

Resource, Conservation & Development Projects

FY 2020 Annual Report

Presented to:

Joint Committee on Capital Improvement

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June 1, 2020

Department of Natural Resources and Environmental Control
Division of Watershed Stewardship
Conservation Programs Section
Drainage Program

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Fiscal Year 2020 Annual Report

Resource, Conservation, and Development Fund

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 Department of Natural Resources and Environmental Control (DNREC) and Delaware’s three Conservation Districts. The New Castle Conservation District takes the lead on projects located in New Castle County. Historically, DNREC has taken the lead on projects in Kent and Sussex Counties with assistance from the Kent and Sussex Conservation Districts. Beginning Mid-FY2020 Kent and Sussex Conservation Districts have become leads on a portion of the prioritized projects lists as assigned by DNREC to increase the number of projects constructed. The amount the districts will receive in FY21 will be dependent on final legislative funding level.

Fund Status

Over \$75 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	\$62,368,275
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
Total	\$51,888,888	\$9,096,336	\$17,395,850	\$78,381,075

The DNREC Drainage Program, with the Conservation Districts, completed 59 projects in FY 2020. Table 2 is an excerpt from the RC&D Fund Expenditure Report (Appendix A). It shows the funds expended between FY 2015 and FY 2020; a total of 295 projects were completed in this period, despite record rainfall in calendar year 2018 and the first half of calendar year 2019. A list of the projects that have been completed in FY 2020 is contained in Appendix B. The lists are reported by county and contain the total project cost and the legislative district where the project was located. Projects that DNREC or

one of the Conservation Districts is recommending be discontinued or removed from the approved list are also 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	\$ 2,459,775
FY 2016	\$ 1,448,683	\$ 568,644	\$ 1,187,668	\$ 3,204,996
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	\$ 1,958,758	\$ 44,422	\$ 263,936	\$ 2,267,116
Total	\$ 49,855,471	\$ 6,946,679	\$ 14,220,065	\$ 71,022,215

Table 3 summarizes the remaining balance of RC&D program funds as of April 30, 2020. 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	\$3,835,791	\$3,835,791	\$0
Kent	\$2,149,658	\$1,256,867	\$892,791
Sussex	\$3,175,784	\$2,034,231	\$1,141,553
Statewide	\$9,161,234	\$7,126,889	\$2,034,344

Although, there are balances remaining for each county, the work currently planned in New Castle County and Sussex County exceeds available funding. The next section of this report provides an explanation of FY 2021 work planned in each county.

Approved and Proposed Projects

Each year DNREC, in consultation with the Conservation Districts, prepares a list of prioritized projects in each county (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 the projects that are most critical. 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
Approved	530	267	213	1,010
Proposed	75	10	11	95
Total	605	277	224	1,105

There are now 1,010 projects that have been approved by the Joint Committee on Capital Improvement. Appendix D includes an additional 95 proposed projects that DNREC is recommending for approval. The total cost of just the proposed projects is over \$6.2 million. The proposed additions to the list already exceed the FY 2020 appropriation further increasing the funding deficit for future projects.

It is estimated that the total cost to complete all 1,105 active and proposed projects as described herein is \$105 million. If all projects are matched at the minimum requirement, (10%), then \$95 million of RC&D funds will be required to construct these projects. When including the \$9 million of unexpended RC&D funds, an additional \$86 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 \$86 million because there is not enough capacity to expend those dollars. However, the \$86 million is a useful reference 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

	Approved Projects Est. Cost	FY21 New Projects Est. Cost	Est. Cost All Projects	RC&D Funds Required	RC&D Unexpended	Unfunded
New Castle	\$46,581,238	\$5,553,200	\$52,134,438	\$46,920,994	\$2,033,416	\$44,887,578
Kent	\$17,228,402	\$378,500	\$17,606,902	\$15,846,212	\$2,149,658	\$13,696,554
Sussex	\$35,265,750	\$322,500	\$35,588,250	\$32,029,425	\$3,175,784	\$28,853,641
Total	\$99,075,390	\$6,254,200	\$105,329,590	\$94,796,631	\$7,358,859	\$87,437,772

Fiscal Year 2021 Priorities

The DNREC and the Conservation Districts do not have the capacity to complete all of the approved projects in a single year. Therefore, as part of the project prioritization process, we look at the fiscal year ahead and develop priorities to estimate the funding needs in each county. As expected, the Prioritized Project List and Annual Priorities for each county can change over the course of any given year. Changes in priority may result from a few reasons including severe weather events, threat/risk to public safety, disapproval of essential landowners within the project scope, and/or the opportunity to leverage RC&D funds to obtain additional dollars for implementation. The DNREC and the Conservation Districts look for opportunities to leverage RC&D funds through grants; some grant programs have lengthy application and approval requirements which can delay project implementation. If a particular project meets grant criteria, it may be prioritized in order to take advantage of the opportunity. RC&D funds have been used to leverage federal dollars through the Chesapeake Bay Implementation Grant and the Section 319 Grant. Projects have also taken advantage of surface water planning grants from the Water Infrastructure Advisory Council and the National Fish and Wildlife Federation. The next three sections explain the priorities of each of the three counties as we move into FY 2021. These priorities are developed without consideration of available funding.

New Castle County Priorities FY 2021

This section explains what projects New Castle Conservation District and DNREC anticipates working on in FY 2021. This plan was developed with the assumption that funds are available. As always, it is worth noting that projects require 100% agreement from landowners. As such, the time required to obtain landowner agreement may affect the construction schedule.

Projects Currently Under Construction

- **Elsmere – Sycamore Avenue** – Installation of an enclosed stormwater drainage system
- **Simonds Gardens** – Construction of the 2nd and 3rd phases of the upgraded drainage systems began in May. Construction of the 1st phase was completed in March.
- **Scottfield – Dawson Drive Community Drainage Improvement** – Excavation and regrading of 2,200' of existing drainage ditches to reduce street and property flooding is underway.

Projects Approaching Construction (i.e. fully funded)

- **Marshallton – Washington Street Drainage Improvements** – Engineering plans for the installation of an enclosed stormwater drainage system is complete and out for landowner agreements.
- **Wiggins Mill Pond Structures** – Water quality and structural improvements to the pond inlet and stream are close to final design followed by the permitting phase.
- **Covered Bridge Farms – Trotters Turn** – Proposed water quality and stream stabilization improvements are awaiting permit approvals by DNREC and the US Army Corps of Engineers.
- **Upper Pike Creek Road Stream Restoration** – Restoring a stream channel while relocating outbuildings and improvements constructed by the adjoining property owner on a parcel formerly owned by the developer and now under the control of NCC.
- **Pennock Road-Pike Creek Road Drainage Improvements** – Installation of a multi-property system includes the installation of a drainage outlet beneath the access road to St. Marks High School and adjacent cemetery.

Key Projects in the Development Phase

- Odessa National Drainage Improvements
- Woods Road Tax Ditch
- Countryside Farms Tax Ditch
- Carrie Downie School Drainage
- Woodland Park Drainage Improvements
- Windybush Drainage Study

Key projects needing funding

- **Port Penn Dike Rehabilitation Project** – Areas of Port Penn are at risk of flooding in the event of changes in the elevation of the Delaware Bay. Complex engineering is necessary to incorporate current and future flood management issues to prepare plans and specifications for a dike reconstruction project.
- **Brandywine Creek Dam Removal Project** – A consortium of conservation groups including Shad 2020, the University of Delaware, Hagley Museum, and others support the removal of over a

dozen dams on the Brandywine and White Clay Creeks with the goal of restoring the historically significant Shad fishery and migration in northern NCC.

- **Independence School Stream Stabilization Study and Project** – This project, when complete, will restore a section of a key tributary of Pike Creek and protect the fire lane access at the rear of the Independence School.
- **Woodland Park Drainage Improvements** – Redesign and restoration of several small tributaries of Little Mill Creek that are impacted by road surface runoff and outdated stormwater management features. Multiple residences in several developments can be impacted during higher intensity rain events.
- **Tilton Park Stormwater Management Park** – Initiated as a community-led project, Tilton Park serves as an inner-city focal point and a vital hub for school-age children and their families. This project will replace and upgrade stormwater management facilities within Tilton Park and possibly the adjacent intersection to redirect stormwater that is flooding the playground and limiting its use. This project could serve as a model for stormwater improvements on other parks throughout the City of Wilmington.

Kent County Priorities FY2021

This section explains what projects Kent Conservation District and DNREC anticipates working on in FY 2021. This plan was developed with the assumption that funds are available. As always, it is worth noting that projects require 100% agreement from landowners. As such, the time required to obtain landowner agreement may affect the construction schedule.

Projects Currently Under Construction

- **Town of Houston Phase I / Breeders Crown** – Drainage Improvements for Breeders Crown development

Projects Approaching Construction (i.e. fully funded)

- **Bush Drive / Morris** – Construction of an open ditch with pipe crossing installation, ready for construction
- **241 South Shore Drive / Green** – Drainage improvements to storm drain system along and South Shore Drive with an outlet towards Moores Lake
- **Wild Quail Phase II** – Stormwater infrastructure maintenance and repair in a portion of the Wild Quail development

Key projects in the Development Phase

- | | |
|---|---|
| • South Bowers Drainage Improvements | • 4948 Halltown Road / Butz |
| • Silver Lake Water Management / DelTech Terry Campus | • 4938 Halltown Road / Carey |
| • Gravelly Run Tax Ditch Main / Severson | • Pearsons Corner Road / Detweiler |
| • Hidden Acres Drainage Improvements | • Walnut Shade Road / Lavender |
| • Smyrna Leipsic Road / Scuse | • Pearson Corner Road / Trice |
| • Commerce Street, Cheswold / Caldwell | • Hazelwood Subdivision Drainage Improvements |
| | • Greenbriar Road / Pennypacker |

Key Projects Needing Funding

- **South Little Creek Road / Little** – Drainage improvements that will require a stream restoration effort as well as a DelDOT road crossing replacement and repair or replacement of an outlet structure on a pond. This project has an estimated cost of \$300,000 and is currently in the scoping phase. Constituents are beginning to reach out regarding the status and this project, funds will need to be committed for field work and engineering time to be committed in proceeding in design development.

Sussex County Priorities FY 2021

This section explains what projects Sussex Conservation District and DNREC anticipates working on in Sussex County during FY 2020. This plan was developed with the assumption that funds are available. As always, it is worth noting that projects require 100% agreement from landowners. As such, the time required to obtain landowner approval may affect the construction schedule.

Projects Under Construction

- **Raccoon Tax Ditch Bank Stabilization** – Stabilization of a tax ditch channel around private crossings

Projects Approaching Construction (i.e. fully funded)

- **Chesapeake, Delaware, and Inland Bays/Atlantic Ocean Violator of Probation Projects** – These projects utilize manual labor from the Sussex Community Corrections Center to remove debris from ditch channels in these three Sussex County watersheds. Over 30 projects have been requested to date for addition to FY 21.
- **Silver Lake Rehoboth Phase II** – Portion of sinkhole was backfilled in Fall of 2019. Pipe to be lined in 2020.
- **Oak Orchard Drainage Improvements - Phase 1 – Mercer Avenue** – drainage improvements to roadside ditches and associated infrastructure in the area of Mercer Avenue with an outfall extension into the Bay
- **Oak Orchard Drainage Improvements - Phase 4 - Captains Grant** – drainage improvements in cul-de-sac areas of Captains Grant and along Route 5, finalizing construction agreements
- **Bear Hole Tax Ditch / Johnson** – Stabilization of a tax ditch channel that is comprising private property, permitting phase
- **Pepper Creek Tax Ditch Bank Stabilization** – Stabilization of tax ditch channel where right-of-way is becoming comprised for maintenance activities, permitting phase
- **Herring Branch Tax Ditch Main / Johnson/McCabe** – replacement of deteriorated private stormdrain and catchbasin system located within the tax ditch system, finalizing construction agreements

Key projects in the Development Phase

- Russell Road / Harris
- Reid / Delmar Road
- Old Rauetmack / Malone Drainage
- Mt. Joy Road / Hoopes
- Frankford Library/Green Street Drainage Improvements
- Little Bay Tax Ditch Oceanside Parkway Culvert Replacement
- Heritage Village/Harper -Study
- Crestfield/Fluharty/ Valentine Drainage Improvements
- Anderson Corner Road / Marsh
- Rt. 24 / Harper / Fox Hollow Improvements
- Carsyljan Acres / Jordan Phase I
- Rd. 550 / Harry Simionick
- Trap Pond / White
- Town of Bethel / Snake Road Drainage Improvements Phase I
- Dukes Job Tax Ditch / Morris Bank Stabilization
- Johnson Road (S434A) / Wojciechowski/ McCabe
- Woodpecker Rd / Wollschlager Drainage Improvements
- Ennis Road / Owens
- Pusey Road / Hudson
- Clearbrooke Estates / Damms
- Denton Manor/Jensen

Key Projects Needing Funding

Oak Orchard Drainage Improvements – A drainage study of Oak Orchard identified 19 projects to reducing flooding issues in the area. The five highest priority drainage projects identified in the study are currently being designed by AECOM. Four contracts will be issued for the 5 locations and construction will be spread over multiple fiscal years. The Mercer Avenue and Captains Grant Projects have been planned first and funding has been set aside for these projects. However, the other projects will need substantial funding in future years to move forward.

FY 2021 Funding Need

As of April 30, 2020, there are \$2,034,344 of unencumbered funds available for future RC&D Fund projects (refer to Table 3). This balance includes funds appropriated to DNREC and then allocated to each county based upon each county's percentage of the estimated total cost of all projects (refer to Table 6). Epilogue language, in the Bond Bill, requires DNREC to track funds by county and mandates that funds allocated to a county be used within that county.

To determine the FY 2021 funding needs, DNREC has worked with the three Conservation Districts to identify priorities and estimate the funding needed to meet those priorities, as explained in the previous three sections of this report. Table 6 below shows the projected expenditures for each county and then the entire state based upon these priorities.

Table 6: Summary of projected year end balances

	New Castle	Kent	Sussex	Statewide
FY 2020 Starting Balance	\$3,068,288	\$2,149,658	\$3,325,317	\$8,543,263
FY 2020 Projected Expenditures	\$1,958,757	\$544,422	\$1,463,955	\$3,967,134
FY 2021 Year End Balance	\$1,109,531	\$1,605,236	\$1,861,362	\$4,576,129
FY 2021 Projected Expenditures	\$7,033,050	\$1,312,800	\$1,707,960	\$10,053,810

These projections are based upon the priorities developed by each county and explained in the previous three sections of this report. Many factors impact expenditures including weather, landowner permission, permitting and DNREC's and the conservation district's capacity to plan and manage projects. There is a need for funding based on increased demand and priorities presented in this report.