

DELAWARE CLEAN WATER TRUST ANNUAL REPORT “THE MULROONEY REPORT” FISCAL YEAR 2022

DELAWARE CLEAN WATER TRUST OVERSIGHT COMMITTEE

DRAFT





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Table of Contents

Delaware Clean Water Trust Oversight Committee	2
RESPONSIBILITIES OF THE TRUST UNDER HB200	4
Clean Water Trust Account Funds	4
DNREC and DHSS FY 2022 Bond Bill funds.....	4
Clean Water State Revolving Fund	6
Drinking Water State Revolving Fund.....	10
Resource, Conservation, and Development	13
Other State Water Funding Programs	17
Hazardous Substance Cleanup Act.....	17
Drainage and Tax Ditch Programs.....	17
Beach Preservation (Shoreline) and Waterway Management	18
Cover Crop Program.....	19
Conservation Reserve Enhancement Program (CREP).....	20
Conservation Cost Share Program	21
DelDOT MS4 funding.....	21
Appendix of Annual Reports.....	23

Clean Water Trust Annual Report

Fiscal Year 2022

RESPONSIBILITIES OF THE TRUST UNDER HB200

The Clean Water Trust Oversight Committee (Committee) shall be responsible for oversight of the Clean Water Trust account and shall produce and publish an Annual Report and Strategic Plan for Clean Water.

An annual work plan report on the implementation of the Strategic Plan for the previous fiscal year addressing success indicators, deliverables, and milestones.

The annual report, titled “The Mulrooney Report”, accounts for the sources, benefits, and uses of the Clean Water Trust account and other water quality programs funded with State or federal resources including wastewater, stormwater and drinking water infrastructure and programs for drainage, beach preservation, waterway management, cover crop, the conservation reserve enhancement program, tax ditches and conservation cost-sharing that shall include a list of all funded projects.

Clean Water Trust Account Funds

DNREC and DHSS FY 2022 Bond Bill Funds

DNREC FY 2022 Bond Bill Funds

2022 DNREC Clean Water Bond Bill Funds		
Starting balance	\$22,500,000	
Project Name:	Budget:	Project Descriptions:
OMB Recission	\$18,040,000	Moneys reallocated to other purposes
CWSRF CAP Grant State Match	\$1,555,800	These funds were used for the required 20% state match for the CWSRF base grant.
Donovan Smith MHP Sewer Extension	\$2,742,146	Donovan Smith Sewer Extension is the pilot project for the Clean Water initiative for Underserved Communities
Balance	\$162,054	

DHSS FY 2022 Bond Bill Funds

2022 DHSS Drinking Water Bond Bill Funds		
Starting balance	\$22,500,000	
Project Name:	Budget:	Project Descriptions:
OMB Recission	\$14,940,000	Moneys reallocated to other purposes
DWSRF CAP Grant State Match	\$2,415,941	These funds were used for the required 20% state match for the DWSRF grants.
BlueSky Power - Sustainability	\$97,500	The purpose of this project was to create a Project Sunrise Energy Action Plan for Drinking Water Infrastructure.
Oak Grove - Pumphouse, distribution, fire	\$68,008	The proposed project will improve distribution, fire and pumphouses.
New Castle MSC - GAC for PFAs treatment	\$68,400	The proposed project will replace the Granular Activated Carbon being used to mitigate the PFA/PFOAs contamination of raw water at the utility.
Artesian/ Middletown- Economic STA Pharma	\$4,462,394	The proposed project will provide the construction of the Cedar Lane Elevated Storage tank and half of the Lester Wells restoration.
Magnolia	\$447,758	The proposed project will replace 1,800 linear feet of black iron water main and associated service connections.
Balance	\$0	

Clean Water State Revolving Fund

The Department of Natural Resources and Environmental Control (DNREC) submitted to the US Environmental Protection Agency (EPA) the Delaware Water Pollution Control Revolving Fund, also known as the “Clean Water State Revolving Fund” (CWSRF), Annual Report for the period July 1, 2021 through June 30, 2022. This report described how the objectives identified in the Fiscal Year 2022 Intended Use Plan (FFY 2021 IUP) were met and reflects the actual use of available funds.

Fiscal Year 2022 Program Summary

In FY 2022, DNREC received a CWSRF federal capitalization grant in the amount of \$7,779,000. The required twenty percent (20%) state match of \$1,555,800 was provided from state bond appropriations. Since the inception of the CWSRF program, \$320,596,794 in seed capital has been received; \$270,370,510 federal and \$50,226,284 state. The following is a summary of CWSRF activities during FY 2022 that supported the FFY 2021 IUP.

Program Summary

During FY 2022, DNREC closed eight new municipal loans and two supplemental loans for a total of \$30,074,005. One hundred and twenty-six municipal loans have been closed since the inception of the CWSRF totaling \$527,992,067. Also, the Septic Rehabilitation Loan Program (SRLP) closed thirty new loans for \$684,253 and eighteen Septic Extended Funding Option Due-on-Transfer Loans (SEFO) were closed during the fiscal year totaling \$440,090. The SEFO program is funded from Delaware’s Non-Federal Administrative Account.

Environmental Benefits

During FY 2022, DNREC continued incorporating environmental benefits into the evaluation of projects. The following environmental benefits are attributed to the projects funded during FY 2022:

1) City of Wilmington: 15th & Walnut CSO Separation

Estimated Total Project Cost: \$2,669,500

CWSRF Loan: \$1,369,500

A CWSRF loan in the amount of \$1,369,500 was provided to the City of Wilmington for the 15th & Walnut CSO Separation project. This project is to finance the separation of stormwater runoff from the combined sewer overflow in two recently built housing projects, and one block of Walnut Street in the City of Wilmington. The project will route runoff through green infrastructure Best Management Practices (BMPs) to capture the initial one to two inches of precipitation through a combination of rain gardens, subsurface trenches and bioswales.

2) City of Wilmington: Wetland Park Supplemental

Estimated Total Project Cost: \$43,020,624

CWSRF Loan: \$11,400,000

A CWSRF supplemental loan in the amount of \$11,400,000 was provided to the City of Wilmington for the Wilmington Wetland Park project. This project is to finance the increase in the Wetland Park

project costs. The primary reason stated for the increase was the increase in size of the stormwater sewer shed to divert a greater quantity of stormwater away from the undersized CSO collection system to eliminate flooding.

3) Sussex County Council: Emergency Pintail Pointe Septic Elimination

Estimated Total Project Cost: \$959,888

CWSRF Loans: \$959,888

A CWSRF loan in the amount of \$959,888 was provided to Sussex County for the Emergency Pintail Pointe Septic Elimination project. This project is to finance the construction of a pump station that serves all the Pintail Pointe homes and connect the station to an existing Artesian force main. Pintail Pointe is an existing 39 lot detached single family home community located on the west side of Hudson Road just south of the Rt. 1 intersection east of Milton. The original central on-site wastewater disposal system that serves the community's homes has failed. As a result, DNREC issued a notice of violation. Sussex County has already made temporary repairs to the existing on-site disposal system. Artesian will treat and dispose of the wastewater through an interchange agreement with Sussex County.

4) Sussex County Council: Longneck Communities Septic Elimination

Estimated Total Project Cost: \$7,788,761

CWSRF Loans: \$7,788,761

A CWSRF loan in the amount of \$7,788,761 was provided to Sussex County for the Longneck Communities Septic Elimination project. This project is to finance the installation of a gravity sewer collection system for the Long Neck communities along Branch, Autumn, and Tucks Road and in the Sherwood Forest North community. The residents to be serviced have notified Sussex County of struggling on-site wastewater disposal systems, of which many are past their 20-25-year typical lifespan. The proposed sanitary sewer will connect to nearby Sussex County infrastructure at various locations.

5) Sussex County Council: Tanglewood & Oak Acres Septic Elimination

Estimated Total Project Cost: \$2,376,356

CWSRF Loans: \$2,376,356

A CWSRF loan in the amount of \$2,376,356 was provided to Sussex County for the Tanglewood and Oak Acres Septic Elimination project. This project is to finance the connection of the Tanglewood and Oak Acres communities to the nearby existing County sanitary sewer by installing gravity main and lot laterals. The Tanglewood and Oak Acres communities consist of 22 and 55 existing single-family lots respectively. Both communities are located south of Ocean View along Camp Barnes Road between Double Bridges Road and Millers Neck Road. These lots are presently served by individual on-site wastewater disposal systems that are reaching or past their typical 20–25-year life span. Both communities are presently in a Sussex County sanitary sewer district.

6) Sussex County Council: Mulberry Knoll Sewer District Supplemental

Estimated Total Project Cost: \$4,464,379

CWSRF Loans: \$1,329,000

A CWSRF supplemental loan in the amount of \$1,329,000 was provided to Sussex County for the Mulberry Knoll Sewer District project. This project is to finance the construction of a gravity collection system, sub-regional pump station, and force main to serve 63 EDUs in the area south of Route 24, along Mulberry Knoll Road. The area is a peninsula in the Rehoboth Bay, and the wastewater will be pumped to the County's Inland Bays Regional Wastewater Facility for treatment and disposal. The area has been created and is now a part of the Sussex County Unified Sanitary Sewer District (please see site location). As a result of this project, 690 pounds of total nitrogen and 30 pounds of total phosphorus will no longer enter the Rehoboth Bay annually. This will help DNREC with meeting the goals of the Inland Bays Pollution Control Strategy (PCS) for nitrogen and phosphorus reductions through septic elimination. The primary reason stated for the supplemental request was the construction budget shortfall, additional engineering services associated with the extended construction period, and a 15% contingency on the collection system contract.

7) Lewes Board of Public Works: Emergency WRF Headworks & Pump Project

Estimated Total Project Cost: \$1,750,000

CWSRF Loan: \$1,750,000

A CWSRF loan in the amount of \$1,750,000 was provided to the Lewes Board of Public Works (BPW) for the Emergency WRF Headworks and Pump project. This project is to finance the replacement and rebuilding of several aging or failing components of the Howard Seymour Water Reclamation Facility and upgrade upstream pump stations. Many problems are present due to severe ragging issues, which involve the accumulation of wipes, towels, washcloths, etc. The WRF improvements include grit screens, a grit removal system, classifier, and compactor. The pump station improvements involve the installation of emergency retrofit pumps where accommodations exist, water level transducers in lieu of floats, control panel updates and various electrical upgrades.

8) City of Seaford: Planning and Design Project

Estimated Total Project Cost: \$463,500

CWSRF Loan: \$463,500

A CWSRF loan in the amount of \$453,500 was provided to the City of Seaford for a planning and design project. The project is the first step to upgrading and expanding the City's WWTF. The upgrade and expansion improvements are being phased to allow the project to be more affordable and to address attrition that some unit processes are exhibiting. At a later point in time the remainder of the WWTF (biological system, etc.) will be upgraded and expanded. At that point the facility will have a rated capacity of 3.0 MGD and treat to effluent quality standards.

9) Kent County: Plantwide Power Backup Project

Estimated Total Project Cost: \$4,452,200

CWSRF Loan: \$1,640,000

A CWSRF loan in the amount of \$1,640,000 was provided to Kent County for Plantwide Power Backup project. This project is to finance the purchase of a 2-megawatt generator, which will provide emergency power to the Kent County Regional Resource Recovery Facility (KCRRRF) in Milford, Delaware. The proposed generator will replace up to five of the existing individual power backup systems, which will reduce operating costs. This will also provide additional power generation capacity and increase reliability of the facility during power outages.

10) New Castle County: Robscott Manor Water Quality Improvement Project

Estimated Total Project Cost: \$2,896,947

CWSRF Loan: \$997,000

A CWSRF loan in the amount of \$997,000 was provided to New Castle County for Robscott Manor Water Quality Improvement project. This project is to finance restoration of 1,767 linear feet of an unnamed tributary of Christina River at Robscott Manor park in Newark, Delaware. This short segment of tributary contains 12 DelDOT outfalls that drain 282 acres of land, developed prior to the 1991 sediment and stormwater regulations. Due to lack of upstream stormwater controls, runoff discharge from the 12 outfalls causes extensive erosion of the tributary and water quality concerns in the Christina River.

11) Septic Rehabilitation Loan Program (SRLP)

This program provides low-interest loans to replace failed on-site septic and cesspool systems. During FY 2022, forty-eight (30 SRLP and 18 SEFO) projects reduced pollution of ground and surface waters by as much as 526 pounds per year of nitrogen, and 22.8 pounds per year of phosphorus.

Program Activity Metrics

1) Fund Utilization Rate

Fund utilization rate is measured as cumulative loan agreement dollars divided by cumulative funds available for projects at the beginning of the fiscal year. The fund utilization rate for the CWSRF thru FY 2022 is $\$542,753,470 / \$583,375,370 = 93$ percent.

2) Integrated Priority System

Since November 2000, an Integrated Priority System has been used to make CWSRF funding decisions, including planning on a watershed basis.

3) Non-Point Source Funding

Non-point source (NPS) funding is measured as the number and dollar value of projects financed with CWSRF loans to prevent polluted runoff from NPS. Through FY 2022, the CWSRF has financed 1,464 NPS projects with a dollar value of \$18,674,586.

4) Return on Investments

Return on federal investment is measured as the cumulative dollar amount of assistance disbursements for projects divided by cumulative federal outlays for projects. The cumulative return on investment for the CWSRF through FY 2022 is $\$493,330,095 / \$261,322,272 = 189$ percent.

Drinking Water State Revolving Fund

The Department of Health and Social Services (DHSS) submitted to the US Environmental Protection Agency (EPA) the Drinking Water State Revolving Fund (DWSRF) Annual Report for the State Fiscal Year 2022. The report addresses operation of the DWSRF during the period between July 1, 2021, to June 30, 2022. During that period Delaware Health and Social Services (DHSS) received a Base capitalization grant award for the 2021 Federal Fiscal Year allotment.

Fiscal Year 2022 Program Summary

In FY 2022, DHSS received a DWSRF federal capitalization grant in the amount of \$11,100,000. The required twenty percent (20%) state match of \$2,220,000 was provided from state bond appropriations. Since the inception of the DWSRF program, \$275,999,628 in seed capital has been received; \$235,200,729 federal and \$40,798,899 state. The following is a summary of CWSRF activities during FY 2022 that supported the FFY 2021 IUP.

Program Summary

During FY 2022, DHSS closed eight new loans for a total of \$25,877,880. Of these loans, three funds small system for a total of \$8,611,110 and disadvantaged system subsidies totaled \$8,123,460.

Funded Projects / Public Health Benefit

1) Artesian Water Company, Inc.

Rank: 2 on 2020 Project Priority List (PPL)

Project Name: Frankford Purchase

Score: 785

Project Description: Purchase of Frankford Public Water System

Population: 20,706 (inclusive); 958 Frankford only

Project Cost: \$2,058,460

Interest Rate: 2.0%

Binding Commitment Date: 12/9/2020

Loan Closing Date: 1/4/2021

Subsidies: \$1,541,540

Disadvantaged Community: No

Public Health Benefit: This project will consolidate the Town of Frankford's water system with Artesian Water Company, Inc.

2) Town of Smyrna

Rank: 2 on 2021 PPL

Project Name: Supplemental Well Replacement and Expansion Project

Score: 405

Project Description: Supplemental costs associated with South Main Street Utility Replacement Project.

Population: 11,813

Project Cost: \$294,400

Interest Rate: 2.0%

Loan Closing Date: 11/18/21

Subsidies: \$294,400

Disadvantaged Community: No

Public Health Benefit: This project provides supplemental funding to a water main replacement and upgrades to South Main Street.

3) Tidewater Utilities

Rank: 12 on 2020 PPL

Project Name: South Rehoboth Elevated Storage Tank

Score: 185

Project Description: The engineering and construction of a 1,000,000-gallon elevated drinking water storage tank in the South District of Rehoboth Beach, Delaware.

Population: 39,828 (inclusive)

Project Cost: \$5,005,830

Interest Rate: 2.0%

Loan Closing Date: 12/16/2021

Subsidies: \$0

Disadvantaged Community: No

Public Health Benefit: This project will bring the water system into compliance with storage requirements and ease the strain on the existing wells during high flow time periods.

4) City of Newark

Rank: 8 on 2020 PPL

Project Name: Laird Tract Well Field Restoration

Score: 425

Project Description: Upgrades to existing wells and to provide a treatment facility to allow for utilization of the wells.

Population: 40,000

Project Cost: \$1,925,000

Interest Rate: 2.0%

Loan Closing Date: 2/18/21

Subsidies: \$0

Disadvantaged Community: No

Public Health Benefit: Provides additional source water and treatment to meet needs of the existing drinking water customers.

5) Municipal Services Commission of the City of New Castle

Rank: 5 on 2021 PPL

Project Name: Meter Conversion

Score: 330

Project Description: Replaces approximately 2,400 (all) meters and modules.

Population: 5,364

Project Cost: \$1,011,110

Interest Rate: 2.00%

Loan Closing Date: 2/18/2022

Subsidies: \$622,870

Disadvantaged Community: No

Public Health Benefit: This project will provide the water system ability to electronically monitor water services; providing efficiency and inventory control. This project is categorically green.

6) City of Wilmington

Rank: 1 on 2021 PPL

Project Name: Small Mains Water Distribution Improvements

Score: 425

Project Description: Installation of new drinking water mains

Population: 107,976

Project Cost: \$7,500,000

Interest Rate: 2.00%

Loan Closing Date: 3/2/2022

Subsidies: \$523,460

Disadvantaged Community: Yes

Public Health Benefit: This project will increase the reliability of services to the customers by replacing aging cast iron mains and provide additional fire flows to improve public safety.

7) City of Harrington

Rank: 4 on 2020 PPL

Project Name: Water Mains Upgrades

Score: 600

Project Description: Replacement of 2,400 LF of 8" watermain, 6,000 LF of 10" water mains and fire hydrants.

Population: 3,562

Project Cost: \$4,100,000

Interest Rate: 2.00%

Loan Closing Date: 3/25/2022

Subsidies: \$4,100,000

Disadvantaged Community: Yes

Public Health Benefit: This project will increase the reliability of services to the customers by replacing aging mains and provide additional fire flows to improve public safety.

8) City of Harrington

Rank: 11 on 2020 PPL

Project Name: Well and Storage Tank Upgrades

Score: 360

Project Description: Construction of a new 500,000-gallon elevated storage tank.

Population: 3,562
Project Cost: \$3,500,000
Interest Rate: 2.00%
Loan Closing Date: 3/25/2022
Subsidies: \$3,500,000
Disadvantaged Community: Yes
Public Health Benefit: This project will maintain the water systems compliance with storage and pressure requirements and ease the strain on the existing wells during high flow time periods.

Program Activity Metrics

1) Fund Utilization Rate

Fund utilization rate is measured as cumulative loan agreement dollars divided by cumulative funds available for projects at the beginning of the fiscal year. The fund utilization rate for the CWSRF thru FY 2022 is 81 percent.

2) Program Evaluation Report (PER)

PER from EPA project officer dated July 12, 2022, identified no actionable items.

3) Undisbursed Fund Ratio

Commendations from EPA for reducing the undisbursed ratio from 16.5 to 9.6 are noted in the PER. Fund utilization and First In First Out (FIFO) practices continue to have increased performance.

Resource, Conservation, and Development

Background

The Resource, Conservation and Development (RC&D) Fund was established by the Twenty-First Century Fund Investments Act of 1995 that resulted from a settlement with the State of New York. The RC&D portion of the Act was created to provide funding to enhance the health of communities by improving watershed and drainage infrastructure statewide. The fund is implemented by a partnership between the DNREC and Delaware's three Conservation Districts. The New Castle Conservation District takes the lead on projects located in New Castle County. Kent and Sussex Conservation Districts are leads on a portion of the prioritized projects, as assigned by DNREC, to increase the number of projects constructed.

Fund Status

Over \$91 million has been allocated to the fund since 1996. Table 1 summarizes the breakdown of allocations by county.

Table 1: Summary of Allocations to the Fund

	New Castle	Kent	Sussex	Total
FY 1996 – FY 2009	\$44,552,468	\$6,503,822	\$11,311,984	\$62,368,274
FY 2016	\$1,350,458	\$427,730	\$1,221,812	\$3,000,000
FY 2017	\$1,795,962	\$533,784	\$1,483,054	\$3,812,800
FY 2019	\$1,890,000	\$756,000	\$1,554,000	\$4,200,000
FY 2020	\$2,300,000	\$875,000	\$1,825,000	\$5,000,000
FY 2021	\$1,800,000	\$487,500	\$712,500	\$3,000,000
FY 2022	\$6,000,000	\$1,000,000	\$3,000,000	\$10,000,000
Total	\$59,688,888	\$10,583,836	\$21,108,350	\$91,381,074

DNREC Drainage Program, with the Conservation Districts, completed 85 projects to date in FY 2022. Table 2 is an excerpt from the RC&D Fund Expenditure Report (RC&D Annual Report - Appendix A). It shows the funds expended between FY 2015 and FY 2022; a total of 456 projects were completed in this period, despite record rainfall in calendar year 2018, the first half of calendar year 2019, and nearly all 2020. A list of the projects that have been completed in FY 2022 is contained in RC&D Annual Report - Appendix B. The lists are reported by county and contain the total project cost and the legislative district where the project was located. Those projects that DNREC, or one of the Conservation Districts, are recommending be discontinued or removed from the approved list are included in Appendix B.

Table 2: Expenditures

	New Castle	Kent	Sussex	Statewide
Total (FY 1996 – FY 2014)	\$ 41,457,200	\$ 4,729,014	\$ 9,339,501	\$ 55,525,715
FY 2015	\$ 1,309,287	\$ 563,513	\$ 586,974	\$ 2,459,774
FY 2016	\$ 1,448,683	\$ 568,644	\$ 1,187,668	\$ 3,204,995
FY 2017	\$ 1,315,066	\$ 460,894	\$ 541,334	\$ 2,317,294
FY 2018	\$ 1,364,087	\$ 206,186	\$ 766,920	\$ 2,337,193
FY 2019	\$ 1,002,390	\$ 374,005	\$ 1,533,732	\$ 2,910,127
FY 2020	\$ 1,458,202	\$ 49,071	\$ 428,209	\$ 1,935,482
FY 2021	\$ 1,418,634	\$ 233,500	\$ 1,046,097	\$ 2,693,231
FY 2022	\$ 2,128,600	\$ 473,851	\$ 1,558,338	\$ 4,160,789
Total	\$ 52,902,149	\$ 7,658,678	\$ 16,988,773	\$ 77,549,600

Table 3 summarizes the remaining balance of RC&D program funds as of June 14, 2022. Epilogue language requires, once funding is allocated to a particular county, that funding can only be spent within that county. It is important to consider the remaining balances within each county, rather than the remaining balances statewide. Unexpended funds are allocated dollars that have not been spent by DNREC. Encumbered funds are funds that are unspent, but committed to another entity, including the Conservation Districts, through a signed agreement or contract. Unencumbered funds are unspent funds that are available to be committed to a project through agreement or contract. One way to think of unencumbered funds is to view them as dollars available for future work.

Table 3: Total County & State Fund Balances by County

	Unexpended	Encumbered	Unencumbered
New Castle	\$6,786,639	\$6,786,639	\$0
Kent	\$2,581,075	\$1,720,318	\$860,758
Sussex	\$4,347,396	\$3,265,783	\$1,081,613
Statewide	\$13,715,110	\$11,772,740	\$1,942,371

Although, there are balances remaining for each county, the work currently planned in all counties

exceeds available funding. The next section of this report provides an explanation of FY 2023 work planned in each county.

Active and Proposed Projects

Each year DNREC, in consultation with the Conservation Districts, prepares a list of projects in each county (RC&D Annual Report - Appendix C). Project prioritization is used as a tool to guide project development. However, it is an ongoing process that is flexible and allows funds to be directed to critical projects. The following factors are considered when prioritizing projects.

- Public Safety
- Frequency of Flooding
- Status of Project
- Property Damage
- Ability to Leverage Additional Funds
- Age of Project

DNREC monitors the Statewide Drainage Concern Hotline, which provides a single point of contact to help constituents get assistance from the agency best suited to address their drainage issues. Constituent concerns not related to stormwater management and on private property are generally assigned to the DNREC Drainage Program in Kent and Sussex Counties, and the New Castle Conservation District in New Castle County, for investigation. Concerns that are investigated may be added to the list of proposed projects, if deemed appropriate. Table 4 provides a summary of active and proposed projects.

Table 4: Project Summary Table

	New Castle	Sussex	Kent	Total
Active	663	279	216	1,158
Proposed	82	26	20	128
Total	745	305	236	1,286

There are now 1,158 active projects that have been approved by the Joint Committee on Capital Improvement. Active projects are defined as projects that have been approved by the Joint Committee on Capital Improvement in previous fiscal years but are not fully constructed. Active projects can range from the initial project scoping phase to project construction. One hundred twenty-eight (128) projects are proposed for FY 2023 with a total cost over \$10.3 million. The proposed additions to the list already exceed the FY 2023 appropriation, further increasing the funding deficit for future projects.

It is estimated that the total cost to complete all 1,286 active and proposed projects as described herein is \$112 million. If all projects are matched at the minimum requirement, (10%), then \$100 million of RC&D funds will be required to construct these projects. When including the \$13 million of unexpended RC&D funds, an additional \$87 million of RC&D funds will be needed to solve watershed and drainage issues identified in this report. DNREC is not suggesting an appropriation of \$87 million, there is not enough capacity to expend those dollars, but that number is a useful reference point to understand the

statewide need for assistance with watershed and drainage issues. Table 5 summarizes the estimated funding to complete the active and proposed projects.

Table 5: Projected Project Costs Summary Table

	Active Projects Est. Cost	FY 23 New Projects Est. Cost	Est. Cost All Projects	RC&D Funds Required	RC&D Unexpended	Fund Deficit
New Castle	\$58,114,938	\$5,620,000	\$63,734,938	\$57,361,444	\$6,786,639	\$50,574,805
Kent	\$17,774,302	\$1,411,000	\$19,185,302	\$17,266,772	\$2,581,075	\$14,685,697
Sussex	\$36,108,650	\$3,305,000	\$39,413,650	\$35,472,285	\$4,347,396	\$31,124,889
Total	\$111,997,890	\$10,336,000	\$122,333,890	\$110,100,501	\$13,715,110	\$96,385,391

Other State Water Funding Programs

Hazardous Substance Cleanup Act

DNREC Division of Waste and Hazardous Substances (WHS) under the Hazardous Substance Cleanup Act (HSCA) is supporting the Committee by cleaning up or controlling groundwater and surface water contamination to protect drinking water sources. Groundwater contamination is being cleaned up and/or controlled at various HSCA sites. Surface water contamination is being addressed under the Watershed Approach to Toxics Assessment and Restoration (WATAR) initiative and in the last few years under the Christina-Brandywine River Remediation Restoration Resilience (CBR4) projects. An estimated amount of \$10M was spent directly/indirectly to address groundwater/surface water contamination in FY 2022.¹

Drainage and Tax Ditch Programs

State and County Matching Funds or 3921 Funds are funds annually appropriated by the General Assembly and matched by each County. Annually the General Assembly appropriates \$75,000 for use in each of the counties to pay for costs associated with personnel required for planning, constructing, installing, or maintaining tax ditches, public group ditches, highway ditches, and resource conservation projects. These funds are passed through the DNREC Division of Watershed Stewardship and given to the County Conservation Districts for implementation. The County Conservation Districts establish policies or criteria for use of these funds as well as the financial assistance provided for each practice. Many tax ditch organizations apply for these funds annually to implement maintenance projects and activities.

Practices eligible for these funds as well as the level of financial aid provided per practice is evaluated annually based on applications submitted and funding secured through State and County Matching Funds/3921 Funds. Practices that are typically eligible for these funds include tax ditch dip-out, right-of-

¹ Source - Delaware DWSRF FY2022 Annual Report

way (ROW) mowing or reestablishment, invasive species control, hand spraying/weed wiper implementation, hand clearing, bank repairs, maintenance crossings, and bond premiums.

As part of the 2021 Tax Ditch Modernization Workgroup, routine annual tax ditch maintenance costs across the State were estimated to be over \$2 million. If routine maintenance activities/practices could be cost shared 50/50, \$1 million would need to be appropriated annually to this funding source. Currently, a minimum of \$450,000 is appropriated, which results in a \$550,000 deficit reducing the ability of tax ditches across the State to maintain the stormwater infrastructure they provide.

In FY 2020 and FY 2023 the Delaware Bond Bill appropriated \$500,000 to the DNREC for tax ditch maintenance projects in Sussex, Kent, and New Castle counties. These funds were distributed to each County Conservation District based on the mileage of tax ditch channel in the county. These funds were secured to help bridge the gap in the State & County Matching Funds/3921 Funds noted above. Annual commitment to the allocation of these funds in the amount of \$550,000 is recommended to bridge the gap in funding for financial aid to tax ditch organizations across the State to maintain the stormwater infrastructure they provide. Alternatively, the State & County Matching Funds/3921 Fund allocation could be increased to bridge this gap.

Beach Preservation (Shoreline) and Waterway Management

The Department of Natural Resources and Environmental Control Division of Watershed Stewardship Shoreline and Waterway Management Section uses three funding sources for shoreline and waterway management projects. For shoreline management, these include State Accommodations Tax revenue and Bond Bill appropriations. For waterway management, these include the Waterway Management Fund (generated by the boat registration fee) and Bond Bill appropriations.

One eighth of the total State Accommodations Tax is dedicated to shoreline management projects. From 2015 to 2019, DNREC received approximately \$3 million annually in revenue in this fund, however, revenue was substantially lower in Fiscal Years 2020 (\$2.8 million) and 2021 (\$2.1 million) because of the overall decrease in hotel and motel stays during the COVID-19 pandemic. For Fiscal year 2022, DNREC received \$3.3 million. As of February 1, 2023, DNREC received \$3.4 million in revenue to date for FY 2023 from the Accommodations Tax. These dollar values have not been adjusted for inflation.

To offset the reduction in Accommodations Tax revenue in 2020 and 2021, DNREC received \$1.3 million in American Rescue Plan Act (ARPA) funds. DNREC expects to fully expend the ARPA funds during Fiscal Year 2023 on beach nourishment projects in Pickering Beach, Kitts Hummock, Cape Shores, and Delaware Seashore State Park – North Inlet Day Area.

Through Shoreline and Waterway Management appropriations in the Bond Bill, DNREC can supplement Accommodations Tax revenue for shoreline management projects. Over the past 20 years, appropriations in this budget line have varied significantly, from \$0 to \$15 million as can be seen in the graph in Figure 2 below. However, it is important to note that this money must be split between both shoreline and waterway management projects, including large multi-million-dollar contractual dredging projects and large multi-million-dollar beach nourishment projects. In Fiscal Years 2019, 2020, and 2021, DNREC received \$4.2 million, \$5 million, and \$5 million respectively. In Fiscal Year 2022, DNREC received \$16 million dollars in this budget line (including up to \$1 million in pass-through funding for Pigeon Point Road drainage). Bond Bill appropriations over time are presented graphically in Figure 2.

In Fiscal Year 2023, DNREC received \$10 million and was directed in the Bond Bill epilogue language that this funding is for dredging projects in the inland bays and waterways within the state including Assawoman Canal, Delaware City Mooring Basin Dredging, Indian River near Millsboro Channel Dredging, Lewes and Rehoboth Canal, Little Creek Dredging, Murderkill River Maintenance Dredging, and White Creek. During calendar year 2022, DNREC completed the Murderkill River Maintenance dredging and the Delaware City Mooring Basin dredging. The White Creek dredging project is currently underway. The Assawoman Canal Phase II project and Indian River near Millsboro Channel dredging project are in the engineering design phase. Federal funds were secured for the US Army Corps of Engineers (USACE) to dredge a portion of the Lewes and Rehoboth Canal between Roosevelt Inlet and the Freeman Highway Bridge, and to perform planning and design work on the remainder of the Lewes and Rehoboth Canal as well as Little River. DNREC is working closely with USACE to support their navigation projects at Lewes and Rehoboth Canal, Little River, Roosevelt Inlet, Mispillion Inlet, Cedar Creek, and any others that receive federal funding.

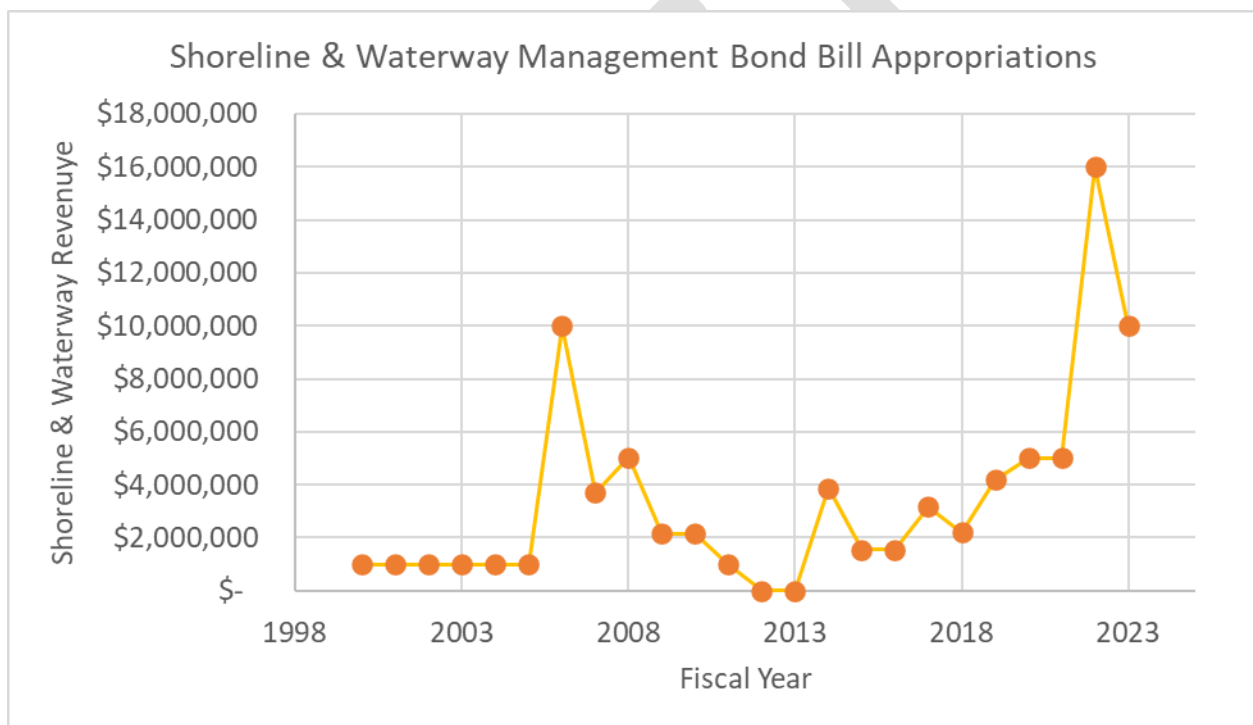


Figure 2. Shoreline and Waterway Management Bond Bill appropriations over time.

The current shoreline management project portfolio includes seven projects, sand bypass facility and program operations totaling approximately \$19,385,000 (state cost share). The waterway management program project portfolio includes eleven projects with a state cost estimate of \$18,835,000.

Cover Crop Program

Cover crops are a well-known and widely utilized practice in Delaware. Cost-share programs and outreach efforts have resulted in adoption rates that are much higher than the rest of the nation. Given that cover crops are a cost-effective practice for reducing nonpoint source nutrient pollution and provide benefits to farmers, the current version of the Chesapeake Bay WIP as well as watershed plans to implement Total Maximum Daily Loads set ambitious goals for increased cover crop adoption. The

cover crop season does not follow fiscal funding cycles. Cover Crops which receive cost share must be planted in the fall (enrolled), verified over the winter, and destroyed in early spring (final payment).

The statewide implementation goal is at least 260,000 acres of cover crops annually, with 142,000 acres in the Chesapeake Bay Watershed. According to the Delaware Conservation Partnership, in FY 2021 Delaware's farmers planted 86,376 acres of cover crops. FY 2022 acres have not yet been finalized.

To fully fund cover crop water quality goals, annual long-term funding is needed in the amount of \$14.3M annually statewide (260,000 ac x \$55/acre²). Funding sources for cover crops include Federal Farm Bill funds, other federal grants, Delaware Department of Agriculture Cover Crop Funds, DNREC Conservation Cost Share, local and landowner contributions.³

Conservation Reserve Enhancement Program (CREP)

The Conservation Reserve Enhancement Program leverages federal and non-federal funds to target specific conservation concerns and is administered by the USDA Farm Services Agency (FSA). It is part of the Conservation Reserve Program (CRP), the country's largest private land conservation program. In exchange for removing environmentally sensitive land from production and establishing permanent resource conserving plant species, farmers and ranchers are paid an annual rental rate along with other federal and non-federal incentives as specified in each CREP agreement. Participation is voluntary, and the contract period is typically 10-15 years.

Eligible CREP Practices include hardwood tree plantings, permanent wildlife habitat, buffers, wetland restoration, filter strips, and shallow water areas for wildlife. In Delaware, CREP partners include DNREC, Conservation Districts, Delaware Department of Agriculture, USDA Farm Service Agency, USDA Natural Resources and Conservation Service, and the US Fish and Wildlife Service.

The purposes of the program are to improve water quality, reduce soil erosion, reduce pollutant runoff into waterways, improve habitat, and restore wetlands. DNREC is part of the federal and non-federal partnership whose goal is to add up to 10,000 acres of Delaware agricultural land to the CREP program. According to the USDA FSA Report to Congress on CREP for FY 2021⁴, Delaware had 3,132 acres of agriculture land enrolled in CREP. The 2021 Federal commitment was \$464,353, with partner contributions (state and non-federal partners) totaling \$255,935 (cash and in-kind). DNREC staff have preliminarily reported in FY 2022 active CREP acres decreased to approximately 2,860 acres, including 38.57 acres new or re-enrolled. The FY2 022 non-federal contributions (cash and in-kind) totaled approximately \$88,283⁵. Delaware continues to see a decline in new and re-enrolled CREP acres.

² Cover crop cost share rates have increased for the 2023 Cover Crop season to average \$55/acre in Delaware.

³ Cover Crop funding and implementation information is compiled from a variety of partners including DNREC Conservation Programs, NRCS, DACD, and DDA.

⁴ Conservation Reserve Enhancement Program - <https://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index>

⁵ Based on FY2022 Draft report submitted to the USDA Farm Services agency. Report has not been finalized by FSA to-date.

Conservation Cost Share Program⁶

Using funds provided by the state Bond Bill, the Conservation Districts share the cost of a variety of projects with participating landowners designed to benefit the public. These include erosion control, stormwater management, wildlife habitat enhancement, tree planting, but more specifically cover crops. The Conservation Districts can tailor Cost Share programs to meet the immediate needs of local landowners and do so with the development of an annual Cost Share Plan. This assures the implementation of agriculture best management practices (BMPs) essential to provide environmental protection in specific areas of Delaware watersheds including the geographic areas that drain to the Chesapeake Bay, Delaware Bay and/or the Inland Bays.

The Delaware Conservation Partnership⁷ was formed to share resources and technical guidance with the goal of leveraging resources to get more conservation on the ground in Delaware. The partnership is made up of the three Delaware Conservation Districts, Delaware Department of Agriculture, DNREC, NRCS, and the Resource Conservation and Development Council.

DelDOT Clean Water Funding:

MS4 related activities listed below.

- Inventory, Inspection and Database Management for DelDOT's stormwater management system, including annual inspection of our 700+ stormwater BMPs and storm drain inventory of 668,484 feet of infrastructure in New Castle County, 47,779 feet in Kent County, and 229,795 feet in Sussex County. \$1,064,718.
- Water Quality Monitoring of DelDOT's stormwater management system, including storm drain outfall dry weather screening; illicit discharge detection and elimination, water quality sampling at maintenance yards, Robscott Manor pre-stream restoration monitoring, and Leatherman's Run watershed monitoring. \$776,322.
- BMP Major Maintenance Contract. \$520,515.
 - BMP 36, invasives species removal and regrading of an existing biofiltration swale in the Christina River watershed.
 - BMP 117, sediment removal, invasive species removal, erosion protection in an existing wet pond in the Little Assawoman watershed.
 - BMP 213, sediment removal, invasive species removal, erosion protection in an existing wet pond in the Nanticoke River watershed.
 - BMP 251, invasives species removal and regrading of an existing dry pond in the Indian River Bay watershed.
 - BMP 333, sediment removal, invasive species removal, erosion protection in an existing wet pond in the Indian River Bay watershed.
 - BMP 629, sediment removal, invasive species removal, erosion protection in an existing wet pond in the Little Assawoman watershed.

⁶ Sussex Conservation District Cost-Share: <https://www.sussexconservation.org/services/agriculture/cost-share-programs.html>; Kent Conservation District Cost-Share -<http://kentcd.org/finance.htm> ; New Castle Conservation District Cost Share Program - <https://www.newcastlecd.org/cost-shares>

⁷ Delaware Conservation Partnership Guide: <https://www.kentcd.org/documents/2022%20DE%20Conservation%20Partnership%20Guide%20-%20Mar%2030.pdf>

- Final design of Robscott Manor Stream Restoration. 1,700-foot floodplain restoration of an unnamed tributary to the Christina River, which will also include multi-modal paths and native plantings within the Robscott Manor subdivision. \$55,928.
- Final design of Harvey Road Channel Restoration. 350 feet of restoration of a highly eroded roadside ditch to a rock step pool conveyance within the Naaman's Creek watershed. \$20,546.
- Conceptual design of Dragon Run Creek Stream Restoration at Kingsmill Mobile Home Park. 2,150-foot stream and floodplain restoration, with additional 1,200-foot restoration potential. \$1,582.
- Preliminary design of a Statewide Stormwater BMP Retrofit contract. \$67,089.
- Public Education and Outreach on clean water topics including Livable Lawns and 302 STOPPIT. \$32,183.
- Research with the University of Delaware
 - Effects of Biochar on Roadway Soils and Stormwater Management BMPs. \$121,872.
 - Effects of Roadway Salt Infiltration in Groundwater. \$34,860.
- Miscellaneous projects: Sand filter maintenance; Erosion control at maintenance yard; Repair of past stream restoration at Leatherman's Run; Invasive species spraying. \$85,084
- District storm drain infrastructure work total - \$9,609,582.

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Appendix of Annual Reports

Delaware CWSRF FY 2022 Annual Report:

<https://documents.dnrec.delaware.gov/fab/Revolving-Fund/2022-CWSRF-Annual-Report.pdf>

Delaware DWSRF FY 2022 Annual Report:

<https://documents.dnrec.delaware.gov/fab/Revolving-Fund/2022-DWSRF-Annual-Report.pdf>

DNREC FY 2022 Resource, Conservation, and Development Annual Report: (report not released to public yet)

DNREC Nonpoint Source Program 2021 Annual Report:

<https://documents.dnrec.delaware.gov/swc/district/Documents/NPS/2021-NPS-Program-Annual-Report.pdf>

DNREC FY 2022 Waterway Management Report:

<https://documents.dnrec.delaware.gov/swc/waterways/FY22-Waterway-Management-Report.pdf>

USDA Farm Services Agency FY2021 Conservation Reserve Enhancement Program Report to the US Congress.