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The Pompeston Regional Stormwater Management Plan

Interim Meeting
Palmyra Cove
June 9, 2009

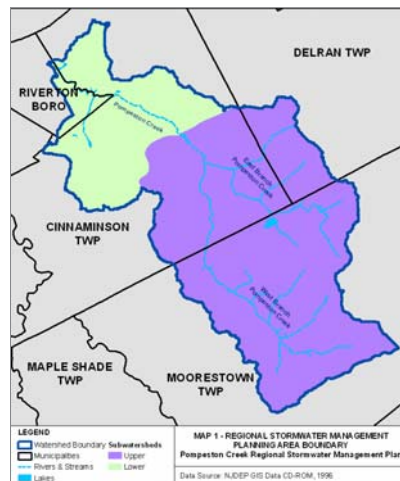
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The Pompeston Creek Watershed

- 8.6 square miles in size
- Discharges to the Delaware River
- Contains portions of Moorestown, Delran, Riverton and Cinnaminson
- Contains 10-13 miles of river and more than 13 acres of lakes
- Waterways in lower HUC designated C1
- Aquatic life advisory in lower HUC
- Water quality data collected indicating bacteria and phosphorus exceedances



The Plan: Part A and Part B

- Part A (**Applicable Provisions**) defines the regulatory actions that will be adopted into the Areawide Water Quality Plan to address identified stormwater problems.
- Part B (**Supplemental Provisions**) identifies specific management projects that have been quantified as to their potential in pollutant reduction, stream flow reduction, cost, and other characteristics and are voluntary in nature.

Part A: Ordinances and Mandates

1. Stormwater Management Control Ordinance
2. Low/No Phosphorus Fertilizer Ordinance
3. Coal Tar Reduction Ordinance
4. Stream Corridor Protection Ordinance
5. MS4 Permit Educational Mandate Focus
6. Terminal Catch Basin Cleaning

1. Stormwater Control Ordinance

New Definition of "Major Development"

"Major development" means any "development" that provides for ultimately disturbing one-*half* or more acres of land **or increases impervious cover by 5,000 square feet**. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation, **or razing and replacement of existing structures**.

1. Stormwater Control Ordinance

New Nonstructural Stormwater Management Strategies

Since the impact of impervious surfaces can be minimized through disconnection, twenty percent (20%) of all surfaces greater than 5,000 square feet will be required to be disconnected prior to resurfacing ...

"The two-year design storm runoff volume from these disconnected areas shall be infiltrated if the soils and geology of the area permits. Permeability testing should be performed before design of infiltration practice is complete, and options of soil replacement with an underdrain system or a capture and reuse system could provide alternatives to low infiltration areas."

1. Stormwater Control Ordinance

New Nonstructural Stormwater Management Strategies

To further minimize the impact of impervious surfaces, twenty percent (20%) of all roofs greater than 5,000 square feet will be required to be disconnected prior to resurfacing or replacement ...

1. Stormwater Control Ordinance

New Nonstructural Stormwater Management Strategies

In an effort to restore some of the tree canopy in the watershed, all major development will offset their construction by planting trees or contributing to a municipal reforestation fund. A minimum of 20 trees per new home or per 5,000 square feet of building footprint will be installed or funding provided to the municipality...

2. Low/No Phosphorus Fertilizer Ordinance

- ***Goal: To reduce the input of phosphorus from fertilizers into the waterways by requiring the use of a low to no phosphorus fertilizers.***
- ***Minimum Standard: To provide a local ordinance that requires residents to use low or no phosphorus lawn products. Adoption of ordinance is required as soon as alternative products are available.***

2. Low/No Phosphorus Fertilizer Ordinance

- Phosphorus is a limiting nutrient in fresh water systems.
- An addition of phosphorus to a waterbody has the potential of encouraging algal growth and reducing the water oxygen level upon respiration of alga and decomposition of alga.
- Typical soils in New Jersey do not require the addition of phosphorus for optimal plant growth.



3. Coal Tar Reduction Ordinance

- Goal: *To reduce the input of petroleum hydrocarbons into the waterways by restricting the use of coal tar sealers on residential driveways.*
- Minimum Standard: *To provide an ordinance that will guide the proper application of products necessary to the maintenance of paved surfaces while minimizing the negative impact on water resources. Adoption of ordinance is required as soon as alternative products, such as asphalt based sealers, are available.*

3. Coal Tar Reduction Ordinance

Basis and Background

- Coal tars contain a high level of polycyclic aromatic hydrocarbons (PAHs)
- Application of coal tar sealants on parking lots and driveways abrade away with weathering
- Need to be applied regularly
- Sediment concentration of PAHs in urban ponds has been found to be increasing with time (USGS, 2006)
- Carcinogen may pose dredging issue in future
- Delaware in Zone 2 & 3 has documented levels of PAH that exceed recommended levels and reference DRBC TMDL statement

4. Stream Corridor Protection Ordinance

Goals:

- -To delineate a contiguous stream corridor to buffer the Pompeston Creek and its tributaries from the impacts of development and nonpoint pollution.
- -To control the unnatural alteration of the stream channel, flood plains, wetlands and steep slopes

Minimum Standard: To adopt an ordinance that will provide a legal basis for the municipal review agencies to strengthen the stream corridor protection.

Water Quality Rules promulgated since this plan was created require every town to adopt a riparian zone ordinance the same or as equally protective as the model ordinance prepared by the Passaic River Coalition

5. Education Mandate Focus

- Goal: To ensure that groundwater recharge is a primary focus of stormwater education programs.
- Minimum Standard: Promote the infiltration of stormwater runoff by incorporating infiltration techniques into educational materials and programming that are delivered as a part of the MS4 permit requirements.



Part B: Supplemental Management Measures

- 1. Introduction to Part B/Recommendations Ranked, Costs Estimated and ID given
- 2. Education
- 3. Stormwater Utility
- 4. Pathogen Management Plan
- 5. Registration of Landscaping Professionals
- 6. Watershed Stressor Identification
- 7. Road Salting and Sanding Plan
- 8. Vernal Pool I.D.
- 9. Wetland Protection
- 10. Site Specific Projects

Status

- Part B was approved as an official Watershed Restoration and Protection Plan by the New Jersey Department of Environmental Protection in October of 2008.
- Part A would have to be supported by all municipalities to become part of the Area Wide Water Quality Management Plan

Next Steps

- Finalize utility of plan
 - Adopt ordinances
vs
 - Provide educational information regarding intent of ordinances on township website
- Create contact list for partners in implementation
 - Municipalities to endorse the goals and objectives of the plan

Implementation

- 1: Quantification of bacterial sources and design of remedial actions**
- 2: Design of flooding and NPS actions at Waterford Avenue in Delran**
- 3: Design of disconnection of impervious surfaces and infiltration of stormwater runoff**
- 4: Design of habitat restoration and stabilization of the Pompeston Creek in Pompeston Park**

Contact Information

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