

PENNSYLVANIA STORMWATER MANAGEMENT PROGRAM

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I. Purpose of Program

The Department of Environmental Protection's Stormwater Management Program provides grant moneys to Counties to develop stormwater management plans for designated watersheds. This planning effort, as required by the Storm Water Management Act of 1978, results in sound engineering standards and criteria being incorporated into local codes and ordinances in order to manage stormwater runoff from new development in a coordinated, watershed wide approach. Without such a planning, stormwater is either not controlled by municipal ordinances, or is addressed on a site to site or municipal boundary basis. Municipalities within the same watershed may require different levels of control of stormwater. The result is often the total disregard of downstream impacts or the compounding of existing flooding problems.

The program also provides for the research into new stormwater issues and computational techniques of watershed hydrology and water quality and provides technical assistance to individuals and municipalities in solving drainage problems through investigations and by assisting the Pennsylvania Infrastructure Investment Authority (PENNVEST) as technical consultants in a program to provide low interest loans to municipal governments to construct projects to solve stormwater runoff problems. The program is also involved in various water quality initiatives working directly with the Chesapeake Bay Program, the Department's Nutrient Management Program and the Coastal Zone Program in research and advisory roles.

II. How Program Works

Each county is required to develop stormwater plans for each of its watersheds within its boundary. The Department, since 1985 provides grants to counties up to 75% of costs of preparing the plans. Municipalities are also provided similar grants for plan implementation. The regulations specify that stormwater management plans be undertaken in two phases; Phase I, the preparation of a scope of study (level of effort, personnel details undertaking the effort, time frame, and cost estimates for Phase II) and Phase II, the actual plan preparation.

The process of initiating preparation of a watershed plan begins from a county through the submittal of a "proposal" to prepare a watershed plan to the Department. This proposal indicates which watershed plan is to be prepared and provides an estimated cost for preparing Phase I. This gives estimation to The Department for budgetary purposes. The Department evaluates each proposal for need based on development potential and documented stormwater problems and on the county ability and desire to prepare the plans. Counties who have expended their money up front to prepare a plan, and await reimbursement (allowed under the Act) are given first priority for funding. The remaining proposals and watersheds having completed Phase I and awaiting Phase II are allocated funds. Upon completion of Phase II, the governing body of the county must adopt the plan by resolution. The Department then reviews the plan in cooperation with Department of Community and Economic Development, and other agencies, and checks its consistency with the Act and Guidelines, prior to approval.

The table on the next page shows the stormwater management program reimbursement records. Also attached is a list of watershed plans adopted by counties and approved by the Department and a list of those currently being prepared.

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Stormwater Management Reimbursement Records

YEAR	APPROPRIATION	COUNTY REIMBURSEMENT	MUNICIPAL REIMBURSEMENT
85/86	\$250,000	\$ 90,000	\$ 0
86/87	\$500,000	\$293,000	\$ 145
87/88	\$550,000	\$493,000	\$ 9,000
88/89	\$550,000	\$543,300	\$ 7,300
89/90	\$650,000	\$607,000	\$ 9,400
89/90 SUPPLEMENT	\$327,000	\$244,000	\$ 0
90/91	\$650,000	\$515,000	\$ 7,680
91/92	\$595,000	\$510,000	\$13,910
92/93	\$574,000	\$399,900	\$ 0
93/94	\$595,000	\$492,000	\$51,846
94/95	\$595,000	\$506,000	\$37,706
95/96	\$595,000	\$449,240	\$10,912
96/97	\$595,000	\$433,712	\$30,518
97/98	\$595,000	\$505,327	\$48,396
98/99	\$595,000	\$534,018	\$6,335
99/00	\$1,200,000	\$311,969	\$33,057
	\$9,416,000	\$6,927,466	\$266,205

III. How Program Affects Government, Developers and Engineers

Governments

The preparation and adoption of a stormwater management plan may require changes by local government in how land use is regulated. For those municipalities with little or no land use regulation, a plan will require those municipalities to adopt in its entirety the model stormwater management ordinances produced by the county or adopt separate building, subdivision, land development and building code ordinances to address the standards of a plan. For those already having stormwater ordinances, amendments may be all that is required.

Municipalities within a watershed and the county may elect to administer the new stormwater management ordinances collectively rather than each municipality individually through municipal engineers and planning offices. **Various procedures have been suggested such as watersheds having each municipality designate a county office, or creating a watershed district, as the official drainage plan reviewer. Such a district would essentially function similar to a utility (i.e. sewer authority) with powers to construct and maintain stormwater facilities, assess user fees and enforce ordinances.**

Developers

Developers undertaking construction projects within watersheds having approved plans will be required to manage the runoff from their developments. Although the process for obtaining subdivision approval and building permits may be identical, developers will be required to manage their stormwater perhaps in a more precise manner.

Engineers

Site development engineers may see different levels of changes in how they would design stormwater management controls. The plans would specify that post development peak rates of runoff be released at specified percentages of pre development rates of runoff. It would be left up to engineers to design their facilities to meet these requirements. A few plans encourage infiltration and other innovative structural and non-structural measures.

Water Quality Non-Point Source Pollution Prevention Initiatives

The Department recognizes the importance of protecting the quality of water bodies from non-point source pollution (NPS) carried by stormwater runoff. To aid in the development of an overall strategy to address non-point source pollution, the Department has initiated an effort to consider all its permitting and non-permitting actions on a watershed- based approach. Under this initiative, the stormwater management program:

- Participates in the Chesapeake Bay, Non-point Source Subcommittee's Urban Work Group in providing a forum for technical information exchange between jurisdictions, engineers, municipalities and interested parties on urban non-point source issues.
- Has developed a BMP handbook in partnership with PA Association of Conservation Districts to assist municipalities in understanding BMP technology and to encourage their implementation.
- Has approved 11 watershed plans that emphasize water quality components. All recently undertaken watershed plans include water quality components and municipalities are encouraged to adopt applicable ordinances to include BMPs upon completion of the plans.

PENNVEST Low Interest Loans to Correct Storm Drainage Problems

The Department acts as technical consultants to the Pennsylvania Infrastructure Investment Authority (PENNVEST) in a low interest loan program to government entities to correct existing storm drainage problems. Projects may include transport, storage and infiltration of stormwater and best management practices to address point or nonpoint source pollution associated with stormwater. **A government entity must have enacted stormwater ordinances consistent with a stormwater management plan if the entity is located in a watershed with an approved stormwater plan, or, in those areas not having an approved plan, must at least have enacted a stormwater ordinance consistent with Act 167.**

Public Awareness and Education

Finally, the Department has recognized the need to emphasize education of local government officials in the area of stormwater management. Successful implementation of the stormwater management plans hinges upon local officials, municipal engineers and the community understanding the need for watershed planning, cooperation between municipalities within a watershed and inter-county cooperation. The Department provides support to local officials in administering stormwater ordinances after a plan is complete. For the benefit of those municipalities where no stormwater plan has been completed, the Department has developed a model stormwater management ordinance, which may be adopted by municipalities. The Department assists municipalities, businesses and individuals in addressing stormwater runoff problems. The Department also conducts educational programs to explain techniques and benefits of appropriate and innovative methods of managing stormwater runoff.