Regional Stormwater Management Plans

Fact Sheet FS1115







Cooperative Extension

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Introduction

Flooding is a serious problem in New Jersey; the only way to adequately address it is on the regional scale. All the towns that drain to the stream have to work together if cost-effective solutions to flooding are going to be achieved. We as a society cannot continue to capture stormwater runoff and push it downstream to potentially flood neighboring towns.

As we continue to cover the landscape with impervious cover, streams become quicker to overtop their banks and flood roads, yards and basements. When streams swell to bank full conditions, stream bank erosion occurs – stealing property and washing it downstream, filling lakes with sediment that requires costly dredging projects. Through regional planning, strategies can be put in place to minimize the impact of these impervious surfaces.

Flooding is not the only problem. Every drop of stormwater runoff that enters a stream brings with it pollutants that make surface waters unsuitable for recreation, drinking, and supporting a healthy aquatic ecosystem. We know that the best way to address these flooding problems and pollution problems is through regional planning. The Stormwater Management Rules (N.J.A.C. 7:8) provide a framework to develop these types of regional plans. The rules require towns to work together in the form of a Regional Stormwater Management Planning Committee. This Committee directs the development of the plan. After a committee is formed, one of the committee members is designated as the Lead Planning Agency (LPA). The LPA serves as the chair of the Committee and a contact point for the New Jersey Department of Environmental Protection (NJDEP).

After a Regional Stormwater Management Planning Committee is formed and an LPA is designated, the next step in developing a Regional Stormwater Management Plan (RSWMP) is to complete a characterization and assessment of the watershed. The third step is to set drainage area specific water quality, quantity and groundwater recharge goals and objectives. The fourth step is to identify stormwater management measures and performance standards that are needed to achieve goals and objectives. The final step of the planning process is to submit the plan to NJDEP for adoption into regulation. Each of these steps is discussed below.

Developing A Regional Stormwater Management Plan

Step #1: Develop a Regional Stormwater Management Committee

For the purpose of initiating an RSWMP, a group of people that have an interest in the drainage basin or receiving water body must agree to come together to address the issues involved. This committee could be made up of county or municipal planners, county or municipal engineers, lake or river association representatives, wetland association representatives, soil conservation districts, college or university representatives, businesses, mosquito control commissions, New Jersey Farm Bureau representatives, landscape and nursery trade associations, and members of the public. A complete list of those that should be invited to participate is provided in the Stormwater Management Rules at N.J.A.C. 7:8-3.2 www.nj.gov/dep/rules/adoptions/2004_0202_watershed.pdf

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Once the invitations are sent out and proper replies are received, the committee can meet and designate an LPA. The LPA serves as a primary contact for the committee. It is responsible for coordinating the process, providing for public participation, preparing and submitting the plan and ultimately tracking the implementation of the plan. The LPA will need to submit a package, which will include a draft workplan and the invitation process, to the NJDEP to have the committee formally recognized as a Stormwater Management Committee.

The first step is completed when the LPA and the NJDEP project review team meets and discusses the progress and the next steps to be taken.

Step #2: Characterization and Assessment

The Characterization and Assessment of the regional stormwater management area must include a large variety of maps, models and summaries of existing conditions that are outlined in Section 7:8-3.4. The maps include the regional stormwater boundary, existing land uses, projected land uses assuming full development under existing zoning, soil mapping units, topography, water bodies and groundwater recharge areas, among others. Models can include hydrologic and hydraulic models, groundwater recharge models or other analyses of the regional stormwater management planning area. Physical characteristics of the area must be summarized and include slopes, swales and impoundment areas.

For the purpose of completing Step #2, the LPA and the NJDEP project review team meet to discuss progress and the next steps. A report of the items obtained and a checklist of mandatory items will speed the completion of Step #2.

Step #3: Drainage Area Specific Water Quality, Quantity, and Recharge Objectives

In this portion of the planning process, the committee identifies objectives that are specific to their drainage area. The objectives should address water quality, water quantity, groundwater recharge and any other stormwater induced problems.

Sample objectives would include the following:

- Water Quality Objectives
  - Address Fecal Coliform loading to Sublist 5 Waterbodies
  - Address Total Suspended Solid Loading
  - Address Loss of Biodiversity
- Water Quantity Objectives
  - Address Areas of Flooding
  - Address areas of Increased Stream Volume and Velocity
  - Address Recharge to Aquifer and Baseflow Maintenance.

The LPA must discuss how the analysis was conducted and outline specific objectives of the RSWMP. Once the LPA and the NJDEP's project review team meet and discuss progress and the next steps, this step will be complete.

Step #4: Stormwater Management Measures and Performance Standards

With specific objectives in mind, the committee must now identify drainage area specific design and performance standards in accordance with N.J.A.C. 7:8-5. These standards should be met by incorporating non-structural stormwater management strategies (e.g., minimization of impervious cover or vegetated swale conveyance rather than routing stormwater through storm sewer pipes) into the design. Structural stormwater management strategies can only be incorporated into the design if the non-structural measures are not adequate. The guidance for these non-structural and structural strategies can be found at 7:8-5.3 and 7:8-5.7, respectively.

Step #5: Submission of Completed RSWMP for Review

For Step #5, the LPA and NJDEP project review team convenes a coordination meeting to present the entire RSWMP. This will be the submission of the project for formal review by the NJDEP.

The LPA reviews and responds to the comments presented by the NJDEP. Revisions can then be made to address these concerns.

Finally, the LPA will propose the adoption of this plan into the appropriate Water Quality Management Plan (WQMP). It is still necessary for the LPA to continue to support the project until the amendment to the area wide WQMP is adopted. Once the amendment is proposed, in the New Jersey Register there is a 30 day public comment period during which a non-adversarial public hearing may be requested. Comments submitted during this period will be considered by the NJDEP before finalizing the amendment request.

Conclusion

Creating a suitable, well-organized, high-quality Regional Stormwater Management Plan takes a substantial amount of effort. The benefits of this effort can be tremendous and can result in improved water resources for many years to come.

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