contamination of Delaware’s drinking water systems. DRWA will provide two formal technical assistance training classes in identifying potential contamination sites around the treatment facility and wellhead protection areas. Provide facility instructions on the essential elements that make up the effective ongoing Cross Connection Control Program.
- Aid systems found having a potential health hazard from a cross connection by referring them to DWSRF program for directions on how to apply for a loan, so the system can make compliance corrections within the treatment or distribution system.
- Will provide 80 technical assistance site visits to small Community Water Systems (CWS)

and municipal water systems. Visits can include technical, financial, and managerial capacity assistance along with promotion of the DWSRF program and 1:1 application/process help. Activities may include community/civic association meetings and acting as a liaison between interested parties and stakeholders.

- Will work closely with the Office of Drinking Water, Office of Engineering, and the DWSRF program to identify systems in need of Priority Technical Assistance under the Enforcement Targeting Tool (ETT) System. Systems may be defined as community, non-transient non-community, transient, and/or seasonal.
- Provide priority technical assistance in the form of contamination prevention, rule education, water specialist operator training and/or preventive maintenance assistance planning. Priority systems can be classified as those that are either already out of compliance or reaching non-compliance.
- Will deploy upon request, the mobile on-site training unit to demonstrate system specific needs to SRF systems in so that they understand either operational or testing methods to meet Safe Drinking Water Act (SDWA) compliance and public health benefits. Such assistance could include but is not limited to: SRF funding opportunities, public awareness of Drinking Water Standards, contamination prevention, water treatment process, and dealing with unregulated contaminants.

DWSRF Program Administration (4% Supplemental)

The 4% Supplemental Set-Asides will be used to fund the salaries of 3.50 DHSS DWSRF and Office of Engineering FTEs.

State Program Management (10% Supplemental)

The 10% Supplemental Set-Asides will be used to fund the salaries of 3.00 DHSS Division of Public Health Laboratory FTEs.

Local Assistance and Other State Programs (15% Supplemental)

The 15% Supplemental Set-Asides will be used to fund the salaries of 7.00 DNREC Source Water Protection FTEs.

This set-aside will fund DRWA contracts, and the Source Water Protection Program as follows:

DRWA contract:

- The Career Training for High School Students Pre-Apprenticeship Program will be open to any student that is interested in venturing into a career related to Water Treatment and Water Operations & Maintenance within a community water system.
- DRWA proposes to provide, to a minimum of five (5) Delaware high schools representing each county, a program to demonstrate the need for young adults to enter the field of drinking water distribution, operations, and water treatment.

- DRWA shall also be seeking the interest of partnering with water utilities that are willing to allow participating students to be able to work and gain field knowledge on the job where they may earn while they learn.
- Students who seek to advance their knowledge will be eligible to enroll in DRWA’s two (2) year Water Systems Operation Specialist Apprenticeship Program which will offer more in-depth training such as chemistry, filtration and math equations and chemical additions.

Sussex Conservation District

- Sussex County Source Water Protection Agricultural Best Management Practices

Collaboration with Delaware Department of Transportation and DNREC

- Statewide Source Water Protection Signage Initiative

Emerging Contaminants BIL Capitalization Grant

Emerging Contaminants Funding		
2% Technical Assistance	Science and Technology and Research Institute of Delaware (STRIDE) Contract	\$78,000.00
4% DWSRF Administration	1.5 FTEs DHSS DWSRF Office of Engineering	\$148,426.00
10% State Program Management		\$0.00
15% Local Assistance/Other Programs	Maryland Environmental Service (MES) Contracts DNREC Contract with Eurofins for PFAS Sampling	\$950,000.00

Small Systems Technical Assistance (2% Emerging Contaminants)

This Emerging Contaminants set-aside will fund efforts provided by the Science, Technology, and Research Institute of Delaware (STRIDE) to provide PFAS Treatment Advice and Technical Support to Delaware Drinking Water Systems.

STRIDE contract will:

- Gather data: Collect price, performance, and availability data of all commercially available and developmental PFAS filter products and maintain a data base.
- Do batch adsorption tests: Compare PFAS removal efficiencies of at least six filter materials in source water from 5 Delaware drinking water systems (to be chosen by DHSS) and provide the data such that they can chose the best treatment system for contaminants in their water system.
- Do Rapid Small Column Tests (RSSCT) on water from two water systems (to be chosen by DHSS). RSSCT is a bench-scale testing procedure used to estimate the replacement frequency of an adsorbent at a full-scale treatment plant. This data will help water operators and their engineering contractors design the filter system for optimum capital and operating costs.

- Enable drinking water systems to find and install the optimum system and negotiate purchasing terms with vendors. This service will also help with supply chain issues, avoid dependence on single supply, and help the State/DHSS avoid future problems and reduce emergency use of State Revolving Funds.

DWSRF Program Administration (4% Emerging Contaminants)

The 4% Emerging Contaminants Set-Asides will be used to fund the salaries, supplies and indirect costs of 1.5 DHSS DWSRF and Office of Engineering FTEs.

Local Assistance and Other State Programs (15% Emerging Contaminants)

Multiple programs will be funded by this Emerging Contaminants set-aside through the work of Maryland Environmental Service (MES) and DNREC with Eurofins Scientific.

Drinking Water Interconnection Study

In connection with Maryland Environmental Service (MES)

Mobile Emergency Response Filter

Vendor TBD. [Request for proposal](#) closed in May 2022.

PFAS Sampling

Contract executed via Eurofins contract through DNREC

Lead Service Line Replacement BIL Capitalization Grant

Lead Service Line Replacement Funding		
2% Technical Assistance	DRWA Contract 120Water Contract Sampling in Schools-(LSL identification)	\$170,379.00
4% DWSRF Administration	2.0 FTEs DHSS DWSRF	\$292,290.00
10% State Program Management		\$0.00
15% Local Assistance/Other Programs		\$0.00

Small Systems Technical Assistance (2% Lead Service Line Replacement)

Provide assistance to small systems through contractor personnel. Funds provide technical assistance to public water systems serving less than 10,000 people. Contracts with DRWA and 120Water provide technical assistance and training.

DRWA & 120Water contract

- LCR Technical Assistance and Training -- DRWA and 120Water are partnering to deliver market differentiated, high-impact and ongoing Technical Assistance to educate utility operators, superintendents, key personnel, and city managers about the complexities and nuances of Safe Drinking Water Regulatory Compliance.
- The partnership will conduct, at minimum, three instructor-led Technical Assistance Training Seminars throughout the calendar year with a focus on the Lead and Copper Rule (LCR) and the Lead and Copper Rule Improvements (LCRI). Given the evolving landscape of LCR(I), we are proposing a 5-year technical assistance program designed to give ongoing, world-class education to the utilities across the state of Delaware and Maryland.
- It is the goal of this partnership to ensure that the funding being made available to systems for LCR compliance will be used efficiently and effectively, resulting in better and more consistent outcomes for all stakeholders.

Lead Sampling in Schools

- Lead sampling in schools (non-routine, not for compliance purposes, for LSL identification)

DWSRF Program Administration (4% Lead Service Line Replacement)

The 4% Lead Service Line Replacement Set-Asides will be used to fund the salaries, supplies and indirect costs of 2.0 DHSS DWSRF FTEs.

Public Review

Due to COVID-19, and the Governor's Emergency Proclamation, a virtual public meeting will be held on June 15, 2022. DHSS will post the Fundable PPL and IUP online for public comment for 30 days. DHSS will advise the EPA when this comment period occurs and plans to share any meaningful public comment that is received.

This IUP was presented in a hearing on June 15, 2022, before the Delaware Water Infrastructure Advisory Council (WIAC) and public stakeholders. Visit this page for details of the WIAC meeting: <https://dnrec.alpha.delaware.gov/events/water-infrastructure-advisory-council-16/>. The presented draft IUP and associated documents were approved by the WIAC.

This IUP and associated documents were available for public review and comment through July 15, 2022.

No written comments were provided to DHSS during public review and comment period. A meeting with the DWSRF Program and Administrator and the City of Seaford, found that the points awarded during the ranking processes were in error. This review found each project for the City of Seaford to be elevated on the PPL. Revisions were made to the PPL, and it is attached (Appendices A, B and C) to include those revisions.

Appendix A Comprehensive PPL

Rank	Water System/ Borrower	Population Served	Comprehensive Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri- ation	Financing	Terms	Anticipa- ted subsidy	Anticipated Subsidy Amount	Notes
1	Countryside Hamlet MHP	66	Upgrades and Interconnect	Consolidation to Artesian - See Adam Gould emails	\$745,470		800	State			State Grant	\$745,470	Anticipated to be Bypassed for State Funds
2	Stage Village MHP	93	Water System Improvements and Consolidation with Delmar	New distribution, fire hydrants, water meters and connections to Delmar	\$687,800	U	730	State			State Grant	\$687,800	Anticipated to be Bypassed for State Funds
3	Willow Tree MHP	141	MHP Water System Upgrades	System Upgrades, add storage Kitts Hummock Road	\$1,700,000	U	680	Suppleme- ntal			Sup DAC	\$1,700,000	
4	New Castle	5364	Hewlett-Janvier	Water Main Replacement	\$1,490,000	W	670	Suppleme- ntal			Sup DAC	\$1,490,000	
5	Delmar to Holly Oak MHP	4500 210	Water Line Extension	Consolidation Holly Oak MHP	\$1,100,000		630	Base	2.00%	20 years	Base Congres- sional	\$981,120	
6	Milton	3200	LSL replacement	Carey, Walnut and Mill Street Main Replacement and LSL replacement	\$1,330,000		620	LSLR	2.00%	20 years		\$0	
6	Wilmington	107976	LSL Removal	Service line improvements and LSL removal \$22.5M LSLR	\$22,500,000	E, W	620	LSLR			94% LSLR	\$12,875,792	
7	Seaford	6699	Martin Farms LSL Abatement	Abatement	\$2,072,149		590	Corpus	2.00%	TBD		\$0	
8	Wilmington	107976	Raw Water Transmission Improvements	From Brandywine Creek to either Porter or Hoopes	\$10,000,000	E, W	580	Suppleme- ntal			Sup DAC	\$5,626,080	
9	Lewes BPW	3000	Capes Cove	Consolidation Capes Cove MHP	\$320,600		560	Suppleme- ntal	2.00%	20 years		\$0	
9	Seaford	6699	Woolford Street LSL Abatement	Abatement	\$601,574		560	Corpus	2.00%	TBD		\$0	
10	Frederica	870	Jackson St. Service Connections	LSL replacement	\$512,000	A*	530	LSLR				\$512,000	
11	Magnolia	425	North Main Street	Water Main Improvements	\$900,000	A*	525	Base			Base DAC	\$900,000	
12	Dover	38000	LSL inventory	LSL regulatory requirements	\$60,000	E,	480	LSLR				\$60,000	

Rank	Water System/ Borrower	Population Served	Comprehensive Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropriation	Financing	Terms	Anticipated subsidy	Anticipated Subsidy Amount	Notes
12	Greenwood	973	Well Replacement	New 6" Water well and test well	\$378,000	A*	480	Base			Base DAC	\$378,000	
12	New Castle	5364	Delaware Street	Water Main Extension	\$1,743,000	W	480	Supplemental	2.00%	20 years		\$0	
13	Wilmington	107976	Porter Filter Plant PFAs Removal- \$45M project EC	Construct GAC vessels	\$4,787,405	E, W	450	EC			75% EC	\$4,787,405	
13	Wilmington	107976	Porter Filter Plant PFAs Removal - \$45M project Base	Construct GAC vessels	\$40,212,595	E, W	450	Corpus	2.00%	20 years		\$0	
14	Seaford	6699	Dulany Well Abandon and Nylon Well Rehab	Abandonment and Rehabilitation	\$1,901,990		430	Corpus	2.00%	20 years		\$0	
15	Frederica	870	Market Street	Water Main Renewal	\$328,000	A*	420	Base			Base DAC	\$328,000	
16	Rehoboth Beach	1400	Waterline and Service Line Replacements Phase I	1 of (7?) Phases to replace water and service lines	\$2,527,000		410	LSLR	2.00%	20 years		\$0	
17	Magnolia	425	Elevated Storage Tank	Pressure and Redundancy	\$2,637,700	A*	405	Base			Base DAC	\$800,000	
18	Lewes BPW	3000	LSL inventory	Mapping and Replacement Planning	\$263,000		400	LSLR	2.00%	20 years		\$0	
18	Milton	3200	Federal Street Well and WT	Well and Treatment upgrades with ARPA match	\$301,381		400	Base	2.00%	20 years		\$0	
19	Newark	40000	SWFWTP PFAs Treatment - \$4.4M EC	PFA WTP Upgrades	\$1,591,169		380	EC			25% EC	\$1,591,169	
19	Newark	40000	SWFWTP PFAs Treatment \$4.4M Base	PFA WTP Upgrades	\$2,808,831		380	Corpus	2.00%	20 years		\$0	
19	Wilmington	107976	Porter Clearwell Improvements	Clearwell and associated infrastrucure	\$19,000,000	E, W	380	Corpus	2.00%	20 years		\$0	
20	Artesian	209706	Brandywine Springs Manor	Water Main Renewal	\$1,035,000		375	Supplemental	2.00%	20 years		\$0	
20	Artesian	13511	Knox Street	Water Main Renewal	\$250,000		375	Supplemental	2.00%	20 years		\$0	
20	Artesian	209706	Stratford	Water Main Renewal	\$1,354,000		375	Corpus	2.00%	20 years		\$0	
20	Magnolia	425	Water Production Well	Well Improvements	\$850,500	A*	375	Corpus	2.00%	20 years		\$0	

Rank	Water System/ Borrower	Population Served	Comprehensive Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropriation	Financing	Terms	Anticipated subsidy	Anticipated Subsidy Amount	Notes
21	New Castle	5364	School Lane Solar Panels	Install of additional solar panels	\$547,000	W	370	Base	2.00%	20 years		\$0	
21	New Castle	5364	SCADA Improvements	SCADA and monitoring Upgrades	\$50,000	W	370	Bse	2.00%	20 years		\$0	
22	Artesian	1872	Delaware City John, S. Laws, Oak Streets and Elem	Interconnect	\$3,850,000		360	Corpus	2.00%	20 years		\$0	
22	Bridgeville	2256	School	Water Main Renewal	\$2,033,000		360	Corpus	2.00%	20 years		\$0	
22	Cheswold/TUI Garrison Lake	12567	Main and Commerce Street	Water Main Extension Loop	\$290,000	E,	360	Corpus	2.00%	20 years		\$0	
22	Dover	38000	Brandywine Court	LSL inventory and replacement	\$115,000	E,	360	LSLR	2.00%	20 years		\$115,000	
22	Lewes BPW	3000	Kings Highway	Water Main Replacement	\$4,300,000		360	Corpus	2.00%	20 years		\$0	
22	New Castle	5364	PFAs Treatment	School Lane WTP Expansion	\$2,092,000	W	360	Corpus	2.00%	20 years		\$0	
23	Frederica	870	Water Storage Tower	Pressure and Redundancy	\$3,715,000	A*	350	Corpus	2.00%	20 years		\$0	
24	Artesian	13511	Railroad Street	Water Main Renewal	\$320,000		345	Corpus	2.00%	20 years		\$0	
25	Wilmington	107976	Porter Filter Plant	WTP Electrical Upgrades	\$11,000,000	E, W	330	Corpus	2.00%	20 years		\$0	
26	New Castle	5364	School Lane Natural Gas Generator	Install of emergency standby generator for School Lane WTP	\$327,000	W	320	Corpus	2.00%	20 years		\$0	
27	Artesian	209706	Sparrow Run	Water Main Renewal	\$1,540,000		315	Corpus	2.00%	20 years		\$0	
27	Artesian	209706	Wilmington Manor Gardens	WTP Improvements, PFOS removal	\$3,850,000	E,	315	Corpus	2.00%	20 years		\$0	
28	Artesian	13511	Route 113	Water Main Renewal	\$900,000		310	Supplemental	2.00%	20 years		\$0	
28	Frederica	870	LSL inventory	LSL inventory	\$102,000	A*	310	LSLR				\$102,000	
29	Millsboro	7500	LSL inventory	Inventory and Mapping (1964 pipes)	\$233,500		300	LSLR	2.00%	20 years			
29	Milton	3200	Federal Street Water Tower	Pressure and Redundancy Upgrades to disinfection, SCADA and treatment equipment	\$3,720,000		300	Corpus	2.00%	20 years		\$0	
30	Artesian	209706	Midvale WTP		\$2,750,000	E	295	Corpus	2.00%	20 years		\$0	
31	Lewes BPW	3000	Jones Farm	Elevated Storage Tank	\$4,320,000		290	Corpus	2.00%	20 years		\$0	

Rank	Water System/ Borrower	Population Served	Comprehensive Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropriation	Financing	Terms	Anticipated subsidy	Anticipated Subsidy Amount	Notes
31	Lewes BPW	3000	Savannah Road Bridge	Canal Crossing Water Main	\$2,260,000		290	Corpus	2.00%	20 years		\$0	
32	DE State Fair	452	Water System Lead Abatement	LSL	\$1,660,000		285	Corpus	2.00%	TBD		\$0	
33	Tidewater	4000	Consolidation - Angola Meadows	Interconnection Phase 2B resiliency	\$3,410,000		280	Corpus	2.00%	20 years		\$0	
34	Middletown	22582	NE Quadrant	Water System Improvements	\$1,963,287		270	Corpus	2.00%	20 years		\$0	
34	Newark	40000	Elevated Storage Tank	Install of new storage, pressure and turnover	\$5,500,000		270	Corpus	2.00%	20 years		\$0	
34	Tidewater	23463	Consolidation - Dairy Farm Road	Interconnection for resiliency and redundancy	\$1,650,000		270	Corpus	2.00%	20 years		\$0	
35	Frederica	870	Water Loop	Water System Hydraulic Loop	\$404,000	A*	260	Corpus	2.00%	20 years		\$0	
35	Frederica	870	Water System SCADA	SCADA and monitoring Upgrades	\$64,000	A*	260	Corpus	2.00%	20 years		\$0	
35	Magnolia	425	LSL inventory	Inventory and Replacement	\$1,500,000	A*	260	Corpus	2.00%	TBD		\$0	
35	New Castle	5364	LSL Inventory	LSL Inventory and Mapping	\$284,000	W	260	Corpus	2.00%	TBD		\$0	
36	Middletown	22582	North Broad Street	Water Main Upgrade	\$1,451,026		240	Corpus	2.00%	20 years		\$0	
37	Seaford	6699	LSL Inventory	Inventory	\$212,000		220	Corpus	2.00%	TBD		\$0	
38	Artesian	7035	Choptank and Westside Hunt	Bring Westside Hunt Well online and upgrade Choptank WTP	\$3,850,000		190	Corpus	2.00%	20 years		\$0	
39	Artesian		Slaughter Beach	Fire Protection	\$2,000,000		180	Fire- Protection					
39	Newark	40000	LSL Inventory	Inventory and Replacement	\$2,250,000		180	Corpus	2.00%	TBD		\$0	
39	Tidewater	23463	DeIDOT SR 24 Love Creek to Mulberry Knoll	Joint DeIDOT and Tidewater SR 24 Reho	\$1,700,000		180	Corpus	2.00%	20 years		\$0	
40	Bethany Crest MHP	115	PFAs Treatment	Installation of PFAs resin	\$300,500		170	State	2.00%	20 years		\$300,500	Bypassed for State Funds
40	Newark	40000	Water Mains	Water Main Replacement	\$2,200,000		170	Corpus	2.00%	20 years		\$0	

Rank	Water System/ Borrower	Population Served	Comprehensive Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri ation	Financing	Terms	Anticipa ted subsidy	Anticipated Subsidy Amount	Notes
40	Sussex Shores	350	SSWC - Plant 2 Iron and Manganese Removal Improvement Project	Contaminant removal Treatment and Filtration	\$4,000,000		170	Corpus	2.00%	20 years		\$0	
41	Artesian	7035	Lester Farms and Hyetts	Bring Lester Wells online and upgrad Hyetts	\$2,970,000		160	Corpus	2.00%	20 years		\$0	
42	Newark	40000	Assessment	Water Mains	\$2,100,000		150	Corpus	2.00%	20 years		\$0	
43	Angola Crest 1 and 2	60 159	WT Security Improvements	New Security Measures	\$50,000		130	Corpus	2.00%	20 years		\$0	
43	Artesian	7035	Cedar Lane Tank	Elevated Storage Tank	\$3,685,000		130	Fire					
44	Artesian	13511	Route 1 Elevated Tank	Sussex Co. north of Lewes, along route 1 Storage tank	\$3,025,000		80	Fire					
					\$220,532,477			*=Antici pated					

Appendix B Fundable PPL

Rank	Water System/ Borrower	PWSID #	Population Served	Fundable Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri- ation	Financing	Terms	Anticipa- ted subsidy	Anticipated Subsidy Amount	Notes
1	Countryside Hamlet MHP	DE0000817	66	Upgrades and Interconnect	Consolidation to Artesian - See Adam Gould emails	\$745,470		800	State			State Grant	\$745,470	Anticipated to be Bypassed for State Funds
2	Stage Village MHP	DE0000569	93	Water System Improvements and Consolidation with Delmar	New distribution, fire hydrants, water meters and connections to Delmar	\$687,800	U	730	State			State Grant	\$687,800	Anticipated to be Bypassed for State Funds
3	Willow Tree MHP	DE0000134	141	MHP Water System Upgrades	System Upgrades, add storage Kitts Hummock Road	\$1,700,000	U	680	Suppleme- ntal			Sup DAC	\$1,700,000	
4	New Castle	DE0000634	5364	Hewlett-Janvier	Water Main Replacement	\$1,490,000	W	670	Suppleme- ntal			Sup DAC	\$1,490,000	
5	Delmar to Holly Oak MHP	Delmar DE0000567 Holy Oak DE0000568	4500 210	Water Line Extension	Consolidation Holly Oak MHP	\$1,100,000		630	Base	2.00%	20 years	Base Congres- sional	\$981,120	
6	Milton	DE0000629	3200	LSL replacement	Carey, Walnut and Mill Street Main Replacement and LSL replacement	\$1,330,000		620	LSLR	2.00%	20 years		\$0	
6	Wilmington	DE0000663	107976	LSL Removal	Service line improvements and LSL removal \$22.5M	\$22,500,000	E, W	620	LSLR			94% LSLR	\$12,875,792	
7	Seaford	DE0000246	6699	Martin Farms LSL Abatement	Abatement	\$2,072,149		590	Corpus	2.00%	TBD		\$0	
8	Wilmington	DE0000663	107976	Raw Water Transmission Improvements	From Brandywine Creek to either Porter or Hoopes	\$10,000,000	E, W	580	Suppleme- ntal			Sup DAC	\$5,626,080	
9	Lewes BPW	DE0000602	3000	Capes Cove	Consolidation Capes Cove MHP	\$320,600		560	Suppleme- ntal	2.00%	20 years		\$0	
9	Seaford	DE0000246	6699	Woolford Street LSL Abatement	Abatement	\$601,574		560	Corpus	2.00%	TBD		\$0	
10	Frederica	DE0000587	870	Jackson St. Service Connections	LSL replacement	\$512,000	A*	530	LSLR				\$512,000	
11	Magnolia	DE0000610	425	North Main Street	Water Main Improvements	\$900,000	A*	525	Base			Base DAC	\$900,000	
12	Dover	DE0000571	38000	LSL inventory	LSL regulatory requirements	\$60,000	E,	480	LSLR				\$60,000	

Rank	Water System/ Borrower	PWSID #	Population Served	Fundable Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri ation	Financing	Terms	Anticipa ted subsidy	Anticipated Subsidy Amount	Notes
12	Greenwood	DE0000558	973	Well Replacement	New 6" Water well and test well	\$378,000	A*	480	Base			Base DAC	\$378,000	
12	New Castle	DE0000634	5364	Delaware Street	Water Main Extension	\$1,743,000	W	480	Suppleme ntal	2.00%	20 years		\$0	
13	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal- \$45M project	EC Construct GAC vessels	\$4,787,405	E, W	450	EC			75% EC	\$4,787,405	
13	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal - \$45M project	Base Construct GAC vessels	\$40,212,595	E, W	450	Corpus	2.00%	20 years		\$0	
14	Seaford	DE0000246	6699	Dulany Well Abandon and Nylon Well Rehab	Abandonment and Rehabilitation	\$1,901,990		430	Corpus	2.00%	20 years		\$0	
15	Frederica	DE0000587	870	Market Street	Water Main Renewal	\$328,000	A*	420	Base			Base DAC	\$328,000	
16	Rehoboth Beach	DE0000723	1400	Waterline and Service Line Replacements Phase I	1 of (7?) Phases to replace water and service lines	\$2,527,000		410	LSLR	2.00%	20 years		\$0	
17	Magnolia	DE0000610	425	Elevated Storage Tank	Pressure and Redundancy Mapping and	\$2,637,700	A*	405	Base			Base DAC	\$800,000	
18	Lewes BPW	DE0000602	3000	LSL inventory	Replacement Planning	\$263,000		400	LSLR	2.00%	20 years		\$0	
18	Milton	DE0000629	3200	Federal Street Well and WT	Well and Treatment upgrades with ARPA match	\$301,381		400	Base	2.00%	20 years		\$0	
19	Newark	DE0000630	40000	SWFWTP PFAs Treatment - \$4.4M EC	PFA WTP Upgrades	\$1,591,169		380	EC			25% EC	\$1,591,169	
19	Newark	DE0000630	40000	SWFWTP PFAs Treatment \$4.4M Base	PFA WTP Upgrades	\$2,808,831		380	Corpus	2.00%	20 years		\$0	
19	Wilmington	DE0000663	107976	Porter Clearwell Improvements	Clearwell and associated infrastrucure	\$19,000,000	E, W	380	Corpus	2.00%	20 years		\$0	
20	Artesian	DE0000552	209706	Brandywine Springs Manor	Water Main Renewal	\$1,035,000		375	Suppleme ntal	2.00%	20 years		\$0	
20	Artesian	DE00A0323	13511	Knox Street	Water Main Renewal	\$250,000		375	Suppleme ntal	2.00%	20 years		\$0	
20	Artesian	DE0000552	209706	Stratford	Water Main Renewal	\$1,354,000		375	Corpus	2.00%	20 years		\$0	
20	Magnolia	DE0000610	425	Water Production Well	Well Improvements	\$850,500	A*	375	Corpus	2.00%	20 years		\$0	
21	New Castle	DE0000634	5364	School Lane Solar Panels	Install of additional solar panels	\$547,000	W	370	Base	2.00%	20 years		\$0	

Rank	Water System/ Borrower	PWSID #	Population Served	Fundable Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropriation	Financing	Terms	Anticipated subsidy	Anticipated Subsidy Amount	Notes
21	New Castle	DE0000634	5364	SCADA Improvements	SCADA and monitoring Upgrades	\$50,000	W	370	Base	2.00%	20 years		\$0	
22	Artesian	DE0000566	1872	Delaware City	Interconnect	\$3,850,000		360	Corpus	2.00%	20 years		\$0	
22	Bridgeville	DE0000559	2256	John, S. Laws, Oak Streets and Elem School	Water Main Renewal	\$2,033,000		360	Corpus	2.00%	20 years		\$0	
22	Cheswold/TUI Garrison Lake	DE0000004	12567	Main and Commerce Street	Water Main Extension Loop	\$290,000	E,	360	Corpus	2.00%	20 years		\$0	
22	Dover	DE0000571	38000	Brandywine Court	LSL inventory and replacement	\$115,000	E,	360	LSLR	2.00%	20 years		\$115,000	
22	Lewes BPW	DE0000602	3000	Kings Highway	Water Main Replacement	\$4,300,000		360	Corpus	2.00%	20 years		\$0	
22	New Castle	DE0000634	5364	PFA's Treatment	School Lane WTP Expansion	\$2,092,000	W	360	Corpus	2.00%	20 years		\$0	
23	Frederica	DE0000587	870	Water Storage Tower	Pressure and Redundancy	\$3,715,000	A*	350	Corpus	2.00%	20 years		\$0	
24	Artesian	DE00A0323	13511	Railroad Street	Water Main Renewal	\$320,000		345	Corpus	2.00%	20 years		\$0	
25	Wilmington	DE0000663	107976	Porter Filter Plant	WTP Electrical Upgrades	\$11,000,000	E, W	330	Corpus	2.00%	20 years		\$0	
26	New Castle	DE0000634	5364	School Lane Natural Gas Generator	Install of emergency standby generator for School Lane WTP	\$327,000	W	320	Corpus	2.00%	20 years		\$0	
27	Artesian	DE0000552	209706	Sparrow Run	Water Main Renewal	\$1,540,000		315	Corpus	2.00%	20 years		\$0	
27	Artesian	DE0000552	209706	Wilmington Manor Gardens	WTP Improvements, PFOS removal	\$3,850,000	E,	315	Corpus	2.00%	20 years		\$0	
28	Artesian	DE00A0323	13511	Route 113	Water Main Renewal	\$900,000		310	Supplemental	2.00%	20 years		\$0	
28	Frederica	DE0000587	870	LSL inventory	LSL inventory	\$102,000	A*	310	LSLR				\$102,000	
29	Millsboro	DE0000622	7500	LSL inventory	Inventory and Mapping (1964 pipes)	\$233,500		300	LSLR	2.00%	20 years			
29	Milton	DE0000629	3200	Federal Street Water Tower	Pressure and Redundancy	\$3,720,000		300	Corpus	2.00%	20 years		\$0	
30	Artesian	DE0000552	209706	Midvale WTP	Upgrades to disinfection, SCADA and treatment equipment	\$2,750,000	E	295	Corpus	2.00%	20 years		\$0	
31	Lewes BPW	DE0000602	3000	Jones Farm	Elevated Storage Tank Canal Crossing Water	\$4,320,000		290	Corpus	2.00%	20 years		\$0	
31	Lewes BPW	DE0000602	3000	Savannah Road Bridge	Main	\$2,260,000		290	Corpus	2.00%	20 years		\$0	
32	DE State Fair	DE0000595	452	Water System Lead Abatement	LSL	\$1,660,000		285	Corpus	2.00%	TBD		\$0	

Rank	Water System/ Borrower	PWSID #	Population Served	Fundable Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri ation	Financing	Terms	Anticipa ted subsidy	Anticipated Subsidy Amount	Notes
33	Tidewater	DE0000248	4000	Consolidation - Angola Meadows	Interconnection Phase 2B resiliency Water System	\$3,410,000		280	Corpus	2.00%	20 years		\$0	
34	Middletown	DE0000614	22582	NE Quadrant	Improvements	\$1,963,287		270	Corpus	2.00%	20 years		\$0	
34	Newark	DE0000630	40000	Elevated Storage Tank	Install of new storage, pressure and turnover	\$5,500,000		270	Corpus	2.00%	20 years		\$0	
34	Tidewater	DE0000991	23463	Consolidation - Dairy Farm Road	Interconnection for resiliency and redundancy	\$1,650,000		270	Corpus	2.00%	20 years		\$0	
35	Frederica	DE0000587	870	Water Loop	Hydraulic Loop	\$404,000	A*	260	Corpus	2.00%	20 years		\$0	
35	Frederica	DE0000587	870	Water System SCADA	SCADA and monitoring Upgrades	\$64,000	A*	260	Corpus	2.00%	20 years		\$0	
35	Magnolia	DE0000610	425	LSL inventory	Inventory and Replacement	\$1,500,000	A*	260	Corpus	2.00%	TBD		\$0	
35	New Castle	DE0000634	5364	LSL Inventory	LSL Inventory and Mapping	\$284,000	W	260	Corpus	2.00%	TBD		\$0	
36	Middletown	DE0000614	22582	North Broad Street	Water Main Upgrade	\$1,451,026		240	Corpus	2.00%	20 years		\$0	
37	Seaford	DE0000246	6699	LSL Inventory	Inventory	\$212,000		220	Corpus	2.00%	TBD		\$0	
38	Artesian	DE00A0349	7035	Choptank and Westside Hunt	Bring Westside Hunt Well online and upgrade Choptank WTP	\$3,850,000		190	Corpus	2.00%	20 years		\$0	
39	Newark	DE0000630	40000	LSL Inventory	Inventory and Replacement	\$2,250,000		180	Corpus	2.00%	TBD		\$0	
39	Tidewater	DE0000991	23463	DelDOT SR 24 Love Creek to Mulberry Knoll	Joint DelDOT and Tidewater SR 24 Reho	\$1,700,000		180	Corpus	2.00%	20 years		\$0	
40	Bethany Crest MHP	DE0000628	115	PFAs Treatment	Installation of PFAs resin	\$300,500		170	State	2.00%	20 years		\$300,500	Bypassed for State Funds
40	Newark	DE0000630	40000	Water Mains	Water Main Replacement	\$2,200,000		170	Corpus	2.00%	20 years		\$0	
40	Sussex Shores	DE0000557	350	SSWC - Plant 2 Iron and Manganese Removal Improvement Project	Contaminant removal Treatment and Filtration	\$4,000,000		170	Corpus	2.00%	20 years		\$0	
41	Artesian	DE00A0349	7035	Lester Farms and Hyetts	Bring Lester Wells online and upgrad Hyetts	\$2,970,000		160	Corpus	2.00%	20 years		\$0	
42	Newark	DE0000630	40000	Conditions Assessment	Water Mains	\$2,100,000		150	Corpus	2.00%	20 years		\$0	

Rank	Water System/ Borrower	PWSID #	Population Served	Fundable Project Name	Project Description	Amount	DAC? - A, E, W, U	Total Points	Funding Appropri- ation	Financing	Terms	Anticipa- ted subsidy	Anticipated Subsidy Amount	Notes
43	Angola Crest2	DE0000999	159	WT Security Improvements	New Security Measures	\$50,000		130	One is a TNC , one is a CWS	2.00%	20 years		\$0	
						\$211,822,477								

KEY:

***=Anticipated**

	Actual Project Requests	State Match for Projects	Anticipated federal Award for Projects		Disadvantaged Community Identifier	Additional Subsidy Name	Total	Anticipated Award Ad Sub
LSLR	\$27,642,500		\$27,887,331	LSLR Related	A= Affordability, pending final financial reviews	LSLR DAC	\$13,664,792	13,664,792
EC	\$6,378,574		\$6,378,574	EC Related	E= EPA EjScreen	EC	\$6,378,574	6,378,574
Supplemental	\$17,438,600	\$1,799,200	\$15,949,301	[17,748,501]	W= White House Climate and Economic Screening Tool	Supplemental DAC	\$8,816,080	8,816,080
Base	\$6,242,081	\$1,401,600	\$5,008,134	[6,409,734] Plus Corpus	U= Underserved	Base DAC	\$2,406,000	2,452,800
						Base Congressional	\$981,120	981,120

Appendix C Funding by Grant PPL

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
Base FFY 22 Capitalization Grant Projects								
		Delmar						
	Delmar to Holly Oak MHP	DE0000567 Holy Oak DE0000568	4500 210		Consolidation Holly Oak MHP	\$1,100,000	630	\$981,120
5				Water Line Extension	Water Main Improvements			
10	Magnolia	DE0000610	425	North Main Street	New 6" Water well	\$900,000	A* 525	\$900,000
11	Greenwood	DE0000558	973	Well Replacement	and test well	\$378,000	A* 480	\$378,000
13	Frederica	DE0000587	870	Market Street	Water Main Renewal	\$328,000	A* 420	\$328,000
15	Magnolia	DE0000610	425	Elevated Storage Tank	Pressure and Redundancy	\$2,637,700	A* 405	\$800,000
17	Milton	DE0000629	3200	Federal Street Well and WT	Well and Treatment upgrades with ARPA match	\$301,381	400	\$0
20	New Castle	DE0000634	5364	School Lane Solar Panels	Install of additional solar panels	\$547,000	W 370	\$0
20	New Castle	DE0000634	5364	SCADA Improvements	SCADA and monitoring Upgrades	\$50,000	W 370	\$0
TOTALS						\$6,242,081		\$2,406,000
DWSRF Corpus Fund Projects								
12	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal - \$45M project Base	Construct GAC vessels	\$40,212,595	E, W 450	\$0
43	Seaford	DE0000246	6699	Martin Farms LSL Abatement	Abatement	\$2,072,149	590	\$0
43	Seaford	DE0000246	6699	Woolford Street LSL Abatement	Abatement	\$601,574	560	\$0
45	Seaford	DE0000246	6699	Dulany Well Abandon and Nylon Well Rehab	Abandonment and Rehabilitation	\$1,901,990	430	\$0
18	Newark	DE0000630	40000	SWFWTP PFAs Treatment \$4.4M Base	PFA WTP Upgrades	\$2,808,831	380	\$0
18	Wilmington	DE0000663	107976	Porter Clearwell Improvements	Clearwell and associated infrastrucure	\$19,000,000	E, W 380	\$0
19	Artesian	DE0000552	209706	Stratford	Water Main Renewal	\$1,354,000	375	\$0

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount	
19	Magnolia	DE0000610	425	Water Production	Well	Well Improvements	\$850,500	A* 375	\$0
21	Artesian	DE0000566	1872	Delaware City	Interconnect		\$3,850,000	360	\$0
21	Bridgeville	DE0000559	2256	John, S. Laws, Oak Streets and Elem School	Water Main Renewal		\$2,033,000	360	\$0
21	I Garrison Lake	DE0000004	12567	Main and Commerce Street	Water Main Extension Loop		\$290,000	E, 360	\$0
21	Lewes BPW	DE0000602	3000	Kings Highway	Water Main Replacement		\$4,300,000	360	\$0
21	New Castle	DE0000634	5364	PFA's Treatment	School Lane WTP Expansion		\$2,092,000	W 360	\$0
22	Frederica	DE0000587	870	Water Storage Tower	Pressure and Redundancy		\$3,715,000	A* 350	\$0
23	Artesian	DE00A0323	13511	Railroad Street	Water Main Renewal		\$320,000	345	\$0
24	Wilmington	DE0000663	107976	Porter Filter Plant	WTP Electrical Upgrades		\$11,000,000	E, W 330	\$0
25	New Castle	DE0000634	5364	School Lane Natural Gas Generator	Install of emergency standby generator for School Lane WTP		\$327,000	W 320	\$0
26	Artesian	DE0000552	209706	Sparrow Run	Water Main Renewal		\$1,540,000	315	\$0
26	Artesian	DE0000552	209706	Wilmington Manor Gardens	WTP Improvements, PFOS removal		\$3,850,000	E, 315	\$0
28	Milton	DE0000629	3200	Federal Street Water Tower	Pressure and Redundancy		\$3,720,000	300	\$0
29	Artesian	DE0000552	209706	Midvale WTP	Upgrades to disinfection, SCADA and treatment equipment		\$2,750,000	E 295	\$0
30	Lewes BPW	DE0000602	3000	Jones Farm	Elevated Storage Tank		\$4,320,000	290	\$0
30	Lewes BPW	DE0000602	3000	Savannah Road Bridge	Canal Crossing Water Main		\$2,260,000	290	\$0
31	DE State Fair	DE0000595	452	Water System Lead Abatement	LSL		\$1,660,000	285	\$0
32	Tidewater	DE0000248	4000	Consolidation - Angola Meadows	Interconnection Phase 2B resiliency		\$3,410,000	280	\$0
33	Middletown	DE0000614	22582	NE Quadrant	Water System Improvements		\$1,963,287	270	\$0

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
33	Newark	DE0000630	40000	Elevated Storage Tank	Install of new storage, pressure and turnover	\$5,500,000	270	\$0
33	Tidewater	DE0000991	23463	Consolidation - Dairy Farm Road	Interconnection for resiliency and redundancy	\$1,650,000	270	\$0
34	Frederica	DE0000587	870	Water Loop	Hydraulic Loop	\$404,000	A* 260	\$0
34	Frederica	DE0000587	870	Water System SCADA	SCADA and monitoring Upgrades	\$64,000	A* 260	\$0
34	Magnolia	DE0000610	425	LSL inventory	Inventory and Replacement	\$1,500,000	A* 260	\$0
34	New Castle	DE0000634	5364	LSL Inventory	LSL Inventory and Mapping	\$284,000	W 260	\$0
35	Middletown	DE0000614	22582	North Broad Street	Water Main Upgrade	\$1,451,026	240	\$0
44	Seaford	DE0000246	6699	LSL Inventory	Inventory	\$212,000	220	\$0
36	Artesian	DE00A0349	7035	Choptank and Westside Hunt	Bring Westside Hunt Well online and upgrade Choptank WTP	\$3,850,000	190	\$0
37	Newark	DE0000630	40000	LSL Inventory	Inventory and Replacement	\$2,250,000	180	\$0
38	Tidewater	DE0000991	23463	DelDOT SR 24 Love Creek to Mulberry Knoll	Joint DelDOT and Tidewater SR 24 Reho	\$1,700,000	180	\$0
39	Newark	DE0000630	40000	Water Mains	Water Main Replacement	\$2,200,000	170	\$0
39	Sussex Shores	DE0000557	350	SSWC - Plant 2 Iron and Manganese Removal Improvement Project	Contaminant removal Treatment and Filtration	\$4,000,000	170	\$0
40	Artesian	DE00A0349	7035	Lester Farms and Hyetts	Bring Lester Wells online and upgrad Hyetts	\$2,970,000	160	\$0
41	Newark	DE0000630	40000	Conditions Assessment	Water Mains	\$2,100,000	150	\$0
42	Angola Crest2	DE0000999	159	WT Security Improvements	New Security Measures	\$50,000	130	\$0
TOTALS						\$152,386,952		\$0

Emerging Contaminants FFY22 Capitalization Grant Projects

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
12	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal- \$45M project EC SWFWTP PFAs Treatment - \$4.4M	Construct GAC vessels	\$4,787,405	E, W 450	\$4,787,405
18	Newark	DE0000630	40000	EC	PFA WTP Upgrades	\$1,591,169	380	\$1,591,169
TOTALS						\$6,378,574		\$6,378,574
Lead Service Line Replacement Capitalization Grant Projects								
6	Milton	DE0000629	3200	LSL replacement	Carey, Walnut and Mill Street Main Replacement and LSL replacement	\$1,330,000	620	\$0
6	Wilmington	DE0000663	107976	LSL Removal Jackson St. Service Connections	LSLR Service line improvements and LSL removal \$22.5M	\$22,500,000	E, W 620	\$12,875,792
9	Frederica	DE0000587	870	LSL inventory	LSL replacement	\$512,000	A* 530	\$512,000
11	Dover	DE0000571	38000	Waterline and Service Line	LSL regulatory requirements	\$60,000	E, 480	\$60,000
14	Rehoboth Beach	DE0000723	1400	Replacements Phase I	1 of (7?) Phases to replace water and service lines	\$2,527,000	410	\$0
16	Lewes BPW	DE0000602	3000	LSL inventory	Mapping and Replacement Planning	\$263,000	400	\$0
21	Dover	DE0000571	38000	Brandywine Court	LSL inventory and replacement	\$115,000	E, 360	\$115,000
27	Frederica	DE0000587	870	LSL inventory	LSL inventory Inventory and	\$102,000	A* 310	\$102,000
28	Millsboro	DE0000622	7500	LSL inventory	Mapping (1964 pipes)	\$233,500	300	
TOTALS						\$27,642,500		\$13,664,792
State Bond Bill Fund Projects								
1	Countryside Hamlet MHP	DE0000817	66	Upgrades and Interconnect	Consolidation to Artesian - See Adam Gould emails	\$745,470	800	\$745,470

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
2	Stage Village MHP	DE0000569	93	Water System Improvements and Consolidation with Delmar	New distribution, fire hydrants, water meters and connections to Delmar	\$687,800	U 730	\$687,800
39	Bethany Crest MHP	DE0000628	115	PFAs Treatment	Installation of PFAs resin	\$300,500	170	\$300,500
TOTALS						\$1,733,770		\$1,733,770
DWSRF Supplemental FFY22 Capitalization Grant Projects								
3	Willow Tree MHP	DE0000134	141	MHP Water System Upgrades	System Upgrades, add storage Kits Hummock Road	\$1,700,000	U 680	\$1,700,000
4	New Castle	DE0000634	5364	Hewlett-Janvier Raw Water Transmission Improvements	Water Main Replacement From Brandywine Creek to either Porter or Hoopes	\$1,490,000	W 670	\$1,490,000
7	Wilmington	DE0000663	107976	Consolidation Capes Cove	Consolidation Capes Cove MHP	\$10,000,000	E, W 580	\$5,626,080
8	Lewes BPW	DE0000602	3000	Capes Cove	Cove MHP	\$320,600	560	\$0
11	New Castle	DE0000634	5364	Delaware Street Brandywine Springs	Water Main Extension	\$1,743,000	W 480	\$0
19	Artesian	DE0000552	209706	Manor	Water Main Renewal	\$1,035,000	375	\$0
19	Artesian	DE00A0323	13511	Knox Street	Water Main Renewal	\$250,000	375	\$0
27	Artesian	DE00A0323	13511	Route 113	Water Main Renewal	\$900,000	310	\$0
TOTALS						\$17,438,600		\$8,816,080
Grand Totals						\$211,822,477		

	Actual Project Requests	State Match for Projects	Anticipated federal Award for Projects	
LSLR	\$27,642,500		\$27,887,331	LSLR Related
EC	\$6,378,574		\$6,378,574	EC Related
Supplemental	\$17,438,600	\$1,799,200	\$15,949,301	[17,748,501]
Base	\$6,242,081	\$1,401,600	\$5,008,134	[6,409,734] Plus Corpus

Disadvantaged Community Identifier
A= Affordability, pending final financial reviews
E= EPA EJSscreen
W= White House Climate and Economic Screening Tool
U= Underserved

Additional Subsidy Name	Total	Anticipated Award Ad Sub
LSLR DAC	\$13,664,792	13,664,792
EC	\$6,378,574	6,378,574
Supplemental DAC	\$8,816,080	8,816,080
Base DAC	\$2,406,000	840,960-
Base Congressional	\$981,120	2,452,800
		981,120

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
Base FFY 22 Capitalization Grant Projects								
		Delmar						
	Delmar to Holly Oak MHP	DE0000567 Holy Oak DE0000568	4500 210		Consolidation Holly Oak MHP	\$1,100,000	630	\$981,120
5				Water Line Extension	Water Main Improvements			
10	Magnolia	DE0000610	425	North Main Street	New 6" Water well	\$900,000	A* 525	\$900,000
11	Greenwood	DE0000558	973	Well Replacement	and test well	\$378,000	A* 480	\$378,000
13	Frederica	DE0000587	870	Market Street	Water Main Renewal	\$328,000	A* 420	\$328,000
15	Magnolia	DE0000610	425	Elevated Storage Tank	Pressure and Redundancy	\$2,637,700	A* 405	\$800,000
17	Milton	DE0000629	3200	Federal Street Well and WT	Well and Treatment upgrades with ARPA match	\$301,381	400	\$0
20	New Castle	DE0000634	5364	School Lane Solar Panels	Install of additional solar panels	\$547,000	W 370	\$0
20	New Castle	DE0000634	5364	SCADA Improvements	SCADA and monitoring Upgrades	\$50,000	W 370	\$0
TOTALS						\$6,242,081		\$2,406,000
DWSRF Corpus Fund Projects								
12	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal - \$45M project Base	Construct GAC vessels	\$40,212,595	E, W 450	\$0
43	Seaford	DE0000246	6699	Martin Farms LSL Abatement	Abatement	\$2,072,149	590	\$0
43	Seaford	DE0000246	6699	Woolford Street LSL Abatement	Abatement	\$601,574	560	\$0
45	Seaford	DE0000246	6699	Dulany Well Abandon and Nylon Well Rehab	Abandonment and Rehabilitation	\$1,901,990	430	\$0
18	Newark	DE0000630	40000	SWFWTP PFAs Treatment \$4.4M Base	PFA WTP Upgrades	\$2,808,831	380	\$0
18	Wilmington	DE0000663	107976	Porter Clearwell Improvements	Clearwell and associated infrastrucure	\$19,000,000	E, W 380	\$0
19	Artesian	DE0000552	209706	Stratford	Water Main Renewal	\$1,354,000	375	\$0

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount	
19	Magnolia	DE0000610	425	Water Production	Well	Well Improvements	\$850,500	A* 375	\$0
21	Artesian	DE0000566	1872	Delaware City	Interconnect		\$3,850,000	360	\$0
21	Bridgeville	DE0000559	2256	John, S. Laws, Oak Streets and Elem School	Water Main Renewal		\$2,033,000	360	\$0
21	I Garrison Lake	DE0000004	12567	Main and Commerce Street	Water Main Extension Loop		\$290,000	E, 360	\$0
21	Lewes BPW	DE0000602	3000	Kings Highway	Water Main Replacement		\$4,300,000	360	\$0
21	New Castle	DE0000634	5364	PFAs Treatment	School Lane WTP Expansion		\$2,092,000	W 360	\$0
22	Frederica	DE0000587	870	Water Storage Tower	Pressure and Redundancy		\$3,715,000	A* 350	\$0
23	Artesian	DE00A0323	13511	Railroad Street	Water Main Renewal		\$320,000	345	\$0
24	Wilmington	DE0000663	107976	Porter Filter Plant	WTP Electrical Upgrades		\$11,000,000	E, W 330	\$0
25	New Castle	DE0000634	5364	School Lane Natural Gas Generator	Install of emergency standby generator for School Lane WTP		\$327,000	W 320	\$0
26	Artesian	DE0000552	209706	Sparrow Run	Water Main Renewal		\$1,540,000	315	\$0
26	Artesian	DE0000552	209706	Wilmington Manor Gardens	WTP Improvements, PFOS removal		\$3,850,000	E, 315	\$0
28	Milton	DE0000629	3200	Federal Street Water Tower	Pressure and Redundancy		\$3,720,000	300	\$0
29	Artesian	DE0000552	209706	Midvale WTP	Upgrades to disinfection, SCADA and treatment equipment		\$2,750,000	E 295	\$0
30	Lewes BPW	DE0000602	3000	Jones Farm	Elevated Storage Tank		\$4,320,000	290	\$0
30	Lewes BPW	DE0000602	3000	Savannah Road Bridge	Canal Crossing Water Main		\$2,260,000	290	\$0
31	DE State Fair	DE0000595	452	Water System Lead Abatement	LSL		\$1,660,000	285	\$0
32	Tidewater	DE0000248	4000	Consolidation - Angola Meadows	Interconnection Phase 2B resiliency		\$3,410,000	280	\$0
33	Middletown	DE0000614	22582	NE Quadrant	Water System Improvements		\$1,963,287	270	\$0

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
33	Newark	DE0000630	40000	Elevated Storage Tank	Install of new storage, pressure and turnover	\$5,500,000	270	\$0
33	Tidewater	DE0000991	23463	Consolidation - Dairy Farm Road	Interconnection for resiliency and redundancy	\$1,650,000	270	\$0
34	Frederica	DE0000587	870	Water Loop	Hydraulic Loop	\$404,000	A* 260	\$0
34	Frederica	DE0000587	870	Water System	SCADA and monitoring Upgrades	\$64,000	A* 260	\$0
34	Magnolia	DE0000610	425	LSL inventory	Inventory and Replacement	\$1,500,000	A* 260	\$0
34	New Castle	DE0000634	5364	LSL Inventory	LSL Inventory and Mapping	\$284,000	W 260	\$0
35	Middletown	DE0000614	22582	North Broad Street	Water Main Upgrade	\$1,451,026	240	\$0
44	Seaford	DE0000246	6699	LSL Inventory	Inventory	\$212,000	220	\$0
36	Artesian	DE00A0349	7035	Choptank and Westside Hunt	Bring Westside Hunt Well online and upgrade Choptank WTP	\$3,850,000	190	\$0
37	Newark	DE0000630	40000	LSL Inventory	Inventory and Replacement	\$2,250,000	180	\$0
38	Tidewater	DE0000991	23463	DelDOT SR 24 Love Creek to Mulberry Knoll	Joint DelDOT and Tidewater SR 24 Reho	\$1,700,000	180	\$0
39	Newark	DE0000630	40000	Water Mains	Water Main Replacement	\$2,200,000	170	\$0
39	Sussex Shores	DE0000557	350	SSWC - Plant 2 Iron and Manganese Removal Improvement Project	Contaminant removal Treatment and Filtration	\$4,000,000	170	\$0
40	Artesian	DE00A0349	7035	Lester Farms and Hyetts	Bring Lester Wells online and upgrad Hyetts	\$2,970,000	160	\$0
41	Newark	DE0000630	40000	Conditions Assessment	Water Mains	\$2,100,000	150	\$0
42	Angola Crest2	DE0000999	159	WT Security Improvements	New Security Measures	\$50,000	130	\$0
TOTALS						\$152,386,952		\$0

Emerging Contaminants FFY22 Capitalization Grant Projects

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
12	Wilmington	DE0000663	107976	Porter Filter Plant PFAs Removal- \$45M project EC SWFWTP PFAs Treatment - \$4.4M	Construct GAC vessels	\$4,787,405	E, W 450	\$4,787,405
18	Newark	DE0000630	40000	EC	PFA WTP Upgrades	\$1,591,169	380	\$1,591,169
TOTALS						\$6,378,574		\$6,378,574
Lead Service Line Replacement Capitalization Grant Projects								
6	Milton	DE0000629	3200	LSL replacement	Carey, Walnut and Mill Street Main Replacement and LSL replacement	\$1,330,000	620	\$0
6	Wilmington	DE0000663	107976	LSL Removal Jackson St. Service Connections	LSLR Service line improvements and LSL removal \$22.5M	\$22,500,000	E, W 620	\$12,875,792
9	Frederica	DE0000587	870	LSL inventory	LSL replacement	\$512,000	A* 530	\$512,000
11	Dover	DE0000571	38000	Waterline and Service Line	LSL regulatory requirements	\$60,000	E, 480	\$60,000
14	Rehoboth Beach	DE0000723	1400	Replacements Phase I	1 of (7?) Phases to replace water and service lines	\$2,527,000	410	\$0
16	Lewes BPW	DE0000602	3000	LSL inventory	Mapping and Replacement Planning	\$263,000	400	\$0
21	Dover	DE0000571	38000	Brandywine Court	LSL inventory and replacement	\$115,000	E, 360	\$115,000
27	Frederica	DE0000587	870	LSL inventory	LSL inventory Inventory and	\$102,000	A* 310	\$102,000
28	Millsboro	DE0000622	7500	LSL inventory	Mapping (1964 pipes)	\$233,500	300	
TOTALS						\$27,642,500		\$13,664,792
State Bond Bill Fund Projects								
1	Countryside Hamlet MHP	DE0000817	66	Upgrades and Interconnect	Consolidation to Artesian - See Adam Gould emails	\$745,470	800	\$745,470

Rank	Water System/ Borrower	PWSID #	Population Served	Project Name	Project Description	Amount	DAC? - A, E, W, Total U Points	Anticipated Subsidy Amount
2	Stage Village MHP	DE0000569	93	Water System Improvements and Consolidation with Delmar	New distribution, fire hydrants, water meters and connections to Delmar	\$687,800	U 730	\$687,800
39	Bethany Crest MHP	DE0000628	115	PFAs Treatment	Installation of PFAs resin	\$300,500	170	\$300,500
TOTALS						\$1,733,770		\$1,733,770
DWSRF Supplemental FFY22 Capitalization Grant Projects								
3	Willow Tree MHP	DE0000134	141	MHP Water System Upgrades	System Upgrades, add storage Kits Hummock Road	\$1,700,000	U 680	\$1,700,000
4	New Castle	DE0000634	5364	Hewlett-Janvier Raw Water Transmission Improvements	Water Main Replacement From Brandywine Creek to either Porter or Hoopes	\$1,490,000	W 670	\$1,490,000
7	Wilmington	DE0000663	107976	Improvements	Consolidation Capes	\$10,000,000	E, W 580	\$5,626,080
8	Lewes BPW	DE0000602	3000	Capes Cove	Cove MHP	\$320,600	560	\$0
11	New Castle	DE0000634	5364	Delaware Street Brandywine Springs	Water Main Extension	\$1,743,000	W 480	\$0
19	Artesian	DE0000552	209706	Manor	Water Main Renewal	\$1,035,000	375	\$0
19	Artesian	DE00A0323	13511	Knox Street	Water Main Renewal	\$250,000	375	\$0
27	Artesian	DE00A0323	13511	Route 113	Water Main Renewal	\$900,000	310	\$0
TOTALS						\$17,438,600		\$8,816,080
Grand Totals						\$211,822,477		

	Actual Project Requests	State Match for Projects	Anticipated federal Award for Projects	
LSLR	\$27,642,500		\$27,887,331	LSLR Related
EC	\$6,378,574		\$6,378,574	EC Related
Supplemental	\$17,438,600	\$1,799,200	\$15,949,301	[17,748,501]
Base	\$6,242,081	\$1,401,600	\$5,008,134	[6,409,734] Plus Corpus

Disadvantaged Community Identifier
A= Affordability, pending final financial reviews
E= EPA EJSscreen
W= White House Climate and Economic Screening Tool
U= Underserved

Additional Subsidy Name	Total	Anticipated Award Ad Sub
LSLR DAC	\$13,664,792	13,664,792
EC	\$6,378,574	6,378,574
Supplemental DAC	\$8,816,080	8,816,080
Base DAC	\$2,406,000	840,960-
Base Congressional	\$981,120	2,452,800
		981,120

Appendix D 2022 DWSRF PPL Ranking Criteria Approval



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

March 22, 2022

Ms. Sandi Spiegel
Public Health Treatment Program Administrator
Drinking Water State Revolving Fund
Division of Public Health
Delaware Department of Health and Social Services
417 Federal Street, Office 207
Dover, DE 19901

Dear Ms. Spiegel:

We reviewed the revised Drinking Water State Revolving Fund (DWSRF) Project Priority List (PPL) Ranking Criteria submitted on March 3, 2022. The PPL Ranking Criteria establishes the criteria to be used for ranking projects eligible for financing with the DWSRF. We hereby approve the revision to the Delaware DWSRF PPL Ranking Criteria, as submitted.

This most recent revision to the Department of Health and Social Service's (DHSS) DWSRF PPL Ranking Criteria includes the following changes:

1. Under Affordability, changed "Disadvantaged Community" to "Underserved Community."
2. Adjusted System Information to add more population ranges and additional points to systems that serve less than 500 people. Added points to the Type "Community."
3. Added additional points to the Storage "chronic" and "acute" criteria.
4. Under Treatment, added points for "Installing a Backwash Recovery System."
5. Under Distribution, added points for "Lead Component Service Line Replacement."
6. Under Source, added points for "Source Water Protection/Well Field Development."
7. Under Sustainability, added points if the project has a "joint Clean Water State Revolving Fund (CWSRF) project occur simultaneously."
8. Merged/created three categories from the Sustainability section to create a Plans section. The criteria are Consumer Confidence Report, Cross Connection Control Plans, and Cyber Security/Vulnerability Assessment and Plans.

If you or your staff has any questions, please contact Paul Sobchenko EPA's DE DWSRF Project Officer at (215) 814-2055 or me at (215) 814-2094.

Sincerely,

Jeffrey Boylan, Chief
Infrastructure and Assistance Section
Water Division

Appendix E 2022 DWSRF Set-Aside Work Plans



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Delaware Health and Social Services
Set-Aside Work Plan October 1, 2022 - September 30, 2023
2022 Federal Allocation

As part of the Drinking Water State Revolving Fund (DWSRF) capitalization grant application, DHSS is required to submit a Set-Aside Work Plan, herein.

DHSS will report progress on the deliverables shown in the following Set-Aside Work Plan outputs and outcomes as required by EPA and listed below. Each Set-Aside deliverable is assigned a specific unique identifier corresponding to the approved work plan to be used in semi-annual reports, which will include the following:

- Achievements of the outputs and outcomes established in the Intended Use Plan (IUP) and Work Plan
- Reason for any delays if established outputs and outcomes are not met
- Pertinent information on public health or environmental results achieved

Set-Aside reports are due to EPA Region III on May 15, 2023 and November 15, 2023. The report formats have been developed by DHSS and accepted by EPA Region III.

Please refer to the budget details for Set-Aside activities per line item.

**Set-Aside Work Plan
2022 Federal Allocation
DHSS
DE Division of Public Health**

2%

Technical Assistance

\$137,332

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

Delaware Rural Water Association (DRWA) and Delaware Technical Community College (DTCC)

Relationship to On-Going Program

DRWA and the Environmental Training Center at DTCC remain the sole providers of on-site technical assistance and operator education respectively.

Progress Made To-Date

DRWA has provided technical assistance since 1999, helping small systems comply with Safe Drinking Water Act (SDWA) Regulations.

DTCC has provided operator education since 1999, helping water operators maintain licensure and compliance with SDWA Regulations.

DRWA

Future Plans

DRWA shall provide onsite technical assistance to municipal and community water systems in Delaware. In addition to the work described below, DRWA will work with the Office of Drinking Water (ODW), the Office of Engineering (OE), and the Drinking Water State Revolving Fund (DWSRF) to identify systems in need of technical assistance, including Cross Connection Control planning.

Objectives and Outputs

- Delaware Rural Water Association (DRWA) will provide 80 onsite technical assistance site visits to small Community Water Systems (CWS) and municipal water systems. On-site visits can include technical, financial, and managerial capacity assistance along with promotion of the DWSRF Program and one-on-one application/process help. Activities may include community association meetings, water infrastructure meetings, workforce development training also EPA Region III activities and workshops and acting as a liaison between interested parties and stakeholders. Coordinate with ODW, OE, and DWSRF to identify systems in need of priority technical assistance such as community, non-transient non-community (NTNC), transient, and/or seasonal systems in need of assistance due to non-compliance or potential non-compliance
- Provide assistance to systems required to perform Public Notice, critical Sanitary Survey violations, systems with contamination exceedances, and Emergency Response Planning
- Provide assistance and training for contamination prevention, compliance education, water operator training, and preventive maintenance planning

- Provide assistance to a minimum of ten (10) Community State Revolving Fund compliant systems in addressing potential contamination prevention from back-siphonage, backflows, cross-connections, and the need to prevent contamination of Delaware’s drinking water systems.
- Provide on-site assistance with the system water operators in providing the necessary technical information and guidance templates on how to establish and implement a workable cross-connection control plan management program.
- Provide assistance, alongside Hydro Corp., to 5 community water systems in performing Cross Connection Control plan implementation. DRWA and Hydro Corporation will also conduct 4 Cross-Connection Control Planning Management virtual workshops for municipal operations specialists and municipal members. Deploy, upon request, the mobile on-site training unit to demonstrate specific compliance needs to SRF systems and other stakeholder/interested parties

Outcomes and Benefits

- 80 municipal and small water systems will receive technical, financial, and managerial assistance
- Systems in danger of being non-compliant or are in non-compliance will receive priority technical assistance
- Non-compliant water systems will receive training and tools to help return to compliance
- Systems will receive contamination and/or preventive maintenance education and training
- Ten community water systems will receive Cross Connection Control Planning training and assistance
- Facilities will have instruction on the essential elements that make up an effective ongoing Cross Connection Control Program
- DWSRF borrowers or applicants will be provided with system-specific training

Evaluation

DRWA will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

DTCC

Future Plans

DTCC will provide training for new and licensed water operators, develop, and improve training programs, recruit new students to enter the Drinking Water Training program, and assist in job placement for new operators.

Objectives and Outputs 2023-11, 2023-12, and 2023-13 semesters)

- Certify and provide continuing education for approximately 115 Operators-In-Training and licensed water operators of small public water supply systems (non-private)
- Provide tuition assistance for Base Level Water Operators Course to approximately 26 new operators

- Provide approximately 75 total training events during the fall, spring, and summer semesters that have been approved for water operators.
- Provide Base Level Water Operators with a basic math course if the student is in need
- Market the program to Delaware water operators annually and assist in placing new water operators in jobs for the Delaware Drinking Water Industry.
- Provide tuition assistance to fifteen (15) water operators seeking endorsements who operate small public (non-profit) water systems and six (6) limited water operators of small public water systems (non-profit)

Outcomes and Benefits

- 115 water operators will enhance their technical skills with continued education and certification
- 26 new water operators will be able to enroll in the Base Level Water Operator’s Course
- Base Level Water Operators will gain knowledge in basic math skills
- Delaware’s drinking water industry will have new recruits
- Successful administrative support and oversight of technical training programs will continue

Evaluation

DTCC will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

4%

DWSRF Administration

\$ 263,247

Please refer to the Intended Use Plan for 4% activities.

10%

State Program Management

\$662,925

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

Operator Certification

Costs of maintaining the Operator Certification program are minimal. Office of Drinking Water (ODW) coordinates with DTCC to provide provisions and proctoring for Drinking Water Operator Examinations.

Relationship to On-Going Program

The Operator Certification program ensures that operators of Delaware’s public water systems are properly trained and therefore able to operate their water systems in compliance with the SDWA.

Progress Made To-Date

Currently there are approximately 443 active licensed water operators and 147 Approved Sampler/Tester-only individuals.

Future Plans

DHSS will continue to administer the Operator Certification program in coordination with the Advisory Council for Certification of Public Water Systems Operators and ODW.

Objectives and Outputs

- Monitor, track, and report water operator licensures to EPA
- Communicate with operators in providing assistance, training opportunities, industry and regulatory updates, and other information pertinent to drinking water
- Provide regulatory-related trainings to water operators by ODW staff
- Provide administrative review and processing of water operator licenses renewals
- Provide support and proctoring assistance to DTCC for Drinking Water Operator examinations
- Assist licensed water operators in obtaining the proper endorsements for the water systems they operate
- Maintain licensed water operator data in a database
- Plan and prepare for updating aging database

Outcomes and Benefits

- Regulatory oversight of all water operator licensure via ODW staff
 - Vast majority of Delaware public water systems requiring a licensed water operator will be in compliance with the requirements, currently at a rate of 99%
 - Information about important drinking water topics reaches a large segment of the drinking water professional community
 - The number of water operator examinations and passing rates will be monitored for use in decision-making regarding examination quality and effectiveness
 - Licensure renewal and associated continuing education compliance is tracked and maintained administratively via a database
- Increased training opportunities for Delaware licensed water operators.

Evaluation

ODW will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

Public Water Supply Supervision

Relationship to On-Going Program

The set-aside funds are used to supplement the Public Water Supply Supervision (PWSS) program in carrying out activities including staff training, enforcement of SDWA regulations, data management, laboratory certification, and compliance assistance.

Progress Made To-Date

The PWSS program has helped Delaware's public water systems maintain compliance with SDWA regulations and health-based standards, resulting in 98% compliance.

Future Plans

The PWSS Program will work with applicable stakeholders on the upgrade from the Safe Drinking Water Information System (SDWIS)/State 3.3 to SDWIS/State 3.4. PWSS will also plan and develop for electronic submittals of drinking water sample results analyzed by private Delaware-certified drinking water laboratories.

Objectives and Outputs

- Monitor, track, and report compliance for approximately 470 Public Water Systems
- Upgrade from SDWIS/State 3.3 to SDWIS/State 3.4
- Develop a plan for private drinking water labs allowing them to submit their drinking water sample results electronically
- Ensure public water systems that are required to have a licensed water operator do so, either by directly employing an operator or by contracting with an operator
- Continue to utilize EPA reporting under the Enforcement Response Policy and Enforcement Tracking Tool (ETT)
- Facilitate posting of all relevant public water systems information and sample results to Delaware's Drinking Water Watch public-facing webpage
- Determine progress with cross-connection control plan development necessary to ensure compliance at or prior to the compliance deadline, development of asset management plans, lead service line inventories, and awareness of PFAS Drinking Water MCL development.

Outcomes and Benefits

- Approximately 95% of Delaware's population served by public water systems will receive water that meets all health-based standards
- SDWIS/State 3.4 will allow for improved functionality of the drinking water database
- Electronic submittals for private laboratory sample results will allow for improved efficiency in storing and reporting drinking water sample data
- Public water systems with an ETT score of 11 or greater will be monitored quarterly and offered technical assistance and/or increased enforcement
- Public water systems and the general public will have access to all sample results for all public water systems
- Lead service line (LSL) inventories will assist with the removal of all LSLs in Delaware to assure lead-free drinking water.
- Cross-connection control plans will reduce/prevent the unnecessary contamination of public drinking water systems.
- Awareness of PFAS in drinking water and the environment will promote discussion regarding monitoring, control technologies, and outreach for public water systems and the public.

Evaluation

PWSS will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

Delaware Public Health Laboratory

Relationship to On-Going Program

The Delaware Public Health Laboratory (DPHL) is within the Department of Health and Social Services, Division of Public Health. The primary responsibilities of the Laboratory, regarding the Safe Drinking Water Act, is to ensure the safety of drinking water sources in order to protect public health through the prevention of water borne diseases and contaminants.

Progress Made To-Date

The Delaware Public Health Laboratory continues to ensure consistency, reliability and quality of all analytical work involving drinking water samples obtained from public and private sources. Beyond the routine work the laboratory has made significant strides in expanding its testing capacity by embarking on advanced methodology's such as EPA method 525.2 for pesticides.

- Two staff members visited the Maryland State Laboratory to shadow a chemist performing EPA method 525.2; they brought back valuable information to help bring the method up in our laboratory

Future Plans

- Implement and validate updated EPA approved methodologies per the Safe Drinking Water Act
- Implement EPA method 525.2 for pesticides, this will include the purchase of reagents required for analysis
- Achieve certification for EPA method 525.2
- Pursue grant funds to maintain updated technologies including equipment and supplies as required by the US EPA program.
- Maintain compliance with EPA, state standards, and regulations
- Continue to perform the responsibilities of the certification officer program for the state of Delaware. This includes sending another staff member to Certification Officer training in Organics
- Ensure that the DPHL meets all certification testing standards defined by the EPA
- Ensure that the laboratory is cooperating and integrating with associated programs to ensure best use of funding, personnel, and equipment

Objectives and Outputs

- Pursue the purchase of a GC/MS to analyze drinking water samples for the presence of pesticides.
- Pursue the purchase of benches on wheels; this will help in moving instruments in case of emergency.
- Continue analyzing samples for the presence of *Legionella* utilizing molecular methods.
- Continue to purchase of supplies and reagents to maintain higher levels of operational efficiencies and cost effectiveness. (Approximate cost for supplies and reagents is \$260,000 annually including instrument gases and instrument maintenance contracts)
- Continue to cross train for continuity of operations in the event of emergency situations including flooding and other weather-related events.

- Estimated amount of laboratory tests that will be performed from October 2022 to September 2023:
 - Samples for chemical analysis 5990
 - Samples for bacteriological 7569
 - Tests reported 98,729
- The Delaware Public Health Laboratory will continue to perform audits for the certification of drinking water testing laboratories within Delaware.
- Reduce manual entry of sample results use funds for LIMS (Labware) to create automated upload from instrument to LIMS.

Outcomes and Benefits

- The Delaware Public Health Laboratory continues to provide reliable and consistent monitoring for the drinking water program in Delaware. To ensure the health and safety of the citizens and visitors of Delaware.
- The Laboratory continues to maintain preparedness for emergency response and disaster in cooperation with other emergency responders including the 31st Civil Support Team (US National Guard) in Delaware.
- Among programs the Delaware Public Health Laboratory is ensuring that our role meets all the needs and requirements for the successful implementation of other components that influence and affect drinking water covered by the Delaware Department of Health and Social Services.

Evaluation

The Public Health Laboratory will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

Underground Injection Control Program

Relationship to On-Going Program

The Underground Injection Control (UIC) program continues to be administered by DNREC's Division of Water. This regulatory program controls real and potential sources of groundwater contamination.

Progress Made To-Date

Delaware's Underground Injection Control program has efficiently monitored on-site wastewater treatment and disposal systems (OWTDS's), Class V injection wells, groundwater remediation projects, large OWTDS's, Aquifer Storage, and Recovery (ASR) wells.

Future Plans

- Continue to work with Division of Public Health and provide technical support as needed on identifying and managing potential impacts to groundwater from operations of major wastewater treatment and disposal facilities
- Develop and implement EQuIS data management so facilities can submit data electronically and continuous monitoring data can be collected and reported in real-time

- Develop real-time/contemporary web-based groundwater monitoring and UIC program management tools using MS Power BI
- Continue to perform inspections of Class V wells in Delaware

Objectives and Outputs

- Review 20 Large OWTDS's permit applications
- Inspect 250 OWTDS's, and other UIC facilities
- Perform 10 recon inspections to identify and close (if found) automotive floor drains, large capacity cesspools, and industrial discharges with direct discharges to ground water (if existing)
- Migrate operation and monitoring databases of current active wastewater treatment and disposal facilities into EQuIS
- Develop Power BI permitting and monitoring applications for best management practices
- Participate in Public outreach and educational events
- Participate in the development of a pollution control strategy for the Chesapeake Basin Watershed

Outcomes and Benefits

- Potential groundwater impacts can be identified accurately in advance; and managed efficiently
- Groundwater contamination from underground injection facilities will decrease
- Public will gain knowledge of pollution prevention or pollution reduction opportunities
- Power BI and EQuIS applications will provide powerful tools to manage and visualize data ensuring a more data-driven integrated approach to decision-making and greater protection of groundwater resources

Evaluation

UIC will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

15%

Local Assistance/Other Programs

\$936,362

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

Capacity Development Program NEW systems

Relationship to On-Going Program

This portion of the Capacity Development program assists new drinking water system owner/operators and DWSRF applicants in building technical, managerial, and financial (TMF) capacity.

Progress Made To-Date

All new and newly discovered public water systems (PWSs) that will be regulated by ODW have been given TMF assistance, thus ensuring, that the water system can open and/or maintain compliance with SDWA regulations. Since the initiation of the Capacity Development program, all DWSRF loan applicants have been assessed for TMF and offered assistance in areas identified.

Future Plans

- Track and identify trends in TMF capacity for all Delaware public water systems triennially
- Assist new community water systems (CWSs) and Non-transient non-community water systems (NTNCWSs) to prepare for Lead and Copper Rule (LCR) compliant sampling plans upon activation as a public water system
- Maintain increased educational efforts to prospective new systems so that initial operations are not impeded by non-compliance
- Assist new CWSs and NTNCWs to be compliant with the SDWA for their three-year term as a new PWS in Delaware
- Encourage and assist PWSs to develop and implement asset management plans that include best practices for asset management as required by America's Water Infrastructure Act (AWIA).

Objectives and Outputs

- Provide assistance to all proposed public drinking water systems to ensure that the water system owner/operator has demonstrated adequate TMF capacity, and that the water meets all applicable SDWA requirements prior to operating
- Monitor and assist new public water systems in LCR/LCRR compliance
- Report the name of new and proposed PWSs for the Semi-Annual DWSRF Set-Aside reports
- Assist new CWSs and NTNCWs in their compliance with the requirement to operate under the supervision of a Delaware licensed water operator

Outcomes and Benefits

- 100% of new water systems will open and remain in compliance with the SDWA for their three-year term as a new PWS in Delaware
- 100% of new public water systems will be assisted with lead and copper rule compliance
- New public water systems identified in need of assistance shall be referred to DRWA

Capacity Development Program EXISTING Systems

Relationship to On-Going Program

This portion of Capacity Development assists existing water systems with maintaining technical, managerial, and financial capacity.

Progress Made To-Date

The Capacity Development Program has provided technical and managerial assistance to existing water systems to facilitate compliance with the Lead and Copper Monitoring Rule, the Consumer Confidence Rule, and other regulatory requirements under the SDWA. The number of existing systems out of compliance with the requirement to operate under the purview of a license water operator remains low.

Future Plans

- Improve compliance with the SDWA by facilitating a better understand of the regulations, including LCR revisions, CCR, and other state and federal regulation in development
- Encourage and assist PWSs to develop and implement asset management plans that include best practices for asset management as required by AWIA.
- Refer existing public water systems with a score of 11 or higher on the ETT list to external assistance providers

Objectives and Outputs

- Provide in-depth training in CCR report creation to technical and managerial staff of CWSs in Delaware to increase compliance with the CCR
- Provide assistance to existing PWSs with an ETT score of 11 or higher or that are identified as being in need through routine regulatory activities conducted by ODW
- Evaluate and report the TMF capacities of at least one-third of Delaware's water systems
- Monitor, evaluate, train, and assist PWSs and operators in LCR compliance, schedules, and reporting
- Track and report existing PWSs appearing on the ETT report with scores of 5 and greater to technical assistance providers to facilitate achieving compliance.

Outcomes and Benefits

- PWSs will be better equipped to create and distribute CCR reports per the requirements of the SDWA
- All existing public water systems with an ETT score of 11 or higher and those that are otherwise identified as being in need of assistance will be offered TMF assistance
- One-third of Delaware's PWSs will be assessed for TMF capacities
- Delaware's CWSs and NTNC water systems will be monitored, evaluated, and assisted in LCR sampling compliance, schedules, and reporting; training will be conducted for Delaware PWSs on LCR compliance and on LCRR compliance requirements
- Existing public water systems will be offered the opportunity to receive TMF capacity assistance to achieve compliance

Evaluation

Capacity Development will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

DRWA

Relationship to On-Going Program

DHSS will continue to contract with DRWA to provide Geographical Information Systems (GIS) Surveys for community water systems such as small municipal and non-municipal water systems. DRWA shall provide: Specialized Emergency training and assist four municipals to develop an emergency response plan.

Future Plans

Delaware Rural Water Association (DRWA) will provide on-site technical assistance in basic GIS distribution surveys for community water systems (small and medium municipals including Tidewater and Artesian operated systems). The Delaware Rural Water Association (DRWA) will provide multiple emergency response, confined space and safety hands-on workshops to SRF funded community and municipal employees

The Specialized Emergency Response training provides municipals employees instruction on how to respond and prepare for different types of natural or man-made disasters.

Objectives and Outputs

- Five (5) small community water systems (population under 1000), Five (5) municipal communities (population under 10,000) and a minimum of Five (5) seasonal water systems will be provided with GIS on-site technical assistance and system distribution maps Provide multiple emergency response, confined space, and safety hands-on workshops to SRF funded community and municipal employees. Workshops will consist of how to respond to different types of emergencies, how to establish a command post, staging areas, preparing for long-haul disasters, self-contained breathing apparatus usage, fittings and types, blood borne pathogens, controlled bleeding at the job site and working with ropes and rigging Operators will be shown how to manage and track supplies needed for short- and long-term outages and what types of specialized tools are required.

Outcomes/Benefits

- Smaller systems will be able to map out locations of assets. The compilation of location data will provide the aforementioned water systems with first step of EPA's Core Asset Management criteria
- The Specialized Emergency Response training provides towns with a strategy in the event they have an emergency

Evaluation

DRWA will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

DTCC

Relationship to on-going program

DHSS will continue to contract with DTCC to assist with continued education and certification of water operators.

Future Plans

DTCC will continue to offer online classes to water operators to allow flexibility for water operators seeking continuing education.

Objectives and Outputs

- Develop one “Train the Trainer” course for the instructors to include updated teaching methods, utilization of hands-on equipment and implementation of new hands-on assessments. Up to eight (8) instructors will be paid to attend these two three (3) hour sessions.
- Develop one new in-person class: Class on PFAS contamination and treatment.
- Update and improve existing water courses to modern standards.
- Host one Emergency Response workshop to address both climate and health emergencies. One additional workshop addressing one of the following issues: Emerging Technology, Aging Workforce, PFAS, New Lead and Copper Regulations. Workshop Topics will be approved by DHSS personnel.

Outcomes and Benefits

- Delaware water operators will receive training to ensure system operators are well trained to maintain their systems in compliance
- Online training will be updated with the most current methods
- Webinar will allow managers to be aware of changes in the water system industry
- Water operator skills will be enhanced by the instruction on water quality process control equipment and/or software technology

Evaluation

DTCC will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

Sustainability 1:1 Assistance

The DWSRF Program will continue to work with Kash Srinivasan Group, LLC to provide 1:1 assistance to small and medium municipal public water systems to engage in long range planning activities for their utilities. At least five municipalities will develop custom implementation of Financial Analysis tools developed by the University of North Carolina.

Source Water Protection

Relationship to On-Going Program

The Source Water Protection (SWP) program continues to be administered by Department of Natural Resources and Environmental Control (DNREC)’s Division of Water. This regulatory program controls wellhead and source-water protection activities.

Future Plans

The Delaware Source Water Assessment and Protection Program (SWAPP) will help public water systems receive assistance from the DWSRF by the following activities: Source Water Assessment, Characterization, and Monitoring; Prioritization of State SWP activities; Integration of SWAPP with other state, federal, and local programs; Motivating Local SWP activities; and Managing Information.

Objectives and Outputs

- Source Water Assessment, Characterization and Monitoring – This includes providing assessments for any new system, revising and updating existing source water assessments (e.g. delineation, contaminant sources, susceptibility assessment), providing technical assistance to solve source water problems including recommendations for potential DWSRF funded monitoring network/systems development, and resource characterization activities. The SWAP will continue the development of an ambient groundwater monitoring program, including the deployment of long-term monitoring equipment with real time data telemetry capabilities, while utilizing existing Delaware Geological Survey (DGS) and DNREC Water Supply Section monitoring well infrastructure, and the Water Allocation Branch permitting process
- Prioritization of State SWP activities – This includes support of local efforts to develop SWP ordinances and comprehensive plans or other local approaches, support to SWP-related UIC activities, and related needs
- Integration of SWAPP with other state, federal, and local programs – This includes work with the federal, state agencies, private organizations, and local governments with regards to source identification, characterization, and prevention
- Motivating Local SWP activities – This includes technical assistance, committee representation, information dissemination; review of local development plans and comprehensive land use plans as part of the Preliminary Land Use Service (PLUS) process and participation on the New Castle County Resource Protection Area Technical Advisory Committee (RPATAC)
- Managing Information – This includes data collection, data storage, and recovery, GIS development, web availability, state, and federal data reporting capacity. Additionally, the SWAPP will work with systems to evaluate their needs for data management and operational enhancements (e.g., SCADA) that could benefit from potential DWSRF funding. For this grant cycle, contractual funding will be utilized to support the EQUIS Enterprise migration project which will be used by the Division of Water to store, share, and review analytical/permit data throughout the State including the Ambient Groundwater Monitoring project. In addition, the SWAPP will commence discovery and needs assessment, in collaboration with the Office of Drinking Water, Delaware Geological Survey, and DNREC Division of Water to determine the feasibility of creating an interagency data repository to using WaterSTAR, formally RBDMS Environmental, as a set of tools for managing laboratory analytical and field data. For this grant cycle the SWAPP working closely with the Well Permitting Branch will pilot a “Public Well Missing Records Reconnaissance Project” in which the SWAPP will work with the Office of Drinking Water and licensed water well contractors to investigate, locate, survey, and inspect public wells with incomplete or missing records in order to build a more complete database record for both DNREC and DHSS

Outcomes/Benefits

- Provide assessments for any new system, revising and updating existing source water assessments (e.g., delineation, contaminant sources, susceptibility assessment), providing technical assistance to solve source water problems including recommendations for potential DWSRF funded monitoring network/systems development, and resource characterization activities. The SWAP will continue the development of a statewide ambient groundwater monitoring program, including the deployment of long-term monitoring equipment with real time data telemetry capabilities, while utilizing existing Delaware Geological Survey (DGS) and DNREC Water Supply Section monitoring well infrastructure, and the Water Allocation Branch permitting process. For this grant cycle, contractual support will be utilized for miscellaneous groundwater sampling including raw water sampling of public water systems, as well as PFAS related sampling in collaboration and with guidance from the PFAS Steering Committee. Water quality data results collected as part of the ambient groundwater monitoring program or traditional groundwater sampling efforts will be shared with the Office of Drinking Water and other appropriate partners to inform and facilitate future regulatory decisions.
- Support local efforts to develop SWP ordinances and comprehensive plans or other local approaches, support to SWP-related UIC activities, and related needs
- Work with the federal, state agencies, private organizations, and local governments with regards to source identification, characterization, and prevention.
- Provide technical assistance, committee representation, information dissemination; review of local development plans and comprehensive land use plans as part of the Preliminary Land Use Service (PLUS) process and participation on the New Castle County Resource Protection Area Technical Advisory Committee (RPATAC)
- Manage data, including develop GIS, web availability, state, and federal data reporting capacity. Additionally, the SWAPP will work with systems to evaluate their needs for data management and operational enhancements (e.g. SCADA) that could benefit from potential DWSRF funding. For this grant cycle, contractual funding will be utilized to support the EQUIS Enterprise migration project which will be used by the Division of Water to store, share, and review analytical and permit data throughout the State including the Ambient Groundwater Monitoring project. The data stored in EQUIS will be used to inform future Division of Water permitting decisions while data stored in the WaterSTAR system will be used to increase data sharing and data access between interagency partners. Additionally, records collected as part of the “Public Well Missing Records Reconnaissance Project” will be shared between DNREC and DHSS in order to build a more complete database record for both DNREC and DHSS
- Cover Crop Program—Ag Strategy
- DWSRF proposes, to meet EPA’s recommended Ag Strategy, to continue to fund the Cover Crop Program this grant cycle

Evaluation

SWP will meet with DWSRF Program representative(s) quarterly to review deliverable accomplishments. Successes and barriers will be evaluated, and adjustments will be made accordingly. The DWSRF will provide the EPA with Set-Aside reports for the periods of October 1, 2022 – March 31, 2023, and April 1, 2023 - September 30, 2023.

Ag Strategy Program—Year Four (See 2018 IUP and Work plan for Year One details)

Year Four of the Ag Strategy Program expands on Year One work, including outreach to farmers who may not be in the Cover Crop program, exploration of expanded eligibilities, i.e.: buffer zones, and pollinator plots. The program may also explore further incentives for farms that are close to municipal source water protection areas.

Upon completion of the project, the District provides a report to the Department as to how much cover crop was planted and feasibly of aforementioned program expansions.

Supplemental BIL Capitalization Grant

2%

Technical Assistance

\$79,195

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

Delaware Rural Water Association (DRWA)

Relationship to On-Going Program

DRWA remains one of two of the sole providers of on-site technical assistance and operator education respectively.

Progress Made To-Date

DRWA has provided technical assistance since 1999, helping small systems comply with Safe Drinking Water Act (SDWA) Regulations.

DRWA

- Delaware Rural Water Association (DRWA) will assist a minimum of ten (10) Community State Revolving Fund compliant systems in addressing potential contamination prevention from back-siphonage, backflows, cross-connections, and the need to prevent contamination of Delaware’s drinking water systems.
- DRWA will provide technical assistance visits to 10 community and or municipalities on understanding the Cross Connection Control Plan Regulation, highlighting on the methods of Program Administration, surveying, and testing procedures.
- On-site assistance shall provide facilities with instructions on the essential elements that make up the effective on-going Cross Connection Control Program. Community water systems found having a potential health hazard from a cross connection shall be referred to the DWSRF Program for directions on how to apply for a loan so the system can make compliance corrections within the treatment or distribution system

- Delaware Rural Water Association (DRWA) will provide 80 onsite technical assistance site visits to small Community Water Systems (CWS) and municipal water systems. On-site visits can include technical, financial, and managerial capacity assistance along with promotion of the DWSRF Program and one-on-one application/process help.
- DRWA will work with the DWSRF manager, Office of Drinking Water Capacity Development Office, and Office of Engineering in identifying systems in need of priority technical assistance under the Enforcement Targeting Tool (ETT) System. Systems may be defined as community, non-transient non-community, transient and/or seasonal.
- Any system found in need of infrastructure improvements shall be referred to the DWSRF program for future assistance. Assistance may include contamination prevention, rule education, water specialist operator training and/or preventive maintenance assistance planning. Priority systems can be classified as those that are either already out of compliance or reaching non-compliance.
- DRWA will deploy upon request the mobile on-site training unit to demonstrate system specific needs to SRF systems so that they understand either operational or testing methods to meet the Safe Drinking Water Act (SDWA) compliance and public health benefits. Such assistance could include, but not be limited to, SRF funding opportunities, public awareness of Drinking Water Standards, contamination prevention, lead service line identification assistance, water treatment process and dealing with unregulated contaminants.

4%

DWSRF Administration

\$416,849

Please refer to the Intended Use Plan for 4% activities.

10%

State Program Management

\$363,202

Please refer to the Intended Use Plan for 10% activities.

15%

Local Assistance/Other Programs

\$1,183,453

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

DHSS in collaboration with Delaware Rural Water Association, DNREC, Sussex County, and the Delaware Department of Transportation will work to provide local assistance to residents of the state of Delaware in the form of workforce development, source water protection best management practices and source water protection signage initiatives

DRWA contract:

- The Career Training for High School Students Pre-Apprenticeship Program will be open to any student that is interested in venturing into a career related to Water Treatment and Water Operations & Maintenance within a community water system.
- DRWA proposes to provide, to a minimum of five (5) Delaware high schools representing each county, a program to demonstrate the need for young adults to enter the field of drinking water distribution, operations, and water treatment.
- DRWA shall also be seeking the interest of partnering with water utilities that are willing to allow participating students to be able to work and gain field knowledge on the job where they may earn while they learn.
- Students who seek to advance their knowledge will be eligible to enroll in DRWA's two (2) year Water Systems Operation Specialist Apprenticeship Program which will offer more in-depth training such as chemistry, filtration and math equations and chemical additions.

Sussex Conservation District**Sussex County Source Water Protection Agricultural Best Management Practices**

- This project will focus primarily on the runoff and leaching from agriculture, which is considered a nonpoint source of pollution. The Chesapeake Bay Program defines a nonpoint source of pollution as a diffuse source of pollution that cannot be attributed to a clearly identifiable, specific physical location or a defined discharge channel. This includes the nutrients that runoff the ground from any land use - croplands, feedlots, lawns, parking lots, streets, forests, etc. - and enter waterways. It also includes nutrients that enter through air pollution, through the groundwater, or from septic systems.
- Protecting Delaware's drinking water through the implementation of water quality best management practices (BMP) is imperative for every Delaware citizen to have access to clean drinking water. The implementation of these BMPs is needed to meet the goals and objectives of the Chesapeake Bay Watershed Implementation Plan (WIP), Inland Bays Pollution Control Strategy, and Total Maximum Daily Loads in Sussex County, Delaware.
- The Sussex Conservation District (SCD) will increase implementation and track best management practices made by agricultural producers and landowners within established source water protection areas in Sussex County. An SCD agricultural conservation planner will work with these producers and landowners to educate them on the importance their property plays in protecting the State's drinking water resources and assist them in identifying opportunities for the implementation of various Source Water Protection Area (SWPA) practices established in the USDA-NRCS Environmental Quality Incentive Program (EQIP). The SCD planner will work with agricultural producers in Sussex County to address resource concerns in the SWPA areas, making recommendations on how to best address those concerns, and planning the priority practices. Planners will also assist the landowner through the NRCS EQIP financial assistance application process through to contract obligation and practice implementation. SCD will track and report these BMPs located in SWPA.

- Producers located in the established SWPA will be eligible for a 90% incentive rate on 32 eligible USDA-NRCS SWPA priority practices, leaving only 10% of the implementation cost to be covered by the landowner. It is hoped that SCD can partner with the Delaware Rural Water Association's Source Water Program and their relationships with local water utilities to help share the cost of the practices, leaving the landowner with no more than 5% of the cost.
- NRCS and the Sussex Conservation District will provide financial assistance towards the implementation of cover crops (partially funded by DWSRF) and other water quality BMPs to reduce runoff from agricultural fields and the uptake of excess nutrients, resulting in an improvement to drinking water sources and overall water quality. Data specifying detailed information about each BMP will be tracked and reported annually.
- Additionally, SCD will promote this partnership and activities through our outreach and education programs including print and news media, social media outlets, and one-on-one conversations with Sussex County landowners. SCD will also include this as part of its soil health outreach events including workshops and field days.

Collaboration with Delaware Department of Transportation and DNREC

Statewide Source Water Protection Signage Initiative

- This project will combine efforts from DHSS, DelDot, and DNREC. DHSS will bring on a consultant for the creation and placement of watershed identification and spill mitigation information for new roadway signs in Delaware.

Emerging Contaminants BIL Capitalization Grant

2%

Technical Assistance

\$78,000

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

The Science, Technology, and Research Institute of Delaware (STRIDE) will provide PFAS Treatment Advice and Technical Support to Delaware Drinking Water Systems.

STRIDE contract will:

- Gather data: Collect price, performance, and availability data of all commercially available and developmental PFAS filter products and maintain a data base.
- Do batch adsorption tests: Compare PFAS removal efficiencies of at least six filter materials in source water from 5 Delaware drinking water systems (to be chosen by DHSS) and provide the data such that they can choose the best treatment system for contaminants in their water system.

- Do Rapid Small Column Tests (RSSCT) on water from two water systems (to be chosen by DHSS). RSSCT is a bench-scale testing procedure used to estimate the replacement frequency of an adsorbent at a full-scale treatment plant. This data will help water operators and their engineering contractors design the filter system for optimum capital and operating costs.
- Enable drinking water systems to find and install the optimum system and negotiate purchasing terms with vendors. This service will also help with supply chain issues, avoid dependence on single supply, and help the State/DHSS avoid future problems and reduce emergency use of State Revolving Funds

4%

DWSRF Administration

\$148,426

Please refer to the Intended Use Plan for 4% activities.

15%

Local Assistance/Other Programs

\$950,000

Work years to implement activities: 1 year (October 1, 2022 - September 30, 2023)

DHSS will partner with Maryland Environmental Services, DNREC, and (vendor) to provide local assistance in the management, monitoring, and treatment of emerging contaminants.

Drinking Water Interconnection Study:

- In connection with Maryland Environmental Service (MES)
- The idea of an interconnection study has been pondered for some time. Recent discussions centered on options to respond to the PFAS above Health Advisory Limit detections in the Town of Blades. Alternate sources of potable water were trucked in bottles and through water trailers as permanent treatment was designed and manufactured. The State of Delaware is conducting statewide sampling of PFAS in public water systems (PWS) and looked for options beyond point treatment to mitigate and respond to what started as a list of systems to sample that each alone could require treatment the way the Town of Blades did. The assessment of opportunities to connect existing regulated water systems to other existing regulated water systems could provide answers for a multitude of challenges involving quantity and quality of water resources. The effort would also be able to identify areas where no public water is currently available to residents and those residents are vulnerable to past, present, or future groundwater contamination. We will be clear that we are not promoting the expansion of utilities into these areas but the assessment of all else will bring these locations to light
- The product will need to answer these 4 questions:
 - Where is all the current infrastructure?
 - Where are the opportunities for connections?
 - How would the connection be achieved?
 - How do we update, maintain, and use this dataset?

Mobile Emergency Response Filter

- Vendor TBD. [Requests for proposal](#) closed in May 2022.

PFAS Sampling:

Contract executed via Eurofins contract through DNREC.

Lead Service Line Replacement Capitalization Grant

2%

Technical Assistance

\$170,379

Work years to implement activities: 5 years (October 1, 2022 - September 30, 2027)

Provide assistance to small systems through contractor personnel. Funds provide technical assistance to public water systems serving less than 10,000 people. Contracts with DRWA and 120Water as well as collaboration with the Department of Education provide technical assistance and training.

DRWA & 120Water contract:

- LCR Technical Assistance and Training -- DRWA and 120Water are partnering to deliver market differentiated, high-impact and ongoing Technical Assistance to educate utility operators, superintendents, key personnel, and city managers about the complexities and nuances of Safe Drinking Water Regulatory Compliance.
- The partnership will conduct, at minimum, three instructor-led Technical Assistance Training Seminars throughout the calendar year with a focus on the Lead and Copper Rule (LCR) and the Lead and Copper Rule Improvements (LCRI). Given the evolving landscape of LCR(I), we are proposing a 5-year technical assistance program designed to give ongoing, world-class education to the utilities across the state of Delaware and Maryland.
- It is the goal of this partnership to ensure that the funding being made available to systems for LCR compliance will be used efficiently and effectively, resulting in better and more consistent outcomes for all stakeholders.

Sampling in Schools

- Lead sampling in schools (non-routine, not for compliance purposes, for LSL identification)

4%

DWSRF Administration

\$292,290

Please refer to the Intended Use Plan for 4% activities.

Set Asides in Reserve

The SDWA allows states to use part of the Capitalization grant to support Set-Aside activities. Up to 31% of each Capitalization grant may be reserved for Set-Aside activities.

Delaware reserves its authority to apply remaining 2%, 4% and 10% set-asides from prior Base Grants to future capitalization grants. Delaware also reserves its authority to bank the 2%, 4% and 10% set-asides from future BIL - General Supplemental and LSL Replacement Grants. A summary of banked reserves is below:

Delaware	2022 Allotment	2022 Request	2022 Reserve Set-Asides	Total to date Reserve Set-Asides
DWSRF Base (Received 5/16/22)	\$7,008,000	\$7,008,000		
2%	\$140,160	\$137,332	\$2,828	\$2,828
4%	\$280,320	\$263,247	\$17,073	\$17,073
10%	\$700,800	\$662,925	\$37,875	\$37,875
15%	\$1,051,200	\$936,362		
DWSRF Supplemental	\$17,992,000	\$17,992,000		
2%	\$359,840	\$79,195	\$280,645	\$280,645
4%	\$719,680	\$416,849	\$302,831	\$302,831
10%	\$1,799,200	\$363,202	\$1,435,998	\$1,435,998
15%	\$2,698,800	\$1,183,453		
DWSRF Lead Service Lines	\$28,350,000	\$28,350,000		
2%	\$567,000	\$170,379	\$396,621	\$396,621
4%	\$1,134,000	\$292,290	\$841,710	\$841,710
10%	\$2,835,000	\$0	\$2,835,000	\$2,835,000
15%	\$4,252,500	\$0		
DWSRF Emerging Contaminants	\$7,555,000	\$7,555,000		
2%	\$151,100	\$78,000	\$73,100	\$73,100
4%	\$302,200	\$148,426	\$153,774	\$153,774
10%	\$755,500	\$0	\$755,500	\$755,500
15%	\$1,133,250	\$950,000		
Total	\$60,905,000		\$7,132,955	\$7,132,955