



Montgomery County Government

A DESCRIPTION AND EVALUATION OF THE SEDIMENT CONTROL AND STORMWATER MANAGEMENT RESPONSIBILITIES OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

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I. SUMMARY AND MAJOR CONCLUSIONS

A. Summary

Sediment control and stormwater management responsibilities are distributed in an often confusing manner among a number of public agencies. These agencies are found at the federal, State, and local levels. In addition, there are regional agencies and groups that are active in this area.

The Department of Environmental Protection (DEP) has the primary responsibility in the County for reviewing and approving sediment control and stormwater management plans, concepts, and programs; issuing sediment control permits and stormwater management waivers; implementing stormwater management programs to include several CIP projects; and enforcing Maryland State and County sediment control and stormwater management laws and regulations. These laws and regulations govern surface water runoff during development and, after development, regulate runoff to acceptable levels with either on-site stormwater management facilities, or, as an alternative to on-site facilities, regional stormwater facilities. In addition, DEP is responsible for implementing federal, State and County standards and criteria which are designed to protect, preserve and enhance stormwater quality, reduce stream channel erosion, and protect freshwater wetlands.

Broadly defined, **sediment control** refers to measures taken to prevent or minimize erosion and sedimentation on any off-site property, in storm drains, and in water courses whenever there is a land-disturbing activity. **Stormwater management** encompasses the collection, conveyance, storage, treatment and disposal of stormwater runoff so as to prevent acceleration of stream channel erosion and the reduction of water quality in receiving streams.

This report by the Office of Legislative Oversight (OLO) examines how DEP has carried out its duties and responsibilities in the areas of sediment control and stormwater management under four broad categories: management and organization, operations and programs, laws and regulations, and resources. Included in the OLO report is a brief description of the water quantity and quality responsibilities of federal, State, and other public County and bi-County agencies.

B. Major Conclusions

Overall, the Department of Environmental Protection (DEP) has discharged most duties and responsibilities in the areas of erosion and sediment control and stormwater management.

However, because of the fragmented internal organization of the Department's water resources management elements, an emphasis by DEP management on solid waste and other non-water-related DEP responsibilities, and a limitation on available resources, the Department of Environmental Protection has not consistently carried out these duties and responsibilities in an efficient manner.

In the period since his appointment in February 1990, the new Director of the Department of Environmental Protection has instituted organizational changes and management initiatives that should improve the Department's overall efficiency and effectiveness.

The December 1990 internal reorganization of the Department of Environmental Protection, which consolidates previously fragmented water resources management elements into one division, is a significant improvement that should result in more effective and efficient operations.

The work of the staffs of the participating departments and agencies and the personal participation and support of the Director of the Department of Environmental Protection have resulted in the production by the Water Policy Group of a coordinated series of findings and recommendations concerning many critical water resources management issues.

The new Director of the Department of Environmental Protection has demonstrated a more open approach to the environmental community; in particular, the Director is soliciting input and assistance from members of the environmental community in developing a more effective and efficient program of water resources management in the County.

The County lacks a clear statement of its goals and objectives in water resources management, specifically, in the areas of erosion and sediment control, stormwater management and water quality.

The County lacks an adequate grading and drainage ordinance that strengthens the erosion and sediment control/stormwater management plan review and permitting process; enables the County to verify that final post-grading contours comply with approved plans; and adequately addresses nuisance water issues.

The County lacks a water quality ordinance that authorizes DEP to develop regulations and enforcement procedures to ensure adherence to water quality standards, especially in the handling and disposal of hazardous substances in the County's storm drainage and stormwater management systems.

The County lacks a reliable and dedicated source of funding for accomplishing its erosion and sediment control, stormwater management, and water quality responsibilities.

II. AUTHORITY, SCOPE, METHODOLOGY AND ACKNOWLEDGEMENT

A. Authority

Council Resolution No. 11-1907, subject: CY 1990 Work Program of the Office of Legislative Oversight, adopted March 13, 1990.

B. Scope

This report examines the County's sediment control and stormwater management programs as administered by the Department of Environmental Protection (DEP). Included are an overview of the legislative and regulatory history of these programs; an examination of the roles and responsibilities of other County and State agencies relating to sediment control and stormwater management; and an evaluation of the organization and operational procedures of the Department of Environmental Protection in meeting current and future sediment control and stormwater management responsibilities.

It should be noted that this report does not address issues related to water supply and sewerage facilities, and ground water. By State law, water and sewerage are the responsibility of the Washington Suburban Sanitary Commission (WSSC), and ground water, as the name implies, is water that naturally lies, percolates, or flows through aquifers under the surface. Although the Department of Environmental Protection has some responsibilities in both these areas, they are not a part of DEP's sediment control and stormwater management responsibilities. In water supply and sewage facilities, DEP prepares the Comprehensive Water Supply/Sewerage Systems Plan (Ten-Year Water and Sewer/Plan) and reviews and comments on WSSC's facility plans and capital improvement programs; and DEP is responsible for monitoring and sampling ground water at the County landfills.

C. Methodology

This project was conducted during July-November 1990, using the following fact-finding techniques:

1. Document reviews of:

- Current and past County, State and federal laws, to include the minutes of public hearings and worksessions;
- Policies, regulations and procedures of the County and the Maryland Departments of the Environment (MDE) and Natural Resources (DNR);
- Various reports and studies relating to stormwater management by the Metropolitan Washington Council of Governments (COG), the Montgomery Soil Conservation District (MSCD), the Maryland-National Capital Park and Planning Commission (M-NCPPC), and the DEP;

- Reports by independent auditors on specific stormwater-related issues; and reports by private citizens and environmental groups and stormwater management consulting firms; and
 - Statistical data provided by the MDE, the MSCD, the M-NCPPC, and the DEP.
2. Site visits to construction sites to examine sediment control practices, and to the locations of various stormwater management facilities in the County.
3. Interviews with approximately 60 individuals including:
- Current and former officials and staff of the Department of Transportation (DOT), the Montgomery Soil Conservation District (MSCD), the Maryland-National Capital Park and Planning Commission (M-NCPPC), the Maryland Department of the Environment (MDE), the Department of Environmental Protection (DEP), and environmental staff of Prince George's County;
 - Representatives of several County environmental organizations;
 - Staff of private engineering consulting firms who work with the DEP and the developers;
 - Council staff and staff of appropriate Executive branch departments; and
 - Private citizens who have contacted OLO to express their views on the subject under evaluation.
4. Participation as an observer in the meetings of the interagency Water Policy Group.

D. Acknowledgement

The Office of Legislative Oversight acknowledges the full cooperation and courteous support from the personnel in the State, especially the Maryland Department of the Environment, and County agencies and departments who have responsibilities relating to sediment control and stormwater management. Throughout the course of this study, the OLO was repeatedly impressed with the high dedication of DEP staff to the accomplishment of the policies and goals of the State and County's sediment control and stormwater management legislation and regulations. The OLO also wishes to acknowledge the cooperation and observations of representatives of several environmental groups and the staff of the other public agencies with water-related responsibilities. Their candid and forthright comments were helpful in establishing a perspective for this study.

Finally, when interviewing current and former officials, and staff of public agencies responsible for stormwater related matters, private consultants to the development community, and representatives of environmental organizations, OLO received a wide range of feelings, opinions and sentiments concerning sediment control and stormwater management. This report solely represents the analyses and conclusions of the writer.

III. BACKGROUND AND OVERVIEW OF THE REPORT

A. General Background on Sediment Control and Stormwater Management

The Department of Environmental Protection (DEP) has the primary responsibility in the County for reviewing and approving sediment control and stormwater management plans, concepts, and programs; issuing sediment control permits and stormwater management waivers; implementing stormwater management programs to include several CIP projects; and enforcing Maryland State and County sediment control and stormwater management laws and regulations. These laws and regulations govern surface water runoff during development and, after development, regulate runoff to acceptable levels with either on-site stormwater management facilities, or, as an alternative to on-site facilities, regional stormwater facilities. In addition, DEP is responsible for implementing federal, State and County standards and criteria which are designed to protect, preserve and enhance stormwater quality, reduce stream channel erosion, and protect freshwater wetlands.

Broadly defined, **sediment control** refers to measures taken to prevent or minimize erosion and sedimentation on any off-site property, in storm drains, and in water courses whenever there is a land-disturbing activity. **Stormwater management** encompasses the collection, conveyance, storage, treatment and disposal of stormwater runoff so as to prevent acceleration of stream channel erosion and the reduction of water quality in receiving streams.*

Since the late 1950's, the County has adopted resolutions and enacted laws to address soil erosion, pollution, sediment control and, more recently, the management of stormwater and the maintenance and improvement of water quality. Originally the programs were administered by State agencies and the Montgomery Soil Conservation District (MSCD); however, after the Council created the Department of Environmental Protection (DEP) in 1972, with

* Throughout this report, the terms water quantity control and water quality control are used. The broadly accepted definition of these terms are:

Water Quantity Control - The controlled release of runoff flow rate and volume to prevent increased stream channel erosion.

Water Quality Control - The reduction or elimination of pollution from storm runoff that otherwise would be carried by the surface water runoff.

a resulting increased involvement by County government in environmental issues and programs, there has been a gradual transition of authority and responsibility for sediment control and stormwater management to the DEP and away from State agencies and the MSCD.

In recent years, the County Council has expressed increased concern over the number of citizen complaints regarding programs for which DEP has primary responsibility. A large percentage of these complaints have related to excessive stream channel erosion and storm drain runoff, lax enforcement of sediment controls, pollution of streams and damage to wetlands, and related surface water problems. In addition, Council staff has expressed concern especially during its annual review of DEP's operating and capital improvement (CIP) budgets that long-range water quality protection planning has not received sufficient attention from DEP management.

The following are highlights of DEP's involvement in sediment control and stormwater management in recent years:

- After being denied enforcement authority in 1985, the DEP was granted erosion and sediment control enforcement authority by the Maryland Department of the Environment (MDE) for each year thereafter.

- In 1987, an outside consulting firm conducted a major management study of DEP's Division of Construction Codes Enforcement, the division within DEP that had responsibility for most of DEP's sediment control and stormwater management functions. The report, issued in early 1988, recommended a number of changes affecting these functions to include an increase in inspection and enforcement staff and a restructuring of internal duties and responsibilities. DEP instituted most of these changes.

- Also in 1987, DEP and the Montgomery Soil Conservation District (MSCD) signed a memorandum of understanding under which the MSCD delegated authority to the County to review and approve sediment control plans.* Since the DEP already had authority to issue sediment control permits based upon those plans, this delegation gave the DEP staff more control over the control of erosion and sedimentation.

- In 1988, as required by the Maryland Annotated Code, the County's stormwater management program was reviewed and evaluated by the Maryland Department of the Environment (MDE) and received an acceptable rating.

- In 1988 and 1989, at the request of the Director of DEP, three operational audits were conducted by a consulting firm on various aspects of the County's stormwater management program: the adequacy of documentation supporting the County's financial participation in regional stormwater facilities; the reasonableness of the County's participation formula; and the adequacy of documentation supporting DEP's waiver decisions and assessed fees.

* Certain municipalities in the County do not come under the County for sediment control and stormwater management plan review. See Chart 2, page 42.

- In 1988, the Director of DEP, requested staff to examine a strategic approach to water management issues to include the feasibility and usefulness of a stormwater master plan. During the year, the staff reviewed an unpublished draft report of a 1984 DEP stormwater management task force, and circulated an extensive questionnaire on water-related issues to representatives of government agencies and to one environmental organization.

- Finally, in the spring of 1989, in response to a request by the County Council, an interagency Water Policy Group (WPG) was formed. The scope of the Group included how to improve enforcement of existing water-related laws and regulations and how to increase the control of stormwater runoff to protect local streams and the Chesapeake Bay. The information from the questionnaire was used to frame the agenda for the WPG.

B. Background on the Scope of the Report

Since 1987, the Office of Legislative Oversight (OLO), at the request of the Council, has been monitoring and reporting on DEP's sediment control and stormwater management activities. In March 1990, during its review of the OLO work program for CY 1990, the Council included a project to examine some aspect of the Department of Environmental Protection. The Council did not identify a specific DEP program or activity which OLO should examine; instead, it requested that OLO interview the newly appointed Director of DEP, interested Councilmembers, Council staff, and appropriate staff of the DEP, the Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Maryland Department of the Environment (MDE), and identify a specific issue on which to report. Finally, the Council requested that once the OLO made its selection, that OLO should provide Councilmembers with the opportunity to comment upon that selection.

In July 1990, the OLO selected DEP's sediment control and stormwater management program as the issue to be examined and informed the Council. No member of the Council objected to the selection.

In making this selection, the OLO was influenced by the number of stormwater-related citizen complaints to the Council and to Council staff; the Council's concern over the number and severity of the complaints; the number of stormwater-related issues which the Council will need to address in the near future; and, especially, the specific request of the newly appointed Director of DEP for OLO assistance in examining this area of his responsibility. In addition, the OLO selection was influenced by the following recent events within the Department of Environmental Protection:

1. The initiatives of the newly appointed Director of DEP. On February 27, 1990, the Council confirmed the County Executive's selection of a new Director for the Department of Environmental Protection. In the period since his appointment, the new Director has introduced a number of initiatives to improve the organization and operations of the DEP. One of these initiatives was to create a position of Deputy Director to give the Department needed management depth. Another initiative was to direct an internal reorganization of the Department. The goals of this reorganization were to improve overall service delivery; to establish separate environmental and

construction code enforcement groups; to establish stronger solid waste management and recycling programs; and, most significant for OLO, to establish a single water resources management entity by consolidating into one division all of DEP's sediment control and stormwater management planning, operating, monitoring and enforcement responsibilities. These initiatives by the Director of DEP respond to many of the concerns expressed by the Council.

2. The assignment of an OMB Management Analyst to work with the new Director of DEP. At the time the new DEP Director was appointed, the Director, Office of Management and Budget (OMB), provided a Management Analyst to assist the Director of DEP in reviewing the internal organization, functions and responsibilities of the Department, and in developing an organizational structure to perform more efficiently those functions.

3. The Interagency Water Policy Group. In the summer of 1989, at the request of the County Council, the former Director of DEP convened an interagency Water Policy Group (WPG). As stated earlier, the purpose of the WPG was to address problems in the enforcement of existing water laws and regulations; and to propose how control of stormwater runoff could be improved to protect local streams and the Chesapeake Bay.

Membership on the WPG included representatives from the:

- Maryland-National Capital Park and Planning Commission's (M-NCPPC) Montgomery County Planning and Parks Departments;
- Montgomery Soil Conservation District (MSCD) (added October 1990);
- Department of Transportation (DOT);
- Department of Environmental Protection (DEP);
- County Council Staff; and
- Office of Legislative Oversight (as an observer).

The WPG published a draft preliminary report in April 1990, which was presented to the Council's Transportation and Environment (T&E) Committee during its review of the recommended FY91 operating budget. On December 10, 1990, a preliminary report of the WPG was distributed at a stormwater management forum where representatives of the environmental and development communities, County government, other interested public agencies, and private citizens were present.

The December 1990 WPG preliminary report identifies a number of critical water-related issues. Some of these issues have previously come before the Council, e.g., maintenance of homeowner associations' ponds and other stormwater management facilities; drainage problems between individual properties. Other issues addressed by the WPG will be before the Council in the coming months, e.g., a new federal permitting requirement for urban stormwater discharges; funding sources for stormwater management projects and activities. Throughout this OLO report, many of the issues addressed in the WPG preliminary report are highlighted and briefly discussed.

IV. LEGISLATIVE HISTORY OF SEDIMENT CONTROL (SC) AND STORMWATER MANAGEMENT (SM)

A. Federal Laws

Early federal laws relating to our nation's rivers and waterways dealt primarily with improvement of riverine navigation and flood control on the navigable rivers. Between 1928 and 1936, following major floods, the Congress enacted a series of laws directed at preventing or minimizing damage caused by floods. Another significant federal law was enacted in 1968, when the Congress passed the National Flood Insurance Act, which encouraged State and local governments to restrict development on land exposed to periodic flooding.

Federal laws addressing pollution control and water quality measures are of a more recent date. In the Water Pollution Control Act of 1948, the Congress declared that the pollution of interstate waters was a public nuisance, and that programs were to be adopted to eliminate or reduce the pollution. Subsequent amendments to the 1948 Act in 1956 and 1965 broadened the government's role in the measurement, control, abatement, and prevention of pollution of interstate waters.

In 1972, Congress enacted the most comprehensive anti-pollution law up until that time. The Water Pollution Control Act of 1972 introduced the concept that all pollution is unlawful and no one has the right to pollute. So extensive was the Act in the area of pollution abatement that it has become known by its more popular name, as the Clean Water Act (CWA) of 1972. In the 1977 amendments to the CWA, the Congress directed the establishment of a permitting program for point source pollution systems such as industrial sites and waste water treatment plants that discharge into the nation's streams and waterways.

In 1987, Congress passed another major amendment to the Water Pollution Control Act of 1972, the Water Quality Act. This law expanded the permitting program to include urban stormwater discharges associated with the storm drainage system of the larger municipalities and counties. The full effect of the Water Quality Act of 1987 is just now coming about, and it will have a significant impact on the County. (See page 47).

B. Maryland Laws

Maryland laws dealing with flood control, soil conservation, water pollution, and water quality generally followed those of the U.S. Congress. In 1945, under a previously enacted Maryland Soil Conservation District Law, the Montgomery Soil Conservation District (MSCD) was organized as a separate political entity. From 1970 until 1987, the MSCD was responsible for carrying out the State sediment control law in Montgomery County; and from 1971 until 1984, the stormwater management law.

In 1967, the General Assembly enacted legislation which transferred jurisdiction over storm drainage systems within Montgomery County (except Takoma Park) from the Washington Suburban Sanitary Commission (WSSC) to the County. In April 1970, the General Assembly enacted the first comprehensive

Maryland Sediment Control Act. The law made a grading and sediment control plan a prerequisite for the issuance of any grading and building permits, and required that all counties adopt standards and procedures for the referral of these plans to their respective Soil Conservation Districts for approval before allowing any land disturbing activities.

The next year (1971), the Maryland Attorney General issued an opinion that stormwater management could be a part of sediment control. Specifically, the Attorney General opined that the Sediment Control Act included the control of off-site erosion and subsequent sedimentation resulting from development-generated stormwater runoff.

In the area of flood control legislation, the General Assembly enacted the Flood Hazard Management Act of 1976. Among the provisions of the law was one which directed the division of the State into watersheds for purposes of flood control planning and to conduct watershed studies.

In 1982, the General Assembly enacted the Stormwater Management Act. This Act required all subdivisions of the State to adopt by July 1984, a stormwater management program; and authorized the Department of Natural Resources (DNR) to establish criteria and procedures for stormwater management in Maryland. (This authority was later transferred to the Maryland Department of the Environment.) To assure the State's criteria were being followed, the Act directed that the stormwater management program of the counties and municipalities be reviewed by the State periodically, but not less than once every three years.

The 1982 Stormwater Management Act only addressed the management of the quantity of runoff. However, in 1984, the General Assembly amended the Act to include the improvement of the quality of stormwater as an additional goal of the State's stormwater management program. Specifically, the 1984 amendment required that stormwater management rules and regulations indicate that the primary goal of the State and local stormwater management programs would be "to maintain after development, as nearly as possible, the predevelopment runoff characteristics". (Maryland Code §4-203, Environmental Article.) This 1984 action was one of several enacted that year by the General Assembly, collectively referred to as the "Chesapeake Bay Initiatives", which provide protection of the Bay's waters by various land use controls.

In 1986, the General Assembly amended the 1970 Sediment Control Act, to permit the Montgomery Soil Conservation District (MSCD) to delegate to the County's Department of Environmental Protection (DEP) "authority to review and approve or reject any sediment control plans for nonagricultural land-altering activities" (Maryland Code §4-105(b)). Prior to this 1986 amendment, the DEP had authority to issue sediment control permits and to inspect and enforce erosion and sediment control provisions, but did not have authority to review and approve sediment control plans. In 1987, the County and MSCD signed a memorandum of agreement under which the MSCD formally delegated to the County sediment control plan review and approval authority.

In another move that highlights the State's concerns for environmental matters, the General Assembly in 1987 enacted legislation which created the Maryland Department of the Environment (MDE) and a new Environmental Article in the Maryland Annotated Code. Included in the responsibilities of the new department were the various water management and water quality responsibilities previously shared by the Maryland Departments of Health and Mental Hygiene and Natural Resources. Since 1987, to comply with the law, the MDE has published water management regulations to carry out its responsibilities for sediment control, stormwater management, and water quality certification.

In each of the last three sessions of the General Assembly, the sediment control and stormwater management provisions of the Environmental Article have been amended to strengthen both activities. These amendments added additional penalties available to the State for violating sediment control requirements (1988); required water quality practices for any redevelopment (1989); and required MDE to specify minimum requirements for inspection and maintenance of stormwater management procedures (1990).

Both the Department of the Environment (MDE) and the Department of Natural Resources (DNR) have developed regulations relating to sediment control, stormwater management, waterway construction, and related water responsibilities in their respective departments.

A MDE regulation, COMAR 26.08.02.01, Surface Water Quality Management, designates the water quality control requirements to support the four use classes for State waters. The four classes are:

- Class I: All waters of the State not included in the other three classes.
- Class II: Shellfish harvesting waters.
- Class III: Natural trout waters - waters capable of supporting the growth and propagation of trout and their associated food organisms.
- Class IV: Recreational trout waters - waters capable of supporting adult trout which are periodically stocked for put-and-take fishing.

Classes I, III and IV streams are found in Montgomery County, as indicated on the map at Exhibits A and the listings at Exhibit B.

As of December 1990, the following surface water-related regulations have been published in the Code of Maryland Regulations (COMAR):

- COMAR 08.05.03 Construction on Nontidal Waters and Floodplains (DNR)
- COMAR 08.05.07 Wetland Regulations (DNR)

- COMAR 26.08.01 Water Pollution (MDE)
- COMAR 26.08.02 Water Quality (MDE)
- COMAR 26.09.01 Erosion and Sediment Control (MDE)
- COMAR 26.09.02 Stormwater Management (MDE)

C. County Laws

County laws and Council resolutions addressing erosion, pollution and sediment control, and water management, generally follow upon and parallel State laws. Initially, County laws addressed flooding, erosion and sediment control, and later addressed stormwater management. It was not until the mid-1980s that the Council enacted legislation specifically directed at improving water quality.

The first County bill to address flood hazards, soil erosion and stormwater-related issues was enacted in 1957. Council Bill 11 (codified as Code Section 2-21, Soil Erosion), authorized the Council to adopt ordinances related to the control of soil erosion and to the preservation of natural topography in newly developed areas. The authority included the issuance of bonds and permits, the collection of fees, the setting of standards, and enforcement.

The next Council action in this area occurred in 1965. Reacting to a ruling by the Maryland Attorney General that soil was a pollutant, the Council adopted Resolution No. 5-1954, which stated the County's policy to provide for the control of erosion by adopting and implementing a sediment control program for developments on public and private lands of the County. The resolution directed appropriate departments of the County government to develop policies and procedures to implement the program, and urged landowners and developers to cooperate voluntarily with the program.

In 1967, the Council changed the voluntary compliance character of the program by amending the subdivision regulations to make erosion and sediment control programs mandatory; and to direct the Montgomery Soil Conservation District (MSCD) to develop erosion and sediment control standards, which developers must agree to prior to receiving a grading permit and record plat.

In 1971, to comply with the recently passed Maryland Sediment Control Law of 1970, the County Council enacted Bill 12-71*. The objective of this law was to improve on-site sediment control procedures and stormwater

* Bill 12-71 established a new Chapter 83A, Montgomery County Code, Excavating, Stripping, Grading and Fills. In 1972, this law was codified as Code Chapter 19, and the title was changed to Excavating, Grading and Sediment Control.

runoff. Specifically, Bill 12-71 required that a permit be obtained from the Health Department's Division of Environmental Health prior to any excavation, stripping, grading or filling of any property in the County. The Bill further required that to obtain the permit, plans providing for soil erosion and sediment control first had to be prepared and referred to the MSCD for review and approval of these sediment control measures.

During the remainder of the 1970s, there were a number of actions which had a direct impact on County programs dealing with sediment control and stormwater management:

- In 1972, the MSCD implemented a stormwater policy that developers of new multi-family, commercial and industrial developments provide for on-site retention of the two-year frequency storm so as to prevent accelerated erosion and enlargement of stream channels. Authority for the MSCD to require that sediment control plans address stormwater management was based on the Maryland Attorney General's 1971 opinion that stormwater management was a part of sediment control.

- The Council enacted Bill 40-71 in February 1972, to create the Department of Environmental Protection (DEP) by transferring into the new department the staff and functions of the Department of Inspection and Licenses, which was abolished, and the activities and functions pertaining to environmental health from the Department of Health.

- In 1974, the Chairman, Maryland-National Capital Park and Planning Commission (M-NCPPC) and the County Executive executed a memorandum of understanding (MOU) for the two agencies to use as a concept or guide to divide responsibilities in matters concerning stormwater management. The MOU addressed specifically the division of work for watershed planning and stormwater management program operations.

- The Council enacted Bill 57-74 in October 1975 (effective January 1976), to create a new Chapter 19, Sediment Control, to replace the former Chapter 19, Excavation, Grading and Sediment Control enacted in 1974. This new legislation broadened the conditions when a sediment control permit would be required by DEP and reduced the number of exceptions. However, plan review and approval remained with the Montgomery Soil Conservation District (MSCD).

By 1980, the County, in conjunction with the M-NCPPC and the MSCD, had taken a number of actions to reduce erosion, sedimentation and the enlargement of streams. In January 1980, the Council enacted legislation requiring mandatory stormwater runoff programs. The new legislation, Bill 89-79 (effective June 1980), amended Chapter 19 by adding a stormwater management article. The amended Chapter 19 now included two articles: Article I, Erosion and Sediment Control, which was essentially the original Chapter 19 enacted in 1975; and a new Article II, Stormwater Management, which stated that the management of stormwater was essential to the protection and promotion of the public health, safety and general welfare. This new law was eventually followed by two Executive Regulations covering each of the articles.

The new Chapter 19, Erosion and Sediment Control and Stormwater Management, included the following sediment control and stormwater management provisions:

- With some exceptions, any land-disturbing activity requires a sediment control permit and the posting of a performance bond;
- All development must be based on a detailed sediment control/stormwater management plan; the plan must describe in detail on-site controls for erosion, sediment and stormwater; and to insure compliance with the plan, the law requires the posting of a performance bond;
- On-site stormwater management controls can be waived under certain conditions, but only after the payment of a monetary contribution, the grant of an easement, and/or the dedication of land for the design and construction of an off-site stormwater management facility;
- The County may participate with the developer in the construction of a larger-capacity stormwater management facility by assisting the developer financially;
- All stormwater management facilities require construction and maintenance inspections and maintenance;
- The Montgomery County Planning Board is responsible for preparing, for the approval of the Council, functional master plans for the conservation and management of each watershed in the County;
- The Executive must prepare, for the approval of the Council, a stormwater management chapter, to be included in the Comprehensive Water Supply and Sewerage Systems Plan (10-Year Water/Sewer Plan); and
- Finally, stormwater management is defined as the "collection, conveyance, storage, treatment and disposal of storm water runoff in a manner to prevent accelerated channel erosion, increased flood damage and/or reduction of water quality". (This reference in Bill 89-79 was the first time that water quality, as contrasted with water quantity or stormwater runoff, was specifically addressed in County law).

In 1984, the County Council further emphasized that the improvement to water quality was important when it enacted Bill 45-84. The Council's action came four years after passage of Bill 89-79, which added the stormwater management article to Chapter 19 of the Code. In that four-year interim, there were a number of important occurrences which prompted the Council's action. One was the enactment by the Maryland General Assembly of the Stormwater Management Act of 1982, and the 1984 amendment to that Act which, in sum, required that development plans provide measures to maintain stormwater runoff, as nearly as possible, to predevelopment characteristics. Another was the publication by the Metropolitan Washington Council of Governments (COG) of a study report that indicated that by modifying stormwater quantity control facilities, the quality of stormwater runoff could be improved.

This COG report and similar water quality studies influenced the provisions of Bill 45-84. The Bill specifically required that all development within the County be subject to a plan that, in addition to providing facilities adequate to control the increased runoff produced by the calculated two-year storm, must also provide facilities that minimize water quality impacts on receiving streams.* Also, specific stormwater management facilities designed to address water quality, such as detention (dry), extended detention and retention (wet) facilities, were written into the law.

In addition, Bill 45-84 strengthened the authority of the Director of DEP, in approving stormwater management concept plans, granting waivers, and implementing the County's stormwater management program. Specifically, the Bill required that the Director review and approve in concept the manner in which erosion, sediment, water quality impacts, and stormwater would be controlled or managed for each development. The concept is approved during the subdivision review process. Also, the Bill empowered the Director to waive the requirement for the developer to provide on-site stormwater management for a development, if it met certain criteria.

Prior to Bill 45-84, the Montgomery Soil Conservation District (MSCD) had responsibility for approving stormwater management concept plans and for issuing waivers. Consequently, at the time Bill 45-84 became effective (August 31, 1984), DEP and MSCD entered into a memorandum of understanding to avoid any possible duplication of effort. The memorandum recognized that DEP was to be responsible for the stormwater management program in the County, including the review of all stormwater management concepts at the preliminary plan stage, the granting of stormwater management waivers, and the review for technical adequacy of stormwater management design plans.

A few months later, in December 1985, the MSCD, the Soil Conservation Service (SCS), and DEP entered into a second memorandum of understanding, this one concerned approval of stormwater management small ponds. Under the agreement, the DEP agreed to add to its staff a Maryland registered professional engineer to review and technically approve small pond designs and computations to a certain size limit. Above that limit, the SCS must approve the technical design. The MSCD retained responsibility for administratively approving the construction of the pond.**

In March 1986, the Council enacted Bill 62-85, which amended sections of the erosion and sediment control article of Chapter 19. Specifically, the Bill expanded the erosion and sediment control permit and plan requirements, strengthened the DEP's inspection and enforcement

* The Maryland law required control of increased runoff from the two-year and ten-year storms. However, Montgomery County successfully demonstrated to the State that ten-year control was not needed for all development.

** Technical approval: the pond design meets or exceeds design standards and specifications. Administrative approval: the actual permitting of the design in accordance with State regulations.

procedures, and clarified what land-disturbing activities required a sediment control permit. As with previous sediment control and stormwater management laws, DEP eventually published appropriate changes to the sediment control and stormwater management Executive regulations.

As mentioned earlier, in 1986 the Maryland General Assembly enacted legislation which authorized the Montgomery Soil Conservation District (MSCD) to delegate in writing to the Department of Environmental Protection, authority to review and approve, or reject, sediment control plans for non-agriculture land-altering activities. Consequently, in 1987, the DEP and MSCD signed a third memorandum of understanding which formally delegated sediment control plan review and approval to DEP.

The two most recent Council actions in the area of sediment control and stormwater management occurred in 1989. The first, Bill 18-89, enacted as emergency legislation in April 1989, added Article III, Floodplain District Requirements, to Chapter 19. Specifically, the new article brought County floodplain laws and regulations into conformance with State and federal requirements, established floodplain permit application and plan review procedures, and provided for inspection and enforcement of floodplain requirements by DEP staff. The second, Bill 14-89, enacted as emergency legislation in October 1989, addressed the issuance of sediment control permits, and the revision of regulatory requirements relating to land-disturbing and tree cutting activities.

The DEP has produced a number of Executive regulations relating to sediment control and stormwater management which the Council has approved. As of December 1990, the following pertinent Executive regulations were in effect:

- Executive Regulation 4-90AM, Stormwater Management Waiver Contributions, August 1990.
- Executive Regulation 5-90, Stormwater Management, August 1990.
- Executive Regulation 13-90, Certificates of Guarantee for Erosion and Sediment Control and Stormwater Management, November 1990.
- Executive Regulation 24-89AM, Floodplain Regulations, April 1990.
- Executive Regulation 38-86, Erosion and Sediment Control Rules and Regulations, March 1987.
- Executive Regulation 39-89AM, Schedule of Permit and License Fees Related to Building Construction (Section D, Sediment Control Permit Fees), December 1989.

V. THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SEDIMENT CONTROL AND STORMWATER MANAGEMENT RESPONSIBILITIES

A. Legal Basis

1. Overview. As described in Chapter IV, the legal authority for DEP's sediment control and stormwater management responsibilities has evolved over the past twenty years. Originally, policies and programs were established in Maryland law, with responsibility for program implementation delegated primarily to the Montgomery Soil Conservation District (MSCD), a political subdivision of the State. Over the past 20 years, the Maryland General Assembly has enacted a series of laws to enable the County gradually to assume full responsibility for control of erosion and sedimentation and stormwater management programs within the non-agricultural areas of the County.

2. Maryland Law. In 1987, the General Assembly enacted into State law a new Environmental Article. Within Title 4 of that Article, Water Management, two subtitles relate to the subject of this report: Subtitle 1, Erosion and Sediment Control, and Subtitle 2, Stormwater Management.

As required in the sediment control and stormwater management sections of the Environmental Article, the Maryland Department of the Environment (MDE) has published regulations covering both areas. COMAR 26.09.01 addresses erosion and sediment control, and COMAR 26.09.02 covers stormwater management.

3. County Law. Code Chapter 19, Erosion, Sediment Control and Stormwater Management, is the primary legal basis for the County's policies, procedures and responsibilities in these two areas. Erosion and sediment control are covered in Article I of Chapter 19, Sections 19-1 to 19-19; and stormwater management provisions are found in Article II of Chapter 19, Sections 19-20 to 19-35.

Other sections of the County Code that address an aspect of surface water management include:

- Section 2-21, Soil Erosion;
- Section 8-29, Building Within Floodplain Areas and on Unsafe Land;
- Article III, Chapter 19, Floodplain District Requirements;
- Section 26-10, Responsibilities of Owners and Occupants [to eliminate any condition that creates a public nuisance].
- Section 36-3, Fences or Barricades Required Around Ponds; and
- Section 50-32, Control of Floodplain Areas and Unsafe Land.

B. Organization

1. Overview. During the time OLO was conducting its review, the newly appointed Director of DEP, with the assistance of a Management Analyst from the Office of Management and Budget, conducted a study of DEP's organization with the goal of improving the Department's responsiveness and streamlining its service delivery to the public. One of the objectives of the management review was to consolidate all of DEP's water-related responsibilities which, since 1986, had been distributed among several sections and units.

In November 1990, the Director of DEP received approval from the County Executive to reorganize the Department, provided the reorganization would not include any additional personnel or funding. The new DEP organization consists of four divisions, one of which is a new Division of Water Resources Management, (see Chart 1, page 19). As reorganized on December 3, 1990, the authorized strength of the division is 48 full-time and 2 part-time positions.

2. The Division of Water Resources Management. The newly created Division of Water Resources Management (effective December 3, 1990), is responsible for most activities relating to sediment control planning, permitting and plan review; the County's stormwater management program; and inspection monitoring and enforcement.* The new Division of Water Resources Management consists of the following four sections:

- o The Office of the Division Chief is responsible for overall management of the division, and for planning, policy and program implementation.

- o The Permitting and Plan Review Section is responsible for sediment control/permit application intake, processing and issuance; stormwater management concept and plan review and approval related to specific development projects; review and action on waiver requests and collection and accounting of waiver contributions; and, at least for the present, CIP stormwater management participation projects.

- o The Inspection and Enforcement Section is responsible for inspection of sediment control and stormwater management facilities during construction; maintenance inspections; enforcement of the County Code, Executive Regulations and guidelines; and notices of violation, citations and/or stop work orders.

- o The Water Resources Planning Section is responsible for many other stormwater management activities: planning, monitoring, construction and maintenance of CIP retrofit projects, water quality and other studies, needs identification, the stormwater management chapter of the 10-year Water/Sewer Plan, and the inventory and status of maintenance of all County stormwater management facilities.

* The Division of Water Resources Management is also responsible for water supply and sewage systems planning, and baseline ground water monitoring at land fills.

REORGANIZATION OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

(Effective December 3, 1990)

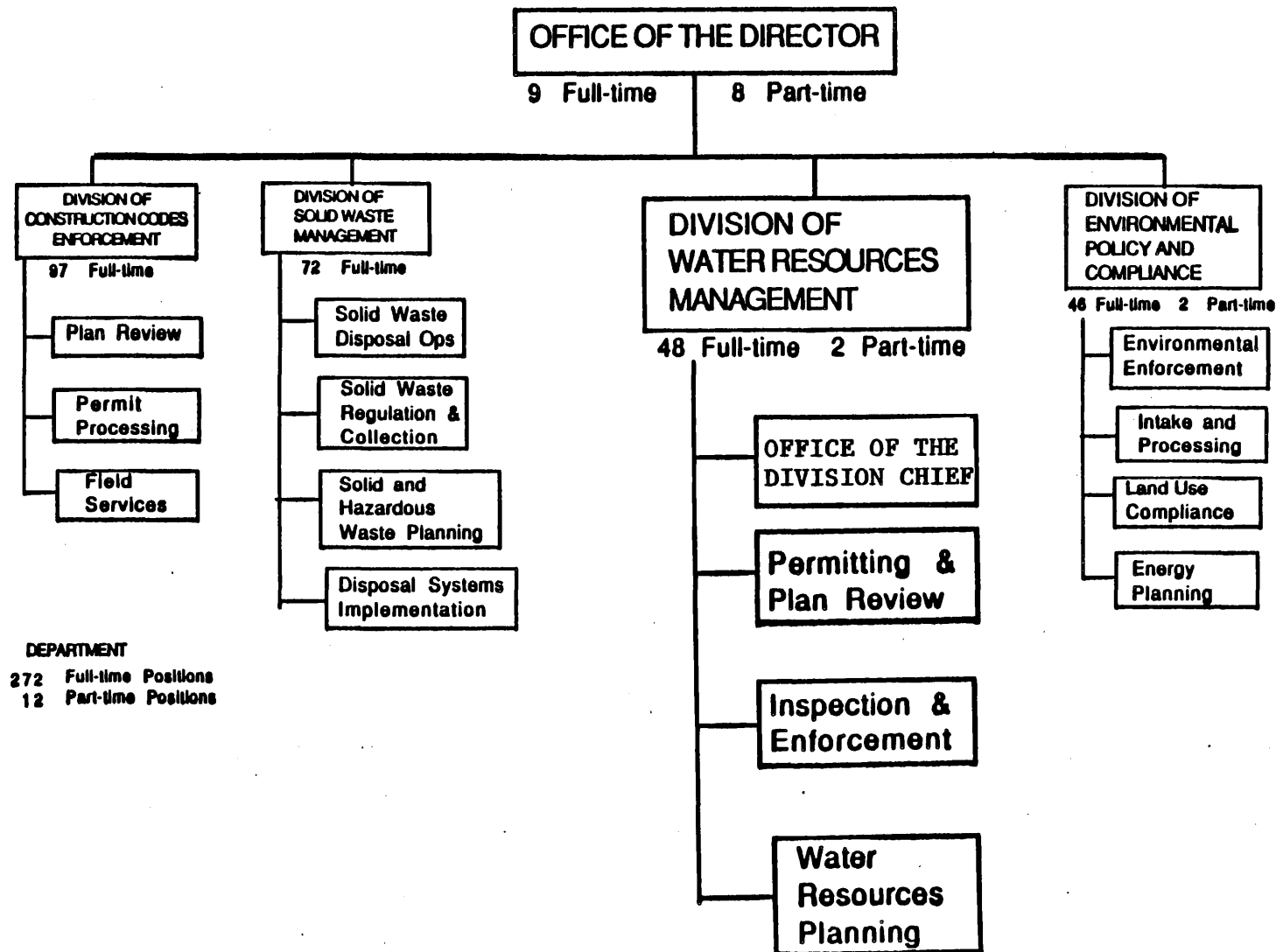


Chart 1

Source: Department of Environmental Protection.

3. Complaint Intake and Resolution. Another new unit established in the recent DEP reorganization is the Environmental Enforcement Unit. This unit, located within the Division of Environmental Policy and Compliance, was established to correct problems in handling complaints and responding to citizens concerns. The Environmental Enforcement Unit will consolidate existing DEP compliance and enforcement functions, focusing on all environmental areas to include water-related monitoring and enforcement functions.

Also created in the Division of Environmental Policy and Compliance is an Intake and Processing Unit which will develop and implement a customer problem-solving service. This unit will be the public's first contact point with DEP concerning potential violations of the zoning ordinance, or problems with weeds, trash dumping, abandoned cars, signs, fence or deck construction, or construction site sediment. The staff will be trained in customer service techniques and use standardized intake forms designed to elicit relevant information to assist field staff in completing a timely inquiry into citizen concerns.

C. Budget

DEP expenditure and revenue data for the operating and capital improvement (CIP) budgets are contained in Table 1 (page 22). The data were compiled by DEP for the four full fiscal years preceding the recent DEP reorganization (fiscal years 1987 through 1990).

To compile the budgetary information, DEP had to estimate some of the data because sediment control and stormwater management responsibilities prior to the December 1990 reorganization were distributed among several sections/units in two divisions of the Department.

The major categories of expenditure and revenues contained in Table 1 are briefly explained below.

1. Expenditures-Operating Budget. Expenditure data for the Division of Environmental Planning and Monitoring (now the Division of Environmental Policy and Compliance), is an estimate of personnel and operating expenses for one section, the Water Resources Planning Section.

The expenditure data for the Division of Construction Codes Enforcement represent personnel and operating expenses for all or parts of three activities: the Stormwater Management Section, the sediment control/stormwater management inspection and enforcement functions in the Field Service Section, and sediment control permit functions in the Permit Processing Section. Under the December 1990 DEP reorganization, these three elements now are divided between two new sections in the new Division of Water Resources Management: the Inspection and Enforcement Section and the Permitting and Plan Review Section.

2. Expenditures-CIP Budget. Included in Capital Improvement Program (CIP) expenditures are five categories of projects:

- On-going Stormwater Management Projects. Expenditures in this CIP category include feasibility studies, design and construction of stormwater retention projects to control stormwater runoff and maintain water quality. Funds for these projects come primarily from stormwater waiver contributions.

- Retrofit Stormwater Management Projects. Expenditures under this CIP category include the design and construction of water quantity/quality controls which are added to existing stormwater management facilities in developed areas (primarily in the lower County). Funds for these projects come from two sources: stormwater waiver contributions and the Maryland Department of the Environment's (MDE) Stormwater Pollution Control Cost-Share Program.

- Miscellaneous Stream Valley Improvements Projects. Expenditures in this category are for consultant studies to determine the cause of stream valley erosion, sedimentation and flooding; the preparation of design and construction documents; and the installation of corrective structures to short reaches of stream channels in developed communities. These improvements are necessary primarily because of the lack of comprehensive stormwater management at the time the watershed was developed. Funds for these projects have also come from stormwater waiver contributions; however, the recommended FY92-97 CIP proposes that some funding for these projects again come from general obligation bonds.

- Preliminary Stormwater Management Investigations Projects. In this CIP category are expenditures for computer modeling studies of sub-basins within selected watersheds that are either already intensely developed, are currently experiencing intense development, or are expected to be developed in the near future. The studies are conducted by consultants. The actual construction of projects resulting from these studies are either included in the County's on-going stormwater management CIP project or are built by a private developer. Funds for these studies also come primarily from stormwater waiver contributions.

- Stormwater Management Participation Program Projects. In this CIP category are projects where the County participates financially with a developer to construct a regional stormwater management facility when such construction can also benefit other properties in addition to the developer's. The County provides funds to the developer to construct a facility with additional storage capacity and features beyond the developer's legal requirement. As with the other CIP stormwater management projects, the stormwater waiver contributions are used to fund this program; however, in recent years, current receipts have also been used to fund participation projects. (See page 33 for a more detailed discussion of the DEP's Participation Program.)

Table 1

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
SEDIMENT CONTROL (SC) AND STORMWATER MANAGEMENT (SM)**

FY87 - FY90 Expenditures and Revenues

	<u>FY87</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>
a. <u>EXPENDITURES-OPERATING BUDGET</u>				
Environmental Planning and Monitoring*	\$ 62,800	\$ 87,850	\$ 127,280	\$ 186,300
Construction Codes Enforcement**	\$1,004,200	\$1,070,540	\$1,271,950	\$1,312,030
Sub Total:	\$1,067,000	\$1,158,390	\$1,399,230	\$1,498,330
b. <u>EXPENDITURES-CIP BUDGET</u>				
Environmental Planning and Monitoring*	\$1,366,000	\$ 791,200	\$1,220,500	\$1,275,000
Construction Codes Enforcement***	\$ 374,000	\$ 747,000	\$ 350,000	\$ 697,000
Sub Total:	\$1,740,000	\$1,538,200	\$1,570,500	\$1,972,000
Total Expenditures-OP and CIP:	\$2,807,000	\$2,696,590	\$2,969,730	\$3,470,330
c. <u>REVENUE</u>				
MD SM Grant-In-Aid	\$ 78,230	\$ 75,730	\$ 112,210	\$ 133,310
MD Stormwater Pollution Cost-Share Prog.	(-----See Note 1 Below-----)			
Sediment Control Permits	\$ 206,690	\$ 293,200	\$ 273,380	\$ 215,100
CIP Chargeback for Personnel	\$ 33,460	\$ 42,670	\$ 27,050	\$ 27,450
Stormwater Waiver Contributions	\$1,406,340	\$ 954,780	\$ 822,500	\$ 654,000
Fines	(-----See Note 2 Below-----)			
Total Revenue:	\$1,724,720	\$1,366,380	\$1,235,140	\$1,030,290

Notes: Not included in the above fiscal year revenue totals are the following:

1. The Maryland Stormwater Pollution Control Cost-Share Program. This State program provides matching funds to retrofit stormwater management facilities to improve water quality. Established in 1984, the State has either paid or committed to the County a total of \$650,000 from Maryland appropriations for fiscal years 1984 thru 1990, for eight County retrofit projects.
2. Fines. The Department has not routinely maintained records of collections of fines for SC/SM citations. However, the Department compiled a one-time report for the State on fines collected during FY89. That report indicated that \$94,500 was paid to the County in fines for sediment control violations.

* Prior to reorganization includes only the Water Resources Planning Section.

** Prior to reorganization includes the Sediment Control/Stormwater Management Unit, the Stormwater Management Section, and the sediment control functions of the Permit Section.

*** Includes only participation projects administered by the former Stormwater Management Section.

Source: Department of Environmental Protection.

3. Revenue. In addition to general revenues appropriated by the Council, DEP sediment control and stormwater management activities generate revenues in four major categories:

- Two Grants from the State. **The Maryland Stormwater Grant-in-Aid** provides funding for personnel expenses to support stormwater management operations which the Department of the Environment has approved. Grant-in-Aid funds have been used to support construction code analysts, engineers and inspectors. **The Maryland Stormwater Pollution Control Cost-Share Program** provides matching funds to retrofit stormwater management facilities to improve water quality. Established in 1984, the State has either paid or committed to the County a total of \$650,000 from Maryland appropriations for fiscal years 1984 through 1990, for eight county retrofit projects.

- Sediment Control Permits. The current sediment control permit fee, revised in December 1989 (Executive Regulation 39-89AM), is \$0.005 per square foot of disturbed area where on-site stormwater management is waived, or \$0.006 per square foot where on-site stormwater management design review is included. There is a minimum application fee of \$50. (It should be noted that the sediment control permit fee also covers DEP's review of the stormwater management plan.)

- Stormwater Waiver Contributions. To obtain an on-site stormwater management waiver from either the two-year stormwater runoff requirement or the water quality requirement, or both, the applicant must: request the waiver; meet specific water quantity and quality control criteria; and make a monetary contribution for water control or water quality control, or both. The amount of the contribution for water quantity is based on the zone or the percent of imperviousness of the area being developed; and the amount of the contribution for water quality is based on the percent of imperviousness of the area being developed. As reflected in Table 1, stormwater management waiver contributions have declined each year for the most recent four fiscal years, FY87 to FY90. The most recent Council-approved contribution schedule is contained in Executive Regulation 4-90AM, effective August 1990.

- Fines. The Department has not routinely maintained records of collections of fines for SC/SM citations. However, the Department compiled a one-time report for the State on fines collected during FY89. That report indicated that \$94,500 was paid to the County in fines for sediment control violations.

D. Sediment Control and Stormwater Management Operations

1. Overview. This section of the report describes the major operational responsibilities of the Department of Environmental Protection (DEP) in the areas of erosion and sediment control and stormwater management. Although the County Code and Executive regulations address sediment control and stormwater management separately, operationally there is considerable

overlap between the two operations. For example: the developer's sediment control plan must complement the stormwater management plan; the fee which is paid for the sediment control permit also covers review by the DEP staff of the sediment control plan and the stormwater management plan; and the DEP sediment control inspectors are also responsible for inspecting stormwater management facilities and enforcing stormwater management laws and regulations.

2. Sediment Control Plan Review and Permitting Process. Erosion and sediment control is broadly defined as those measures which minimize off-site sedimentation from land-disturbing activities. Since 1971, the County has required that, prior to any excavation, stripping, grading or filling of any property in the County, a plan for these activities must be submitted for review and approval, and a sediment control permit must be obtained. As described in Chapter IV, prior to 1987, the County issued a permit based on a sediment control plan approved by the Montgomery Soil Conservation District (MSCD). In August 1987, under authority established the previous year by the Maryland General Assembly, the MSCD, by a memorandum of understanding, delegated DEP the authority to review and approve sediment control plans and to issue a sediment control permit for land-altering activities. Throughout the development stage, DEP conducts inspections to ensure that the land-disturbing activities are carried out in accordance with the approved sediment control plan and permit conditions.

Land-disturbing activities include any earth movement or land changes which may result in soil erosion from water or wind, or the movement of sediment into streams or other waters, or onto other land. The specific exceptions where a permit is not required include: minor land-disturbing activities (less than 100 cubic yards of earth moved or less than 5,000 square feet of surface area disturbed); agricultural land management practices used in the cultivation of land for crop and livestock practices (plowing, construction of agricultural structures); utility work, such as that performed by the Washington Suburban Sanitary Commission; tree cutting under certain conditions; and federal and State projects.

Sediment control permits are issued in two categories. The first category applies to large land-disturbing projects that require an engineered plan. The second category applies to smaller land-disturbing activities (under 20,000 square feet for commercial or 30,000 square feet for residential development), for which a Small Land Disturbing Activities (SLDA) permit may be issued. However, if the smaller land-disturbing activity is complex or contains a stormwater facility, an engineered plan may be required. Table 2 summarizes the number of permits issued for the most recent three fiscal years:

Table 2

**DEP SEDIMENT CONTROL PERMITTING ACTIVITIES
FY88 - FY90**

<u>Type Sediment Control Permit</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>
Permit Applications - Engineered Plan	635	667	540
Permits Issued - Engineered Plan	a)	448	422
Permit Applications - SLDA ^{b)}	634	561	416
Permits Issued - SLDA ^{c)}	627	566	401

-
- a) Data not available in this category for FY88.
b) Small land-disturbing activities.
c) More than one SLDA permit can be issued on one application.

Source: Department of Environmental Protection.

Prior to issuing a sediment control permit, DEP must first approve the developer's sediment control plan. In the case of a SLDA, the plan can be a simple sketch or other document describing the sediment control measures. However, in the case of an engineered plan development, a detailed sediment control plan is required. The plan must clearly present the developer's scheme for minimizing sedimentation on any off-site property, in storm drains, and in watercourses. The plan, drawn to scale, must depict on-site grading and drainage control measures and other pertinent data such as contours or elevations, areas to be disturbed, sediment control facilities and sediment trapping devices (pools, basins, silt fencing).

Under current DEP regulations, there is no separate fee for plan review, as it is included as part of the permit fee that is paid at the time the permit is issued. This arrangement has created a problem for DEP when the developer decides after plan review either not to build or to postpone building. In either situation, the developer does not obtain the sediment control permit that was applied for, and the County is not able to collect any fee for the considerable DEP staff time expended in plan review.

Periodically, the Montgomery Soil Conservation District (MSCD) requests a list of DEP-approved sediment control plans, which the MSCD spot checks. Under the 1987 memorandum of understanding, the MSCD can reject any plan that, in its opinion, does not meet MSCD criteria, standards or specifications. In the period immediately after the memorandum of understanding went into effect, MSCD found minor discrepancies with DEP-approved plans. However, MSCD has never found a major discrepancy or returned a plan to DEP.

DEP sediment control inspectors are authorized to allow minor field modifications to approved sediment control plans. However, major modifications of approved plans must be reprocessed by DEP. There is a fee of 25% of the original permit fee (with a minimum of \$50 and a maximum of \$300) to revise an approved plan.

3. Sediment Control Performance Bond. Prior to issuing a sediment control permit, County law (Code Section 19-10) requires that the developer provide a corporate performance bond, an irrevocable letter of credit, a cash bond, or a certificate of guarantee, to ensure the faithful performance of the erosion and sediment control measures specified on the plan and in the permit. Should the bond or certificate of guarantee not be maintained, the Director of DEP must revoke the sediment control permit.

The current formula for calculating the value of the bond is often less than the cost to install the required sediment control measures. Furthermore, the law caps the bond at \$10,000, which, according to DEP staff, can be less than the cost to install and maintain the sediment control measures for larger development projects. Recent discussions before the Council indicate that DEP staff is reviewing the \$10,000 cap and will be recommending changes to the law.

4. Stormwater Management Plan Review Process. Plan review refers to those administrative tasks associated with reviewing stormwater management concepts and sketches, detailed site plans, record plat and any plan revisions. For most projects there are usually several plans and multiple plan reviews.

County law requires that all development and redevelopment include provisions for collection, conveyance, storage, treatment and disposal of stormwater runoff in a manner to prevent accelerated stream channel erosion, increased flood damages and/or reduction of water quality. To ensure accomplishment of this requirement, County law specifically requires that, with some exceptions,* all development occurring within the County be developed under a plan that minimizes water quality impacts on receiving streams and either contains on-site measures or provides for off-site stormwater management facilities adequate to control the increased runoff produced by the two-year storm event so as to prevent accelerated erosion and enlargement of streams.**

* By law (Code Section 19-25), the stormwater management requirements do not apply to construction of single-family residences, or their accessory buildings, on lots of two acres or larger.

**The two-year storm is one which has a mathematical probability of occurring at least once every two years or has a 50 percent chance of occurring in any given year. The two-year storm control policy was based on the determination that runoff from the two-year storm establishes the general shape of the stream channel.

Specifically, County law and regulations require that, as part of the subdivision process (Code Chapter 50), each application to the Maryland-National Capital Park and Planning Commission (M-NCPPC) for subdivision plan review include provisions for stormwater management. The process starts with submission of a preliminary plan (or an optional pre-preliminary plan) to the Montgomery County Planning Board (Planning Board). All applicants for approval of a preliminary plan of subdivision must prepare and submit to DEP a statement and/or drawing, describing, in concept, the manner in which erosion, sediment, water quality impacts and stormwater resulting from the development will be controlled or managed. This concept plan must indicate whether stormwater will be managed on-site or off-site, and if the stormwater management facility is on-site, the general location and type of management.* As will be discussed later in this chapter, the requirement for a concept plan can be waived by the Director of DEP.

Although County law explicitly grants the Director of DEP the authority to approve the stormwater concept plan or grant a waiver, the DEP staff and Board staff work closely, along with the staffs of other interested agencies (Department of Transportation, Parks Department), to develop a coordinated and mutually acceptable stormwater management plan.

The DEP stormwater management plan review process usually involves five distinct review stages: the preliminary plan stage (and pre-preliminary if utilized); the site plan stage; the record plat stage; the sediment control/stormwater management stage; and the building permit stage:

- At the preliminary plan stage, the applicant must provide a stormwater management concept plan to DEP for approval or waiver from the requirement. At this stage, DEP reviews the stormwater management practices to be used; examines the documentation for determining the feasibility for infiltration and flow attenuation; and, if infiltration and flow attenuation are not feasible, examines the feasibility of retention (wet) facilities.

- For those specific developments where site plan review is required by the zoning ordinance, the site plan stage verifies that the same documentation as required in the stormwater management concept plan is prepared, and also verifies that the plan displays the specific locations of stormwater management facilities, the approximate contours, and other site-specific information.

* There are a number of approved structures to manage stormwater runoff, control accelerated stream channel erosion, and prevent or minimize pollution derived by run-off from impervious surfaces. These include infiltration devices, detention and retention facilities (ponds), oil-grit separators, and underground storage facilities. In addition, there are a variety of other structures and measures which are referred to as Best Management Practices, or BMPs. These BMPs are technological solutions to complex environmental problems, which usually only partially meet the objectives of the County's sediment control and stormwater management regulations.

- At the record plat stage, all stormwater management quantity and quality control concepts must be approved prior to recording a plat of a subdivision. In addition, all maintenance responsibilities for stormwater management must be defined.

- The sediment control and stormwater management plan stage provides the DEP staff with the opportunity to review again the developer's detailed designs for conformance with appropriate regulations, criteria, and concepts approved in the preliminary plan stage. Maintenance access easements and covenants are reviewed and recorded prior to issuing the sediment control permit.

- At the building permit stage, administrative reviews ensure that all stormwater management requirements have been met, that any waiver contributions have been received, and that a sediment control permit has been issued prior to issuance of any building permits. For developments that do not require a building permit (parking lots, public road projects), the DEP still requires an approved stormwater management plan, or waiver thereof. If a waiver is granted, a contribution is required prior to DEP issuing a sediment control permit. In the case of public road projects, there is close coordination between the County's Department of Transportation's (DOT) and DEP's staffs concerning stormwater management controls for both flow rate (water quantity) and water quality.

Throughout the entire plan review process, detailed checklists are completed, and log sheets and files are maintained. Table 3 summarizes DEP's plans review activity for the past four fiscal years.

5. Stormwater Management Performance Bond. Through the subdivision review process and record plat (and site plan review if required by the zoning ordinance), the stormwater management plan must be followed, and if it is modified, the modification must be approved by the DEP. As in the case of a mandatory sediment control performance bond for land-disturbing activities, a stormwater management performance bond in the form of a cash bond, a certificate of guarantee, or another instrument provided in the law, must be posted. However, unlike in the case of the sediment control performance bond, the stormwater management performance bond provisions in the County Code (Section 19-32) do not specify a cap. Rather, the law requires that the stormwater management performance bond must be in an amount equal to the estimated cost of constructing the stormwater management facilities indicated on the stormwater management plan.

Notwithstanding the legal provisions, the DEP staff has been placing a \$10,000 cap on the stormwater management performance bond. In addition, under provisions of Code Section 19-10 and Section 3 of Executive Regulation 5-30, applicants have been permitted to combine the stormwater management performance bond with the sediment control bond, with a \$10,000 cap applied to the combination. However, immediately prior to publication of this report, OLO was informed that beginning on April 1, 1991, the \$10,000 cap will no longer be applied to the stormwater management performance bond.

Table 3

**DEP PLANS REVIEW ACTIVITY
FY87 - FY90**

<u>Sediment Control (SC) and Stormwater Management (SM) Plans</u>	<u>FY87</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>
Number of Plan Reviews ¹⁾	620	1,108	1,566	1,220
Number of Plans Approved	155	360	414	392
Ratio of Plan Reviews to Plans Approved	4:1	3:1	4:1	3:1
<u>Preliminary Plans of Subdivision²⁾</u>				
Number of Preliminary Plans Reviewed With SM Required	313	302	564	449
Number of Preliminary Plans Reviewed With SM Exempt ³⁾	<u>78</u>	<u>76</u>	<u>132</u>	<u>88</u>
Total Preliminary Plans of Subdivision:	391	378	696	537

1) The same plan can be reviewed more than once.

2) Includes plan revisions and site plans.

3) By law (Code Section 19-25), the stormwater management requirements do not apply to construction of single-family residences, or their accessory buildings, on lots of two acres or larger.

Source: Department of Environmental Protection.

6. State Triennial Review of the Stormwater Management Program.

Under State law, the stormwater management program of each county must be reviewed at least once every three years by the Maryland Department of the Environment (MDE). The most recent review of Montgomery County's program was completed in July 1988, with a finding that the County's program was acceptable. Included among the major findings of the MDE 1988 review were that:

- The DEP's plan review procedures included detailed checklists, which ensure an effective plan review process;
- The use by DEP inspectors of portable computers to record observations facilitates on-site recording of critical inspection information for later transfer to the County's mainframe computer for recording and reporting of sediment control/stormwater management status and violations; and
- The pond construction specifications which the County developed are more detailed than required by the U.S. Department of Agriculture's Soil Conservation Service.

However, the triennial review noted one major area of concern. The MDE evaluators found that maintenance inspections of stormwater management facilities did not appear to be a regular part of the DEP inspection program. (A full discussion of maintenance of stormwater management facilities begins on page 37.)

7. Waivers of On-Site Stormwater Management. When the Council enacted a mandatory stormwater management program in 1980 (Bill 89-79), requiring, with some exceptions, that all development provide for on-site stormwater management, the Council included a provision that the Montgomery Soil Conservation District (MSCD) could waive the requirement if certain conditions and criteria were met.* In 1984, the authority to grant waivers was delegated by the MSCD to DEP in a memorandum of understanding. Currently, DEP's authority to grant waivers from on-site stormwater management is contained in County Code Section 19-26, provided conditions and criteria enumerated in Executive Regulation 5-90 are met.

To obtain an on-site stormwater management waiver from either the two-year stormwater runoff requirement or the water quality requirement, or both, an applicant must request the waiver and meet specific water quality and water quantity control criteria. In addition to meeting the technical

* The exceptions from County law include agricultural land management activities; additions/modifications to existing single family detached residential structures; residential developments consisting of single family structures on a lot of two acres or larger; and land development which is regulated by State law.

criteria for the waiver, the applicant is also required to make a monetary contribution* for water quantity control and/or quality control, provide drainage improvements, grant an easement, and/or dedicate land for an off-site stormwater management facility.

Although County and bi-County public agencies are subject to the same legal requirement to install on-site stormwater management or obtain a waiver from the DEP as are private developers, currently a monetary contribution is collected only from the Board of Education, the Revenue Authority and the Housing Opportunities Commission, but not from the other County and bi-County public agencies.

The payment of a waiver contribution does not in itself relieve an applicant from providing for some on-site stormwater management. Most waivers require the installation of some specific stormwater management measures, such as water quality inlets (oil-grit separators), grass or other regulated filter strips, stream channel riprap, gabions or storm drains. The specific management practices that are selected must enhance water quality, minimize stream channel erosion, and correct any existing storm drainage problems.

Since FY87, monetary stormwater management waiver contributions have been dedicated to funding stormwater management CIP projects. These projects include construction of new stormwater management facilities; retrofitting of older stormwater management facilities in developed areas; miscellaneous stream valley improvements; stormwater management studies and investigations; and regional participation projects (discussed more fully in the next section). At Table 4 is a history of stormwater management waivers for the most recent four fiscal years.

While generally judged to be innovative and successful, the on-site stormwater waiver program has not been without its critics. One area of concern has been the adequacy of documentation to support the waiver decisions and the fees assessed. In response to this criticism, in 1988, the Director of DEP requested an independent public accounting firm to audit a sample of waivers granted during 1985, 1986 and 1987. The audit report concluded that generally all waivers were granted and fees were assessed in accordance with County regulations.

* The amount of the contribution for water quantity is based on zoning or the percent of imperviousness of the area being developed, and the amount of the contribution for water quality is based on the percent of imperviousness of the area being developed. The most recent Council-approved contribution schedule is contained in Executive Regulation 4-90AM, effective August 1990.

Table 4

**DEP STORMWATER MANAGEMENT WAIVERS
FOR WATER QUANTITY (QN) AND WATER QUALITY (QL)
FY87 - FY90**

	<u>FY87</u>		<u>FY88</u>		<u>FY89</u>		<u>FY90</u>	
	<u>QN</u>	<u>QL</u>	<u>QN</u>	<u>QL</u>	<u>QN</u>	<u>QL</u>	<u>QN</u>	<u>QL</u>
# Waivers Requested	271	206	398	350	452	429	332	305
# Waivers Denied	3	81	5	71	50	169	22	96
# Waivers Granted	268	125	393	279	402	260	310	209
Contributions	\$1,406,340		\$954,780		\$822,500		\$654,000	

Source: Department of Environmental Protection.

Another concern, often expressed by Council staff and DEP staff, was that the waiver contribution fees were too low and did not reflect actual costs to construct on-site facilities. This concern was verified in a January 1989 review of stormwater management fees and expenses by an independent auditing firm. In mid-1989, the Director of DEP requested staff prepare new fee schedules, which were presented to representatives of the development community for review. The result was a new Executive Regulation 4-90AM, effective in August 1990, which substantially increases the contribution schedule for both water quantity and water quality waivers. However, because of a transition period during which the increased fees are phased in over a two-year period, waiver contributions will not immediately reflect the higher rates.

A third area of concern has to do with the use of stormwater waiver contribution funds. As stated earlier, these funds are currently used not only to construct off-site regional stormwater management facilities in the watershed where the waived development is located, but also to fund on-going stormwater management facilities and to retrofit older facilities in other watersheds. The use of waiver funds for projects outside of the watershed where the waiver was granted has been criticized for being contrary to the fundamental purpose of the waiver contribution, that is, to pay for the construction of larger, off-site stormwater facilities in the watershed.

The fourth concern relates to the timing of the waiver. In the past, the staff of the Maryland-National Capital Park and Planning Commission (M-NCPPC) has criticized DEP for approving a waiver for off-site stormwater management, collecting the developer's monetary contribution, and permitting

the developer to begin developing before the off-site facility is constructed.* The DEP staff reacted to this criticism, and for the past two years has required that developers provide interim on-site stormwater management if site development is initiated before the off-site regional facility is constructed.

The interagency Water Policy Group has addressed these and other concerns relating to the waiver process and has recommended a number of improvements to the program. Among the recommendations is the preparation of "guidelines" for administering the issuance of waivers.

According to Council staff, a State requirement has made the waiver program difficult to implement. The requirement specifies that infiltration** be the first choice when considering stormwater management facilities. This requirement is difficult to satisfy in Montgomery County because practically all of the County's soil has a high clay content.

8. Stormwater Management Participation Program. In the previous discussion of stormwater management waivers, it was pointed out that County law requires that all development and redevelopment provide stormwater management controls for both water quantity (flow rate) and water quality after development is completed. A developer can satisfy the requirement for on-site stormwater management controls in one of three ways:

- Construct on-site controls (or off-site controls on the developer's property or Park and Planning property);
- Obtain a waiver and make a waiver contribution (monetary or land), and, in most instances, tie into a stormwater management regional facility that is either in place or planned. (The County is responsible for constructing non-participation regional facilities); or
- Take advantage of the County's Participation Program by entering into an agreement with the County to construct a regional stormwater management facility.

* Although DEP has sole authority to approve waivers, the Montgomery County Planning Board can appeal the waiver decision to the Director, DEP.

** Infiltration is the downward movement of water from the surface to the subsoil which results in the removal of a number of physical, chemical and biological pollutants.

The County's Participation Program (established in 1980 and currently included in Code Section 19-28), enables the County to participate with a developer in the construction of a regional stormwater management facility whereby the County provides funds for additional storage capacity and features beyond the developer's legal requirements. The additional capacity that is generated in the regional facility is used to accommodate future development in the watershed, or to correct existing stormwater management problems. The County may participate by the purchase or dedication of additional land as may be necessary for the larger regional facility, and/or participate financially in the cost of constructing the larger stormwater management facility. In every case, preparation of drainage studies and plans, securing of all necessary permits, and construction of the facility is the responsibility of the developer, with oversight by DEP staff.

The benefits from the County's Participation Program accrue to both the developer and the County:

- The program provides an equitable system of joint funding by private developers and government for more efficient regional stormwater management facilities.
- The construction of a larger regional facility helps correct water runoff and water quality problems caused by inefficient or non-existent stormwater management controls on older developed sites.
- The County's financial participation reduces the overall cost to the participating developer and the cost of subsequent development in the watershed. At the same time the County's financial contribution is substantially less than what it would be if the County alone constructed a regional facility.
- Finally, because DEP assumes structural maintenance responsibility for the regional facility (M-NCPPC has maintenance responsibility for facilities located on Park Department property), the Participation Program can ensure perpetual structural maintenance of the stormwater management facility as long as funding is provided.

To date, the County has participated or is participating in a total of 47 stormwater management projects. As of December 1990, 24 projects have been completed and are operational, another nine are under construction and the remaining 14 are in various stages of design. For the most recent four fiscal years (FY87-FY90), expenditures and encumbrances for the Participation Program totaled \$2,168,000. When the program was initiated in FY80, funding for participation projects was provided from general obligation bonds. Over the years, funding from bonds has been replaced by a combination of dedicated stormwater management waiver contributions and current receipts, with the majority coming from waiver contributions.

The need for current receipts to augment stormwater management waiver contributions results from two situations. First, despite the large number of waivers granted by DEP, the low level of waiver fees collected under the previous contribution schedule limited the total amount of funds collected. (The recent increase in the waiver contribution schedule should provide additional funds for the County's contribution and thereby make the program more attractive to developers.) Second, in addition to funding participation projects, waiver contributions have also been used to fund several other stormwater management CIP projects. (See page 21.)

9. Sediment Control and Stormwater Management Inspections and Enforcement. County law and regulations, and Maryland Department of the Environment (MDE) regulations, direct that construction and maintenance of sediment control and stormwater management facilities be inspected periodically. DEP is responsible for conducting these inspections and, by delegation from the State, is also responsible for enforcing compliance with the provisions of State laws and regulations.

County law (Code Section 19-12) requires that DEP be informed 48 hours prior to commencing any land-disturbing activity, so that a preconstruction conference between the sediment control permittee and a DEP representative may be held. County law also specifies a minimum of five stages during development when DEP inspections will be conducted: following installation of sediment control measures; during construction of sediment basins/stormwater management structures; during rough grading; prior to removal or modification of sediment control measures; and upon completion of final grading, including placement of ground covers and installation of all vegetative measures in accordance with the approved plan.

The frequency of the DEP inspections complies with MDE regulations (COMAR 26.09.01.09), which require that every active site be inspected for compliance with the approved erosion and sediment control plan at least once every two weeks. This frequency is necessary because the landscape at a construction site changes dramatically over a short period of time.

To carry out the field inspection and enforcement functions, DEP is authorized a total of 12 sediment control/stormwater management inspectors,* two field supervisors, and one program manager. This staffing complement represents an increase of more than 65 percent from the FY86 staffing complement. The increase in the number of inspectors reflects not only an increase in construction projects during that period, but also a reaction to repeated findings by the Maryland Department of the Environment (MDE) that DEP was understaffed in sediment control inspectors.

* The official title of a DEP inspector is Construction Code Representative; however, in practice, the term "inspector" is almost always used.

Under State law, the MDE has authority to enforce State-mandated sediment control provisions. Also under the same State law, MDE can delegate that authority to counties for a maximum of two years, unless renewed by the State. In March 1985, the State denied delegation of enforcement authority to the DEP, primarily because of insufficient enforcement staff. For the next four years, the MDE delegated enforcement authority to the DEP, but only in one-year increments. In their annual reviews, the MDE continued to comment on the lack of sediment control inspectors; however, because the County was attempting to add more inspectors, a one-year delegation was granted each year.

In FY90, citing the excellence of the County's sediment control enforcement policies and procedures and the addition of three Council-funded sediment control inspectors, the MDE delegated erosion and sediment control enforcement authority to the County for the maximum two-year period permitted by State law.

DEP inspectors follow specific procedures in enforcing the County sediment control and stormwater management laws. In general, the enforcement procedure is a three-stage process: issuance of a notice of violation, issuance of a citation (either criminal or civil), and finally, issuance of a stop work order.

With two exceptions, a violation of a provision of Code Chapter 19 or a special condition of the sediment control permit usually results in the issuance of a notice of violation. The notice always contains a description of what constitutes the violation, explicit corrective actions that must be taken, and a specific date by which the corrective action is to be completed.

The two exceptions when a sediment control violation results not only in a notice of violation, but also in the simultaneous issuance of a citation are:

- Violation of Code Section 19-13: Failure to maintain sediment control structures, measures and devices; and
- Violation of Code Section 19-16: Deposit of sedimentation on private or public property, in a storm drain or a watercourse, or upon a public roadway thereby creating a hazardous condition.

As stated above, each notice of violation specifies a date by which the violation must be corrected. If at the end of the compliance time specified in the notice of violation (usually 14 days), the violation has not been corrected, a Class A civil citation (\$250),* is issued and another compliance date for corrective action is directed. This second compliance

* DEP inspectors can issue either a Class A criminal citation or Class A civil citation. Rarely has a criminal citation been issued. Under Code Section 1-19, a Class A criminal citation carries a maximum fine of \$1,000 and a maximum jail term of 6 months. A Class A civil citation carries a maximum fine of \$250 for the initial offense and \$500 for each repeat offense.

time is usually one-half of the original compliance time. Should the violation not be corrected by the time of the second reinspection, a \$500 repeat offense civil citation and a stop work order is issued with a one-quarter compliance time. If the violation is not corrected at the third reinspection, a \$500 repeat offense citation is issued for each day the code violation continues to exist.

Notwithstanding the above normal enforcement procedure, the Director of DEP, after notice to a developer, may seek injunctive relief, or revoke or suspend the sediment control permit. Because the sediment control permit is a prerequisite for a building permit, revocation of the sediment control permit automatically revokes a developer's building permits.

The majority of the violations that result in a notice of violation, or more severe enforcement action, is found during site visits by DEP sediment control/stormwater management inspectors. However, DEP receives information of other violations in written complaints, or complaints received over DEP's complaint hotline from concerned citizens.

At Table 5 is a summary of the number of notices of violation, citations and stop work orders which DEP has issued in the past four fiscal years. Also included in Table 5 are the number of sediment control/stormwater management complaints received in the same period.

Table 5

**ENFORCEMENT ACTIONS BY DEP
SEDIMENT CONTROL (SC)/STORMWATER MANAGEMENT (SM) INSPECTORS
AND TOTAL SC/SM COMPLAINTS RECEIVED BY DEP
FY87 - FY90**

<u>FY</u>	<u>Notices of Violation</u>	<u>Citations</u>	<u>Stop Work Orders</u>	<u>SC/SM Complaints</u>
87	1455	390	116	319
88	1397	478	162	1080
89	1241	426	115	984
90	1205	453	223	708

Source: Department of Environmental Protection.

The Department has not routinely maintained records of collections of fines for SC/SM citations. However, the Department compiled a one-time report for the State on fines collected during FY89. That report indicated that \$94,500 was paid to the County in fines for sediment control violations.

10. Construction and Maintenance Inspections of Stormwater Management Facilities. Stormwater management facilities require periodic inspection and maintenance to assure that they are functioning to design specifications. There are two aspects to the maintenance of stormwater facilities. One relates to the routine or aesthetic maintenance (mowing, removing trash). The other is the operational or structural maintenance necessary for the continued efficient operation of the facility (dredging of silt, functioning of inlet and outlet structures). It is this second aspect, structural maintenance, which is discussed here. The importance of maintenance inspections is illustrated by the fact that it is addressed in specific detail in both State regulations and in County law:

- MDE COMAR 26.09.02.10 specifies that stormwater management facilities be inspected during the first year of operation and then at least once every three years to insure that maintenance requirements are being met.

- County Code Section 19-29 requires that after accepting an off-site stormwater management facility, the DEP must inspect the facility at least twice each year to ensure it is being maintained.

- Finally, County Code Section 19-30 requires that private on-site stormwater management facilities be inspected annually to ensure that they are being maintained in working condition and that they continue to meet design standards.

To ensure access to an on-site facility, the law also requires that, prior to issuance of a building permit that includes an on-site stormwater management facility as one of the requirements of the permit, the applicant must execute an easement and an inspection and maintenance agreement with DEP, both of which are recorded in the County's land records. The inspection and maintenance agreement is binding on all subsequent owners of land served by the on-site stormwater management facility. Further, the law requires that the agreement must provide that if the owner does not take action in a reasonable time to correct a violation in the design standards of the facility or does not maintain the facility in proper working condition, the DEP may perform all necessary corrective work and apply the cost of the work, and any penalties, as a lien on the property. (Unfortunately, these provisions were legislated after many stormwater facilities were constructed in the County.)

At Table 6 is a summary of construction and maintenance inspections by DEP sediment control/stormwater management inspectors for four calendar years.

Table 6

**DEP SEDIMENT CONTROL (SC)/STORMWATER MANAGEMENT (SM)
CONSTRUCTION AND MAINTENANCE INSPECTIONS
CY87 - CY90**

	<u>CY 1987</u>		<u>CY 1988</u>		<u>CY 1989</u>		<u>CY 1990</u>	
	<u>SC</u>	<u>SM</u>	<u>SC</u>	<u>SM</u>	<u>SC</u>	<u>SM</u>	<u>SC</u>	<u>SM</u>
Construction	10,046	995	10,683	1,141	11,409	1,068	15,365	1,678
Maintenance	N/A*	251	N/A	17	N/A	6	N/A	11

* Maintenance inspections of sediment control measures and devices are conducted during the construction phase of development, but not less than once every fourteen days. When construction is completed, most sediment control measures and devices are either removed (basins, traps and silt fences), or are converted to stormwater management facilities.

DEP staff acknowledges that it has not complied with requirements for maintenance inspections specified in the County Code (once a year for on-site stormwater management facilities, twice a year for off-site facilities). The two reasons DEP staff has given for not having a maintenance inspection program for stormwater management facilities are: (1) the heavy sediment control inspection workload; and (2) the shortage of inspectors. (As noted earlier in the report, the same DEP inspectors are responsible for both sediment control and stormwater management). Faced with a workload beyond the capacity of the assigned inspectors, and the knowledge that the failure or absence of sediment control measures and devices cause the majority of the erosion and sedimentation problems, DEP management decided to concentrate on sediment control construction and maintenance inspections, and to limit stormwater management maintenance inspections to only reacting to complaints.

The Maryland Department of the Environment (MDE) has been aware of the County's deficiency in this area. In its July 1988 triennial review and evaluation report on the County's Stormwater Management Program, the MDE concluded that, while rating the County's overall program as acceptable, it noted that stormwater maintenance inspections should receive additional attention as it did not appear to be a regular part of the County's inspection program. With the current slowdown in development, DEP inspectors are preparing to devote considerably more time to maintenance inspections of stormwater facilities.

11. Structural Maintenance of Stormwater Management Facilities.*

Not only has maintenance inspections of stormwater management facilities been minimal, there is also lacking an efficient maintenance program for these facilities. Stormwater management facilities in the County fall into the following four categories:

- County Facilities Maintained by DEP. In this category are relatively new facilities constructed under the County's Participation Program or DEP's on-going stormwater management facilities CIP program. When entering into a participation agreement with a private developer, the County retains responsibility for structural maintenance. However, the County has not always funded such maintenance at a level necessary to perform the task. In recent years, DEP had budgeted approximately \$10,000 each year for structural maintenance. However, DEP management did not include any funds in the FY91 operating budget for structural maintenance.

DEP's FY91 operating budget includes \$70,000 for the first phase of a two-phase engineering and safety survey of public stormwater management facilities and private facilities of homeowners' associations. The request for proposal for this first phase will specify the conduct of an inventory; the development of a computer database of stormwater management facilities; and a field survey of 150 of the facilities (50 constructed before 1978, 50 constructed between 1978 and 1985, and 50 constructed between 1986 and 1989) to determine their operational status and structural maintenance requirements. The second phase planned for FY92, will involve a field survey of the remaining stormwater management facilities.

- Parks Department Facilities. The Parks Department estimates that approximately 70 facilities are located in stream valley conservation areas and on other parklands. These facilities were either constructed under the CIP program of the Maryland-National Capital Park and Planning Commission

* The exact number of stormwater management facilities in each of the four categories is not known. Estimates range anywhere from 1,300 to 3,000, with the general consensus setting the number at somewhere between 1,500-2,000. In the past the County has not kept a record of stormwater facilities. Adding to the problem is the wide variety of structures that are classified as stormwater management facilities. County Regulation 5-90 defines a stormwater management facility as "an infiltration device, vegetative filter, structure, channel, pipe, weir, orifice, or combination of same, designed and constructed to control runoff in a manner to prevent stream channel erosion and pollution of streams resulting from storm runoff". The most commonly used stormwater management facilities include: wet and dry retention or detention ponds, oil-grit separators, underground storage pipes and tanks, wetland/shallow marshes, and infiltration trenches.

(M-NCPPC) or were constructed by private developers on Parks Department property. The M-NCPPC is responsible for aesthetic and structural maintenance of the facilities it constructs and for facilities constructed by private developers on its parklands. According to Parks Department staff, funding of these maintenance responsibilities has not been adequate.

- Homeowners' Association Facilities. By law, DEP is responsible for conducting annual maintenance inspections of these private on-site stormwater management facilities. Many of these facilities are older, some having been constructed in the 1970's. By covenants and pass-through agreements with the developers, the homeowners' associations (HOA) have responsibility for aesthetic and structural maintenance of the facilities. While the exact state of structural maintenance of many of these HOA facilities is not certain, a September 1989 report by the Homeowners' Association Task Force to the County Council concluded that there was a critical lack of structural maintenance, especially on the older facilities. The Task Force report recommended that the County assume responsibility for structural maintenance of HOA stormwater facilities, with a preference that the County also fund the maintenance operation. The current DEP maintenance study described above should provide an accurate estimate of the cost involved in maintaining HOA and other private facilities.

- Private Facilities on Commercial and Industrial Sites. There are a number of stormwater management facilities located on commercial and industrial sites. In the opinion of DEP staff, these facilities are generally better maintained aesthetically; however, structural maintenance is about the same as other private stormwater management facilities.

In summary, there is general agreement by DEP and M-NCPPC staff that there is little structural maintenance being performed on the privately-owned HOA stormwater management facilities, and that funding for structural maintenance on the publically-owned regional facilities of the County and Parks Department is inadequate. The critical nature of the problem of structural maintenance of public and private stormwater management facilities, and the concomitant need for funding, has been recognized by the Water Policy Group and is addressed in its December 1990 preliminary report.

12. DEP's Authority: Municipalities and Other Public Agencies. DEP's authority to review and approve sediment control and stormwater management plans, issue sediment control permits and inspect and enforce County and State laws and regulations in municipalities and with other public agencies varies according to the municipality and public agency. Chart 2 (page 42), depicts that authority.

Chart 2

**DEP'S SEDIMENT CONTROL (SC) AND STORMWATER MANAGEMENT (SM)
AUTHORITY UNDER CODE CHAPTER 19 FOR MUNICIPALITIES
AND OTHER PUBLIC AGENCIES**

<u>Agency</u>	<u>Plan Review</u>	<u>Permit Issuance</u> ¹⁾	<u>Inspection/ Enforcement</u> ²⁾
Federal ³⁾	No	No	No
State ³⁾	No	No	No
Montgomery College	Yes	Yes	Yes
WSSC ⁴⁾	Yes	Yes	Yes
M-NCPPC	Yes	Yes	Yes
BOE	Yes	Yes	Yes
Revenue Authority	Yes	Yes	Yes
County Government	Yes	Yes	Yes
(DOT, DFS, etc.) ⁵⁾			
Municipalities ⁶⁾	Yes	Yes	Yes

- Notes:
- 1) The sediment control permit fee is waived for public agencies.
 - 2) Although DEP has statutory authority to issue citations, it is County policy that for violations by public agencies, only violation notices and stop work orders are issued.
 - 3) Authority vested in the Maryland Department of the Environment.
 - 4) Authority applies only to the construction of buildings and other plant facilities, and not to the trenching of the utilities. The same applies to other public utilities (PEPCO & C&P).
 - 5) DEP and DOT have a formal memorandum of understanding concerning stormwater management facilities associated with roads built by DOT as CIP projects.
 - 6) DEP has SC/SM authority in all municipalities except three:
Gaithersburg: Performs all SC/SM activities except for review and approval of SC/SM plans and the granting of stormwater waivers, which are the responsibilities of the Montgomery Soil Conservation District (MSCD).
Rockville: Performs all SC/SM activities except for review and approval of SC plans and SM ponds, which is the responsibility of the MSCD.
Chevy Chase Village: Also performs its own SC/SM activities, calling upon the MSCD for review and approval of SC plans.

E. Other Department of Environmental Protection Surface Water-Related Responsibilities. In addition to the major sediment control and stormwater management operational responsibilities already described in this chapter, the DEP also has responsibilities in the following other surface water-related issues:

- Stormwater Management Chapter in the Ten-Year Water/Sewer Plan
- Floodplain District Requirements
- Watershed Planning
- Protection of Nontidal Wetlands
- Water Quality Monitoring
- Federal NPDES Permitting
- Agricultural Nonpoint Pollution

Each of the above is briefly discussed in this section and the last three are also evaluated in Chapter VII of this report. It should be noted that these issues are covered in more detail in the December 1990 preliminary report of the interagency Water Policy Group (WPG).

Stormwater Management Chapter of the Comprehensive Water Supply and Sewage Systems Plan (Ten-Year Water/Sewer Plan)

Code Section 19-23 directs the Executive to prepare a stormwater management chapter for approval by the Council and inclusion in the Ten-Year Water/Sewer Plan. The law specifies various items which the chapter should cover, to include the County's goals and objectives for development of off-site stormwater management and/or flood control facilities; the potential locations for off-site facilities; and the policies which are recommended to attain the County's water quality standards and objectives.

The DEP staff has complied with the Code requirement by preparing and receiving Council approval of Chapter 5, Water Quality, to the Ten-Year Water/Sewer Plan. However, DEP staff acknowledges that it is outdated (it was last approved by the Council in November, 1986), and does not reflect the increased attention and emphasis on stormwater management, especially water quality control, which has occurred in the past half-decade. The WPG has targeted Chapter 5 for a comprehensive review and revision.

Floodplain District Requirements

By law, DEP cannot issue a building permit for construction or alteration of any residential structure on land which lies within the 100-year floodplain, which is defined as that area that would be inundated by stormwater runoff equivalent to that which would occur with a rainfall of 100-year frequency.

At the national level, the Federal Emergency Management Agency (FEMA) is responsible for publishing floodplain management regulations and administering the National Flood Insurance Program (NFIP). Under the NFIP, the County is eligible for subsidized flood insurance and federal disaster relief in the event of a major flood.

Under the Maryland Flood Control and Watershed Management Act, the County has authority to control floodplain development to protect persons and property from the dangers of floods and preserve the watershed. In addition, the County has authority to adopt and enforce floodplain management regulations necessary to participate in the NFIP. The official floodplain maps used in determining the 100-year floodplain are the Flood Insurance Rate Maps and Flood Boundary and Floodway Maps from FEMA (originally prepared by the federal Department of Housing and Community Development (HUD)); or the Maryland-National Capital Park and Planning Commission's Ultimate Development 100-Year Floodplain Map, whichever gives more stringent higher water surface elevations.

Within the County, the Maryland Capital Park and Planning Commission (M-NCPPC) delineates the 100-year floodplain. Under recently enacted legislation (Bill 18-89), and approved Executive Regulation (24-89AM), the Council brought County floodplain laws and regulations into conformance with Maryland and federal requirements by establishing floodplain district requirements. Within these floodplain districts a wide variety of development restrictions apply, and for development that is allowed under the law, a floodplain district permit from DEP is required. Prior to issuance of the permit by DEP, the applicant must have obtained all necessary certificates and permits from the Maryland Water Resources Administration and the appropriate federal agencies.

Watershed Planning

Under the Regional District Act (Article 28, Annotated Code of Maryland), the Maryland-National Capital Park and Planning Commission (M-NCPPC) is responsible for the preparation of master plans for each of the planning areas in the County. In addition, the Commission is authorized to prepare and adopt functional master plans, to include functional watershed plans, which address both water quality and flow rate (quantity). In accordance with State law, all master plans and functional plans must be approved by the Council.

Since the mid-1970's, the M-NCPPC has completed functional watershed plans for three basins: Seneca Creek, Rock Creek and Muddy Branch, and will soon complete a study of the Patuxent River Basin.

In addition to preparing functional watershed plans, the M-NCPPC, and to a lesser extent the DEP, have prepared technical watershed studies. These studies, as the title implies, are highly detailed technical reports on the characteristics of the watershed. According to DEP staff, the functional plans and technical studies currently completed represent as much as two-thirds of the County's land surface; and within that one-third is approximately 60%-70% of the high growth areas.

The functional watershed plans and associated technical studies have enabled the Montgomery County Planning Board to develop master plans that are more responsive to environmental concerns. An example is the recently enacted comprehensive amendments to the Germantown Master Plan. Based in part upon the data in the functional watershed plan and technical studies of the Seneca Creek Basin, the Council recently approved master plan amendments for Germantown that included specific provisions relating to water quality criteria, stream buffer widths, reforestation, water quality monitoring, and maximum percentages of allowable imperviousness. To obtain maximum development density, developers must meet these provisions. If development is unable to meet any of these provisions, or to provide mitigation, the intensity of development would have to be reduced.

The County Executive and the Planning Board are still operating under a November 1974 memorandum of understanding concerning watershed stormwater management planning. Staff of DEP and M-NCPPC agree that this memorandum of understanding should be reviewed and updated. Watershed planning is another of the major issues addressed in the December 1990 preliminary report of the interagency Water Policy Group.

Protecting Nontidal (Freshwater) Wetlands

Nontidal wetlands* serve an important role in reducing the flow of excess nutrients, toxics and sediment into the Chesapeake Bay, in serving as natural stormwater retention areas, and in providing fish, wildlife and plant habitat.

Laws and regulations protecting wetlands are relatively new and are still evolving. Under Section 404 of the federal Water Pollution Act of 1972, the U.S. Army Corps of Engineers is responsible for issuing a general permit for any construction, dredging or filling in U. S. waters, including wetlands. However, the Act also gives the Environmental Protection Agency (EPA) "veto" authority to prohibit issuance of a Corps permit that would result in unacceptable adverse effects on municipal water supplies, fishery areas or wildlife.

In addition, Section 401 of the Act provides that no permit can be granted until the State certifies that the activities to be permitted are in compliance with State water quality standards. In Maryland, the Department of the Environment (MDE) is responsible for water quality certification required under Section 401. A developer is required to obtain a water quality certificate from the MDE and a permit from the Corps of Engineers prior to DEP approving the developer's stormwater management plan and issuing any building permits for development where nontidal wetlands are involved.

* A nontidal wetland is defined in State law as "...an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. (§8-1201, Natural Resources Article.)"

Currently, the County has no authority over nontidal wetlands. In 1989, the Maryland General Assembly passed the Nontidal Wetlands Protection Act creating a Statewide, comprehensive permit program under the Maryland Department of Natural Resources (DNR). The program became effective on January 1, 1991. One of the provisions of the Act (Section 8-1204, Natural Resources Article), enables counties to participate in the nontidal wetland permit program by seeking delegation from DNR.

In response to a formal invitation from DNR, the County Executive in August 17, 1990, declined to request local program delegation because of the anticipated demands on County resources and the absence of State cost-sharing. However, in December 1990, the new County administration expressed an interest in reconsidering the DNR invitation for the County to seek a local wetlands permitting role. If the County does change its position and requests and receives local delegation, the State will still have a role until at least 1993, because the proposed wetlands general permit from the Corps of Engineers to the State does not accept local sign-off on permits for a minimum of two years after delegation.

According to DEP staff, local environmental groups are very supportive of the State Nontidal Wetlands Protection Act, but are not as supportive of the Corps of Engineers' proposed general permit to allow State sign off, and also not supportive of local delegation even with the proposed two-year restriction on local sign off. Because of the importance of nontidal wetlands permitting, the interagency Water Policy Group also addresses this issue in its December 1990 preliminary report.

Water Quality Monitoring

According to DEP staff, stream sampling and water quality reporting have had a low priority in the County since early 1980 when, because of budget cutbacks, the baseline stream sampling program was curtailed and the County's laboratory was eliminated. In the interim, minimal "grab" samplings have been conducted on selected waters, with some of the laboratory analysis performed gratis by the Washington Suburban Sanitary Commission's (WSSC) laboratory.

At present the County conducts a modest water monitoring effort, which includes:

- Support of the Council of Government's monitoring networks, one located on the Potomac River and the other on the Anacostia River;
- Installation by a consultant of automated flow and water quality sampling stations on Seneca Creek and on Sligo Creek as "turn-key" facilities to be owned by the County and operated by DEP staff;
- Operation of an automated inflow and outflow station on a stormwater management pond in the Olney area to test wet pond performance; and
- Periodic grab samplings on Little Seneca Lake which are analyzed by the WSSC laboratory.

Staff of DEP, M-NCPPC and the Council believe that a great deal more effort should be put into water quality monitoring. Besides the basic need to know the state of water quality and the effectiveness of water quality practices, the County should have knowledge of the overall impact of development on water quality if the County is going to make any progress in pinpointing water quality problems. In addition to chemical sampling, staff has opined that stream walks and biological sampling should be undertaken by the County. The Director of DEP recently briefed members of the Council that he was actively pursuing a program to elicit the volunteer services of environmental groups to conduct stream walks.

In addition, Council staff has repeatedly advocated not only the need for more water quality monitoring, but also the need to integrate that monitoring with the use of computer modeling so as to be able to estimate the impact of development on water flow and quality. Council staff has also recommended that a program of aerial surveys, both human and video recorded, be initiated to monitor water quality, especially stream sediment load. Finally, Council staff has highlighted the need for the DEP to establish performance standards for water quality monitoring.

The recently issued December 1990 preliminary report of the interagency Water Policy Group addresses water quality monitoring. In addition to finding that there is a critical need for more water quality monitoring, the Group's report identified three related areas for consideration: creating an interagency program for water quality monitoring; establishing a common monitoring fund made up of public funds and monitoring fees from private developers; and developing monitoring needs, priorities and standards.

Federal NPDES Permitting

In 1972, Congress enacted the Clean Water Act (CWA). In the 1977 amendments to the CWA, the Congress directed the Environmental Protection Agency (EPA) to develop regulations to establish a permitting program for point source systems which discharge into the nation's streams and waterways. (From a nontechnical perspective, a point source discharge is any wastewater or industrial process that discharges from a pipe that eventually makes its way into a stream or larger waterway. Nonpoint discharge is rain generated flows over the earth's surface that may be collected in a pipe and discharged to surface water.)

The resulting permitting program, the National Pollution Discharge Elimination System (NPDES), has concentrated on discharges from industrial sites and waste water treatment plants. Currently, there are approximately 40 active NPDES permits in Montgomery County for facilities such as public and private wastewater treatment plants, automobile service stations, stone quarries, medical facilities, concrete plants, and industrial/commercial complexes.

In February 1987, the Congress enacted amendments to the CWA known as The Water Quality Act of 1987, which expanded the NPDES permitting program to include urban storm drainage systems.* Specifically, the 1987 CWA amendments mandated that, for stormwater discharges associated with storm drainage systems serving a population of 250,000 or more, EPA must develop permit application requirements by February 1989. The Act further mandated that counties and municipalities file permit applications for NPDES permits by February 1990, with EPA, or the State if delegated authority, either issuing or denying the permit by February 1991. Finally, the 1987 CWA amendments specified that after issuing a permit, EPA must require expeditious compliance with its developed standards, but in any case not later than three years after the permit is issued. The Congress did not provide for any grants to help local governments meet these new permitting requirements.

The suspense dates specified in the CWA amendments were not met by EPA; however, on October 13, 1990, EPA signed the new permitting requirements and published them in the November 16, 1990 Federal Register. Consequently, the County has one year (until November 1991) to comply with the new NPDES permitting rules and file permit applications. A review of those proposed rules indicates that the impact on the County will not only affect DEP's stormwater management responsibilities, but also the Department of Transportation's (DOT) storm drainage system, and the Maryland-National Capital Park and Planning Commission's (M-NCPPC) facilities.

To comply with the new permitting requirements, the County will need to conduct a thorough inventory of all storm drainage systems, and prepare topographic maps and drainage area data; identify and categorize the outfalls; and monitor all discharge outfalls which come under the criteria of the forthcoming EPA regulations (outfalls with a diameter of 36" or greater, or which drain 50 or more acres). In addition to monitoring the discharge runoff, detailed records to comply with reporting requirements and public access must be maintained. In those instances where the discharge does not meet EPA minimum standards for water quality, the County will have to implement best management practices (BMPs) and maintenance programs to reduce pollutants and improve the quality of the stormwater discharge.

As of this writing, the DEP staff is closely monitoring activities by EPA and the State on this matter, and, through the Water Policy Group, keeping the appropriate County agencies and departments informed. However, the expanded NPDES permitting program necessitates that the County address this issue in a more formal manner, to include assigning staff responsibility for planning and implementing the program and identifying a funding source for the operation.

* Urban storm drainage systems carry nonpoint source pollution discharge caused by stormwater. The "source" of the discharge cannot be clearly identified, hence the term "nonpoint". Examples of urban nonpoint source pollution are automobile waste and contaminants from roads; trace metals from flashing, roofing materials, brake linings and catalytic converters; pet droppings; litter and debris; fertilizers, herbicides, pesticides, organic waste, sediment, and other chemicals.

There are two major incentives for the County to act upon this new NPDES permitting requirement besides the environmental benefits. The first, is that the CWA provides for civil penalties for violating any condition or limitation of an NPDES permit. The penalties can be as much as \$25,000 per day for each violation. The second is that the Act provides for citizen suits. Any citizen may initiate a civil suit in Federal District Court on his/her own behalf against a governmental agency or instrumentally alleged to have violated an effluent standard or NPDES permit condition.

Agricultural Nonpoint Pollution

In the almost 20 years since enactment of the Clean Water Act of 1972, significant strides have been made in reducing pollution, improving water quality, and protecting streams and watersheds. However, most of the federal, state and local initiatives that brought about that success concentrated on point source pollution (industry and wastewater treatment plants) and urban runoff (sedimentation from construction sites and impervious surfaces). More recently, public officials and environmental groups have turned their attention to nonpoint source pollution and adverse water quality impacts caused by the agricultural community.

Currently, programs directed at reducing soil erosion and preventing farm runoff are voluntary. The Montgomery Soil Conservation District (MSCD), the County's lead public agency in promoting these programs in the agricultural community, uses public education and federal and State incentives to persuade farmers to install a variety of best management practices (BMPs) to reduce pollution. These BMPs include reducing the use of chemical fertilizers, applying fewer pesticides, controlling animal waste, and protecting stream buffers and streams from the destructive effects of cattle tramping down the banks and depositing manure where it eventually washes downstream.

A federal-state grants program currently in effect is available to farmers with highly erodible land (HEL). (Approximately 38,700 acres of land currently farmed in the County are classified as HEL.) Under this federal-state grants program, farmers who are now receiving any of a variety of federal subsidies, or who want to apply for federal subsidies in the future, must have by December 1990, an MSCD approved soil and water quality conservation plan. This plan will offer various recommendations of the best management practices that will minimize nonpoint pollution from agricultural operations. Then, by 1994, to remain or be eligible for federal subsidies they must fully implement the soil and water quality conservation plan.

Farmers were able to get assistance in developing their plans from the MSCD and the federal Soil Conservation Service. Also, farmers can qualify for State and U. S. Department of Agriculture cost-sharing grants to implement their soil conservation plans. These cost-sharing grants appear generous with cost shares of 87.5 percent for each BMP and a maximum grant limit of \$13,500. Farmers must provide matching funds of 12.5 percent to receive grants up to this limit. Even with this generous cost-share ratio, the cost of the BMPs are quite high for most farmers. According to the MSCD, approximately 75 percent of County farmers who work HEL farms are preparing

soil conservation plans, but only about 18 percent are implementing those plans. Also, the MSCD reports that approximately 32 percent of the 7600 BMPs that the entire planning effort recommends have been implemented.

DEP staff recognizes the need to increase farmer participation in using best management practices (BMPs) to reduce soil erosion, stream pollution and adverse water quality impacts. At the same time, DEP staff also recognizes the economic and political difficulties of trying to force regulatory programs on farmers. Consequently, DEP staff plans to recommend in the FY92 operating and CIP budgets a local cost-share incentive program to "piggy-back" onto federal and state cost-share formulas in the hope of persuading more farmers to voluntarily participate. In particular, DEP staff plans to encourage three specific BMPs: treatment of animal wastes, reservation and reforestation of stream buffer areas, and fencing to protect rural stream channels.

VI. SEDIMENT CONTROL AND STORMWATER MANAGEMENT RESPONSIBILITIES OF OTHER PUBLIC AGENCIES

A. Overview

Sediment control and stormwater management responsibilities are distributed in an often confusing manner among a number of public agencies. These agencies are found at the federal, State, and local levels. In addition, there are regional agencies and groups that are active in this area. This chapter of the report presents a brief description of the water quantity and water quality responsibilities of these agencies and how their responsibilities relate to those of the County's Department of Environmental Protection.

B. Federal Agencies

1. The Environmental Protection Agency. The Environmental Protection Agency (EPA) was created in 1970 through the consolidation of the functions of several federal environmentally-oriented agencies, commissions and boards. Among the many EPA environmental responsibilities are the enforcement of federal water pollution abatement and water quality laws and programs. Although primarily interfacing directly with the state, EPA's responsibilities encompass a broad spectrum of water quality and pollution control activities and requirements which eventually impact on the County.

As an example, one program is the National Pollution Discharge Elimination System (NPDES) permitting program discussed earlier in the report (see page 47).

2. U.S. Corps of Engineers (Corps). The Corps, through its civil functions, has a long history in federal water resources programs. Over the years, the Congress has assigned the Corps a wide variety of water-related responsibilities to include flood control, water quality, water resources development, and wetlands protection.

While still retaining responsibility for many important water related matters, several Corps activities relating to flood control and water quality have passed to other federal agencies or to the states. Another water-related responsibility, nontidal (freshwater) wetlands protection, is in transition between the Corps and qualifying states that have established programs to protect these wetlands. Under Section 404 of the 1972 Clean Water Act, the Corps is responsible for issuing permits to place fill or dredged materials in wetlands. Under the Act, the Corps can issue a General Permit to qualifying states that enables those states to have more control over wetlands within their borders.

The Department of Natural Resources (DNR) has been in the process of reviewing a Corps' General Permit that will enable Maryland to review certain wetlands permit applications. Toward this end, the 1988 General Assembly passed the Nontidal Wetlands Protection Act which provides for a comprehensive permit program to reduce the flow of excess nutrients, toxics and sediment into the Chesapeake Bay. The Act requires that after December 31, 1990, persons must submit an application to and receive a permit from the DNR to conduct a regulated activity* in nontidal wetlands or within a twenty-five foot buffer zone. Another provision of the Act enables the State to delegate the permit program to those counties that seek and receive delegation from DNR. After declining a DNR request to seek delegation in August 1990, the County is currently re-examining the issue.

3. Federal Emergency Management Administration. The Federal Emergency Management Administration (FEMA) is responsible for administering the National Flood Insurance Program (NFIP). Under authority granted in the NFIP, the County, through legislation and regulations, controls development in those areas of the County that fall within the 100-year floodplain. The County's participation in the NFIP enables residents to qualify for subsidized flood insurance and other federal disaster relief in the event of a major flood. The FEMA also publishes official floodplain maps: The Flood Insurance Rate Map and the Flood Boundary and Floodway Map.

4. Soil Conservation Service. Established in 1935, the Soil Conservation Service (SCS), an entity under the U.S. Department of Agriculture (USDA), is responsible for developing and carrying out a national soil and water conservation program in cooperation with landowners, community planning agencies and other federal, state, and local government agencies. The majority of SCS programs and projects are carried out by providing assistance to state and local soil conservation districts. In Montgomery County, SCS technical assistance is provided primarily through the Montgomery Soil Conservation District (MSCD). The direct assistance of SCS to the County has

* A regulated activity includes excavation or dredging in nontidal wetlands; changing existing drainage or other characteristics of the wetlands; disturbing the wetland's water table; dumping, grading or removing material; and removing or destroying plant life that would alter the characteristics of the wetland (§8-1201, Natural Resources Article, Annotated Code of Maryland).

fallen off in the past 20 years because of the increased activities of the Montgomery Soil Conservation District, State agencies, and the County in erosion, sediment control and stormwater management, and agricultural nonpoint pollution control. Nonetheless, the SCS continues to play an important role in County soil and water-related activities, as indicated below:

- Soil Survey. A soil survey of the County, completed in the late 1950's, is in the process of being revised by the SCS. The field work is completed and the final product (text and maps) is expected to be released to the MSCD by the SCS in April 1992.

- Soil and water conservation planning for crop lands. Approximately 38,700 acres of land currently farmed in the County have steep slopes, which SCS classifies as highly erodible land (HEL). The SCS assists farmers in developing soil and water conservation plans for HEL, and advises farmers on how to install conservation practices on these lands.

- Small pond design and program review. The SCS publishes the technical standards for the design of small ponds, especially in agricultural areas. In addition, the SCS annually reviews the DEP stormwater management pond program as required in the 1984 memorandum of understanding between the MSCD and DEP.

C. State Agencies

1. Department of the Environment. The Maryland Department of the Environment (MDE) is the primary cabinet level department with responsibility for restoring and protecting water quality in Maryland. Operating under the provisions of the Environmental Article of the Annotated Code of Maryland, the MDE administers and enforces State environmental laws and regulations, and those federal statutes that have been delegated to the State. The water-related MDE activities that impact on the County include:

- Triennial review of the County's stormwater management program;
- Delegation of sediment control enforcement authority to the County, with a review of that delegation authority at least every two years;
- Review and approval of sediment control and stormwater management plans for State and federal construction projects located within the County;
- Distribution of funds to the County under the Maryland Stormwater Pollution Control Cost-Share (retrofit) and Stormwater Management Grant-in-Aid programs;
- Development of water quality standards and criteria for conventional and toxic pollutants;
- Certification of water quality for projects planned in wetlands and waterways;

- Issuance of NPSDS permits (discharge permits) for sewage treatment plants and industrial sites;
- Enforcement of State water quality (anti-pollution) laws and regulations; and
- Adoption of rules and regulations specifying requirements for inspection and maintenance of stormwater practices. (This last responsibility was added by the 1990 General Assembly.)

2. Department of Natural Resources. In 1987, most of the water-related responsibilities of the Maryland Department of Natural Resources (DNR) were transferred to the newly created Maryland Department of the Environment (MDE). However, the DNR's Water Resources Administration retained the following functions that impact on the County:

- Issuance of permits relating to the appropriation of surface waters and the construction of dams, reservoirs and water obstructions on nontidal waters and floodplains;
- Administration of the State's Floodplain Management Program; and
- Review and approval of applications and issuance of permits for construction, dredging and filling within nontidal wetlands.

3. 2020 Commission. In November 1990, the Drafting Committee of the Governor's Commission on Growth in the Chesapeake Bay Region (2020 Commission) issued its recommendations regarding growth, development, protection and management of the State's man-made and natural resources. A review of those recommendations indicates that the 2020 Commission will have an important impact on environmental issues. The full extent of that impact is uncertain at this time, however, the Commission's recommendations will undoubtedly affect current and future County surface water programs and responsibilities.

4. Comparison of Maryland Sediment Control/Stormwater Management Programs With Other States and D.C. During the period March to May 1990, the Maryland Office of Planning surveyed other states and the District of Columbia for information on their sediment control/stormwater management programs. Responses from all 50 jurisdictions surveyed indicated that:

- 37 had no mandatory statewide sediment control or stormwater management programs;
- 7 had only a statewide sediment control program;
- 1 had only a statewide stormwater management program; and
- 5 had both programs (as does Maryland).

The survey results suggest that the State and Montgomery County are well ahead of the rest of the nation in developing sediment control and stormwater management programs to protect local and state water resources.

D. County Agencies

1. Montgomery Soil Conservation District. The Montgomery Soil Conservation District (MSCD) was created as a political subdivision of the State in April 1945, with powers to establish policies and procedures for the conservation of soil, water and related natural resources. Like the other Soil Conservation Districts in Maryland, the MSCD is governed by a five-member Board of Supervisors that provides direction and oversight to the District's programs. The MSCD receives federal, State and County funding.*

Under Maryland law, each of the state's 24 soil conservation districts is responsible for soil and water conservation work within its boundaries. In Montgomery County, the majority of the MSCD's responsibilities in sediment control and stormwater management have, with some exceptions, been delegated to the Department of Environmental Protection (DEP).

Based on legislative actions in the General Assembly, the MSCD has entered into a series of memoranda of understanding with the County that have delegated to the DEP authority to: review stormwater management plans and grant waivers (1984); provide technical review and concurrence of the design and computations of small stormwater management ponds (1985); and review and approve sediment control plans (1987).

The MSCD still has an important role in promoting the effective management and conservation of soil and water, and in advising on minimizing the adverse effects of agricultural activities on soils and water quality. The MSCD's broad functions include soil conservation assistance to the agricultural community when requested, and promotion of resource conservation through public information and education programs.

The MSCD still retains some sediment control and stormwater management responsibilities. Specifically, the MSCD assists, when requested, in the annual review by the U.S. Department of Agriculture's Soil Conservation Service of the County's stormwater management pond approval program. Also, the MSCD has a special relationship with three municipalities: for the City of Gaithersburg, the District reviews and approves sediment control plans and stormwater management plans, and, when applicable, grants stormwater management waivers; for the City of Rockville, MSCD reviews and approves sediment control plans and stormwater management ponds; and for Chevy Chase Village, the MSCD is responsible for sediment control plan review and approval.

* In FY91, the total MSCD appropriation of \$388,890 was funded as follows: Federal - \$135,140 (35%); State - \$100,140 (26%); County - \$153,610 (39%).

2. Department of Transportation. The Department of Transportation (DOT) has an important function in the County's stormwater management program, specifically the conveying of stormwater. Since 1968, the DOT has been responsible for the control, design, construction and maintenance of all storm drainage systems located in the public right-of-way in the County.*

Storm drainage systems are designed and constructed in conjunction with the design and construction of County roads and streets. The DOT's storm drainage responsibilities do not include State systems associated with State road and highway construction projects, or systems within a number of municipalities and special taxing districts which have elected to retain responsibility for their roads and storm drainage systems.

The majority of the County's storm drainage system is public, and falls into three categories: systems that are designed and constructed by DOT under the County CIP budget; systems that are designed and constructed by a private developer in accordance with DOT's Storm Drain Design Criteria for later dedication to the County; and systems that are constructed by a developer under a County/developer participation project. Under the storm drain participation project category, the County and the developer share the construction costs (again according to DOT's Storm Drain Design Criteria) for a storm drainage system which extends beyond the developer's own property. The County pays only for that portion of the project which benefits properties other than the developer's, but the County's share is not to exceed 50 percent of the total cost.

Before a road and associated storm drainage system project is begun where dedication to the County is planned, a permit must be obtained from the DOT and a bond posted. For developer-constructed private drainage systems that will not be dedicated to the County, a DOT permit is required only for connection of the private system to the public system.

For all DOT-constructed road and storm drainage projects, a sediment control permit from the Department of Environmental Protection (DEP) is required, the conditions of which may require DOT to construct stormwater management and stream channel improvements.** In addition to obtaining a DEP sediment control permit, the DOT, under mandatory referral, must submit CIP storm drainage designs to the Montgomery-National Capital Park and Planning Commission (M-NCPPC) for review and comment.

* Prior to 1968, the Washington Suburban Sanitary Commission (WSSC) had responsibility for the County's storm drainage system. When responsibility was transferred from WSSC to the County, the General Assembly also transferred responsibility for the debt service on storm drainage bonds issued by the WSSC prior to 1968, and authority to levy a tax to retire these bonds. In 1990, the pre-1968 WSSC bonds were retired.

** Depending on the location of the project, DOT may also be required to obtain a permit relating to stormwater management from the U.S. Corps of Engineers, the Maryland Department of the Environment, the Maryland Department of Natural Resources, or the M-NCPPC.

In addition to designing and constructing new storm drainage systems, DOT is responsible for maintaining all storm drainage systems, bridges, and culverts within County rights-of-way. Funds for storm drainage maintenance are included in the DOT's annual operating budgets.

To respond to complaints of an inadequate or malfunctioning storm drain, the DOT has established a "Drainage Assistance Requests" program that researches, evaluates and conducts an engineering analysis of the problem using funds in DOT's CIP project #818580. Should the analysis warrant DOT action, the problem is corrected under DOT's CIP #688336, or as a stand-alone project, depending on the cost.

DOT has an inadequate but reliable funding source for its storm drainage CIP projects. When the General Assembly transferred responsibility for storm drainage from WSSC to the County in 1968, it enacted into the legislation authority for the County to levy a direct ad valorem tax not to exceed 1 cent per \$100 of assessed property value for storm drainage purposes. As a result, over 90 percent of the various DOT storm drainage CIP projects are funded with County bonds, the debt service of which is paid from the ad valorem tax.*

The County does not currently maintain an accurate inventory of the total miles of public and private storm drainage systems, or of the number and size of outfalls, culverts, and other storm drainage components. Accurate inventories, especially of outfalls, must be developed in the very near future in order for the County to comply with new federal requirements for NPDES permitting of urban storm drainage systems mandated in the Clean Water Act of 1987.

3. Department of Housing and Community Development. Under the provisions of County Code Chapter 26, Housing and Building Maintenance Standards, the Department of Housing and Community Development (DHCD) is responsible for resolving complaints concerning nuisance water between neighboring properties.

Under authority provided in Code Section 26-10(e) that a property owner must eliminate any condition which creates a public nuisance,** DHCD staff respond to approximately 25-30 nuisance water complaints each year, such as one property owner piping gutter downspouts so that the rainwater flows directly onto the neighbor's back yard; or a property owner filling in a swale to make a flowerbed that results in rainwater backing up onto adjacent properties.

* FY90 revenue from the Storm Drainage Tax was \$1,637,300.

** Code Section 26-1 defines a public nuisance as: "...a condition that results in or potentially may result in substantial damage to another property".

E. Bi-County State Agency: The Maryland-National Capital Park and Planning Commission

Under the Regional District Act (Article 28, Annotated Code of Maryland), the Maryland-National Capital Park and Planning Commission (M-NCPPC) is responsible for developing plans for the physical development of the Regional District, which includes most of Montgomery and Prince George's Counties. M-NCPPC is a ten-member commission composed of the five members of the Montgomery County Planning Board and the five members of the Prince George's County Planning Board.

The M-NCPPC's authority to regulate water-related matters is provided for in Section 7-116 of the Regional District Act. Specifically, the Act empowers M-NCPPC to develop regulations pertaining to:

- water drainage (Article 28, Section 7-116(a)(5));
- preservation of the location of and volume and flow of water and other characteristics of natural streams and other waterways, including the establishment of a stormwater management program in Montgomery County which allows the County to accept monetary contributions, the granting of an easement, or the dedication of land (Article 28, Section 7-116(a)(6));
- control of subdivision or building (except for agricultural or recreational purposes) in floodplain areas or streams and drainage courses, and on unsafe land areas (Article 28, Section 7-116(a)(10)); and
- other benefits to the health, comfort, safety or welfare of the present and future population of the regional district (Article 28, Section 57-116(a)(12)).

Under additional authority provided by the Council in County Code Chapter 59, Zoning, the Montgomery County Planning Board has broad powers to issue waivers from normal zoning requirements for environmental reasons. These waivers can affect such matters as the overall density of development, the percentage of one-family and multi-family residences, the location and size of open space, and the size of stream buffers.

This section of the report describes the following five specific Planning Board responsibilities as they pertain to stormwater management:

- Planning: Developing master plans, functional master plans and technical studies.
- Subdivision and site plan review: Evaluating for stormwater and floodplain impacts.
- Capital facilities: Reviewing and commenting to Council on CIP stormwater management projects of DEP and BOE; and CIP storm drainage projects of DOT.

- Stream valley conservation areas: Acquiring and maintaining these areas.
- Parks Department: Constructing and maintaining stormwater management facilities on parkland.

Planning

Under the Regional District Act, the Montgomery County Planning Board (Planning Board) is responsible for the preparation of master plans for the Montgomery County portion of the Regional District. In addition, the Planning Board is authorized to prepare and adopt functional master plans, to include functional watershed plans, which address both water quality and water quantity (flow rate). Once these plans are prepared and approved by the Board, they must be approved by the County Council acting as the District Council.*

Since the mid-1970's, the Planning Board has completed functional watershed plans for three basins: Seneca Creek, Rock Creek and Muddy Branch, and will soon complete a study of the Patuxent River Basin.

In addition to preparing functional watershed plans, the Planning Board, and to a lesser extent the DEP, have prepared a number of technical watershed studies. These studies, as the title implies, are highly detailed technical reports on the characteristics of the watershed, and usually cover smaller geographical areas than the functional plans.

The functional watershed plans and associated technical studies have enabled the Planning Board to develop master plans that are more responsive to environmental concerns. An example is the recently enacted comprehensive amendments to the Germantown Master Plan. Based in part upon the data in the functional watershed plan and technical studies of the Seneca Creek Basin, the Council recently approved master plan amendments for Germantown that included specific provisions relating to water quality criteria, stream buffer widths, reforestation, water quality monitoring, and maximum percentages of allowable imperviousness. To obtain maximum development density, developers must meet these provisions; and if development is unable to meet any of these provisions or provide mitigation, the intensity of development would have to be reduced.

The County Executive and the Planning Board use as a concept or guide a November 1974 memorandum of understanding concerning watershed stormwater management planning; however, staff has opined that this memorandum of understanding should be reviewed and updated because of new watershed planning techniques. These techniques include computer watershed modeling to estimate impacts of land use alternatives on receiving streams. Watershed planning is another of the major issues addressed in detail in the December 1990 report of the Water Policy Group.

* In 1986, the Regional District Act was amended to provide the County Executive with the authority to participate fully in the preparation of master plans, and the authority to disapprove Council decisions on master plans. Executive disapproval may be overridden by the affirmative vote of six Councilmembers.

Subdivision and Site Plan Review

A major responsibility of the Planning Board is to regulate development through its subdivision and site plan review processes. To approve a subdivision plan, or a site plan in those zones that requires site plan review, the Planning Board must ensure that the developer has met all standards and requirements (including adequate public facilities) of the particular zone, has complied with all provisions of the Subdivision Regulations for Montgomery County, and has obtained the necessary certificates and permits.

Included in the subdivision and site plan review activities of the Planning Board and M-NCPPC staff are the following water-related matters:

- Stormwater Management Impact. County laws and subdivision regulations require that, as part of the subdivision process, each application for subdivision and site plan review include provisions for stormwater management. Prior to submission of a preliminary plan to the Planning Board, the developer must first receive approval from the Department of Environmental Protection (DEP) of a concept plan or a waiver of stormwater management facilities for the property in question. The Planning Board must abide by the decision of the DEP on the stormwater concept or waiver, or appeal the DEP staff's decision to the Director of DEP. However, the DEP's decision is not made in a vacuum, and the DEP staff and M-NCPPC staff consult with one another on the matter. Prior to submission of a preliminary plan, the two staffs meet to resolve, to the extent possible, any differences concerning the concept or waiver.

In addition, DEP staff participates at the formal subdivision review sessions conducted by the M-NCPPC staff. The Department of Transportation (DOT) is also represented at the subdivision review sessions to ensure that the developer's storm drainage plan is compatible with the overall stormwater management plan.

- Floodplain Impact. M-NCPPC is responsible for delineating the 100-Year floodplain. There are several map sources for determining the floodplain: two from the Federal Emergency Management Agency (FEMA) and a M-NCPPC Ultimate Development 100-Year Floodplain Map. The M-NCPPC staff uses the map that gives the more stringent water surface elevation for the area under review. Also, in subdivision and site plan review, the M-NCPPC staff verifies that there is the required 25-foot building restriction line from the 100-year floodplain.

- DEP Permits and Performance Bonds. Under Code Section 59-D-3.5, no sediment control permit, building permit or use-and-occupancy permit may be issued by DEP unless the developer is in strict compliance with the site plan approved by the Planning Board. The Planning Board also has the option of requiring the developer to post a performance bond to secure compliance with all features of the site plan, which includes the stormwater management and storm drainage systems.

Nontidal Wetlands

The regulation of nontidal wetlands is the responsibility of the federal government (Sections 401 and 404 of the federal Clean Water Act) and the State government (Section 8-1201, Natural Resources Article--Maryland Nontidal Wetlands Protection Act and COMAR 08.05.07). However, the Planning Board, under its subdivision and site plan review authority, identifies nontidal (freshwater) wetlands and establishes a minimum buffer of 25 feet around nontidal wetlands areas; and, under certain conditions, the buffer can be expanded to 100 feet, as per State regulations. Also, prior to the Planning Board reviewing any subdivision or site plan, the developer is strongly encouraged to first obtain all required wetland and waterway permits and water quality certification from the appropriate federal and State agencies. However, for less sensitive plans the developer may get approval prior to receiving the permits.

- Guidelines for Environmental Management. The Environmental Planning Division (a division within M-NCPPC's Montgomery County Planning Department), has circulated a staff draft, Guidelines for Environmental Management in Montgomery County, Maryland. These Guidelines establish a procedure for identifying and protecting natural resources being adversely affected by construction activities during the development process. Included in the Guidelines are such requirements related to surface water as the maintenance of streams, stream water quality and wetlands, reduction of flood potential, and protection against development hazards on areas prone to flooding and soil instability. Also, a whole section of the Guidelines is devoted to environmentally sensitive or special protection areas. The Guidelines have been endorsed by the interagency Water Policy Group. Final approval by the Planning Board is anticipated in early 1991.

Capital Facilities Review

Under mandatory referral (Maryland Code Article 28, Section 7-112), the Planning Board also reviews all capital facilities projects proposed by local, State or federal governmental agencies within Montgomery County. The Planning Board can approve or disapprove the projects and/or make recommendations regarding the projects' conformity with the General Plan and master plans. Under mandatory referral, all DEP stormwater management capital improvement program (CIP) projects, DOT storm drainage CIP projects, and Board of Education CIP projects are reviewed by M-NCPPC's Montgomery County Planning Department and Parks Department staff.

Stream Valley Conservation Areas

Another important program in the Board's implementation of the General Plan is the dedication of stream valley conservation areas during the subdivision review process. As development occurs, dedications by developers are required by the Planning Board at the time of original subdivision to provide additional land along stream valleys and open space conservation areas.

The dedication of stream valleys has contributed greatly to the protection of the County's sensitive streams and wetlands, and has enabled the Montgomery County Department of Parks to control the placement of stormwater management in these stream valleys and parkland.

Parks Department

M-NCPPC's Montgomery County Parks Department staff estimates that approximately 70 stormwater management facilities are located in stream valley conservation areas or other parkland. These facilities were constructed under M-NCPPC's capital improvement program, by private developers, or another public agency.

- M-NCPPC Capital Improvement Program Projects. When developing new parks or rehabilitating a present park under its CIP program, the Parks Department must follow the same stormwater-related laws, regulations and guidelines as any developer of private property, to include (where applicable): obtaining a nontidal wetlands permit from the appropriate federal agency and a water quality certificate from the Maryland Department of the Environment (MDE); submitting a stormwater concept plan or receiving a DEP waiver; obtaining a sediment control permit from DEP; and participating in the mandatory pre-construction meeting with DEP inspectors.

Unlike private developers, the Parks Department does not have to pay any permit fees to the County, post any sediment control or stormwater management performance bonds, or make waiver contributions. However, should a DEP sediment control/stormwater management inspector find a violation of any law, regulation or condition of the stormwater management plan during construction of a sediment control/stormwater management facility, a notice of violation can be served on the Parks Department.

- Private Developer/Public Agency Projects. For sediment control/stormwater management facilities built on parkland or on dedicated land by a private developer or by another public agency,* the developer/public agency must obtain all required permits and certificates from the DEP, federal and State agencies, and must also obtain a stormwater management permit from the Parks Department. Prior to issuing the permit, the Park Planning and Development Division reviews the developer/public agency stormwater management plan for technical and engineering design; and the Natural Resources Management Division reviews the plan for ecological impacts. A similar process for plan review and permit issuance is required before a storm drain outfall (discharge point) can be located on parkland. Under current procedures, any sediment control and/or stormwater management performance bonds the DEP holds on developer-constructed facilities on parkland cannot be released until the Parks Department has been notified and given an opportunity for comment.

Maintenance of stormwater management facilities on parkland is a continuing problem for the Parks Department because of inadequate funding and unclear responsibilities. The Parks Department is responsible for both aesthetic and structural maintenance of stormwater managements facilities on

* Other public agencies that have constructed stormwater management facilities on parkland include the Board of Education (BOE), the Department of Environmental Protection (DEP), and the Department of Transportation (DOT).

parkland that were constructed by the Parks Department, or were constructed by a developer. The maintenance is currently provided by Parks Department staff on an as-needed basis identified from inspections. One of the frustrations of maintaining facilities on parkland in stream valleys is that the Parks Department is responsible for correcting a problem the source of which often originates upstream where the Parks Department has no jurisdiction.

The Parks Department is also responsible for aesthetic maintenance (mowing, trash removal) of regional stormwater management facilities located on parkland that were constructed under the DEP stormwater management CIP program. However, responsibility for structural maintenance of these regional facilities is unclear, with the result that little structural maintenance is being performed. Staff of the Parks Department believes that there has been a long-standing verbal understanding with DEP staff that DEP is responsible for the structural maintenance; and that waiver contributions by a private developer or by a public agency for the construction and maintenance of regional stormwater facilities on parkland are collected and retained by the DEP. Parks Department staff and DEP staff are currently holding discussions to resolve this issue.

F. Regional Planning Efforts

1. The Metropolitan Washington Council of Governments (COG). The Metropolitan Washington Council of Governments (COG) is the area's regional planning organization. COG staff participates in the water monitoring programs on the Potomac and the Anacostia Rivers, and in the basin-wide coordination effort to restore the Anacostia watershed. The County compensates COG for its activities in the County, through the County's annual general contribution (FY91-\$354,240) and special assessments such as the Anacostia Watershed Restoration activity for which the County budgeted \$50,000 in FY91.

2. The Interstate Commission on the Potomac River Basin (ICPRB). Established in 1940 by an Act of Congress, the ICPRB is a Commission composed of representatives of four states (Maryland, Virginia, Pennsylvania and West Virginia), the District of Columbia and the federal government. The focus of the Commission is on all facets of water and associated land resources in the Potomac Basin. One of the principal functions of the Commission is to disseminate water quality and quantity information on the Potomac basin to the public and government agencies. The County's interests on the Commission are represented by three Maryland Commission members.

3. 1987 Chesapeake Bay Agreement. The Chesapeake Bay Agreement of 1987 brought together the Environmental Protection Agency (representing the federal government), the District of Columbia, Maryland, Virginia, Pennsylvania, and the Chesapeake Bay Commission to work cooperatively to manage the Chesapeake Bay as an integrated ecosystem and to reverse the decline of the Bay system. Administration of the Agreement is the responsibility of the Chesapeake Executive Council. The Department of Environmental Protection provides staff support to entities working to accomplish the goals of the 1987 Chesapeake Bay Agreement. One such entity is the Chesapeake Bay Local Government Advisory Committee.

4. The Patuxent River Commission. This State-chartered Commission is composed of representatives from the Maryland counties through which the Patuxent River and its major tributaries flow. The Maryland Department of Natural Resources is responsible for the administration of the Commission. The Department of Environmental Protection provides staff representation on committees of the Commission, such as the Patuxent River Basin Committee.

VII. OBSERVATIONS AND EVALUATION

A. Overview

Previous chapters of this report presented: the legislative history of the Department of Environmental Protection's sediment control and stormwater management responsibilities; a description of how the DEP has reorganized to accomplish these responsibilities; and the relationship of DEP with other public agencies which have surface water-related functions.

This chapter of the report evaluates the major current activities of the Department to accomplish its water-related responsibilities. The chapter presents these observations and evaluation under four categories:

1. Management and Organization
2. Operations and Programs
3. Laws and Regulations
4. Resources

B. Management and Organization

1. New Director of the Department of Environmental Protection. In February 1990, the Council confirmed the County Executive's selection of a new Director of the Department of Environmental Protection (DEP). In the year since his appointment, the Director has introduced a number of initiatives to improve the organization and operations of DEP, especially in the area of water resources management. The water-related initiatives include: directing an internal reorganization of DEP to bring the previously fragmented water-related elements back into a single Division of Water Resources Management; creating a single point within DEP where citizens can register environmental, zoning and other complaints in areas for which DEP has responsibility; becoming personally involved in the interagency Water Policy Group; and reaching out to environmental individuals and groups and other public agencies having water-related responsibilities to establish a dialogue and coordinate environmental activities.

2. Reorganization of the Department of Environmental Protection. Effective December 3, 1990, the Department was reorganized. Among several internal changes, two impact directly on the DEP's sediment control and stormwater management responsibilities.

The first is the creation of a new Division of Water Resources Management which consolidates the DEP's responsibilities for water-related programs into one single organizational element. This is a major improvement over the old organization which distributed water-related programs among several sections in two DEP divisions, with a resultant weakening of coordination, cooperation and results.

The second change is the creation of an Intake and Processing Unit, in a restructured Environmental Policy and Compliance Division. This unit is responsible for receiving and expeditiously processing citizen complaints on matters relating to the Department's responsibilities, to include sediment control and stormwater management. The creation of a single point in DEP where the public can direct its questions and concerns will be an improvement over the prior organization where citizens had to search out the proper unit in DEP to register a particular complaint.

C. Operations and Programs

1. Overview. Earlier in Chapter V of this report, DEP's erosion and sediment control and stormwater management operations were described in detail. Frequently highlighted in that discussion were the findings and recommendations in the December 1990 preliminary report of the interagency Water Policy Group (WPG) relating to issues for which DEP currently has responsibility or will be given responsibility in the near future. As stated on several occasions in this report, OLO believes that all the issues addressed by the WPG are worthy of serious review and consideration by management of the various public agencies which have responsibility for water-related activities.

In this section, four issues addressed by the WPG and discussed earlier in this report are reiterated to emphasize their importance and impact on DEP's operations and programs. These four issues are:

- Maintenance of public and private stormwater management facilities;
- Water quality monitoring;
- Federal NPDES permitting;
- Agricultural nonpoint pollution.

1. Maintenance of Public and Private Stormwater Management Facilities. As reviewed earlier in this report, the maintenance of public and private stormwater management facilities is characterized by a number of problems. Specifically:

- the DEP is conducting maintenance inspections of private and public facilities only in response to complaints and is performing minimal structural maintenance on County and participation stormwater management facilities;

- the Parks Department's maintenance program for stormwater management facilities is, according to Parks Department staff, inadequately funded; and

- many private stormwater facilities owned by homeowners' associations (HOAs) lack adequate regular maintenance inspections, timely notice of maintenance needs, and critical structural maintenance. The Water Policy Group has specifically made recommendations concerning this lack of maintenance of public and private facilities, and lack of public and private funding for structural maintenance.

No one has determined the effects of this lack of maintenance on water quality. However, DEP and Parks Department staff agree that a poorly maintained facility definitely has some detrimental effect on the quality of water which passes through a facility which is not functioning to design specifications. Further, a poorly maintained facility can be an unsafe facility.

The report of the interagency Water Policy Group (WPG) recommends that public and private management should not delay in assessing the status of structural maintenance of their respective facilities. Specifically in need of attention is a determination of the maintenance responsibilities between the various agencies responsible for public stormwater management facilities (DEP, DOT, M-NCPPC); and the maintenance responsibilities between the government and HOAs for private stormwater facilities located on HOA property. This latter issue was studied and reported on by the Homeowners' Association Task Force in their September 1989 report to the Council.

DEP has initiated the first step in determining the extent of the structural maintenance problem. Included in the approved FY91 operating budget of DEP are funds for the first phase of an engineering and safety survey of a sampling of public and private stormwater management facilities. This project is expected to begin early in 1991. The second phase, to be conducted in FY92 if funds are appropriated, will survey and report on the remaining stormwater management facilities.

2. Water Quality Monitoring. Also as reported earlier in this report (see page 46), stream sampling and water quality monitoring have had a low priority in the County since early 1980 when budget cutbacks curtailed a "grab sampling" program of approximately 100 stations on rivers and streams of the County, and eliminated a County laboratory. Currently, a modest water monitoring effort has been reestablished; however, staff of the DEP, M-NCPPC, and the Council are in agreement that a greater effort is necessary in this area.

A mix of all forms of water quality monitoring--ecological, biological, chemical and physical (aerial and stream walks)--is needed to evaluate the state of water quality, the impact of development, and the effectiveness of water quality practices. In addition, the base data collected by monitoring and the analysis of that data is a necessary component of an effective water modeling program, which in turn is fundamental to the development of an automated geographic information system (GIS), the design of water management facilities, and the integration of stormwater management and land use planning. The interagency Water Policy Group (WPG), examined the need for an integrated water monitoring program and recommends the formation of an interagency water quality monitoring group composed of representatives of DEP, M-NCPPC and WSSC. Funding for this group would come from appropriations by the three public agencies and fees collected from private developers as part of performance monitoring requirements for development in sensitive areas.

3. Federal NPDES Permitting. As presented earlier in this report (see page 47), the Congress enacted amendments to the Clean Water Act (CWA) in 1987, which mandated the federal Environmental Protection Agency (EPA) to expand the National Pollution Discharge Elimination System (NPDES) permitting program to include urban storm drainage systems.

After a long delay, the EPA in November 1990, published the new NPDES permitting regulations. These rules require the County to accomplish the following within a one-year time period: inventory all County storm drainage systems (currently, we do not have an inventory); prepare topographic maps and drainage area data (also not currently available); identify and categorize the outfalls; initiate a sampling program for those outfalls (discharge points) that are within the EPA's criteria (diameter of 36" or greater, or which drain 50 or more acres); and maintain records of discharge runoff which are open to the public and submit periodic reports to the EPA.

Although the DEP staff has been monitoring EPA activities in this matter for the past three years, no County agency has been formally assigned responsibility or given resources to accomplish this federally mandated requirement. (DEP and DOT have had meetings on this matter and have agreed that DEP should have responsibility for the initial effort in meeting this new federal requirement.) The Water Policy Group has made recommendations concerning this matter, and it may be discussed during Council review of the DEP's FY92 operating budget.

Obviously the County must move expeditiously to assign agency responsibility for complying with this federal requirement and to identify minimum resources necessary to meet the late 1991 EPA deadline. Although storm drainage systems is the responsibility of the Department of Transportation (DOT), it is appropriate that DEP, with its experience in NPDES permitting and water quality monitoring, have initial responsibility for this new NPDES permitting program for urban storm drainage systems. As the program develops, responsibility may change.

4. Agricultural Nonpoint Pollution. The Department of Environmental Protection has limited responsibilities in sediment control and stormwater management in the agricultural areas of the County. The Montgomery Soil Conservation District (MSCD) is the lead County agency in promoting programs for the effective management, the conservation of soil and water, and the reduction of the adverse effects of agricultural practice on water quality.

Studies associated with the Chesapeake Bay Initiatives to determine the source and reduction needs of pollutants has revealed that, as point source pollution from waste treatment plants and industrial sites have been reduced, a growing percentage of Bay pollutants have been traced to sources including farmland nonpoint sources.

Attempts at reducing agricultural pollution have almost exclusively been voluntary (see page 49). Through educational programs and financial incentives provided by a combined federal-State grant program, farmers have been encouraged to use a variety of best management practices (BMP) to reduce stream channel erosion and pollution. Unfortunately these programs have not been too successful. In the opinion of the Water Policy Group, the low participation by farmers in these programs is due, in part, to financial limits on the existing federal-State grant program. The WPG recommends that the County provide a local cost-share incentive to "piggy-back" on the federal-State grant program to help farmers pay for installing three BMPs: animal waste systems, enhancement stream buffers and stream fencing. To this end, DEP planned to include a local incentive program in their recommended FY92 operating budget; however, there is little expectation that the program will be approved because of current budget constraints.

Another reason often cited for lack of participation by farmers in agricultural pollution control programs is that much of the land is operated by tenant farmers who have no incentive to finance improvements on land they do not own. Should DEP's local incentive program be established and prove not to be successful in increasing farmer participation, the County may need to pursue legislation to motivate the owners of farms responsible for installing BMPs that mitigate agricultural nonpoint pollution and decrease stream channel erosion.

D. Laws and Regulations

1. Overview. The Water Policy Group (WPG) has identified several issues which will require either new legislation, changes to the current sediment control/stormwater management legislation, or changes to existing Executive regulations. All the issues identified by the WPG are worthy of consideration. This report, however, singles out only three legislative initiatives which OLO considers the most far reaching and also highlights several changes to current Executive regulations.

2. County Laws. The following three legislative initiatives would improve DEPs authority in administering the County's sediment control, stormwater management and water quality programs:

- Enacting a grading and drainage ordinance
- Enacting a water quality ordinance
- Reviewing and revising selected sections of Code Chapter 19

Grading and Drainage Ordinance

The County has received many complaints from citizens concerning increased stormwater flows on and across their properties when development occurs on lands above them, and in older established neighborhoods when a drainage pattern is changed. These complaints are received primarily by DEP staff; however, other agencies, such as the Department of Transportation (DOT), the Department of Housing and Community Development (DHCD), the Montgomery Soil Conservation District (MSCD), and the Maryland-National Capital Park and Planning Commission (M-NCPPC), also receive some water-related complaints.

Some of the complaints can be traced to an inadequate or malfunctioning storm drain, for which the DOT has responsibility. For those complaints, the DOT established a "Drainage Assistance Requests" program. Under this program, DOT staff responds to citizen requests with research, evaluation, engineering analysis and recommendations, which have resulted in some storm drain projects to correct drainage problems using funds provided by a DOT CIP project.

Other complaints involve nuisance water between neighbors which the DHCD attempts to resolve under its enforcement authority (Code Chapter 26) that a property owner must eliminate any public nuisance which results in damage to another person's property. Resolution in these neighbor-to-neighbor complaints are almost always the result of negotiation by DHCD staff with the parties involved.

Complaints which involve stream valleys and parkland are referred to the M-NCPPC's Parks Department for investigation and resolution.

The majority of the drainage complaints, however, are received by DEP. This is primarily because many water-related problems are the result of conditions from current and earlier development, especially in the down-County area where development occurred before the current and more strict stormwater controls were in place. Some of these conditions are addressed, albeit slowly, through DEP's stream valley improvements CIP program; however, according to DEP staff, these retrofit projects, especially those in stream channels, often result in simply moving the problem further downstream.

Both the DEP and Council staff have analyzed these complaints over time, and conclude that many stem from lot-to-lot drainage problems. Essentially, these problems occur when the actual final site grading contours do not reflect the contours on the approved site drainage plans. Enactment of a grading and drainage ordinance, with associated regulations, would contribute significantly to reducing lot to lot drainage problems. As a minimum, a County grading and drainage ordinance should provide for the following:

- Strengthen the plan review and permitting process. Another source of drainage problems is private storm drainage systems which connect to public drainage systems, like the private drainage systems found in most shopping centers. Under current procedures, County agencies conduct only a cursory plan review of such systems, and actual site grading for the private drainage system does not always comply with approved plans. A grading or drainage ordinance would enable the County to require by law that subdivision and site plans display the footprint of each building on a plan showing topography after grading before a grading permit is issued.

- Require certification. The ordinance should also require certification from developers/engineers that the plan was done in accordance with the grading ordinance prior to DEP issuing a building permit. Confirmation that final lot grading conforms to contours or the developer's approved lot grading plan would be accomplished by DEP inspectors during periodic site visits and prior to final sign-off.

- Assign responsibility to staff to verify final post-grading contours. The current sediment control and stormwater management law does not assign responsibility to any agency to verify that final post-grading contours comply with approved plans. DEP staff maintains that the major drainage complaints can usually be traced to development in headwater areas upstream of entry points to the storm drainage systems, and involve small drainage areas of less than five lots or less. Enforcement of the grading ordinance would be the responsibility of DEP.

- Require a use-and-occupancy permit for single family dwellings. Another method of verifying that actual final site grading and drainage patterns conform to approved subdivision plans would be to require a use-and-occupancy permit for single family and townhouse residences. Under current County law (Code Section 59-A-3.2), a building used as a one-family detached dwelling does not require a use-and-occupancy permit. (The DEP staff has interpreted this provision concerning one-family detached dwellings to apply also to townhouse dwellings.)

• Address nuisance complaints. Finally, a grading and drainage ordinance should strengthen the County's position in imposing conditions on all excavating and grading to prevent creation of a nuisance or unreasonable hazard to persons or property. For example, a grading and drainage ordinance should require smooth and level grading of open space and the establishment of quality turf. In addition, a grading and drainage ordinance should include provisions to prohibit grading so close to the property line as to endanger or damage the adjoining public or private property without special precautions. Current language in the sediment control law alludes to this prohibition (Code Section 19-15); however, the language is so vague that DEP staff has treated complaints that involve grading problems between adjacent property owners as either nuisance complaints for which DHCD staff has responsibility, or as trespassing incidents not within the purview of the County's sediment control law.

Water Quality Ordinance

According to DEP staff, the County receives a significant number of complaints of hazardous substances either accidentally spilled or purposely introduced into the storm drainage system. However, the County currently lacks authority to develop regulations and enforcement procedures to ensure adherence to water quality standards, especially in the handling and disposal of hazardous substances, such as waste oil, anti-freeze, paints and mineral spirits in the County's storm drainage and stormwater management systems.

For the three major areas of environmental concern: air, noise and water pollution, the State has primary responsibility for establishing quality standards and for enforcing those standards. For air and noise pollution, the State has authorized political subdivisions to adopt their own air and noise pollution standards and regulations and to enforce those standards, provided they are not less stringent than the standards set by the State. In the case of water, the State has not delegated authority to any political subdivisions to set water quality standards or enforce water pollution regulations. In the case of Montgomery County, water quality enforcement is carried out by one Maryland Department of Environment (MDE) water pollution inspector who also serves Howard County.

In 1986, citing the arguments that the Federal Water Pollution Control Act delegates water pollution control only to the states, and that further delegation would jeopardize federal grants under the Act, the Maryland Department of Health and Mental Hygiene (DHMH) successfully convened a committee of the Maryland General Assembly to oppose legislation sponsored by the County which would have allowed subdivisions to adopt their own water quality ordinances.

In 1987, the General Assembly created the Maryland Department of Environment (MDE), and transferred responsibility for water quality from DHMH to that agency. Recent conversations between DEP staff and MDE staff indicate that the MDE would probably support the County assuming partial authority over water quality to include enforcement authority through local legislation, provided the County's program complemented the State's.

The County should pursue enactment of local legislation to give DEP staff the authority to regulate water quality and to enforce water quality standards, especially in the handling and disposal of hazardous substances into the County's storm drainage and stormwater management systems. Should the County find that it lacks authority to enact local legislation, then authority should be obtained from the General Assembly.

Review and Revise Selected Sections of Code Chapter 19

The interagency Water Policy Group (WPG) has identified a number of issues which may require amendments of Code Chapter 19, Erosion, Sediment Control and Stormwater Management. Described here are three of those issues which OLO believes merits Council attention: revising the Code provision relating to the stormwater management chapter of the Comprehensive Water Supply and Sewage Systems Plan (Ten-Year Water/Sewer Plan); requiring a comprehensive water quality monitoring program; and revising the Code provisions relating to sediment control and stormwater management performance bonds.

- Stormwater Management Chapter of the Comprehensive Water Supply and Sewage Systems Plan. Code Section 19-23 directs the County Executive to prepare for Council approval a stormwater management chapter, to be included in the Comprehensive Water Supply and Sewage Systems Plan, or more commonly called the Ten-Year Water/Sewer Plan. Code Section 19-23 requires that the chapter outline County policies and objectives for developing off-site stormwater management and/or flood control facilities during the ensuing ten years; address specific technical issues such as nonpoint source contamination of waterways; and identify potential sites for off-site stormwater management facilities.

In the opinion of OLO, Code Section 19-23 needs to be rewritten to emphasize that the stormwater management chapter should be the vehicle to clearly and specifically define the County's goals and objectives in the broad areas of water quality and stormwater management; and to present a plan for carrying out those goals and objectives.

A review of the current stormwater management chapter to the Ten-Year Water/Sewer Plan, Chapter 5, Water Quality, approved in 1986, reveals that it falls well short of a comprehensive statement of the County's water quality goals and stormwater management objectives. Interviews by OLO of staff of the DEP, the M-NCPPC and the Council, and deliberations of the interagency Water Policy Group reveals that much staff work has already gone into preparing a comprehensive, clearly defined statement of County water quality goals and objectives, and in developing standards to measure progress in meeting these goals and objectives. What is still lacking is the publication of an updated stormwater management chapter.

- Comprehensive Water Quality Monitoring Program. In several sections of this report, the current status of water quality monitoring of County water has been discussed. Those discussions reveal that little water quality monitoring has occurred in the past decade, and what has occurred has not been subject to analysis and data management.

To assure that this critical component of a total water quality and stormwater management program is carried out, Code Chapter 19 should be amended to include the requirement that the DEP establish a comprehensive water quality monitoring program. A comprehensive program would include standard monitoring techniques (chemical and biological sampling); stream walks by trained environmentalists; and monitoring innovations, such as aerial surveys, both human and video recorded, as recommended by Council staff.

The Water Policy Group has also addressed this issue in detail, suggesting that an interagency water monitoring group composed of representatives of DEP, M-NCPPC and WSSC be established to coordinate the existing agency monitoring activities and facilitate the exchange between agencies of stream data obtained from the various monitoring efforts.

- Sediment Control and Stormwater Management Performance Bonds. Code Section 19-10 addresses sediment control performance bonds, and Code Section 19-32 addresses stormwater management performance bonds. Under current law, the sediment control performance bond is capped at \$10,000 (Code Section 19-10(a)). This sum is unrealistically low considering the cost of installing adequate sediment control measure, and the cost of the damage to stream channels and property when sediment control measures fail.

The Code should be amended to provide that the amount of the sediment control performance bond be established in Executive regulations, and that the amount of the bond relate more realistically to actual sediment control costs.

In addition, Code Section 19-32 does not place a cap on the stormwater management performance bond, specifying that the amount of the bond equal the estimated cost of the construction of the stormwater management facility. However, Code Section 19-10 and Executive Regulation 5-90 does not prohibit DEP from allowing a developer to combine the stormwater management performance bond with the sediment control bond. Authority for DEP to combine the two bonds should be removed from the law and Executive regulations so as to require these two performance bonds to be set independently.

3. Executive Regulations. The Department of Environmental Protection is responsible for preparing Executive regulations relating to its erosion, sediment control and stormwater management responsibilities. Because of the number of recent changes in State laws and regulations, the introduction of local environmental management initiatives and planning concepts, and the findings and recommendations of the interagency Water Policy Group, new regulations will be required, and provisions of some of the current regulations will need to be modified.

For example, currently approved regulations need to be modified to reflect the changing stormwater management concepts and stream protection issues raised in conjunction with the Council's recent debate and approval of the comprehensive amendments to the Germantown Master Plan. The water-related issues that need to be addressed in amended or new regulations include:

protection of stream buffer areas; protection of nontidal freshwater wetlands; performance monitoring of streams and wetlands; urban and rural stream restoration activities; and stream valley protection measures.*

As of this writing, DEP has prepared a number of changes to current Executive regulations. These changes should be coordinated with appropriate public and private agencies, and environmental groups, and submitted to the Council for action.

E. Resources

Historically, the Department of Environmental Protection's sediment control and stormwater management responsibilities have been funded from a combination of sources. These include grants, fees, fines, waiver contributions and general revenues. In the four fiscal years, FY87 through FY90, total expenditures by DEP for sediment control and stormwater management activities have increased approximately 24 percent, while during the same period, revenue to fund these activities from sources other than general revenue has decreased approximately 40 percent (see Table 1, page 22).

Despite the overall increase in expenditures for sediment control and stormwater management activities, several DEP responsibilities in these areas have either been severely curtailed or not been accomplished because of insufficient resources.

One result of insufficient resources was the denial in 1985 by the State of authority to enforce State-mandated sediment control provisions because DEP did not have enough sediment control inspectors. Although added funding in the second half of the decade permitted the number of inspectors to increase (and the State reinstated the County's enforcement authority in 1986), the number has not been sufficient to perform all mandated responsibilities, such as maintenance inspections and structural maintenance of public stormwater management facilities. Resource limitations have also been reflected in reduced current programs such as retrofitting older facilities and correcting stream valley erosion problems.

The problem of resource limitations will be exacerbated by new water-related requirements facing the County, especially DEP. These new requirements discussed in detail elsewhere in the report include: complying with the new EPA-directed NPDES permitting requirement for urban storm drainage systems; performing maintenance of public (and possibly private) stormwater management facilities; instituting a water quality monitoring program with related data management and analysis capacity; enforcing water quality standards; and initiating programs to reduce agricultural pollution. While this report has emphasized the resource needs of DEP, stormwater management and water quality responsibilities are distributed across several other County agencies and departments. These other agencies and departments also require sufficient resources to fulfill their respective water-related responsibilities.

* Council staff has recently circulated a proposal for a County stream valley protection program. Depending on the final content of that proposal, new legislation may be required in addition to Executive regulations.

The December 1990 preliminary report of the Water Policy Group (WPG) suggests several ways to increase funding, to include: raising permit fees; instituting a fee for plans review (plans review is currently included in the sediment control permit fee); increasing the maximum fine to \$1,000 for violations of sediment control/stormwater management laws; and creating a stormwater utility. All of these suggestions should be examined; however, the WPG's recommendation for creating a stormwater utility appears to offer the most potential and should be vigorously pursued.

The stormwater utility concept is that stormwater management should be treated like other utilities, such as water supply, wastewater disposal, and solid waste disposal. The broad assumptions and general characteristics of a stormwater utility include:

- In some degree all properties contribute to the requirement for stormwater management facilities and share in the benefits from management of water quantity and quality.
- Utility users are owners of properties that contribute to the discharge of stormwater that eventually enters publicly-maintained collection systems and County/State waters.
- Utility users include properties generally exempt from the property tax.
- Utility charges are assessed proportionately to the stormwater runoff contribution, and are generally based on the size (square footage) and percentage of impervious area of a property, and not based on the unrelated measure of assessed value of a property. Thus charges are passed on to "rate payers", rather than "tax payers".
- Utility charges for similar residential properties are generally standardized.
- Utility funds are restricted to stormwater-related projects and activities, and relate to the cost of the stormwater projects and activities, including maintenance and water-related studies.

Approximately 100 jurisdictions in the United States have established stormwater utilities as public utilities providing stormwater management service. Most serve municipalities, with a few serving counties or portions of counties. Their appeal is based generally on the belief that they are fairer than an ad valorem tax on property value, and they answer the need to relieve pressure on the local general fund.

Although no Maryland jurisdiction has instituted a stormwater utility, Baltimore County is currently studying the concept with the assistance of the Maryland Department of the Environment (MDE). Also, it should be noted that when the 1990 General Assembly enacted legislation transferring responsibility for stormwater management from the Washington Suburban Sanitary Commission (WSSC) to the City of Takoma Park, the legislation authorized Takoma Park either to levy a direct ad valorem tax or establish a stormwater management utility fee system to pay the costs of stormwater management activities and projects.

On January 23, 1991, the County Executive directed DEP to proceed toward implementation of a Stormwater Management Fund, separate from the General Fund, as the basis for funding the County's water resources programs.

VIII. RELATED MATTERS

In the course of this study, the following related matters came to the attention of OLO. Although these matters are not within the specific scope of this review, they are considered sufficiently important to be presented here for information and, in some instances, possible action by the appropriate department or agency.

A. Environmental Groups

There are several active environmental groups and private citizens who are highly concerned with what they feel is a history of overall inadequate performance by the Department of Environmental Protection (DEP) in sediment control and stormwater management matters. Examples of inadequate performance most often cited include: enforcement of sediment control/stormwater management laws and regulations by DEP staff; protection of County wetlands and floodplains; reduction of stream channel erosion; restoration of streams and improvement of the quality of County waters; and control of nonpoint urban runoff.

The OLO has received a number of complaints from environmental groups and individual citizens on specific violations of State and County sediment and pollution control laws and regulations. In the course of the review, OLO met with representatives from the Audubon Naturalist Society, the Izaak Walton League, Save Our Streams, Trout Unlimited and the West Montgomery Citizens Association.

OLO was highly impressed with the breadth of their knowledge of DEP's responsibilities in the areas of sediment control and stormwater management, and with the depth of their concern for the waters of the County (and of the region). In OLO's opinion, the overriding concerns expressed by those representatives were two: the lack of a DEP program of stringent enforcement of State and County environmental laws and regulations; and a strong skepticism, based on a long period of neglect, that DEP will be receptive to the opinions of environmental groups and citizens on water policy matters or on individual water-related problems.

The new Director of DEP has indicated a more open approach to the environmental community, especially in keeping that community informed on DEP activities and in receiving their input. Since his appointment, the Director has met with representatives of environmental groups concerning water-related issues. In December 1990, the Director and staff from DEP and M-NCPPC conducted a forum at which representatives of the environmental community received and discussed the preliminary report of the Water Policy Group. At that forum the Director of DEP invited representatives of the environmental

groups and citizens to participate with DEP in developing a more efficient and effective water resources program in the County. Also, the Director recently initiated a series of brown bag lunches where environmental topics will be presented by guest speakers. Finally, the Director has indicated that he will be initiating a DEP newsletter for wide distribution, and is exploring the potential of using the County's public access cable channels to present environmental topics.

B. Tree Ordinance

Trees are an integral component of the County's water resource protection efforts. Trees act to slow down and absorb stormwater runoff, stabilize soils, protect stream banks, and shade the streams and land to help reduce stream temperature increases (a critical element in supporting the growth and propagation of trout.)

During the past months, the subject of trees has surfaced in a variety of formats: Bill 17-89 to establish a County arborist; an April 1990, Tree Report by an Executive-appointed Tree Ordinance Drafting Group; and recent Council discussions on amendments to the Germantown Master Plan.

In future discussions on trees in general and on a possible tree ordinance, the Council should be alert to the critical role that trees play in the County's overall sediment control, stormwater management and water resources management programs.

C. Fencing of Stormwater Management Ponds

Code Section 36-3, Fences or Barricades Required Around Ponds, directs that, within the Maryland-Washington Regional District of the County, a fence or barricade of at least four feet in height be erected around all artificial ponds. The requirement does not apply to State or County-owned ponds or to artificial ponds used primarily for farming or agricultural purposes.

The Department of Environmental Protection (DEP) has not been enforcing this law, and only a small percentage of private ponds are fenced to the requirements of the law. Although the exact number of privately owned ponds, either on homeowners' association or commercial property, is not known, DEP estimates that there may be as many as 550. Many of these ponds, especially the more recent ones, were designed and constructed with gentle slopes and other safety features to reduce the potential of accidental drowning. However, many of the older ponds have steep slopes and deep pool areas; and all wet ponds offer no protection against the dangers of ice in the winter season. The Water Policy Group examined this issue, but took no position.

In the opinion of OLO, the issue of fencing private, non-agricultural ponds should be addressed by the Council from the standpoint of safety, liability and costs involved; and the current law should be enforced, amended or repealed.

IX. CONCLUSIONS

A. General

1. Overall, the Department of Environmental Protection (DEP) has discharged most of its duties and responsibilities in the areas of erosion and sediment control and stormwater management.

2. However, because of the fragmented internal organization of the Department's water resources management elements, an emphasis by DEP management on solid waste and other non-water-related DEP responsibilities, and a limitation on available resources, the Department of Environmental Protection has not consistently carried out these duties and responsibilities in an efficient manner.

B. Organization and Management

1. In the period since his appointment in February 1990, the new Director of the Department of Environmental Protection has instituted organizational changes and management initiatives that should improve the Department's overall efficiency and effectiveness.

2. The December 1990 internal reorganization of the Department of Environmental Protection, which consolidates previously fragmented water resources management elements into one division, is a significant improvement that should result in more effective and efficient operations.

3. The work of the staffs of the participating departments and agencies and the personal participation and support of the Director of the Department of Environmental Protection have resulted in the production by the Water Policy Group of a coordinated series of findings and recommendations concerning many critical water resources management issues.

4. The new Director of the Department of Environmental Protection has demonstrated a more open approach to the environmental community; in particular, the Director is soliciting input and assistance from members of the environmental community in developing a more effective and efficient program of water resources management in the County.

C. Operations and Programs

1. The County lacks a clear statement of its goals and objectives in water resources management, specifically, in the areas of sediment control, stormwater management and water quality.

2. Of the various issues reported on by the interagency Water Policy Group, the following four are especially critical and should receive priority attention:

- Assigning responsibilities and necessary resources to a County agency for compliance with new federal permitting requirements for urban storm drainage systems;
- An adequately funded inspection and structural maintenance program for public stormwater management facilities on County land or parkland, and those private HOA facilities for which the County may already have or may assume maintenance responsibility;
- A comprehensive program of water monitoring and modeling; and
- A program to reduce agricultural nonpoint pollution and rural stream channel erosion.

D. Laws and Regulations

1. The County lacks an adequate grading and drainage ordinance that strengthens the erosion and sediment control/stormwater management plan review and permitting process; enables the County to verify that final post-grading contours comply with approved plans; and adequately addresses nuisance water issues.

2. The County lacks a water quality ordinance that authorizes the Department of Environmental Protection to develop regulations and enforcement procedures to ensure adherence to water quality standards, especially in the handling and disposal of hazardous substances in the County's storm drainage and stormwater management systems.

3. As currently written, County Code Chapter 19, Erosion, Sediment Control and Stormwater Management, does not address some of the critical issues identified by the interagency Water Policy Group.

4. Current Executive regulations relating to the County's sediment control, stormwater management, and water quality responsibilities do not incorporate the stream protection issues highlighted in the recent amendments to the Germantown Master Plan, or the findings and recommendations of the interagency Water Policy Group.

E. Resources

1. Because of budget constraints and insufficient resources, the Department of Environmental Protection has been unable to carry out all of its erosion and sediment control and stormwater management responsibilities in the most efficient manner.

2. The County lacks a reliable and dedicated source of funding for accomplishing its many sediment control, stormwater management, and water quality responsibilities.

X. RECOMMENDATIONS

1. The Director of the Department of Environmental Protection should continue the open and cooperative approach to the environmental community, actively seeking their input and assistance in developing a more effective and efficient program of water resources management.

2. The County should publish a clear statement of its goals and objectives in water resources management, and develop the requisite strategic and operational plans and procedures to accomplish those goals and objectives.

3. Within available resources and priorities, appropriate County agencies should review the findings and implement the recommendations of the interagency Water Policy Group; with the following receiving priority attention:

- Assigning responsibilities and necessary resources to a County agency for compliance with new federal permitting requirements for urban storm drainage systems;
- Developing an adequately funded inspection and structural maintenance program for public stormwater management facilities and for those private facilities for which the County has responsibility or may assume responsibility;
- Establishing a comprehensive program of water monitoring and modeling; and
- Developing a program to reduce agricultural nonpoint pollution and rural stream channel erosion.

4. The County should enact a grading and drainage ordinance that strengthens the erosion and sediment control/stormwater management plan review and permitting process; enables the County to verify that final post-grading contours comply with approved plans; and adequately addresses nuisance water drainage issues.

5. The County should enact a water quality ordinance that authorizes the Department of Environmental Protection to develop regulations and enforcement procedures to ensure adherence to water quality standards, especially in the handling and disposal of hazardous substances in the County's storm drainage and stormwater management systems.

6. County Code Chapter 19, Erosion, Sediment Control and Stormwater Management should be reviewed and revised to include selected findings and recommendations of the interagency Water Policy Group.

7. Current Executive regulations relating to sediment control, stormwater management, and water resources management should be reviewed and updated to incorporate recent stream protection issues and the findings and recommendations of the interagency Water Policy Group.

8. The County should examine the feasibility of establishing a stormwater utility to provide a reliable and dedicated source of funding for accomplishing its many sediment control, stormwater management, and water quality responsibilities.

XI. AGENCY COMMENTS

Before submitting this report to the County Council, a draft copy was sent to the Chief Administrative Officer; the County Attorney; and the Directors of the Department of Environment, the Department of Housing and Community Development, the Department of Transportation and the Office of Management and Budget. In addition, draft copies were also sent to the Chairman, Montgomery County Planning Board and the District Program Coordinator, MSCD.

All comments of a technical nature have been included in this final report. Other comments are presented below in their entirety.



Montgomery County Government

ROCKVILLE, MARYLAND 20850

MEMORANDUM

January 25, 1991

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: William H. Hussmann
Chief Administrative Officer *WH*

SUBJECT: DRAFT OLO Report #90-4, A Description and Evaluation of the Sediment Control and Stormwater Management Responsibilities of the Department of Environmental Protection

Thank you for the opportunity to comment on the Draft OLO Report #90-3, A Description and Evaluation of the Sediment Control and Stormwater Management Responsibilities of the Department of Environmental Protection. This report provides a comprehensive and in-depth analysis of the sediment control and stormwater management programs administered by the Department of Environmental Protection. The comments from the Department of Environmental Protection, Department of Transportation, Department of Housing & Community Development, the Office of Management & Budget, and the County Attorney's Office are attached.

The Executive Branch looks forward to discussing OLO Report #90-4 upon its release by the County Council. Thank you again for the opportunity to comment.



Montgomery County Government

MEMORANDUM

January 18, 1991

TO: Andrew Mansinne, Jr. Director
Office of Legislative Oversight

FROM: Edward Graham, Director *EGH*
Department of Environmental Protection

SUBJECT: Comments on Draft OLO Report No. 90-4: A Description and Evaluation of Sediment Control and Stormwater Management Responsibilities of the Department of Environmental Protection

Your January 7, 1991 memorandum invited comments for incorporation into the final report to be reviewed by the County Council in February 1991. The County is most pleased with the report. It provides a comprehensive and in-depth analysis of sediment control and stormwater management programs administered by the County Department of Environmental Protection (DEP). It also presents a useful overview of DEP's surface water program responsibilities and their relationship to other planning and regulatory programs administered by Federal, State, Regional, and other County agencies.

We believe that the "Observations and Evaluation" section presents a fair and accurate assessment of DEP's management and organization, operations and programs, laws and regulations, and resources. We concur with the policy and program limitations identified and with related findings that the County should be doing more to: 1) maintain stormwater management facilities; 2) conduct water quality monitoring; 3) address agricultural nonpoint source pollution sources; and 4) respond to emerging Federal permitting requirements for urban stormwater discharges. To help accomplish this, we agree that amendments to Chapter 19 of the County Code are desirable to: 1) mandate that the County Ten-Year Water and Sewer Plan be the vehicle for defining County water quality goals; and 2) require that the County undertake a comprehensive water quality monitoring program. We also support the recommended new legislative initiatives to adopt a drainage and grading ordinance, a water quality ordinance, and a comprehensive tree ordinance.

Office of the Director, Department of Environmental Protection

101 Monroe Street, Room 627, Rockville, Maryland 20850-2589, 301/217-2355

Andrew Mansinne, Jr.
January 18, 1991
Page two

Through its work with the interagency Water Policy Group, we believe that DEP has made good progress in addressing some of the program deficiencies identified in the report. For example, staff draft amendments to County stormwater and sediment control regulations have been prepared. DEP has also expanded its efforts to reach out to interested community, environmental, and business groups to solicit their views concerning the effectiveness of County water programs and how they might best be improved. However, as the report points out, much of DEP's inability to keep up with expanding water program requirements reflects budget constraints and resource limitations that have not enabled all program responsibilities to be carried out in the most efficient manner.

Resource limitations which have constrained DEP's performance can be primarily attributed to the lack of a reliable and dedicated source of funding. To help rectify this situation, the County is considering, as the report recommends, establishment of a stormwater utility as a primary source of program funding. Under this approach, the management of stormwater would be handled in a manner similar to other utilities (e.g. solid waste disposal) and utility charges would be assessed proportionate to the stormwater runoff generated by individual properties. Collected fees would be restricted to stormwater facility construction and maintenance and to related plans review, permit administration, watershed planning, stream restoration, monitoring, and enforcement activities.

We appreciate the opportunity to comment on the report. We found it to be thorough, thought provoking, and full of valuable insights concerning County water policies, program needs, and how to meet them. The author is to be commended for an outstanding piece of work.

EUG:CW:cw/3951W

M E M O R A N D U M

January 18, 1991

TO: Andrew Mansinne, Director
Office of Legislative Oversight

VIA: Robert C. Merryman, Acting Director
Department of Transportation

FROM: Edgar A. Gonzalez, Acting Chief
Division of Transportation Engineering

SUBJECT: Comments on OLO Report No. 90-4

We offer the following comments/clarifications to the above report.

p55 - Last paragraph:

For DOT projects (90% of which are roads and bridges), in addition to DEP approvals, we obtain permits related to stormwater management from the following agencies:

- o U.S. Corps of Engineers
- o Maryland Department of Environment
- o MD Department of Natural Resources/Water Resources Administration (Sediment and Stormwater Management Division)
For projects involving 10 percent or more State land.
- o M-NCP&PC also issues a permit when a CIP project requires work on parkland

There are instances in which all agencies get involved, and conflicting conditions are placed on DOT. Integration of the process in those instances would be highly desirable, efficient and cost effective.

p56 - Second paragraph

Process should read " . . . an engineering analysis of the problem using funds provided in DOT's CIP No. 818580. Should the analysis warrant DOT action, the problem is corrected under DOT's CIP No. 688336, or as a stand alone project, depending on the cost of the solution".

p 56 - Third paragraph

It is our view that the tax collected is not solely allocated to DOT's storm drain projects, and therefore, is not necessarily a reliable source for DOT's projects.

Andrew Mansinne
January 18, 1990
Page 2

The storm drain projects must compete, as a lower priority, for available County funding with all other general bond funded projects in the CIP.

For example, page 12-12 of the Recommended CIP for FY92-97 summarizes DOT's Storm Drains program. The summary indicates FY91 estimated expenditures of \$646,000 and \$664,000 in FY92. In at least two years of the program expenditures are recommended below the \$400,000 level. The DOT program therefore, is typically less than 50 percent of the Storm drainage Tax collected in FY90, and in future years it is expected to be less than 25 percent of such tax.

pg 67 - Second paragraph

Based on discussions between DEP and DOT Directors the language should be modified to say: "... , the DEP should have the overall lead responsibility for the initial effort involved in complying with the new NPDES effort, i.e., compiling the inventory and identifying and monitoring sampling points."

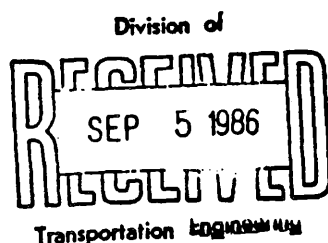
Finally, we would like to mention that DEP and DOT have entered into a Memorandum of Understanding concerning SWM facilities associated with roads built as CIP projects. We are attaching a copy of the document for Mr. Mansinne's consideration for inclusion in the report.

EAG:mp

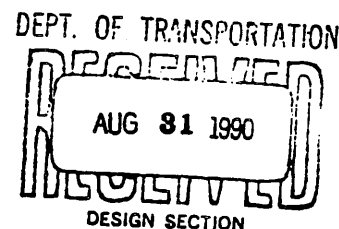
Attachment

cc: Harry J. Grossman
James A. Taylor

Bob Neizman



MEMORANDUM OF UNDERSTANDING
between
THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
and
THE DEPARTMENT OF TRANSPORTATION
concerning
STORMWATER MANAGEMENT FACILITIES



ASSOCIATED WITH ROADS BUILT as CIP PROJECTS

PURPOSE

The purpose of this memorandum is to set forth certain understandings between DOT and DEP concerning maintenance responsibilities for stormwater management facilities that are built as a part of a road CIP project. In addition, this memorandum will summarize arrangements agreed to concerning split maintenance responsibilities for stormwater management facilities which utilize road embankments for dams.

OBJECTIVES

In order to carry out the purpose of this Memorandum of Understanding, the following objectives are set forth:

1. To establish procedures that will facilitate expeditious review and approval of proposed construction designs for stormwater management requirements.
2. To clearly define maintenance inspection and operations responsibilities for all stormwater management facilities that are part of proposed construction projects prior to approval of designs.
3. To describe specific criteria for documenting location, scope, facility design, and maintenance responsibility as a part of design plans prior to approval of such plans for stormwater management.

BACKGROUND

Under Maryland Law, Section 8-11A, Natural Resources Article, Annotated Code of Maryland - the State Stormwater Management Law - became effective July 1, 1985, water quality controls must be provided for all new construction, including roads built as CIP projects. Maryland Water Resources Administration in reviewing the Montgomery County Stormwater Management Law and Executive Regulation specifically required inclusion of County roads. In implementing these requirements it has been necessary to include specific controls into the designs of road projects.

It is the policy of DEP to implement fully the stormwater management requirements of State and County Laws and Regulations. It is further the policy of DEP to provide coordination of the stormwater management efforts of all development interests, both public and private, in a manner to ensure efficient, effective, and economical watershed wide controls that meet the legislative intent of Stormwater Management Laws.

It is the policy of DOT to design, construct, and maintain stormwater management facilities as part of all construction projects in accordance with concepts agreed to by DOT and DEP. It is the policy of DOT to budget for such additional design, construction and maintenance activities as are required to carry out this policy.

PROCEDURES

PLANNING STAGE

Any requests for waivers and/or comments on design concepts shall be addressed to DEP during the early design stage of a project. This will provide the opportunity for coordination of any ongoing stormwater management efforts currently being planned by either DEP or private developers in the same drainage area into a more efficient and cost effective system. It will also provide for a more timely review and approval of DOT's proposed design plans for stormwater management. In addition, early approval by DEP of the stormwater management concept to be followed will provide maximum lead time for land acquisition to satisfy stormwater management needs and timely implementation of road projects.

DESIGN STAGE

Sediment Control Plans for all proposed construction projects shall include the following:

1. A copy of any waiver approval letter obtained from DEP.
2. Designs and construction details for appropriate stormwater management facilities.
3. Supporting computations for the design of all stormwater management facilities for review along with the design and construction drawings.
4. A list of all stormwater management facilities, the locations of each (such as stations and distances left or right of center line), and the plan sheet(s) on which the construction drawings are located.
5. A maintenance certification signed by the Director of DOT, or his designee, specifically referring to this Memorandum of Understanding (sample attached as Attachment #1).

6. In the case of split maintenance responsibility between DOT and DEP as for road fills used as dams, the split maintenance shall be described on the appropriate drawing.

DESIGN REVIEW AND APPROVAL STAGE

DEP will review all Design Plans and Waiver Requests for stormwater management on an agreed to schedule for conformation to the previously approved concept.

OPERATIONS AND MAINTENANCE STAGE

DEP will inspect the facilities on a scheduled basis deemed appropriate by DEP based upon experience and need for maintenance. A written report of each inspection will be forwarded to DOT for their information or maintenance action as appropriate.

DOT will perform maintenance on an agreed to scheduled basis and as indicated by the periodic inspections.

DOT will not construct nor permit to be constructed any improvement within the area of such facilities as approved for public road projects nor will they permit or cause to be established any trees or shrubs within the limits or adjacent to any area under which underground stormwater management facilities have been constructed, nor on the face of fills designed and constructed as dams, without the prior approval of DEP.

For dams built as road embankments under CIP projects, the road surface and road foundation, all drainage facilities culverts (barrel of dam), and the outfall channel will be maintained by DOT. The embankment below the road foundation, water control structures such as risers, orifices and weirs, impoundment areas, and appurtenant structures will be maintained by DEP.

DEP, its successors, contractors, and assigns, shall at all times have the authority to enter the area of the stormwater management facilities for the purpose of inspecting, monitoring, modifying, maintaining, altering, repairing, installing, or reconstructing, such facility as deemed appropriate by DEP. Access shall be available from the travelled way of the public road.

26 Aug 86
Date

Sept 1, 1986
Date

Robert M. Gandy
Director, Department of Transportation

John M. Mikes
Director, Department of Environmental Protection

MAINTENANCE CERTIFICATION

I hereby certify that the Department of Transportation will assume maintenance responsibilities for all stormwater management facilities as listed and shown hereon in accordance with the MEMORANDUM OF UNDERSTANDING between this Department and the Department of Environmental Protection, dated _____. If, for any reason, future improvements to the roadway are planned that would impact any of the stormwater management facilities included herein, this Department will notify the Department of Environmental Protection during the planning or early design stage for such improvements.

Date

Signature
Chief, Division of Transportation Engineering

LHW:jmf

3482M

Attachment I

M E M O R A N D U M

January 18, 1991

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: Richard J. Ferrara, Director *RJF*
Department of Housing and Community Development

SUBJECT: Draft OLO Report No. 90-4, A Description and
Evaluation of Sediment Control and Stormwater
Management Responsibilities of the Department of
Environmental Protection

Thank you for providing me a copy of Draft OLO Report No. 90-4. The Report is both interesting and informative.

As you may know, legislation became effective January 1, 1991, which creates a new Office and Commission on Common Ownership Communities within the Department of Housing and Community Development. Among the duties and responsibilities of the Office and Commission will be to study and make recommendations regarding all aspects of operating and living in homeowner associations. Certainly stormwater management and sediment control are issues that the Commission will place on its agenda for study.

While I will not provide specific comments relating to the content of the OLO Report at this time, it is requested that the new Commission, which should be operational within the next month or so, be kept informed as this Report is processed and presented to the County Council.

Thank you again for the opportunity to review the Report in its draft form.

RJF/mds



Montgomery County Government

MEMORANDUM

January 18, 1991

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: Robert K. Kendal, Director
Office of Management and Budget

A handwritten signature in dark ink, appearing to read "Robert K. Kendal", written over the printed name and title.

SUBJECT: OLO Report No. 90-4, A Description and Evaluation of the Sediment Control and Stormwater Management Responsibilities of the Department of Environmental Protection

Thank you for the opportunity to respond to this DRAFT report. As usual, you have provided a very thorough discussion and analysis of the technically complex issues involved in the subject. OMB agrees in general with the thrust of the report. I do, however, have several comments.

Section VIII. Observations and Evaluation, C. Operations and Programs, 3. Federal NPDES Permitting, at page 67 references that "no County agency has been assigned responsibility or given resources" to implement the recently formulated the EPA NPDES program. I want to inform you that DEP and DOT have conducted several meetings and it is our understanding that DEP is taking the lead in making recommendations to the County Executive on this issue. This comment also applies to IX. CONCLUSIONS, C. Operations and Programs, 2. top of page 78.

If DEP is to undertake additional enforcement responsibilities that may result from either Federal requirements or from recommendations of the interagency Water Policy Group, there may be an additional demand for resources. I appreciate the intent behind Recommendation 3 (page 79 of the DRAFT report) which calls for a review of findings and implementation of recommendations using "available resources and priorities", but am concerned this does not recognize the full extent of additional resources which may be required to carry out full and complete implementation of service improvements in inspection and enforcement activities. Recommendation 8 calls for the County, "to examine the feasibility of establishing a stormwater utility to provide a reliable and dedicated source of funding..." which may provide additional revenue for activities discussed in your report. I caution that expectations for taking on additional responsibilities be limited until such time that new funding mechanisms are in place. In the meantime, I do support a careful examination of existing fee levels for these activities. As an

Office of Management and Budget
Director's Office/Interagency Analysis & Review Division/Budgets Division

101 Monroe Street, 14th Floor, Rockville, Maryland 20850, 301/217-2789, 2820, 2800

Andrew Mansinne, Jr.
January 18, 1991
Page 2

example, earlier in your report you point out that plan review activities are currently performed without a required fee.

Both DEP and OMB are exploring the need for appropriate user fees and permit charges to reflect a better balance between cost to the County of providing services, and fees/charges. In addition, both organizations are coordinating their efforts in reviewing the stormwater utility concept in order to provide funding for the appropriate level of service, enhance existing efforts and meet the additional requirements of new federal and state mandates. The utility concept is a relatively new one in our area and DEP and OMB are analyzing the appropriateness, impact, and feasibility of implementing this concept. A recommendation to the County Executive is anticipated shortly.

In IX. CONCLUSIONS, C. Operations and Programs, 2. (top of page 78, second bullet and repeated in X. RECOMMENDATIONS, 3., middle of page 79, second bullet) the report suggests critical attention be given to:

An adequately funded structural maintenance program for public and private stormwater management facilities;

OMB is concerned that, based on this language, a reader could infer that the County has financial responsibility for a "structural maintenance program for ... private stormwater management facilities". This is not a conclusion supported by the report. There are a number of private, Homeowners' Association, and commercial and industrial sites not currently considered "public maintenance responsibility". Although the Homeowners' Association Task Force made a recommendation concerning this issue, a decision has not been made by the Executive Branch as to whether to accept this recommendation. In the case of commercial and industrial sites OMB is not aware of any proposal concerning public financial responsibility for maintenance and would not support such a proposal.

M E M O R A N D U M

January 23, 1991¹⁹⁹¹ JAN 23 10:33

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: A. Katherine Hart *A. K. Hart*
Senior Assistant County Attorney

RE: Draft OLO Report #90-4, A Description and Evaluation of
Sediment Control and Stormwater Management
Responsibilities of the Department of Environmental
Protection

I have reviewed a copy of the Draft OLO Report concerning the Department of Environmental Protection and its sediment control and stormwater management programs. Thank you for the opportunity to comment on the legal issues concerning this important subject matter.

Concerning the issues relating to the performance bond for both sediment control and stormwater management, I believe that prior to several years ago the Department of Environmental Protection did comply with the provisions of the law and did not impose a \$10,000 cap on bonds that were permitted to be combined. It is my understanding that DEP for policy reasons decided to impose the \$10,000 cap on combined bonds several years ago. Pursuant to recent discussions with this office, it is further my understanding that DEP has moved to require that combined bonds may surpass the \$10,000 limit if the cost of the stormwater management facility plus the sediment control bond exceeds that amount. Further, this office believes that it would be useful as suggested by the Report to amend Chapter 19 to either raise the \$10,000 cap for sediment control bonds or word the language in the same manner as the stormwater management bond language is worded to provide that the bond should be based on the cost of the sediment control facility.

On page 33 of the Draft Report, it appears that the interagency Water Policy Group has recommended that there be "guidelines" for administering the issuance of waivers relating to stormwater management. The Report does not clearly address what would be in these "guidelines"; however, it is my opinion, that depending on what these "guidelines" would cover, they may have to be adopted by Executive Regulation in order to have any legal effect or authority.

The issues pertaining to enforcement of maintenance of private on-site stormwater management facilities is of concern to this office, since many of these facilities are maintained by homeowners' associations. This office has found that

Andrew Mansinne, Jr.
January 23, 1991
Page 2

enforcement against homeowners' associations is difficult at best and raises many legal issues about liability. Any effort to improve this situation would be helpful.

Concerning the discussion about the need for a water quality ordinance to deal with hazardous substances which may get into the storm drainage system, the Report seems to recommend that the County should pursue local legislation to give DEP the authority to enforce water quality standards especially in the handling and disposing of hazardous substances into the County's storm drainage and stormwater management systems (p. 71). The Report seems to correctly point out that this authority exists at the federal and state level and not at the local level. It is my opinion that the County may not have the authority to enact regulations or ordinances in this area absent a clear indication from the General Assembly that the County may enact local legislation on this subject. The recommendation may well be better put that the County should seek authority from the General Assembly to enact a local program in this area.

Finally, there is a recommendation in the Report concerning the establishment of a stormwater utility. It is not entirely clear from the Report exactly what form a stormwater utility would take. However, this also raises the issue of whether or not the County has authority to establish a stormwater utility without further legislation or authority from the General Assembly. While this may not be necessary depending on the form that such a stormwater utility would take, it is something that should be kept in mind since the Report recommends the County examine the feasibility of establishing a stormwater utility.

I hope that these comments have been helpful. Of course, the County Attorney's Office will be working with the various County agencies and the County Council to implement any of the recommendations proposed by the Report.

AKH:pae
0182.AKH:91.00480

cc Joyce R. Stern
County Attorney



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20910-3760

January 24, 1991

MEMORANDUM

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

VIA: Melissa C. Banach *WCB*
Acting Planning Director

FROM: Charles R. Loehr *CL*
Deputy Planning Director

SUBJECT: Draft OLO Report No. 90-4, A Description and Evaluation
of Sediment Control and Stormwater Management Responsi-
bilities of the Department of Environmental Protection

Thank you for referring the above-referenced draft report to us for comment. Given the short time period for review, the following are staff comments only. The Planning Board will review the final report once it is released by the Council.

Planning Staff found the report to be quite comprehensive and believe it will be helpful in further defining DEP's stormwater management responsibilities. We were pleased to see the incorporation of many of the Water Policy Group's recommendations since, as you know, we were extensively involved in the preparation of that report.

The following are our specific comments:

- p. 28 #5 - It is not clear whether "until January 1991" means that this practice is still in place or that something changed this month.
- p. 29 - The "Total Preliminary Plans of Subdivision" numbers are much greater than the number of preliminary plans actually submitted each year, presumably because revisions and site plans are included. This should be clarified.

p. 33, first line - The word "before" is missing.

footnote - The Planning Board does not really have the opportunity to comment on waivers since the waiver must be approved before the plan comes to the Board. As discussed later, the Board can appeal the waiver.

p. 44, last paragraph - Our Environmental Planning Division believes the one-third figure is closer to two-thirds. This should be resolved.

p. 59, 4th paragraph - Should read "Prior to submission of a preliminary plan..."

last line - Staff does not impose a 25 foot buffer. The subdivision regulations require a 25 foot building restriction line from the 100 year floodplain.

p. 69, Grading Ordinance - We recommend the following two elements be included in any grading and drainage ordinance:
1) a requirement for smooth and level grading of open space and the establishment of high quality turf
2) a standard for the amount of drainage allowed to pass from one lot to the next.

Thanks once again for the referral. Please call Charlie Loehr at 495-4500 if you have any questions.

CRL:bap

cc: Donald Cochran



Montgomery Soil Conservation District
18410 Muncaster Road - Derwood, MD 20855 - Phone (301) 590-2855

January 22, 1991

To: Andrew Mansinne, Jr., Director, OLO
From: Marshall Rea, District Program Coordinator *Mr. Rea*
Subject: Draft OLO Report No. 90-4 - DEP

I would like to thank you for the opportunity to comment on the above-referenced draft. I find the draft to be well written and an excellent document on the County's historic development of its sediment control/stormwater management programs.

Provided below are my comments and suggestions:

Page 8, Section B, Number 3 - The listing of membership includes the Montgomery Soil Conservation District. As written this gives the reader the impression that the District had initial membership. This was not the case. On behalf of the District I attended my first meeting during October 1990. I would like this section revised to reflect this. I suggest the following: Montgomery Soil Conservation District (MSCD, added Oct. 1990).

Page 30, Section D, Number 6, fourth paragraph - My concern is with the third blackened circle. The Maryland SCS should be changed to USDA, SCS.

Page 49, Agricultural Nonpoint Pollution, second paragraph, second sentence - I suggest the wording "and state" be added after "federal." Both levels of cost-share funding are available. Also, within the parenthesis the 45,000 acres should be changed to 38,700 acres. A specific inventory was recently completed that reflects this lower acreage.

Same Section, third paragraph, second sentence - I suggest the remaining sentence be rewritten as follows: "...by December 1990 an MSCD approved soil and water quality conservation plan. This plan will offer various recommendations of the best management practices that will minimize nonpoint pollution from agricultural operations. Then, by 1994, to remain or be eligible for federal subsidies they must fully implement the soil and water quality conservation plan."

Same Section, fourth paragraph, last sentence - The 10% is outdated. Current tabulations by MSCD show this percentage to be 18% of the necessary plans being implemented. Of the total 7600 bmp's that the entire planning effort recommends, approximately 32% of these bmp's have been implemented. I would suggest that this sentence be revised to include these current figures.

All District services are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap

CONSERVATION - DEVELOPMENT - SELF-GOVERNMENT

- 2 -

Page 51, Number 4, fourth sentence - I suggest the wording "agricultural nonpoint pollution control" be added. This activity is the reason increased State funding and staff have been provided to the District.

Page 52, Soil Survey - The date of 1991 needs to be changed to 1992. SCS is currently amending the Soil Survey MOU to reflect this date.

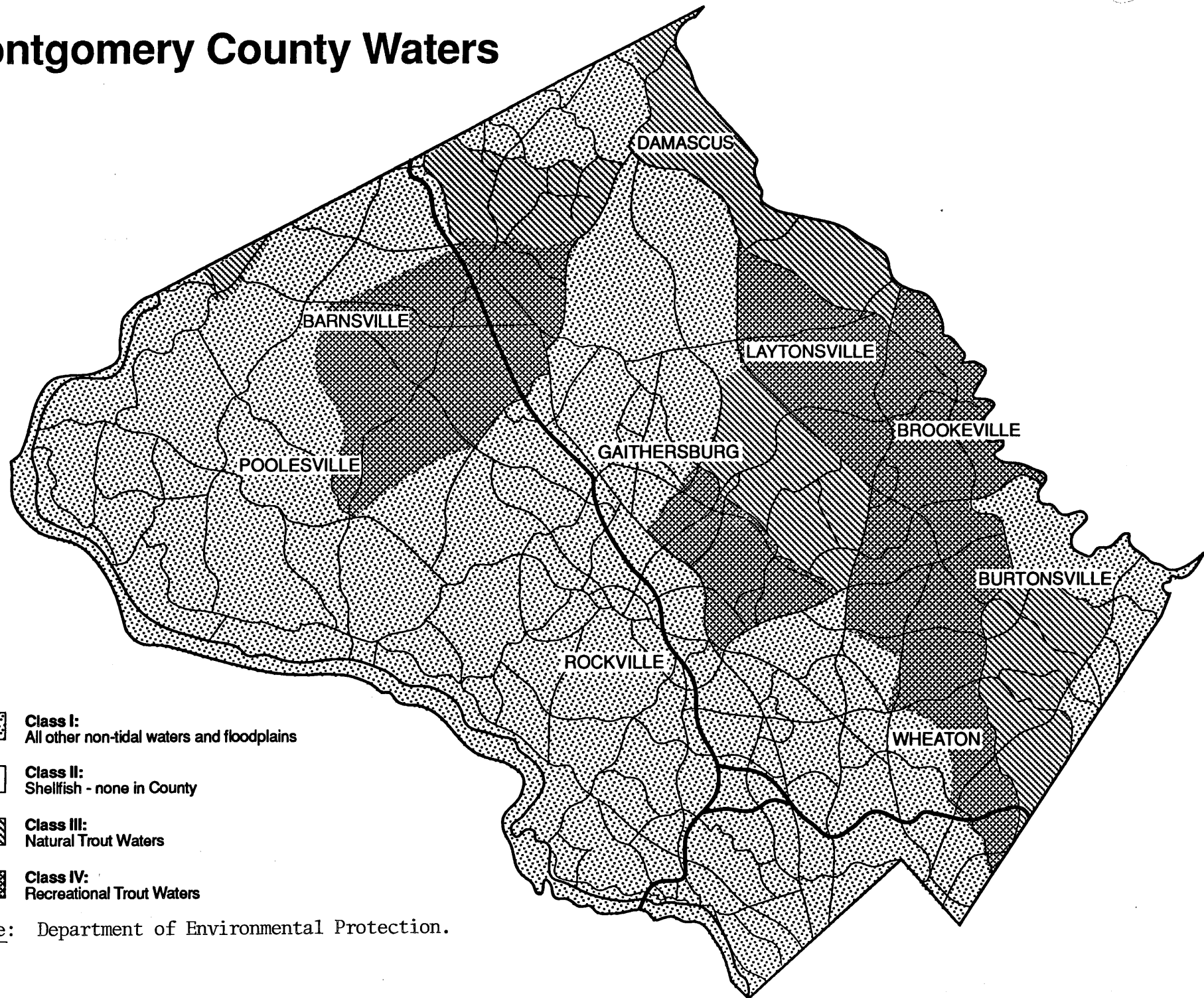
Page 67, Number 4, Ag Nonpoint Pollution, third paragraph, fifth sentence - I suggest that the three specific bmp's that DEP is proposing for piggyback be included in this sentence (animal waste systems, enhancement stream buffers and stream fencing). As drafted it gives the reader an impression that all bmp's are eligible.

I hope you find these comments and suggestions helpful. Should you have any additional questions or comments feel free to contact me at 590-2855. Again, thank you for the opportunity.

cc: Rick Brush, DEP

MSR/bjb

Montgomery County Waters



Class I:
All other non-tidal waters and floodplains

Class II:
Shellfish - none in County

Class III:
Natural Trout Waters

Class IV:
Recreational Trout Waters

Source: Department of Environmental Protection.

STATE WATER USE CLASS LISTING OF MONTGOMERY COUNTY STREAMS

<u>Class</u>	<u>Waters</u>	<u>Limits</u>
Class I	All County Streams not listed below.	
Class II	None found in Montgomery County.	
Class III	<ul style="list-style-type: none"> ● Paint Branch and all tributaries. ● Rock Creek and all tributaries. ● North Branch Rock Creek and all tributaries. ● Patuxent River and all tributaries. ● Little Bennett Creek and all tributaries. ● Furnace Branch 	<p>Above Capital Beltway I-495</p> <p>Above Muncaster Mill Road</p> <p>Above Muncaster Mill Road</p> <p>Above Triadelphia Reservoir</p> <p>Above Maryland Route 355</p>
Class IV	<ul style="list-style-type: none"> ● Patuxent River and all tributaries. ● Little Seneca Creek and all tributaries. ● Rock Creek and all tributaries. ● Northwest Branch and all tributaries. 	<p>Between Rocky Gorge Reservoir and Triadelphia Reservoir, and including Triadelphia Reservoir</p> <p>From Route #28 to Muncaster Mill Road</p> <p>Above East-West Highway (MD. Route 410)</p>

Source: Department of Environmental Protection

