

A coastal landscape featuring a sandy dune in the foreground with a small, bare tree. A stream flows from the dune towards the ocean on the left. The background shows a wide expanse of water under a cloudy sky.

Delaware Bay Shore Workgroup

November 2010
DNREC Division of Watershed Stewardship

Drainage and Minor Flooding

- Programs
 - Drainage Program
 - Tax Ditches
 - Public Ditches
 - Technical Drainage Assistance
 - Sediment and Stormwater Regulatory Program (New Development)
- Funding
 - Various sources for state; some Federal Assistance
- Legal authorities
 - Title 7, Chapter 41 and 40
 - Legislative Authority
- Permitting

Delaware Drainage History

- Legislative actions authorizing public drainage facilities date back to 1793.
- A history of drainage activities undertaken by the federal and state government as well as private citizens in Delaware is well documented.
- In the 1930's some of this work was undertaken by the "CCC"
- "Ditch Companies" were prevalent prior to 1951.



Photo courtesy of Representative V. George Carey

Delaware Drainage History

- "...drainage of lands and wetlands was encouraged by governments and society so farmers could farm every possible acre to feed the armies and war ravaged countries, for medical reasons, to support timber harvesting and because keeping land dry, rich and clean seemed like the right thing to do".



Delaware Drainage History

- In 1951, the current Tax Ditch Law created Tax Ditch Organizations and mandated that the now DWS and Conservation Districts would assist in the administration, planning, construction and maintenance of these organizations.



Tax Ditch Law

- Title 7, Chapter 41 of the Delaware Code passed in 1951 last revised in 2008
 - “Drainage of Lands and Management of Waters; Tax Ditches”
 - Online @: <http://www.delcode.state.de.us>
- Law Declared:
 - “... that the drainage and the prevention of flooding of lands and the management of water for resource conservation shall be considered a public benefit and conducive to the public health, safety and welfare... to the end that the conservation and management of the soil, water, wildlife forest and other resources of the State may be accomplished in a workable and practicable manner”.



Tax Ditch Organizations' Powers

Governmental Subdivision of the State:

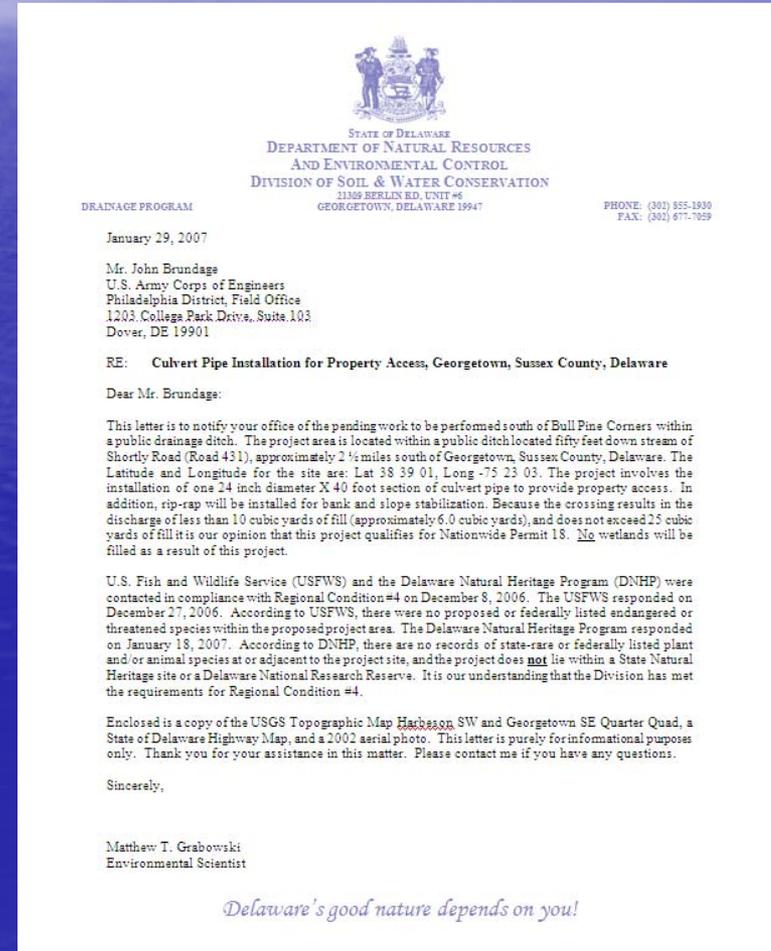
- Levy taxes
- Make & execute contracts
- Receive administrative & technical assistance from Division of Watershed Stewardship
- Others as defined in §4161 of Title 7 Ch. 41

21st Century Fund Drainage Account

- In a Supreme Court decision in March 1993 in the Delaware v. New York case, the Court affirmed Delaware's right to collect abandoned property (escheat) held by Delaware incorporated brokers. In early 1994, through Senate Bill No. 288 of the 137th General Assembly, the General Assembly created the Twenty-First Century Fund which authorized the Secretary of Finance to deposit proceeds from the settlement into the Fund.
- The investment strategy for the Fund was outlined in the FY96 Bond and Capital Improvements Act (Senate Bill No.260, 138th General Assembly). Ten programs were identified in three broad program areas; Preserving the Environment, Revitalization of Communities and Improving Education and Economic Competitiveness. Under the second program area, **Resource Conservation and Development (RC&D) was targeted for funds to ...enhance the health of communities by ameliorating watershed and drainage issues statewide.** At the same time, a Water/Wastewater Infrastructure program was also created using this same source of funds.

Environmental Permitting

- Army Corps of Engineers
- DNREC Wetland and Subaqueous Lands Section
- Sediment and Stormwater Program
- Delaware Natural Heritage Program
- U.S. Fish & Wildlife Service



Army Corps of Engineers

- Non-Tidal Waterways
 - Excavation Not Regulated
 - Drainage ditch maintenance exemption as stated in 33 CFR 323.4 [3].
- Tidal Waterways
 - Permit Required-Dredging
 - Regulated Under Section 10



Wetlands & Subaqueous Lands Section

- Tidal Wetland or Subaqueous Lands
 - Permit Needed
 - Will be an issue in Bay Communities
- Non-Tidal Freshwater Wetland or Subaqueous Lands
 - Less Than 800 acre Drainage Area Exemption
 - Title 7 Chapter 72 Section 7217 (a)
 - Any work
 - Greater Than 800 Acre Drainage Area
 - Title 7 Chapter 72 Section 7217 (b)
 - Maintenance, reconstruction or retrofitting work



Bay Coastal Drainage Projects

- Kitts Hummock – Tax Ditch Petition
- Bowers Beach – Drainage Investigation



Funding for Flood and Drainage Public Works Improvement Projects

- Federal Programs
 - FEMA, ACOE, NOAA, USFW, FHA, EPA
(all require some level of economic evaluation and may require municipal incorporation)
- State Funding
 - Legislative appropriations
 - Capital Funds, 21st Century Funds, Community Transportation Funds, State Revolving Loan Funds
- Tax Ditch Program
 - § 4194. Appropriations to Department of Natural Resources and Environmental Control.
 - An appropriation to the Department of Natural Resources and Environmental Control for purposes of planning, designing and constructing tax ditches/public group ditches shall be included in the annual appropriation bill (budget bill) of the General Assembly.
- Other Taxing Districts, Stormwater Utility

Governor's Surface Water Task Force



Governor Minner's Task Force on Surface Water Management



April 1, 2005

A report in response to Executive Order No. 62

Table 1. Preliminary Projections of Statewide Stormwater Capital Requirements Over the Next 5 years (2005 dollars)
(Source: Finance Subcommittee)

Pending and Future 21 st Century Fund Requests*	
FY 2006 Requests	\$ 7,500,000
Sussex County (future)	\$10,750,000
Kent County (future)	\$ 3,700,000
New Castle County (future)	\$31,200,000
Watersheds	
Watershed Planning (17 priority watersheds @ \$750,000 each)	\$12,750,000
Watershed Capital Implementation (Shellpot and Naaman's Creek watersheds)	\$19,700,000
Watershed Capital Implementation (assumes 8 additional prioritized watersheds)	\$80,000,000
Tax Ditches	
Sussex County	\$ 5,000,000
Kent County	\$ 2,400,000
New Castle County	\$ 600,000
Other Identified Needs	
Sussex County	\$ 3,100,000
Kent County	\$ 2,250,000
New Castle County	\$11,350,000
New Castle County Recent Emergency Funding**	<u>\$17,000,000</u>
Total 5 year Projected Capital Needs	\$ 207,300,000
Projected Annualized Capital Needs	\$ 41,460,000

* 21st Century Funding request were used as a means of identifying needs but are not expected to be used as a constant source of capital funding.

** Included as ongoing capital needs since subcommittee viewed as catch-up funding. May, however, reduce future capital funding.

Table 2: Preliminary Projections of Annual Statewide Stormwater Maintenance Requirements (2005 dollars)*
(Source: Finance Subcommittee)

Tax Ditches	
Current Costs	\$ 1,500,000
Needed Funding	\$ 1,750,000
County and Municipal	\$ 4,000,000
Major Maintenance on Stormwater Ponds and New Management Practices	\$ 6,000,000
Program Staffing (state)	\$ 480,000
Total Annual Projected Major Maintenance Needs (e.g., repairs, preventive maintenance)	\$13,730,000

* Does not include DeIDOT maintenance

FY 2010 New Funding Needs Identified

- Sussex County \$9.0M
- Kent County \$8.25M
- NCC \$7.13M*

*not including DeIDOT and NCCD

\$24M*

*PPI Dialogue estimate of annualized funding gap \$23.7M

Future Discussions

- Discussion needs to expand beyond community drainage to include Flood Hazard Mitigation, Sea Level Rise Adaptation Planning and complete Coastal Resiliency
- As the conversation expands, the issues become much more complex.

