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**Environmental  
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40 CFR Part 122

National Pollutant Discharge Elimination  
System, Request for Comment on  
Alternative Approaches for Phase II  
Storm Water Program



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**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Part 122**

**[FRL-4202-9]**

**National Pollutant Discharge  
Elimination System, Request for  
Comment on Alternative Approaches  
for Phase II Storm Water Program**

**AGENCY:** Environmental Protection  
Agency.

**ACTION:** Request for comment.

**SUMMARY:** In a memorandum dated January 28, 1992, the President asked regulatory agencies to review existing and proposed rules to improve cost effectiveness, minimize economic impact, and reduce regulatory burden. In response, today's notice requests information and public input on Phase II of the national storm water program mandated under section 402(p)(6) of the Clean Water Act (CWA). More specifically, EPA is today requesting public comment on a number of issues including scope of coverage under Phase II, identification of high risk Phase II discharges, alternative control strategies, and appropriate deadlines. With respect to each of these issues, the Agency is requesting input on how to meet environmental objectives and requirements set forth under section 402(p)(6) while at the same time identifying cost-effective control strategies that minimize the economic impact on the regulated community as well as the administrative burden on Federal, State and local government.

**DATES:** Comments on this notice must be received on or before November 9, 1992.

**ADDRESSES:** Respondents should send an original and two copies of their comments to Michael Plehn, Office of Wastewater Enforcement and Compliance (EN-336), United States Environmental Protection Agency, 401 M Street, SW., Washington, DC, 20460, (202) 260-6929. The public record for this notice is located at EPA Headquarters, NE Mall room 220, 401 M Street, SW., Washington, DC, 20460. Appointments to view the record can be made by contacting Michael Plehn at the above address. A reasonable fee may be charged for copying. The public record for previous rulemaking activity related to Phase I of the storm water program is located at EPA Headquarters, EPA Public Information Reference Unit, room 2402, 401 M Street, SW., Washington, DC, 20460.

**FOR FURTHER INFORMATION CONTACT:** For further information on this notice, contact the NPDES Storm Water Hotline

at (703) 821-4823, or Michael Plehn, Office of Wastewater Enforcement and Compliance (EN-336), United States Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, (202) 260-6929.

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**I. Background**

The 1972 amendments to the Federal Water Pollution Control Act (FWPCA, later referred to as the Clean Water Act or CWA) prohibit the discharge of any pollutant to the navigable waters of the United States from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Efforts to improve water quality under the NPDES program have focused traditionally on reducing pollutants in discharges of industrial process wastewater and discharges from municipal sewage treatment plants. This program emphasis developed because many industrial and municipal sources were not controlled at that time and were easily identified as contributing to water quality impairment. Over time, as

pollution control measures were implemented for these discharges and as data collection efforts have provided additional information, it has become evident that more diffuse sources of water pollution, such as agricultural and urban runoff, are important contributors to water quality problems and use impairment. Some diffuse sources of water pollution, such as agricultural runoff and irrigation return flows, are exempted statutorily from the NPDES program. Controls for other point source discharge of storm water runoff, however, are addressed in this notice.

**A. Environmental Impacts**

Several national assessments have been conducted to evaluate the impacts of diffuse sources of storm water runoff on receiving water quality. The "National Water Quality Inventory, 1990 Report to Congress" provides a general assessment of water quality based on biennial reports submitted by the States under section 305(b) of the CWA. In section 305(b) Reports, States indicate the fraction of the States' waters that have been assessed, the fraction of those assessed waters that are not supporting designated uses, and the sources of use impairment for those waters (e.g., diffuse sources, point sources, and natural sources). The Report indicates that roughly 30 to 40 percent of assessed rivers, lakes and estuaries are not supporting the uses for which they are designated. Based on information from 51 States and Territories that reported on sources of pollution, the Report indicates that storm water runoff from a number of diffuse sources, including agricultural areas, urban areas, construction sites, land disposal activities, and resource extraction activities, is the leading cause of water quality impairment cited by States. For those States reporting in each category, diffuse sources were cited as causing use impairments in the following magnitudes: For rivers and streams, 11 percent of impaired river miles are caused by separate storm sewers, 6 percent are caused by construction activities, and 14 percent are caused by resource extraction. For lakes, 28 percent of impaired lake acres are caused by separate storm sewers and 25 percent are caused by land disposal. For the Great Lakes' shoreline, 6 percent of impaired shoreline miles are caused by separate storm sewers, and 41 percent are caused by land disposal. For estuaries, 30 percent of impaired acres are caused by separate storm sewers. For coastal areas, 36 percent of impairments are caused by separate

storm sewers, and 37 percent are caused by land disposal.

In 1985, the States conducted a different study of diffuse pollution sources under the sponsorship of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and EPA. The study resulted in the report entitled "America's Clean Water—The States' Nonpoint Source Assessment, 1985." In that study, 38 States reported urban storm water runoff as a major cause of beneficial use impairment. In addition, 21 States reported construction site runoff as a major cause of use impairment.

Studies conducted by the National Oceanic and Atmospheric Administration (NOAA) indicate that urban storm water runoff is indeed a major pollutant source that adversely affects shellfish growing waters.<sup>1</sup> The NOAA studies concluded that urban runoff affects 39 percent of harvest-limited area on the East Coast, 59 percent in the Gulf of Mexico, and 52 percent on the West Coast.

#### B. Water Quality Act of 1987

In response to growing concerns with the environmental impact of storm water runoff, Congress addressed this issue as part of the Water Quality Act of 1987 (WQA) by adding section 402(p) to the CWA to require the establishment of a comprehensive two-phased approach for the control of storm water discharges. Section 402(p)(1) prohibits EPA or NPDES States from requiring permits for storm water discharges until October 1, 1992, except for 5 classes of storm water discharges specifically listed under section 402(p)(2) (see appendix A). These 5 classes of discharges make up Phase I of the existing national storm water program and include storm water discharges:

- (A) Permitted before February 4, 1987;
- (B) Associated with industrial activity;
- (C) From a municipal separate storm sewer system serving a population of 250,000 or more;
- (D) From a municipal separate storm sewer system serving a population of 100,000 or more, but less than 250,000;
- (E) Which EPA or a NPDES State determines contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States.

Section 402(p)(3) confirms that, like all other point source discharges under the

CWA, discharges of storm water associated with industrial activity must meet all applicable provisions of CWA sections 402 and 301, including technology-based requirements and any necessary water quality-based requirements. Permits for discharges from municipal separate storm sewer systems may be issued on a system- or jurisdiction-wide basis and must meet a new statutory standard requiring controls to reduce pollutant discharges to the maximum extent practicable (MEP).

Phase II of the storm water program covers all storm water discharges not addressed under the five Phase I classes described above. Under the current provisions of section 402(p), the existing statutory prohibition against permitting Phase II storm water discharges expires on October 1, 1992 (see appendix B).

Under CWA section 402(p)(5), EPA, in consultation with the States, is required to conduct two studies on Phase II storm water discharges for which permits cannot be required before October 1, 1992. The first study will identify those sources or classes of discharges that may be addressed in Phase II and determine the nature and extent of pollutants in such discharges. The second study is to establish procedures and methods to control Phase II storm water discharges to the extent necessary to mitigate impacts on water quality. These studies have not been completed.

Under section 402(p)(6), EPA, in consultation with State and local officials and based on the two studies, is required to issue regulations by October 1, 1992, which designate particular sources or classes of Phase II storm water discharges to be regulated to protect water quality and which establish a comprehensive program to regulate such designated sources. This program must establish priorities, requirements for State storm water management programs, and expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

The approach mandated by section 402(p)(2) is fully consistent with the intent and requirements of Section 319 of the WQA of 1987. Section 319 was enacted to require States to prevent and control nonpoint source pollution.

Under section 319 States are required to submit Nonpoint Source Assessment Reports identifying State waters which, without additional control of nonpoint sources of pollution, cannot be expected to attain or maintain designated uses. States were also required to prepare and submit for EPA approval a statewide

management program for controlling nonpoint source water pollution to navigable waters within the State and improving the quality of such waters to levels sufficient for attaining or maintaining applicable water quality standards or goals. Furthermore, the State program submittal was to identify specific best management practices and measures which the state proposes to implement, in the first four years after program submission, to reduce pollutant loadings from identified nonpoint sources to levels required to achieve the stated water quality objectives.

Although the State nonpoint source programs are not enforceable under Federal law, States were encouraged to adopt both regulatory and non-regulatory approaches under State and local law. Section 319(b)(2)(B) specifies that a combination of "non-regulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects" may be used, as necessary, to achieve implementation of the best management practices or measures identified in the section 319 submittal.

To date, all States have approved section 319 assessments and approved management programs. EPA has awarded approximately \$38 million in FY90 funds, \$51 million in FY91 funds, and is in the process of awarding \$52.5 million in FY92 funds to assist States in implementing the section 319 programs. EPA expects that State nonpoint source management programs will be revised and refined periodically in response to re-evaluated priorities and new strategies and technologies.

Numerous States and local governments have implemented regulations and enforceable policies to control nonpoint source pollution. States such as Delaware and Florida as well as local governments such as the Lower Colorado River Authority are aggressively pursuing storm water management goals through numerical treatment standards for new development. Many States and local governments have enforceable erosion and sediment control regulations. On a broader scale, nonpoint source pollution is being addressed at the watershed level by programs such as those being implemented by the State of Wisconsin and the Puget Sound Water Quality Authority and the states which are parties to the International Agreement on the Great Lakes. A number of individual States and local communities have adopted legislation or regulations like Maryland's Critical Areas Bill which limits development and/or

<sup>1</sup> "The Quality of Shellfish Growing Waters on the East Coast of the United States," 1989; "The Quality of Shellfish Growing Waters in the Gulf of Mexico," 1988; and "The Quality of Shellfish Growing Waters on the West Coast of the United States," 1989.

requires special management practices in areas surrounding water resources of special concern. California has also recently created Storm water management districts to better address the control of nonpoint source pollution.

A further development in the area of Federally-mandated nonpoint source management occurred in 1990 with the enactment of section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). Section 6217 provides that States with approved coastal zone management programs must develop and submit to EPA and NOAA for approval a coastal nonpoint pollution control program. Failure to submit an approvable program will result in the loss of Federal grants under both the Coastal Zone Management Act and section 319 of the CWA. State nonpoint pollution control programs must also include enforceable policies and mechanisms which ensure implementation of the management measures throughout the coastal management area. Management measures as defined in section 6217(g)(5) are: "Economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives."

The section 6217(g) guidance was issued for public comment in May, 1991. Final guidance is expected by October, 1992. The technology-based approach used in the guidance provides State Officials flexibility to meet the management measures using best management practices identified in the guidance or other methods and strategies which achieve equivalent or higher levels of pollutant control. If the technology-based approach fails to achieve and maintain applicable water quality standards and protect designated uses, additional management measures are required under CZARA section 6217(b)(3). Congress mandated a technology-based approach founded on technical and economic achievability under the rationale that neither States nor EPA have the money, time, or other resources to create and implement a program which depends on establishing cause and effect linkages between particular land use activities and specific water quality problems. Nonpoint sources addressed in the proposed guidance include: urban runoff from both developing and developed

areas, roads, highways and bridges, agriculture, forestry, marinas, hydromodification, dams and levees.

#### *C. Current (Phase I) Storm Water Permitting Program*

EPA promulgated permit application regulations for Phase I storm water discharges on November 16, 1990 (55 FR 47990). The November 16, 1990 regulations established the scope of the Phase I storm water program by defining two major classes of storm water discharges identified under section 402(p)(2)(B), (C), and (D) of the CWA: Storm water discharges associated with industrial activity;<sup>2</sup> and discharges from municipal separate storm sewer systems (MS4s) serving a population of 100,000 or more.<sup>3</sup> In addition, the November 16, 1990 regulations established permit application requirements, including deadlines for these two classes of discharges (for a summary of Phase I see appendix A).

The November 16, 1990 regulations defined municipal separate storm sewer system serving a population of 100,000 or more to include municipal separate storm sewers within the boundaries of 173 incorporated cities, and within unincorporated portions of 47 counties that were identified as having populations of 100,000 or more in unincorporated, urbanized portions of the county.<sup>4</sup> In addition, the regulations allowed for additional municipal separate storm sewers to be designated by the Director of the NPDES program as being part of a large or medium MS4. The November 16, 1990 regulations establish comprehensive two part permit applications for discharges from large or medium MS4s. The permit application requirements for large and medium MS4s, among other things, require municipal applicants to propose municipal storm water management programs to control pollutants to the maximum extent practicable and to

<sup>2</sup> On June 4, 1992 the United States Court of Appeals for the Ninth Circuit found that EPA's rationale for exempting construction sites of less than five acres and certain uncontaminated storm water discharges from light industrial facilities from Phase I of the storm water program to be invalid and has remanded these exemptions for further proceedings (see *Natural Resources Defense Council versus EPA* No. 91-70176).

<sup>3</sup> Consistent with Section 402(p)(2) of the CWA, the November 16, 1990 regulations address two subclasses of municipal separate storm sewer systems serving a population of 100,000 or more. Large municipal separate storm sewer systems are defined as systems serving a population of 250,000 or more (see 40 CFR 122.26(b)(4)). Medium municipal separate storm sewer systems are defined as systems serving a population of 100,000 or more, but less than 250,000 (see 40 CFR 122.26(b)(7)).

<sup>4</sup> See appendices F, G, H, and I to 40 CFR part 122.

effectively prohibit non-storm water discharges to the MS4.<sup>5</sup>

The November 16, 1990 regulations also defined the term "storm water discharges associated with industrial activity" to include 11 categories of industrial facilities (see 40 CFR 122.26(b)(14)). The November 16, 1990 regulations establish two sets of application requirements for storm water discharges associated with industrial activity: Individual applications and group applications. In addition, the notice recognizes a third set of application procedures for storm water discharges associated with industrial activity referred to as "notice of intent" (NOI) requirements associated with general permits.

The Phase I storm water program takes two very different approaches to defining the roles of EPA and authorized NPDES States in controlling pollutants in storm water discharges. With respect to permits for large and medium MS4s, the efforts of the NPDES permitting authority (EPA or an authorized NPDES State) are directed to ensuring that municipalities develop and implement storm water management programs to control pollutants to the maximum extent practicable. Municipal programs address the control of pollutants in storm water from all areas within the boundaries of the MS4 that discharge to the system, including privately-owned lands, as well as modifying municipal activities (e.g. road deicing and maintenance, flood control efforts, maintenance of municipal lands, etc.) to address storm water quality concerns. The Agency has defined the role of municipalities under this program in a flexible manner that allows local governments to assist in defining priority pollutant sources within the municipality, and to develop and implement appropriate controls for such discharges. With respect to permits for storm water discharges associated with industrial activity, the NPDES permitting authority has a more direct role in regulating facilities.<sup>6</sup>

While today's request for comments focuses on developing Phase II of the storm water program, readers may find that a brief summary of progress to date

<sup>5</sup> See 40 CFR 122.26(d)(2)(iv).

<sup>6</sup> NPDES permits for discharges from large and medium MS4s will establish municipal responsibilities for assisting EPA and authorized NPDES States in implementing controls to reduce pollutants in storm water discharges associated with industrial activity which discharge through large and medium MS4s. A more detailed description of the role of municipalities in addressing industrial storm water sources under this Federal/State/Municipal partnership, is provided at 56 FR 40972 (August 16, 1991).

in implementing the first phase of the program would be helpful. Part of current implementation activities include outreach efforts and two rulemakings discussed in more detail below which are specifically designed to provide more flexibility and minimize regulatory and administrative burdens where possible.

As discussed above, the November 1990 storm water rule provided for three different options for storm water discharges associated with industrial activity to seek coverage under the program: individual, group, and general permit applications. Since November 1990, there has been a great deal of activity as EPA and the States have worked with the regulated community to provide guidance and implement the program. The Agency has established a four tier risk-based storm water permitting strategy which emphasizes the use of general permits (April 2, 1992, (57 FR 11394)). As part of the strategy, EPA called for the development of State storm water management programs to track permit issuance, provide for prioritization of risk, and create baselines against which to assess environmental results. As part of the same rule, the Agency extended the deadline for Part 2 of group applications until October 1, 1992, and also deferred regulation of storm water discharges from industrial activities owned or operated by municipalities with a population under 100,000 until Phase 2 of the program, pursuant to section 1068(c) of the Intermodal Surface Transportation Efficiency Act of 1991. In providing for greater flexibility, reduced burdens, extended deadlines, and deferred regulation, this recent storm water rulemaking addresses many of the goals underlying the President's January 28, 1992 request to review existing regulations.

Since November 1990, the Agency has received over 1,200 Part I group applications representing more than 60,000 facilities. EPA is currently processing these applications. Final decisions have been reached on over 1,000 to date. Approximately 75% have been approved, 20% withdrawn or determined not to be covered, and 5% denied. Part I group applications were due on September 30, 1991. Part II sampling information from approved groups is due on October 1, 1992.

At the same time that EPA has been receiving and processing group applications, States have been actively moving to provide for storm water general permit issuance. When the storm water application rules were issued in November 1990, only 17 out of

39 States authorized to administer the NPDES program were also approved to issue NPDES general permits. Since then, an additional 16 States have requested and received Federal approval to issue general permits. Over two thirds of the States that now have general permit authority are presently developing specific general permits to cover storm water discharges.

For the 12 States without NPDES authority, EPA is in the process of issuing storm water general permits that rely heavily upon industrial facilities developing and implementing their own storm water pollution prevention plans.

As part of the four tier risk-based permitting strategy referred to above and discussed in more detail in the Agency's April 2, 1992 notice, EPA believes that the majority of storm water discharges associated with industrial activities should be covered by general permits. The Agency urges all authorized NPDES States without general permit approval to obtain NPDES general permit authority.<sup>7</sup> EPA places a high priority on this effort and is providing direct technical guidance and assistance to support States both in obtaining general permit approval and in developing specific general storm water permits.

With regard to guidance, training, and outreach, EPA has undertaken a number of efforts to provide technical assistance and also to get public input on ways to streamline the existing program. In the area of guidance, EPA has published and distributed thousands of municipal and industrial permit application manuals in addition to numerous summaries, fact sheets and work shop materials over the past eighteen months. The Agency has issued additional guidance on storm water sampling, pollution prevention plan development, and storm water best management practices (BMPs), and is developing guidance for part 2 municipal applications. A list of EPA technical guidance, summaries, and storm water fact sheets can be obtained by calling the Agency's storm water hotline at (703) 821-4823.

In the area of training and outreach, EPA staff has participated in over 60 workshops and presentations throughout the country, training permitting authorities and educating the regulated community. For example, EPA Regions held fourteen public hearings to receive public comment on the Agency's proposed general permits in August and September of 1991. EPA held an

additional 26 storm water workshops across the country this summer and would welcome hearing from groups or organizations interested in receiving workshop materials for further in-house or local training.

While EPA recognizes the importance of ongoing training and outreach efforts to provide information on the storm water program, the Agency also regards these activities as an effective mechanism for getting feedback on the program and identifying areas for further improvement. The new guidance documents referred to above and presently being developed reflect input from States and the regulated community on high priority areas requiring clarification and further technical assistance.

In addition to these activities, EPA has recently completed a study, in conjunction with the Rensselaerville Institute, to obtain direct public input and develop recommendations for streamlining the program and making it more effective. This study has two objectives. The first is to develop recommendations to streamline program implementation under existing regulations and legislation (Phase I). The second is to develop cost-effective options for addressing risks from storm water sources not currently required to be permitted that could potentially be addressed under Phase II of the storm water program.

Under the first objective, the Rensselaerville Institute sponsored 6 focus groups across the country with members representing state and local government, the regulated community, and environmental interests for uninterrupted full day discussions on ways to improve the storm water program. Five key issues were raised by all groups: (1) Groups felt that EPA has not been very clear about the intended goals of the regulations and should communicate storm water risks, objectives, and requirements more clearly to the general public as well as the regulated community, (2) participants noted that the cost of program implementation is significantly higher than original EPA estimates and there is great concern regarding the real costs of the program and of achieving compliance, (3) there was consensus that EPA and States must accelerate general permit issuance and focus on general permits to achieve efficient implementation of the program, (4) participants felt that technical outreach should be targeted at the State and local level as opposed to the national level and should provide better guidance on the regulations and how to implement

<sup>7</sup> Currently, DE, IA, KS, MI, NV, NY, OH, SC, VT and the Virgin Islands have authorized NPDES programs, but do not have general permit authority.

them, and (5) groups noted that coverage under certain industrial storm water categories should be clarified.<sup>8</sup> EPA agrees with these recommendations and is taking steps, some of which are outlined above, to follow up in each of these areas.

The second objective of the Rensselaerville study, consistent with the purpose of today's notice, is to get as much input as possible on different options for identifying and addressing those Phase II storm water discharges not regulated under the current program. Under the study, however, the mechanism for encouraging feedback was more targeted and interactive. The Rensselaerville Institute has obtained input from national experts (representing permitting authorities, the environmental community, and regulated interests) and then followed up with a series of 3 expert discussion forums that were open to the public in June.

The public meetings were held in Denver, San Francisco and Washington, DC. Attendees were divided into task teams and asked to develop their own strategy for addressing Phase II sources. There were 16 task teams: Five each at the Denver and San Francisco meetings, and six in Washington, DC. They were given a strategy template to guide them in their discussion, but were not confined to the template in developing their strategies and recommendations.

Each team considered and then presented the option they had developed over a four hour period. There were common strategy characteristics mentioned across groups within meetings and also across meetings. The recommendations of the focus groups covered four specific areas: Targeting strategies, controls that should be put in place, timetable, and the role of EPA in Phase II. The recommendations made by focus groups regarding the first three areas are discussed below along with the options presented for comment.

With regard to the role of EPA, participants identified the areas of responsibility they felt it would be appropriate for EPA to assume under Phase II. Their recommendations can be classified by four common themes: (1) Teams felt that EPA should provide technical assistance, information dissemination, and do any research

necessary as a part of Phase II; (2) participants suggested that EPA should provide funding for research or demonstration projects, but not for program implementation; (3) groups stressed that EPA should set broad guidelines for the program, but allow State and local governments to determine the level of specificity needed to effectively implement the program; and (4) teams felt that EPA should be responsible for training regulators in the program.

## II. Today's Notice

### A. Purpose and Intent

CWA sections 402(p)(5) and (6) require EPA to identify storm water discharges not covered under Phase I which should be regulated to protect water quality.<sup>9</sup> The purpose of this notice is to solicit public comment on ways to implement the second phase of the storm water permitting program for sources and activities not regulated under the existing program. EPA is seeking comments on approaches for meeting CWA Phase II storm water requirements while at the same time minimizing the economic impacts and regulatory and administrative burdens associated with additional Phase II storm water controls. There are a number of ways to identify additional categories of storm water activities for further controls and EPA requests comment on the alternatives listed below as well as on any other approaches that may not be identified in today's notice.

### B. Alternative Approaches

EPA is interested in comments from the general public, state and local government, the regulated community and environmental groups on each of the options outlined below. The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In practice, programs implemented under the Clean Water Act have two basic goals: To reduce pollutant loadings to the environment and to require more stringent controls where necessary to assure attainment of State water quality standards and designated uses. These goals are compatible. However, the specific regulatory strategy and pollution reduction alternatives to be

chosen for addressing Phase II storm water discharges could have a large impact on the size of the regulated universe and regulatory burden associated with the program.

To generate discussion and input from commenters, today's notice discusses several alternative approaches for controlling storm water discharges from currently unregulated sources under Phase II of the storm water program. A number of different control strategies, with variations in scope and timing, are outlined below. They range from comprehensive permitting of all municipal, light industrial, and commercial activities that generate storm water runoff to little or no NPDES permitting of Phase II sources.

A major distinction between several of the options listed below is whether Phase II efforts should focus on developing requirements for targeted municipalities to develop source controls and management programs for storm water discharges within their jurisdictions (for example, see options (b) and (c) below) or whether Phase II should, instead, focus on point source discharges of storm water without reference to the municipality in which they may be located. Under the first approach, EPA would develop NPDES requirements that required targeted municipalities to develop and implement storm water management programs which address storm water discharges within their jurisdiction<sup>10</sup> to the maximum extent practicable. This approach would allow for flexibility based on local factors, but could lead to varying levels of control from one area to another. EPA requests comments on the ability of municipalities to effectively regulate storm water discharges. In addition, the Agency requests comment on appropriate funding mechanisms for municipal programs, in particular the feasibility of implementing storm water utilities, which are currently being used in more than 100 communities nationwide.<sup>11</sup>

To facilitate comment and analysis, the following discussion is organized in terms of three issues: Targeting, control strategies, and deadlines. Each of these areas overlap and any final decision must reflect choices from each group. However, the objective is to solicit input

<sup>8</sup> The regulatory definition of storm water discharge associated with industrial activity identifies 11 categories of industrial facilities (see 40 CFR 122.26(b)(14)). In particular, category viii (certain transportation facilities) and category xi (certain manufacturing facilities with materials and/or materials handling equipment exposed to precipitation) were identified as needing clarification.

<sup>9</sup> Section 502(14) of the CWA excludes agricultural storm water runoff from the definition of point source. Section 402(1)(2) prohibits EPA from requiring an NPDES permit for certain "uncontaminated" storm water discharges from mining sites and oil and gas operations. EPA cannot regulate these discharges under section 402(p)(6) of the CWA.

<sup>10</sup> One issue that needs to be resolved is whether targeted municipalities should be responsible for controlling all priority storm water discharges within their jurisdiction or only those that discharge directly to the MS4.

<sup>11</sup> For more information see "Storm Water Utilities: Innovative Financing for Storm Water Management", EPA, Water Policy Branch, OPPE, 1992.

on three basic questions. First, what should be covered under Phase II; that is, what additional municipal separate storm sewer systems, municipal industrial activities, commercial, light industrial, retail, or residential activities not presently covered under Phase I of the storm water program should be targeted or identified as needing additional controls? Second, what control strategies should be developed and implemented to address these Phase II activities? Third, what deadlines or time frames should apply in implementing Phase II of the storm water program?

In addressing each of these questions, commenters are requested not only to provide their views on appropriate alternatives (including approaches that may not be included in this notice), but also where possible detailed rationales and additional data or other information which address the practical, administrative and legal feasibility and/or the environmental benefits, of a particular option. In addition, each of the approaches presented could be combined with others to achieve specific environmental objectives. For example, dischargers of specific pollutants in particular water bodies could be targeted for permits or more stringent controls. Along with input on individual options EPA requests comments on possible combinations or other approaches not outlined above. Commenters are also asked to address the roles and responsibilities of Federal, State and local governments under various approaches, particularly with respect to: (1) Identifying approaches that target MS4s in currently unregulated municipal areas as needing permits, and (2) approaches that identify classes of individual facilities (e.g. commercial or retail facilities) as needing permits.

The Agency also requests input on what type of information should be used in identifying sources to be covered and whether commenters believe there is presently sufficient information or monitoring data at the state and local level to expeditiously implement a particular option listed below. If on a national or regional basis there are not sufficient data, the next question to be addressed is whether a comprehensive monitoring and data gathering effort is warranted to assure effective implementation of one approach over another. In other words, there may be a trade off between: (1) Near term general targeting approaches combined with flexible control strategies based on information currently available, and (2) a heavier reliance on longer term

specific geographic, watershed, or water body related targeting mechanisms which may require more comprehensive data gathering efforts on both a facility and stream reach basis.

#### 1. Targeting

(a) *Seek amendments to the CWA to eliminate Phase II and use designation authority to bring additional sources under Phase I.* Section 402(p)(2)(E) presently provides that EPA or a State may designate non-industrial storm water discharges and discharges from MS4s other than those serving a population of 100,000 or more for control under Phase I where the discharge contributes to water quality violations or is a significant contributor of pollutants to waters of the U.S. Some commenters may conclude that the remaining unregulated discharges of storm water (associated with smaller municipalities, commercial activities, and some retail or residential activities) constitute, on the whole, a negligible source of environmental risks, relative to the discharges already regulated.

Under this option, Congress would amend the CWA to eliminate section 402(p)(6) (Phase II requirements) as a part of the NPDES program and expand use of the existing designation authority under 402(p)(2)(E) to designate individual or classes of storm water activities on a category, watershed, stream reach, loadings, or other basis for specific regulation under existing Phase I requirements. Under this option, those storm water activities not designated for Phase I controls could be addressed by an alternative means, possibly under the State nonpoint source management programs funded under section 319 of the CWA or coastal nonpoint pollution control programs developed pursuant to section 6217 of the CZARA. The Agency requests comments on: (1) Whether State programs funded under Section 319 can better ensure appropriate control of diffuse pollutant sources and; (2) whether heavier reliance on State nonpoint source programs to address Phase II storm water point source discharges would have adverse impacts on States' program resources and the ability of States to address agricultural sources. The selective nature of this designation option could reduce the potential economic impact on the economy and small entities. However, using 402(p)(2)(E) may be viewed by some commenters as a reactive approach which does not recognize the advantages of prevention of storm water pollution problems over remediation of these problems after they have been identified. This approach may also

increase the administrative burden on States and local government to identify and undertake the necessary administrative process to include additional storm water activity under Phase I.

(b) *Identify targeted MS4s as needing an NPDES permit under section 402(p)(6) of the CWA.* The Phase I MS4 program currently only applies to municipal separate storm sewer systems serving a population of 100,000 or more. EPA has defined the scope of these Phase I requirements to specifically identify 173 incorporated cities with a population of 100,000 or more and 47 counties with a population of 100,000 or more in unincorporated, urbanized areas.<sup>12</sup> In general, this approach focuses on core cities of large metropolitan areas, but with the exceptions of 47 counties addressed, does not address urban fringes or suburban areas in large metropolitan areas, urbanized areas without large core cities, or smaller isolated cities or population centers.<sup>13</sup> EPA requests comments on factors that should be considered when evaluating options for addressing Phase II MS4s.<sup>14</sup>

<sup>12</sup> The 220 cities and counties addressed by these definitions have a combined population of over 87.5 million people under the 1990 Census. However, a significant percentage of the population of the 220 municipalities are served by combined sewers (not addressed by the storm water program), which are found primarily in areas of older development.

<sup>13</sup> The 1990 Census indicates that 87.3 million people lived in areas designated as urbanized areas but outside of incorporated cities with a population of 100,000 or more. Portions of over 5,400 incorporated cities, towns and villages, 900 counties and about 1,500 minor civil divisions (unincorporated towns and townships) are in Phase II municipalities that are part of urbanized areas.

<sup>14</sup> EPA outlined seven factors it considered when defining the scope of large and medium MS4s (see December 7, 1988 (53 FR 49444), and November 16, 1990 (55 FR 48038)). These factors included: the advantages of developing system-wide storm water management programs for municipal systems; the inter-jurisdictional complexities associated with municipal governments; the fact that many municipal storm water programs have traditionally focused on water quantity concerns, and have not evaluated water quality concerns; the geographic basis necessary for planning comprehensive management programs to reduce pollutants in discharges from MS4s; the geographic basis necessary to provide flexibility to target controls on areas where water quality impacts associated with discharges from MS4s are the greatest and to provide an opportunity to develop cost effective controls; the need to establish a reasonable number of permits; Congressional intent to allow the development of jurisdiction-wide, comprehensive storm water programs with priorities given to the most heavily populated areas of the country. The Agency requests comment on which of these factors should be considered in identifying Phase II MS4 sources.

The Agency also requests comment on the advantages of municipalities associated with urbanized areas coordinating storm water management efforts on a regional basis. The Agency notes that a number of municipalities have developed regional administrative approaches to flood control management.<sup>15</sup> Regional administrative approaches appear to provide opportunities for municipalities to lower overall administrative burdens, consolidate efforts to study or evaluate approaches, and adequately plan cost-effective approaches to consider and address the needs of all represented municipalities. The Agency requests input on how it could or should encourage the development and use of regional approaches to storm water management under the NPDES program. Specifically, EPA requests comments on the following targeting options as well as any that may not be included in this notice.

(i) *Focus on population.* Expand coverage to address additional municipalities based on population. Following the Phase I approach, coverage of municipalities could be expanded by lowering the minimum population requirement across the board or by designating additional municipalities or municipal systems by name. EPA requests comments on the appropriate role of county governments and appropriate ways to characterize the population of counties under this approach.<sup>16</sup> This approach controls more sources of storm water, but imposes regulatory burdens on additional municipal entities.

(ii) *Focus on population density.* Alternatively, EPA could focus on the population density of metropolitan areas instead of the population within a particular municipality or municipal system, and require permits for discharges from municipal separate storm sewers in areas of a specified density. Urban storm water runoff is related to the density of urban development, the increase in impervious areas, and the reduction in the area of recharge and infiltration zones. EPA requests comment on the use of urbanized areas designed by the Bureau of Census as a tool for characterizing

population density and development patterns.<sup>17</sup>

(iii) *Focus on population growth.* Focussing on population growth in addition to, or in place of, population density might be an additional consideration in implementing this option.<sup>18</sup> Studies have shown that it is much more cost effective to develop measures to prevent or reduce pollutants in storm water during new development than it is to correct these problems later on.<sup>19</sup> In addition, appropriate storm water measures for new development can prevent or minimize irreversible degradation to surface waters. This approach might serve to minimize the impact of small and lightly-developed population centers, but it would still increase the burden on a number of municipalities not presently regulated under Phase I.

(c) *Continued reliance on Phase I MS4s to control Phase II sources which discharge through their system.* Under this approach, EPA would generally not designate additional individual sources (such as commercial and light industrial sources) which discharge through a large or medium MS4 as needing their own NPDES permit. Instead, EPA would continue to rely on municipalities to identify priority storm water discharges and develop appropriate controls for those discharges as part of requirements to develop and implement municipal storm water management programs. This option addresses some currently unregulated sources, allows for flexibility and consideration of local factors, and avoids duplicative regulation at the local, national and State level. This approach also relies on existing institutional frameworks of

<sup>17</sup> The Bureau of Census defines urbanized areas comprised of a central city (or cities) with a surrounding closely settled area. The population of the entire urbanized area must be greater than 50,000 people, and the closely settled area outside the city, the urban fringe, must have a population density generally greater than 1,000 persons per square mile (just over 1.5 persons per acre) to be included. The Bureau of Census defined 396 urbanized areas in the United States based on the 1990 Census. These urbanized areas have a combined population of 158.3 million, or 63.6 percent of the nation's total population. However, these areas only account for 1.5 to 2 percent of the land surface of the country.

<sup>18</sup> Most Urban growth occurs in urban fringe areas outside of large core cities. For example, between 1970 and 1980, the population in those parts of Census designated urbanized areas that are outside of incorporated cities with a population of 100,000 or more increased by 18.9 million. During this same time period, the population of incorporated cities with a population of 100,000 or more (Phase I cities) increased by only 0.6 million, with the population of many of these cities decreasing.

<sup>19</sup> For example, see "Results from the Nationwide Urban Runoff Program, Vol 1—Final Report", EPA, 1983.

municipalities<sup>20</sup> as well as the institutional framework that EPA envisions municipalities will develop pursuant to NPDES requirements.<sup>21</sup> However, it imposes additional administrative and regulatory costs on local governments and may result in varying levels of control among municipal programs. The Agency requests comment on whether municipalities are in the best position (with assistance from EPA and authorized NPDES States through technical guidance) to identify priority sources which discharge through their MS4, or whether EPA should attempt to designate such additional sources as needing an NPDES permit. The Agency also requests comments on the appropriate funding mechanisms for MS4s (e.g. storm water utilities, various fees, general revenues, etc.), and opportunities for municipalities to modify existing functions to address storm water concerns.

(d) *Identify additional Phase II activities other than MS4s based on comparative loadings.* EPA could use available information (such as case studies and other research) to prioritize Phase II sources in terms of their relative pollutant loadings as well as the type and nature of those loadings. On this basis the Agency could issue regulations to target those general activities which contribute the highest loadings of pollutants to receiving waters as needing an NPDES permit. This option is consistent with the technology-based approach reflected in the existing CWA. It would provide more comprehensive coverage and clarify the program. It would also avoid expensive and time consuming debates regarding the specific causal relationship between a particular storm water discharge and site by site specific receiving water quality impact. However, it would impose further administrative and analytical burdens in terms of gathering additional loadings information on a national basis. This approach may also result in including

<sup>20</sup> Examples of municipal functions that can be adapted to provide for consideration of storm water concerns include oversight of new development, fire safety inspections, pretreatment program implementation, flood control activities, management of municipal lands and activities, and maintenance of public roads.

<sup>21</sup> The NPDES regulatory framework for permits for large and medium MS4s envision that municipalities will be required to develop and implement storm water management programs to reduce pollutants in non-storm water discharges (e.g. illicit connections and improper dumping); storm water from residential and commercial areas; storm water discharges from industrial activities; and storm water discharges from construction activities.

<sup>15</sup> For more information see: William A. Macaitis, "Regional Storm Water Management Trends", and; L. Scott Tucker, "Current Programs and Practices in Storm Water Management", Water and the City: the Next Century, Public Works Historical Society, 1991.

<sup>16</sup> The 1990 Census indicates that 447 counties have a population of 100,000 or more. The current definitions of large and medium MS4 address 47 of these counties not already covered by Phase I of the program.

more sources than necessary due to differences in loadings and existing storm water controls, both structural and non-structural, across similar activities. The regulatory burden would be determined in large part by the overall control strategy chosen to implement this approach.

This approach differs from those outlined under options (b) and (c) in that it relies on direct permitting by EPA and authorized NPDES States rather than requiring municipalities to develop programs to address sources. The Agency requests comments on which sources of pollutants are better addressed by specific NPDES permit requirements rather than through municipal storm water management programs required pursuant to NPDES permits for MS4s. For example, activities generally located in rural areas such as feedlots, orchards, and golf courses most likely are not suited for control through municipal storm water management programs required under permits for MS4s. Although large feedlots (those subject to effluent limitations guidelines) presently are covered under Phase I, smaller feedlots represent a significant source of pollutants such as suspended solids, BOD, and nutrients such as nitrates and phosphates. In addition, storm water discharges from commercial activities such as greenhouses, nurseries, and golf courses might be more effectively controlled under a separate NPDES permit requirement than through a MS4 program. As another example, many commenters from all levels of State and local government have expressed concern about municipalities being required to control pollutants from State highways (see November 16, 1990 (55 FR 48041)).

(e) *Geographic targeting.* EPA could regulate Phase II storm water activities on a watershed, waterbody, or regional basis to protect water quality, control water quality problems and attain designated uses in specific areas. EPA could:

(i) *Designate additional municipal and individual sources for permitting in specific areas.* A key aspect of this approach would be developing a list of waters that are not meeting designated uses due to pollution from storm water runoff (from section 305(b) reports or from the section 304(l) list of waters) or where sensitive waters or outstanding national resource waters need special protection. This approach could help to achieve water quality goals and would avoid imposing a burden on other dischargers, but would not be uniformly applied on a national basis. This option

is also reactive in nature, and overlooks the advantages of prevention over remediation. The availability of technical information and water quality data limitations and the administrative and regulatory burden associated with collecting and analyzing additional data would have to be carefully considered in evaluating the feasibility of this approach.

(ii) *Designate additional sources for permitting or special requirements within rainfall zones.* The nature of storm water problems varies between areas with frequent rainfall, where storm water flows are high with continual pollutant loadings, and areas with low or seasonal rainfall, where intermittent flows carry highly concentrated loadings of pollutants accumulated during dry weather which result in high shock loadings to receiving waters. This option would recognize these regional variations and tailor regulatory requirements for Phase II discharges (monitoring, best management practices, reporting) to the local nature of rain events. However, immediate environmental benefits could be delayed due to the inexact nature of rainfall zones and the scarcity of comprehensive information upon which to base regulatory requirements.

(f) *Establish requirements for State storm water management programs.* Under this approach, EPA could develop requirements for State storm water management programs under section 402(p)(6) for the CWA which would require States to identify additional classes of storm water discharges for control. This approach may offer the advantages of additional flexibility for States to target sources based on State specific factors (climate, water resources, development patterns) and provide additional flexibility in the type of administrative program developed. However, the disadvantages of this approach include the need for generating additional resources at the State level at a time when State capacity is also strained, and possible disparities in programs in different States. Such disparities could make it hard for a State to develop an aggressive program when neighboring States have lesser requirements. Further, this approach may create additional burdens on EPA to provide adequate oversight of the State programs. EPA also requests comments on the appropriate role of EPA in reviewing State plans or developing minimum requirements for State plans and how that role should change, if at all, for States without authorized NPDES programs. The Agency requests

comments on appropriate criteria for evaluating the adequacy of State programs, and appropriate procedures for periodic review and evaluation of such programs. EPA also requests comments on whether this approach could be harmonized with the requirements of section 402(p)(6) for EPA to take the lead in developing management practices and controls for Phase II sources, or whether this approach might also require statutory change.

(g) *Rensselaerville focus groups.* There were several common themes recognized by the focus groups with regard to identifying potential sources to be included in Phase II:

(i) Groups suggested that targeting be done on a watershed basis, with information gathered as a part of Phase I used to help identify sensitive watersheds. It was noted that this type of targeting approach may require intergovernmental agreements for effective implementation.

(ii) Teams emphasized that the focus of Phase II should be on "bad actors", i.e. those sources that are known to cause significant water quality problems. Sources identified by team members included: Gas/auto service industries, transportation, highway systems, land use development and agricultural sources. There was a consensus among groups that facilities not contributing to impairment of water quality should be able to gain an exemption from controls, permits, fees, and implementation of BMP's. Teams concluded that SIC categories are an ineffective way to designate covered sources and that targeting should be done based on the degree of risk that a given facility poses, due to possible differences between facilities in any one industry.

(iii) Focus groups recommended that small municipalities be included in Phase II but with simplified application requirements. Participants felt that municipalities impacting watersheds of concern or those connected to larger MS4s should be targeted.

(iv) Participants in the study felt that EPA should hold off on selecting sources for Phase II until the Agency has carefully looked at the data gathered during Phase I. It was noted that numerous sources of information are available which could help determine targeting priorities, for example, 305(b) reports, information from Phase I program sources, NURP, and the first Report to Congress.

## 2. Control Strategies

The current Phase I storm water program for industrial sources is implemented through the NPDES program with a heavy emphasis on the use of general NPDES permits which require the implementation of best management practices including development of site specific pollution prevention plans. Phase I requirements for large and medium MS4s focus on system-wide permits which require the development and implementation of municipal storm water management programs:

Regardless of how additional Phase II storm water activities are identified—whether they are designated under 402(p)(2)(E), comprehensively covered, or selectively targeted for further controls, a key issue on which EPA requests comment is what are the appropriate tools or control strategies to put in place which assure pollutant loading reductions and water quality improvement?

*(a) Continued reliance on NPDES program.* One option is the continued reliance on individual or general NPDES permits for individual sources, and system-wide permits for MS4s. Developing or processing specific application forms for and issuing individual permits for all Phase II sources may well be the most resource intensive of any control approach. Consistent with EPA's four tier Phase I permitting strategy for industrial storm water sources, individual permits may be most appropriate in those case specific situations where a particularly difficult or complex discharge situation needs to be addressed. By contrast, input from the public and regulated community to date suggests that heavy reliance on general permits may well be a very effective alternative within the NPDES system. EPA solicits comments on whether continued reliance on NPDES permitting as the overall control strategy for Phase II is the most appropriate approach. An extensive State and national administrative NPDES infrastructure already exists and is being relied upon for Phase I and reliance on the general permit is increasingly favored as an appropriate storm water control strategy. However, the capacity of the current system with its existing resources to accommodate a significant number of additional permittees has already been called into question for Phase I. A very real issue exists as to whether the permitting Agencies have the resources to address more than a limited number of additional Phase II permittees.

*(b) Continued reliance on nonpoint source program.* Another approach includes continued reliance on the State nonpoint source programs under section 319 of the CWA and future reliance on programs under section 6217 of the CZARA in coastal areas to control Phase II storm water sources not explicitly addressed or designated under Phase I.

The structure, organization, and working relationship within EPA and State offices for the section 319 program are established and proven successful. The States have taken the lead under section 319 to develop assessments of storm water/nonprofit source impacts and management programs to implement controls. EPA has approved all States assessments, 44 complete management programs, and portions of all the remaining State management programs. The States management programs typically include continued problem assessments and monitoring, voluntary control measures, mandatory control measures established under State and local authorities, State funding assistance, public outreach, technical assistance, enforcement, targeting of priority waters, and coordination with other Federal and State programs and agencies. Therefore, the section 319 program's potential ability to control Phase II sources is high. Also, section 319 programs are founded on a watershed planning and pollution prevention/source reduction approach which may be an effective vehicle to provide program and technical assistance to State and local governments.

In addition, the new CZARA program provides an excellent tool to address Phase II sources in the coastal zone in a comprehensive manner. EPA emphasizes that the goals of the NPDES and CZARA programs are complementary. Many of the techniques and practices used to control urban runoff are equally applicable to both programs. While different legal authorities and geographic coverage may apply to specific sources, States have the option to implement CZARA section 6217(g) management measures throughout the coastal zone, as long as NPDES requirements are met for those entities subject to NPDES requirements. States outside of the coastal zone may also voluntarily incorporate the management measures appropriate to particular sources or specific problems into the State's CWA section 319 program.

*(c) Mandatory performance standards, guidelines, management practices and/or treatment*

*requirements.* An alternative option might also be to develop a set of mandatory national Phase II control guidelines that apply directly to Phase II storm water activities without a permit. The national pretreatment categorical effluent guidelines is an example of this approach. Permits by rule or general permits without application or reporting requirements are a similar concept. A variation on this approach might include the development of minimum categories or classes of BMP's or pollution prevention approaches with a requirement that elements from each class be chosen and implemented on a facility or system specific basis. At one level, this approach would appear to reduce the regulatory and administrative burden associated with submission of Phase II storm water applications. However, as a technical matter, it may be extremely difficult to develop one national rule that appropriately addresses all Phase II storm water activities. Developing such a rule may take a significant amount of time and may also entail substantial monitoring and data collection. A further issue upon which EPA solicits comment is whether a national rule would be the most effective approach given that many members of the Phase II universe may not be familiar with national regulations and may not even be aware that such requirements apply to them. EPA recognizes that implementation of control strategies other than NPDES permitting would probably require statutory change and requests comments on what changes would be appropriate.

*(d) Rensselaerville focus groups.* Focus groups identified several common themes with regard to controls that should be put in place for Phase II:

(i) Focus groups recommended that if a permitting process is to be continued for Phase II sources, NPDES general permits should be used, and the focus should be on the implementation of effective BMP's. Participants felt that permits should be simpler, less costly, and that EPA should make absolutely clear to applicants what information is required through the use of checklists of inclusion, a menu of potential BMP's, and other documents to assist permittees. The team members again stressed that exemptions from permitting should be available for sources not contributing to water quality problems.

(ii) The teams concluded that education is often overlooked and that it should be a primary component of any Phase II program. Team members felt that education is important for all audiences and that local level education

for the public and affected industry is critical to the success of the program.

(iii) There was an agreement among teams that there should be more emphasis on voluntary programs, perhaps similar to those under the 319 nonpoint source program. Groups also suggested that for facilities that have contact with storm water, there should be limited additional governmental intervention, but rather an emphasis on pollution prevention incentives, BMP's, and specific pollution prevention techniques. Participants stressed that pollution prevention should be emphasized, particularly with new development. Some suggested prevention methods included: recycling storm water, good housekeeping practices, plantings to minimize runoff, street sweeping of work areas on a daily basis, storm water collection methods, coverage of storage areas, changing manufacturing processes to minimize pollutants and better controls of air emissions.

(iv) Groups felt that there should be correlation between the severity of the problem and the degree of controls required and that fines and fee structures could be used as "carrot-stick" measures to aid implementation.

### 3. Deadlines

Section 402(p) presently provides that the current prohibition against permitting Phase II sources expires on October 1, 1992. EPA solicits comment on the possible options for alternative deadlines for Phase II permit application requirements and statutory revisions of the CWA. One option is for Congress to extend the current October 1, 1992 deadline for Phase II sources. Under this option, EPA requests comment on what the new Phase II date should be and why one particular extension is more appropriate than another. For example, one possible date might be October 1, 1995, to allow one year for additional data gathering and public input on appropriate Phase II sources and control strategies and then two additional years to propose and finalize Phase II regulations.

Another strategy might be to adopt a phased set of Phase II deadlines with high priority storm water sources covered first and lower risk sources addressed at a later date.

A third approach follows option 1 under Targeting; that is, to eliminate the Phase II deadlines and follow option 1 or direct EPA to follow some other option.

Focus group recommendations from the Rensselaerville study suggested that a minimum of 2-3 years is needed to prepare for Phase II, with at least a year

dedicated to looking at data gained from Phase I of the storm water program and other documents such as the first Report to Congress. Participants also felt that the effectiveness of presently used BMP's needs to be looked at to determine variations in effectiveness between different geographic locations and pollutants.

### III. Request for Comments

EPA is requesting comments on all aspects of the Phase II storm water permitting program. EPA is soliciting general comments on environmental objectives and economic impacts, as well as specific recommendations and implementation advice on each of the options outlined above. Based on comments received and the results of the two studies required under CWA section 402(p)(5), EPA may propose a rule under section 402(p)(6) or solicit additional comments on options again when more data becomes available. In addition, EPA welcomes data or information from ongoing studies that support specific comments or recommendations.

#### A. General Issues for Comment

Based on the discussion above and the President's memorandum on reducing the burden of government regulation, EPA requests comment on the advantages and disadvantages of each option outlined above as well as any other potential approaches in terms of the following factors.

1. How well does the approach perform with respect to the environmental goals of protecting water quality, reducing pollutant loadings, and achieving designated uses in impaired waters? EPA requests comment on which of these approaches most lends itself to the documentation and establishment of environmental baselines and identification of appropriate environmental indicators against which to evaluate progress. EPA specifically solicits input on appropriate environmental indicators in connection with any of the approaches outlined above or identified by a commenter.

2. Does the option balance the need for regulation to protect/improve the environment with the desire to minimize the regulatory burden and maximize the cost effectiveness of the approach?

3. Does the option help to reduce the regulatory burden on potential permittee, while still maintaining environmental benefits?

4. Does the option help to reduce the administrative burden on Federal, State and local government, so that resources are used to address important environmental problems efficiently?

5. To what extent does the option support or provide an incentive or additional flexibility for implementing pollution prevention and other innovative permit approaches?

6. Does the option allow or encourage the use of market incentives or trading to promote greater or more effective loadings reductions and water quality improvements?

7. What is the impact of the proposed approach on small businesses<sup>22</sup> and communities?

8. Does the option allow consideration of the issue of affordability as a factor in determining which Phase II sources should be controlled? For example, some data indicates that average per capita income in suburban fringe areas is substantially higher than in core cities. Does the option allow this to be factored in when identifying high priority groups or selecting appropriate control strategies?

EPA requests specific implementation recommendations based on the respondent's general evaluation of the options outlined above. EPA also seeks detailed comments on how the option will be implemented and ways to refine the respondent's preferred approach. For example, address issues of affordability, cost effectiveness and possible funding mechanisms and sources, in addition to providing case examples where available of successful State or local implementation of a preferred option. Respondents should also consider the need for statutory changes or rulemaking to implement recommended approaches.

#### B. Current Classification of Regulated Discharges

The current regulatory framework of Phase I is summarized in appendix A. This information may help respondents to understand which types of municipalities and commercial and light industrial activities are not currently regulated under Phase I of the program. Sources exempted from Phase II and some sources potentially covered under Phase II are summarized in appendix B.

### IV. Review and Analysis Requirements

Various reviews and analyses are required to assess the economic or paperwork impact of new rulemaking activities under Executive Order 12291, the Paperwork Reduction Act (44 U.S.C. 3501, et. seq.), and the Regulatory Flexibility Act (5 U.S.C. 601, et. seq.).

<sup>22</sup> With respect to impacts on municipalities, the agency requests comments on options municipalities have for generating the revenue required to run such programs.

These assessments are not necessary for this notice, which merely requests comments on ways to reduce the regulatory burden of potential future rulemaking.

Dated: September 1, 1992.

Martha G. Prothro,  
Acting Assistant Administrator.

Appendix A. Facilities Covered in Phase 1

1. Industrial Facilities

EPA has defined the term "storm water discharge associated with industrial activity" in a comprehensive manner to address over 100,000

facilities. All storm water discharges associated with industrial activity that discharge directly to waters of the United States or through municipal separate storm sewer systems are required to obtain NPDES permits, including those which discharge through systems located in municipalities with populations of less than 100,000. Discharges of storm water to a combined sewer system or to a Publicly Owned Treatment Works (POTW) are excluded. Facilities with storm water discharges associated with industrial activity include: manufacturing/ industrial facilities; construction

operations disturbing five or more acres; hazardous waste treatment, storage, or disposal facilities; landfills; certain sewage treatment plants; recycling facilities; powerplants; mining operations; some oil and gas operations; airports; and certain other transportation facilities. Operators of industrial facilities that are Federally, State or municipally owned or operated (with the exception of certain facilities owned or operated by a municipality of less than 100,000 people<sup>1</sup> that meet the description of the facilities listed in 122.26(b)(14) (i)-(xi), described below, must also submit applications.

SUMMARY OF INDUSTRIAL ACTIVITIES COVERED UNDER PHASE I OF THE STORM WATER PROGRAM

40 CFR 122.26(b)(14) Subpart	
(i).....	Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutants effluent standards under 40 CFR, Subchapter N [except facilities which are exempt under category (xi)].
(ii).....	Facilities classified as: SIC 24 (except 2434)—Lumber and wood products. SIC 26 (except 265 and 267)—Paper and allied products. SIC 28 (except 283 and 285)—Chemicals and allied products. SIC 29—Petroleum and coal products. SIC 311—Leather tanning and finishing. SIC 32 (except 323)—Stone, clay and glass products. SIC 33—Primary metal industries. SIC 3441—Fabricated structural metal. SIC 373—Ship and boat building and repairing.
(iii).....	Facilities classified as: SIC 10—Metal mining. SIC 11—Anthracite mining. SIC 12—Coal mining. SIC 13—Oil and gas extraction. SIC 14—Nonmetallic minerals, except fuels.
(iv).....	Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA).
(v).....	Landfills, land application sites, and open dumps that receive or have received any industrial wastes including those that are subject to regulation under subtitle D or RCRA.
(vi).....	Facilities involved in the recycling of material, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as: SIC 5015—Motor vehicle parts, used. SIC 5093—Scrap and waste materials.
(vii).....	Steam electric power generating facilities, including coal handling sites.
(viii).....	Transportation facilities covered by the following SIC codes which have vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport de-icing operations, or which are otherwise listed in another category, are included. SIC 40—Railroad transportation. SIC 41—Local and suburban transit. SIC 42 (except 4221-25)—Motor freight and warehousing. SIC 43—U.S. Postal Service. SIC 44—Water transportation. SIC 45—Transportation by air. SIC 5171—Petroleum bulk stations and terminals.
(ix).....	Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of the sewage sludge that are located within the confines of the facility, with a design flow of 1.0 Million Gallons per Day (MGD) or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with Section 405 of the CWA.
(x).....	Construction activity including clearing, grading, and excavation activities except operations that result in the disturbance of less than 5 acres of total land area which are not part of a larger common plan of development or sale <sup>1</sup> .
(xi).....	Facilities under the following SICs [which are not otherwise included in categories (ii)-(x)], including only storm water discharges where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery are exposed to storm water <sup>1</sup> . SIC 20—Food and kindred products. SIC 21—Tobacco products. SIC 22—Textile mill products.

<sup>1</sup> In the Intermodal Surface Transportation Efficiency Act of 1991, Congress provided that

industrial activities owned or operated by municipalities with a population of less than 100,000

be placed into Phase II of the storm water program with the exception of airports, power plants and uncontrolled sanitary landfills.

SUMMARY OF INDUSTRIAL ACTIVITIES COVERED UNDER PHASE I OF THE STORM WATER PROGRAM—Continued

40 CFR 122.26(b)(14) Subpart	SIC 23—Apparel and other textile products. SIC 2434—Wood kitchen cabinets. SIC 25—Furniture and fixtures. SIC 265—Paperboard containers and boxes. SIC 267—Converted paper and paper board products (except containers and boxes). SIC 27—Printing and publishing. SIC 283—Drugs. SIC 285—Paints, varnishes, lacquer, enamels. SIC 30—Rubber and misc. plastics products. SIC 31—(except 311)—Leather and leather products. SIC 323—Products of purchased glass. SIC 34 (except 3441)—Fabricated metal products. SIC 35—Industrial machinery and equipment, except electrical. SIC 36—Electronic and other electric equipment. SIC 37 (except 373)—Transportation equipment. SIC 38—Instruments and related products. SIC 39—Miscellaneous manufacturing industries. SIC 4221—Farm products warehousing and storage. SIC 4222—Refrigerated warehousing and storage. SIC 4225—General warehousing and storage.
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<sup>1</sup> On June 4, 1992 the United States Court of Appeals for the Ninth Circuit found that EPA's rational for exempting construction sites of less than five acres and certain uncontaminated storm water discharges from category xi light industrial facilities from Phase I of the storm water program to be invalid and has remanded these exemptions for further proceedings (see *Natural Resources Defense Council v. EPA* No. 91-70176).

Source: FEDERAL REGISTER, Vol. 55, No. 222, p. 48065, November 16, 1990.

**2. Municipal Facilities**

"Municipal separate storm sewer" is defined as any conveyance or system of conveyances that is owned or operated by a State or local government entity designed for collecting and conveying storm water which is not part of a Publicly Owned Treatment Works. The application requirements do not apply to discharges from combined sewers

(systems designed as both a sanitary sewer and a storm sewer). Municipal separate storm sewer systems that are addressed by the November 16, 1990 regulations include storm sewers located in one of 173 cities with a population of 100,000 or more; located in one of the 47 counties identified by EPA as having large populations in unincorporated, urbanized areas; and

systems that are designated by the Director based on consideration of the location of the discharge with respect to waters of the United States, the size of the discharge, the quantity and nature of the pollutants discharged to waters of the United States, and other relevant factors. These are named in Appendices F-L of the November 16, 1990, regulation.

**INDUSTRIAL AND MUNICIPAL PERMIT APPLICATION DEADLINES**

Type of Application	Deadline									
● Individual.....	October 1, 1992									
● Group.....	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Part 1</td> <td style="width: 50%; text-align: center;">Part 2</td> </tr> <tr> <td>September 30, 1991.....</td> <td>October 1, 1992</td> </tr> <tr> <td>Industrial activities owned or operated by a municipality with a population of 100,000 to 250,000..</td> <td>May 17, 1993</td> </tr> <tr> <td>May 18, 1992.....</td> <td></td> </tr> </table>		Part 1	Part 2	September 30, 1991.....	October 1, 1992	Industrial activities owned or operated by a municipality with a population of 100,000 to 250,000..	May 17, 1993	May 18, 1992.....	
Part 1	Part 2									
September 30, 1991.....	October 1, 1992									
Industrial activities owned or operated by a municipality with a population of 100,000 to 250,000..	May 17, 1993									
May 18, 1992.....										
● General Permit NOI.....	Deadline established in the general permit, but no later than October 1, 1992 for existing sources.									
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Part 1</td> <td style="width: 50%; text-align: center;">Part 2</td> </tr> </table>		Part 1	Part 2						
Part 1	Part 2									
Large Municipalities.....	November 18, 1991.....	November 16, 1992								
Medium Municipalities.....	May 18, 1992.....	May 17, 1993								

**Appendix B. Potential Universe of Phase II Dischargers**

Phase II potentially includes all point source discharges of storm water to waters of the United States (including

Municipal Separate Storm Sewer Systems) that are not regulated under Phase I of the storm water program (See Appendix A). The following table illustrates those types of operations

which have been statutorily exempted from both Phase I and Phase II of the NPDES storm water program along with a general list of potential Phase II sources:

Statutory / Regulatory exemptions:  General categories of sources.....	<ul style="list-style-type: none"> <li>● Non Point Source Silviculture Activities.</li> <li>● Agricultural Runoff and Irrigation Return Flows.</li> <li>● Uncontaminated discharges from Mining, Oil and Gas Operations.</li> <li>● All municipalities with populations less than 100,000.</li> </ul>
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- All industrial activities not regulated under Phase I (including those owned/operated by municipalities under 100,000) (tank farms, "auxiliary facilities").
- Commercial activities with industrial components (gas stations, dry cleaners).
- Construction activities involving less than 5 acres <sup>1</sup>.
- Large parking lots (shopping malls, stadiums).
- Residential property.
- Recreational areas (ski areas, golf courses, amusement parks).
- Livestock facilities (stables, feedlots not addressed by Phase I regulations <sup>2</sup>, etc.).
- Greenhouses, nurseries.

<sup>1</sup>On June 4, 1992 the United States Court of Appeals for the Ninth Circuit found that EPA's rationale for exempting construction sites of less than five acres from Phase I of the storm water program to be invalid and has remanded the exemption for further proceedings (see *Natural Resources Defense Council v. EPA* No. 91-70178).

<sup>2</sup>Feedlots, as a class of facilities, have been associated with high loadings of pollutants such as suspended solids, BOD, and nutrients such as nitrogen and phosphorus, and could be an example of a targeting approach based on high loadings.

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