

# DCAP

# Facts

## Delaware County Action Plan

# Stormwater

### Objective

A significant source of water quality impairment is urban stormwater runoff. Stormwater discharges are generated by runoff from land and impervious areas such as paved streets, parking lots, and building rooftops during rainfall and snowmelt events. This runoff accumulates pollutants such as petroleum hydrocarbons, pesticides, nutrients, metals, and pathogens as it travels across the land in quantities that can adversely affect water quality. For example, it is estimated that stormwater runoff contributes an average of approximately 3200 kg/year or six percent of the entire phosphorus loading to the Cannonsville Reservoir.

To address stormwater runoff in Delaware County, the Planning Department has developed the following long-term management programs.

### ***Inventory, Assessment, and Evaluation of Stormwater Sources and Infrastructure***

The goal is identify all point and nonpoint sources of stormwater in the village and hamlet areas that may pose a threat to water quality and manage them to reduce their impact on water quality. To this end, the Department will locate and assess existing stormwater infrastructure; develop, implement and monitor stormwater Best Management Practices (BMPs); and evaluate problem areas and recommend solutions.

### Work Completed

- A detailed evaluation of stormwater sources (business roofs, parking lots, and other large impervious surfaces) and conveyances systems was completed in the Villages of the Cannonsville Basin. Locations and charac-

teristics of these areas were field collected using GPS and layered with other potential fields of interest including soils, land use, and topographic and planometric maps. Preliminary estimates of sub-basin runoff and pollutant loadings were also calculated.

- A GIS database was created to enable characterization and cross-reference of the stormwater sources with the location of existing municipal stormwater infrastructure in the Cannonsville, Pepacton, Upper Delaware, and Upper Susquehanna watersheds.
- With the help of engineering consultants, stormwater collection, conveyance and treatment methods were implemented in the villages of Delhi, Stamford and Walton.

### Next Steps

- Expand the GIS database to include the stormwater sources and existing municipal stormwater infrastructure in municipalities of the Upper Susquehanna watershed. (2003-2004)
- Assess and monitor the effectiveness of stormwater treatment units in the Village of Walton and the Vactruck. (2003-2004)
- GPS stormwater outfalls throughout the Cannonsville Basin in order to complete the GIS database for hamlet and village stormwater infrastructure. (2003-2004)
- GPS stormwater outfalls in the Pepacton, Upper Delaware, and Upper Susquehanna watersheds.

### ***Local Implementation and Municipal Plan Development***

This task entails working with each municipality, under the auspices of the Town Planning Advisory Service (TPAS), to develop local initiative regarding water quality protection through stormwater management and to

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demonstrate the role of water quality in relation to community economic development. Each municipal strategy will analyze and incorporate previous work to develop a prioritized plan to meet current and future needs for repair, expansion, and management of local stormwater infrastructure. Maintenance programs will also be developed to continually assess the condition of the stormwater system, to track sediment by volume and type removed, and to reduce the likelihood of flooding due to clogged collection and conveyance systems.

Stormwater Management Plans (SMPs) will be developed that are consistent with Section 18-81 of the Watershed Regulations and Phase II EPA Stormwater Regulations. These plans will incorporate stormwater considerations into local capital planning and infrastructure management. Based upon the infrastructure inventories and SMPs, each municipality will develop a specific stormwater ordinance to address its future stormwater management requirements.

#### Work Completed

- A comprehensive stormwater report for the Village of Margaretville used GIS and preliminary runoff modeling to leverage an additional \$200,000 in funding to complete

stormwater retrofits and BMPs throughout the Village.

- A comprehensive wellhead protection study for the Village of Margaretville to establish protective overlay zones for the municipality's wells and springs.
- Stormwater infrastructure in Bovina Center was assessed and failing components were replaced.
- The Planning Department and a consultant are finalizing the pilot SMP for the Village of Walton.

#### Next Steps

- A stormwater infrastructure maintenance schedule for the hamlet of Bovina Center is under development. (Summer 2003)
- Comprehensive wellhead protection studies for the Village of Fleischmanns and the hamlet of Roxbury. (Summer - Fall, 2003)
- Use the Walton SMP as a model for the Village of Delhi and other villages in the County.
- Begin comprehensive outreach and education for municipalities and their residents of the impacts of polluted stormwater on water quality.

#### Local Administrative Contact

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**DCAP** is a collaborative partnership with the NYS Water Resources Institute, the Catskill Watershed Corporation, the Watershed Agricultural Council, the NYC Department of Environmental Protection, state and federal watershed partners. The Plan comprehensively addresses all significant nonpoint contaminant sources in the Cannonsville Basin to meet water quality objectives. For more information on DCAP contact the Delaware County Department of Watershed Affairs.

