New Castle County, Delaware
History and Types of Funding

- Cost-Share Program and 21st Century Project Funds provided in annual State Capital Budget through the Department of Natural Resources and Environmental Control (DNREC), Division of Watershed Stewardship.
- Community Transportation Funds provided in annual State Capital Budget & administered by DelDOT in coordination with State legislators.
- New Castle County Council and Department of Special Services.
- Other State funding through DNREC.
- Occasion funding from project participants.
## Cost-share & 21st Century Funds

<table>
<thead>
<tr>
<th>Cost share</th>
<th>21st Century</th>
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<tr>
<td>FY06 - $3.205m</td>
<td>$3.321m</td>
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<tr>
<td>FY07 - $3.205m</td>
<td>$6.000m</td>
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<td>FY08 - $3.205m</td>
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<td>FY09 - $3.205m</td>
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<td>FY10 - $1.5mm</td>
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<td>FY16 - $1.5mm</td>
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Drainage Assistance Hot Line

Thousands of drainage and stormwater concerns are expressed each year in Delaware! An assistance program has been requested at the recommendation of the Governor's Surface Water Task Force to assist residents statewide with their drainage and stormwater concerns. Residents can call the number below or send an email to report their concerns when convenient. Once an individual's information has been logged into the system, the concern will be assigned to the proper agency. If you are unsure of who to call this will allow you to have one central point of contact when seeking solutions to drainage and stormwater concerns.

ASSISTING DELAWARE RESIDENTS WITH MANY DRAINAGE AND STORMWATER CONCERNS:
- Water Runoff
- Standing Water
- Stormwater Ponds
- Tax Ditches
- Restoration Opportunities
- Stream Bank Stabilization
- Beaver Dams

DRAINAGE AND STORMWATER ASSISTANCE

302-855-1955

DELAWARE HELP LINE (Toll Free): 1-800-466-4157

E-MAIL: DNERC-DRAINAGE@STATE.DEL.USA

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF SOIL AND WATER CONSERVATION
District Drainage Database
Report for Legislators

General Contact Information

Date
First Name
Last Name
Title
Address
Development
Parcel Number
Home Phone
Work Phone
Mobile Phone
Fax Number
Email Address

Description of Problem

Senate District
Representative District
County Council District

Archive
Funding Status

Record: 14 of 2194
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Landowner Guide to Urban Drainage Projects

CONSERVATION PRACTICES FOR URBAN WATER MANAGEMENT PROJECTS

There are a variety of conservation practices that can be used for urban water management projects. Pictures and descriptions of these practices are listed below.

**Swell**
A swale is a concave surface depression in the ground designed to carry surface water from one location to another. It is usually very shallow and wide to allow for lowering the grass. Once the swale is installed, top soil is returned to the area and the area is covered in protective erosion control matting. In certain cases, the swale may be planted with sod.

**Berm**
A berm is a small raised area higher in elevation than the adjacent area. Many times, it is used to intercept water and keep it from flowing into another location.

**Erosion Control Matting**
Erosion control matting is usually straw or some other material between bio-degradable netting. It comes in a roll and is pleated over the disturbed area and locked into place using long metal staples. The matting protects the soil and grass seed from erosion and drying out until the seed can germinate and grow. It is critical that the seeded area be watered on a regular basis. It may be necessary to remove the netting once the grass has become established.

**Pipe**
Certain drainage projects require the installation of a pipe into the ground to transport water away from or off of the property. Usually, a high density polyethylene pipe is used and it can be either solid or perforated. Certain projects may call for the use of concrete, corrugated metal or aluminum pipe.

**Slotted Drain**
A slotted drain is a special type of pipe with a small grate along the length of the pipe to allow for water to enter the pipe.
Assistance to Private Landowners

- Give details about cost-share funding for urban water management
- Categories
- % match
- Amount of funding available
- Process, drainage database, visit by District staff person, cost-share application, Board approval, landowner has project installed by contactor, inspected by District staff
- Types of Projects
  - Drainage and Erosion control
  - Special Projects (estimate cost > $10,000)
Eroding slope in yard re-graded to a riprap lined swale
Downspouts on house tied into a sub-surface drainage system
Streambank erosion stabilized with riprap
Swale in suburban residential yard – surface water
Carousel “Bark” Park

- Funds provided by New Castle County and USDA NRCS
- Designed by USDA and NCCD
- Total project cost: $156,589
- Project provides water quality benefits to an impaired/TMDL watershed that provides drinking water to a large customer base.
- Project supported by state-wide environmental NGO, Delaware National Estuary Program, and regional private water purveyor.
Carousel Bark Park

Site Conditions
Carousel Bark Park Completed
Chelsea Estates – Jay Drive

• Funding provided by New Castle County, 21st Century Fund, and Community Transportation Fund

• Scope of Project – drainage improvement project behind a church and residential area.

• Project cost – Bid - $39,450

• Final cost - $40,927.50
Chelsea Estates – Jay Drive

Site Conditions
Chelsea Estates – Jay Drive
Completed Project
Delaware Bay Dikes Projects

- Funded by State Capital Budget appropriations & FEMA
- Condition and damages from Hurricane Sandy
- Five dike projects along Delaware Bay/River coast
  - Red Lion Dike
  - Gambacorta and Army Creek Dikes
  - Broad Marsh Dike
  - Buttonwood Dike
- Total cost for all five projects
  - Construction: $5,063,053  Engineering: $991,447
- Red Lion, Gambacorta & Army Creek dikes stabilized with 1-ton super sacks/sand bags.
Army Creek Dike – Hurricane Sandy & Emergency Repairs
Army Creek Dike - Completed
Green Valley – 2nd Street

• Funded with 21st Century Funds and Community Transportation Funds
• Eroding slope behind townhomes adjacent to the White Clay Creek, a National Wild and Scenic River Watershed
• Installed imbricated stone wall at top of slope, under-drain, re-graded slope, seeded, and stabilized with erosion control matting.
• Available Funding: $193,602
  • 21st Century – $138,602 & $55,000 Community Transportation Funds
• Total costs of this project - $127,648
• Bid price - $96,765
Green Valley – 2\textsuperscript{nd} Street
Site Conditions
Green Valley – 2nd Street
Under Construction
Green Valley – 2\textsuperscript{nd} Street
Completed
Breezewood II Project

- Ditch cleanout and sanitary sewer crossing
- 21st Century Fund and New Castle County funds
- Scope of Project – regrading of 3600’ of drainage ditch and replacement of 2 sections of concrete encased County sewer line with ductile iron pipe.
- Estimated Project cost: $203,710 = $140,635 (ditch) + $63,085 (sewer line)
- Low bid = $118,797.
- Currently under construction
- Project required soil testing for contaminants, wetland investigation, extensive survey & negotiation regarding construction access with regional utility and major developer
Breezewood II - Site Conditions
Breezewood II – Lower Section
“Under Construction”
Contact Information

• Kevin Donnelly, District Coordinator
• 302-832-3100 ext. 125
• Kevin.Donnelly@state.de.us
• New Castle Conservation District
  2430 Old County Road
  Newark, DE 19702
Website: www.newcastleconservationdistrict.org

Project photographs taken by Rick Mickowski, Conservation Planner/ Public Outreach Coordinator.