

**Final Rule**

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Wednesday  
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**Part II**

**Environmental  
Protection Agency**

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40 CFR Parts 9, 122, 123, and 124  
National Pollutant Discharge Elimination  
System—Regulations for Revision of the  
Water Pollution Control Program  
Addressing Storm Water Discharges;  
Final Rule

Report to Congress on the Phase II  
Storm Water Regulations; Notice

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 9, 122, 123, and 124**

[FRL—6470—8]

RIN 2040—AC82

**National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** Today's regulations (Phase II) expand the existing National Pollutant Discharge Elimination System (NPDES) storm water program (Phase I) to address storm water discharges from small municipal separate storm sewer systems (MS4s) (those serving less than 100,000 persons) and construction sites that disturb one to five acres. Although these sources are automatically designated by today's rule, the rule allows for the exclusion of certain sources from the national program based on a demonstration of the lack of impact on water quality, as well as the inclusion of others based on a higher likelihood of localized adverse impact on water quality. Today's regulations also exclude from the NPDES program storm water discharges from industrial facilities that have "no exposure" of industrial activities or materials to storm water. Finally, today's rule extends from August 7, 2001 until March 10, 2003 the deadline by which certain industrial facilities owned by small MS4s must obtain coverage under an NPDES permit. This rule establishes a cost-effective, flexible approach for reducing environmental harm by storm water discharges from many point sources of storm water that are currently unregulated.

EPA believes that the implementation of the six minimum measures identified for small MS4s should significantly reduce pollutants in urban storm water compared to existing levels in a cost-effective manner. Similarly, EPA believes that implementation of Best Management Practices (BMP) controls at small construction sites will also result in a significant reduction in pollutant discharges and an improvement in surface water quality. EPA believes this rule will result in monetized financial, recreational and health benefits, as well as benefits that EPA has been unable to monetize. Expected benefits include reduced scouring and erosion of streambeds, improved aesthetic quality

of waters, reduced eutrophication of aquatic systems, benefit to wildlife and endangered and threatened species, tourism benefits, biodiversity benefits and reduced costs for siting reservoirs. In addition, the costs of industrial storm water controls will decrease due to the exclusion of storm water discharges from facilities where there is "no exposure" of storm water to industrial activities and materials.

**DATES:** This regulation is effective on February 7, 2000. The incorporation by reference of the rainfall erosivity factor publication listed in the rule is approved by the Director of the Federal Register as of February 7, 2000. For judicial review purposes, this final rule is promulgated as of 1:00 p.m. Eastern Standard Time, on December 22, 1999 as provided in 40 CFR 23.2.

**ADDRESSES:** The complete administrative record for the final rule and the ICR have been established under docket numbers W-97-12 (rule) and W-97-15 (ICR), and includes supporting documentation as well as printed, paper versions of electronic comments. Copies of information in the record are available upon request. A reasonable fee may be charged for copying. The record is available for inspection and copying from 9 a.m. to 4 p.m., Monday through Friday, excluding legal holidays, at the Water Docket, EPA, East Tower Basement, 401 M Street, SW, Washington, DC. For access to docket materials, please call 202/260-3027 to schedule an appointment.

**FOR FURTHER INFORMATION CONTACT:** George Utting, Office of Wastewater Management, Environmental Protection Agency, Mail Code 4203, 401 M Street, SW, Washington, DC 20460; (202) 260-5816; sw2@epa.gov.

**SUPPLEMENTARY INFORMATION:** Entities potentially regulated by this action include:

Category	Examples of regulated entities
Federal, State, Tribal, and Local Governments.	Operators of small separate storm sewer systems, industrial facilities that discharge storm water associated with industrial activity or construction activity disturbing 1 to 5 acres.
Industry .....	Operators of industrial facilities that discharge storm water associated with industrial activity.
Construction Activity.	Operators of construction activity disturbing 1 to 5 acres.

This table is not intended to be exhaustive, but rather provides a guide

for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility or company is regulated by this action, you should carefully examine the applicability criteria in §§ 122.26(b), 122.31, 122.32, and 123.35 of the final rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

**Table of Contents:**

- I. Background
  - A. Proposed Rule and Pre-proposal Outreach
  - B. Water Quality Concerns/Environmental Impact Studies and Assessments
    - 1. Urban Development
      - a. Large-Scale Studies and Assessments
      - b. Local and Watershed-Based Studies
      - c. Beach Closings/Advisories
    - 2. Non-storm Water Discharges Through Municipal Storm Sewers
    - 3. Construction Site Runoff
    - C. Statutory Background
    - D. EPA's Reports to Congress
    - E. Industrial Facilities Owned or Operated by Small Municipalities
    - F. Related Nonpoint Source Programs
  - II. Description of Program
    - A. Overview
      - 1. Objectives EPA Seeks to Achieve in Today's Rule
      - 2. General Requirements for Regulated Entities Under Today's Rule
      - 3. Integration of Today's Rule With the Existing Storm Water Program
      - 4. General Permits
      - 5. Tool Box
      - 6. Deadlines Established in Today's Action
    - B. Readable Regulations
    - C. Program Framework: NPDES Approach
    - D. Federal Role
      - 1. Develop Overall Framework of the Program
      - 2. Encourage Consideration of "Smart Growth" Approaches
      - 3. Provide Financial Assistance
      - 4. Implement the Program in Jurisdictions not Authorized to Administer the NPDES Program
      - 5. Oversee State and Tribal Programs
      - 6. Comply with Applicable Requirements as a Discharger
    - E. State Role
      - 1. Develop the Program
      - 2. Comply With Applicable Requirements as a Discharger
      - 3. Communicate with EPA
    - F. Tribal Role
    - G. NPDES Permitting Authority's Role for the NPDES Storm Water Small MS4 Program
      - 1. Comply With Implementation Requirements
      - 2. Designate Sources
        - a. Develop Designation Criteria
        - b. Apply Designation Criteria

- c. Designate Physically Interconnected Small MS4s
- d. Respond to Public Petitions for Designation
- 3. Provide Waivers
- 4. Issue Permits
- 5. Support and Oversee the Local Programs
- H. Municipal Role
  - 1. Scope of Today's Rule
  - 2. Municipal Definitions
    - a. Municipal Separate Storm Sewer Systems (MS4s)
    - b. Small Municipal Separate Storm Sewer Systems
      - i. Combined Sewer Systems (CSS)
      - ii. Owners/Operators
      - c. Regulated Small MS4s
        - i. Urbanized Area Description
        - ii. Rationale for Using Urbanized Areas
        - d. Municipal Designation by the Permitting Authority
        - e. Waiving the Requirements for Small MS4s
  - 3. Municipal Permit Requirements
    - a. Overview
      - i. Summary of Permitting Options
      - ii. Water Quality-Based Requirements
      - iii. Maximum Extent Practicable
    - b. Program Requirements—Minimum Control Measures
      - i. Public Education and Outreach on Storm Water Impacts
      - ii. Public Involvement/Participation
      - iii. Illicit Discharge Detection and Elimination
      - iv. Construction Site Storm Water Runoff Control
      - v. Post-Construction Storm Water Management in New Development and Redevelopment
      - vi. Pollution Prevention/Good Housekeeping for Municipal Operations
    - c. Application Requirements
      - i. Best Management Practices and Measurable Goals
      - ii. Individual Permit Application for a § 122.34(b) Program
      - iii. Alternative Permit Option/ Tenth Amendment
      - iv. Satisfaction of Minimum Measure Obligations by Another Entity
      - v. Joint Permit Programs
    - d. Evaluation and Assessment
      - i. Recordkeeping
      - ii. Reporting
      - iii. Permit-As-A-Shield
    - e. Other Applicable NPDES Requirements
    - f. Enforceability
    - g. Deadlines
    - h. Reevaluation of Rule
    - I. Other Designated Storm Water Discharges
      - 1. Discharges Associated with Small Construction Activity
        - a. Scope
        - b. Waivers
          - i. Rainfall-Erosivity Waiver
          - ii. Water Quality Waiver
        - c. Permit Process and Administration
        - d. Cross-Referencing State, Tribal, or Local Erosion and Sediment Control Programs
        - e. Alternative Approaches
          - 2. Other Sources
          - 3. ISTEA Sources
          - 4. Residual Designation Authority

J. Conditional Exclusion for "No Exposure" of Industrial Activities and Materials to Storm Water

- 1. Background
- 2. Today's Rule
- 3. Definition of "No Exposure"
- K. Public Involvement/Public Role
- L. Water Quality Issues
  - 1. Water Quality Based Effluent Limits
  - 2. Total Maximum Daily Loads and Analysis to Determine the Need for Water Quality-Based Limitations
  - 3. Anti-Backsliding
  - 4. Water Quality-Based Waivers and Designations
- III. Cost-Benefit Analysis
  - A. Costs
    - 1. Municipal Costs
    - 2. Construction Costs
  - B. Quantitative Benefits
    - 1. National Water Quality Model
    - 2. National Water Quality Assessment
      - a. Municipal Measures
        - i. Fresh Waters Benefits
        - ii. Marine Waters Benefits
      - b. Construction Benefits
    - c. Summary of Benefits From the National Water Quality Assessment
    - C. Qualitative Benefits
    - D. National Economic Impact
  - IV. Regulatory Requirements
    - A. Paperwork Reduction Act
    - B. Executive Order 12866
    - C. Unfunded Mandates Reform Act
      - 1. Summary of UMRA Section 202 Written Statement
      - 2. Selection of the Least Costly, Most Cost-Effective or Least Burdensome Alternative That Achieves the Objectives of the Statute
      - 3. Effects on Small Governments
    - D. Executive Order 13132
    - E. Regulatory Flexibility Act
    - F. National Technology Transfer And Advancement Act
    - G. Executive Order 13045
    - H. Executive Order 13084
    - I. Congressional Review Act

## I. Background

### A. Proposed Rule and Pre-Proposal Outreach

On January 9, 1998 (63 FR 1536), EPA proposed to expand the National Pollutant Discharge Elimination System (NPDES) storm water program to include storm water discharges from municipal separate storm sewer systems (MS4s) and construction sites that were smaller than those previously included in the program. The proposal also addressed industrial sources that have "no exposure" of industrial activities and materials to storm water. Today, EPA is promulgating a final rule to implement most of the proposed revisions with minor changes based on public comments received on the proposal. Today's final rule also extends the deadline by which certain industrial facilities operated by municipalities of less than 100,000 population must be covered by a NPDES permit; the

deadline is changed from August 7, 2001 until March 10, 2003.

In 1972, Congress amended the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act (CWA)) to prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by an NPDES permit. The NPDES program is a program designed to track point sources and require the implementation of the controls necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and municipal sewage. These discharge sources were easily identified as responsible for poor, often drastically degraded, water quality conditions.

As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that more diffuse sources of water pollution were also significant causes of water quality impairment. Specifically, storm water runoff draining large surface areas, such as agricultural and urban land, was found to be a major cause of water quality impairment, including the nonattainment of designated beneficial uses.

In 1987, Congress amended the CWA to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. The first phase of the program, commonly referred to as "Phase I," was promulgated on November 16, 1990 (55 FR 47990). Phase I requires NPDES permits for storm water discharge from a large number of priority sources including municipal separate storm sewer systems ("MS4s") generally serving populations of 100,000 or more and several categories of industrial activity, including construction sites that disturb five or more acres of land.

Today's rule, which is the second phase of the storm water program, expands the existing program to include discharges of storm water from smaller municipalities in urbanized areas and from construction sites that disturb between one and five acres of land. Today's rule allows certain sources to be excluded from the national program based on a demonstrable lack of impact on water quality. The rule also allows other sources not automatically regulated on a national basis to be designated for inclusion based on increased likelihood for localized adverse impact on water quality.

Today's rule also conditionally excludes storm water discharges from industrial facilities that have "no exposure" of industrial activities or materials to storm water. Today's rule and the effort that led to its development are commonly referred to as "Phase II." On August 7, 1995, EPA promulgated a final rule that required facilities to be regulated under Phase II to apply for a NPDES permit by August 7, 2001, unless the NPDES permitting authority designates them as requiring a permit by an earlier date. (60 FR 40230). That rule is referred to as "the Interim Phase II Rule." Today's rule replaces the Interim Phase II rule.

EPA performed extensive outreach and worked with a variety of stakeholders prior to proposing today's rule. On September 9, 1992, EPA published a notice requesting information and public comment on how to prepare regulations under CWA section 402(p)(6) (see 57 FR 41344). The notice identified three sets of issues associated with developing new NPDES storm water regulations: (1) How should EPA identify unregulated sources of storm water to protect water quality, (2) what types of control strategies should EPA develop for these sources, and (3) what are appropriate deadlines for implementing new requirements. The notice recognized that potential sources for coverage under the section 402(p)(6) regulations would fall into two main categories: municipal separate storm sewer systems and individual (commercial and residential) sources. EPA received more than 130 comments on the September 9, 1992, notice. For further discussion of the comments received, see *Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System: Report to Congress* (EPA, 1995a), pp. 1–21 to 1–22, and Appendix J (which provides a detailed summary of the comments received as they relate to the specific issues raised in the notice).

In early 1993, the Rensselaerville Institute and EPA held public and expert meetings to assist in developing and analyzing options for identifying unregulated sources and possible controls. The report on the 1993 meetings identified two options that were favored by the various groups that participated. One option was a program that allowed States to select sources to be controlled in a manner consistent with criteria developed by EPA. A second option was a tiered approach under which EPA would select high priority sources for control by NPDES permits and States would select other sources for control under a State water

quality program other than the NPDES program. For additional details see the "Report on the EPA Storm Water Management Program (Rensselaerville Study)," Appendix I of *Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System: Report to Congress* (EPA, 1995a).

EPA also conducted outreach with representatives of small entities in conjunction with the convening of a Small Business Advocacy Review Panel under the Small Business Regulatory Enforcement Fairness Act (SBREFA). This process is discussed in section IV.E of today's preamble. For additional background see the discussion in the preamble to the proposal for today's rule.

To assist EPA by providing advice and recommendations regarding the urban municipal wet weather water pollution control program, EPA established the Urban Wet Weather Flows Federal Advisory Committee (hereinafter, "FACA Committee") under the Federal Advisory Committee Act (FACA). The Office of Management and Budget approved the charter for the FACA Committee on March 10, 1995. The FACA Committee provided a forum for identifying and addressing issues associated with water quality impacts from storm water sources.

The FACA Committee established two subcommittees: the Storm Water Phase II FACA Subcommittee and the Sanitary Sewer Overflows (SSOs) FACA Subcommittee. Consistent with the requirements of FACA, the membership of both the FACA Committee and the subcommittees was balanced among EPA's various outside stakeholder interests, including representatives from municipalities, States, Indian Tribes, EPA, industrial and commercial sectors, agriculture, and environmental and public interest groups.

The Storm Water Phase II FACA Subcommittee ("Subcommittee") met fourteen times between September 1995 and June 1998. The 32 Subcommittee members discussed possible regulatory frameworks at these meetings as well as during numerous other meetings and conference calls. Members of the FACA Committee provided views regarding the development of the "no exposure" provision and other provisions in drafts of the Phase II rule. EPA provided Subcommittee members with four successive drafts of the proposed rule and preamble, outlines of the rule, summaries of the written comments received on each draft, and documents identifying the changes made to each draft. In the course of providing input to the Committee, individual

Subcommittee members provided significant input and advice that EPA considered in the context of public comments received. Ultimately, the Subcommittee did not provide a written report back to the FACA Committee, and the FACA Committee did not provide written advice and recommendations to EPA. The Agency, therefore, did not rely on group recommendations in developing today's rule, but does consider the process to have resulted in important public outreach.

#### *B. Water Quality Concerns/ Environmental Impact Studies and Assessments*

Storm water runoff from lands modified by human activities can harm surface water resources and, in turn, cause or contribute to an exceedance of water quality standards by changing natural hydrologic patterns, accelerating stream flows, destroying aquatic habitat, and elevating pollutant concentrations and loadings. Such runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients (phosphorous and nitrogen), heavy metals and other toxic pollutants, pathogens, toxins, oxygen-demanding substances (organic material), and floatables (U.S. EPA. 1992).

*Environmental Impacts of Storm Water Discharges: A National Profile*. EPA 841-R-92-001. Office of Water. Washington, DC). After a rain, storm water runoff carries these pollutants into nearby streams, rivers, lakes, estuaries, wetlands, and oceans. The highest concentrations of these contaminants often are contained in "first flush" discharges, which occur during the first major storm after an extended dry period (Schueler, T.R. 1994. "First Flush of Stormwater Pollutants Investigated in Texas." Note 28. *Watershed Protection Techniques* 1(2)). Individually and combined, these pollutants impair water quality, threatening designated beneficial uses and causing habitat alteration or destruction.

Uncontrolled storm water discharges from areas of urban development and construction activity negatively impact receiving waters by changing the physical, biological, and chemical composition of the water, resulting in an unhealthy environment for aquatic organisms, wildlife, and humans. The following sections discuss the studies and data that address and support this finding.

Although water quality problems also can occur from agricultural storm water discharges and return flows from irrigated agriculture, this area of

concern is statutorily exempted from regulation as a point source under the Clean Water Act and is not discussed here. (See CWA section 502(14)). Other storm water sources not specifically identified in the regulations may be of concern in certain areas and can be addressed on a case-by-case (or category-by-category) basis through the NPDES designation authority preserved by CWA section 402(p)(2)(6), as well as today's rule.

#### 1. Urban Development

Urbanization alters the natural infiltration capability of the land and generates a host of pollutants that are associated with the activities of dense populations, thus causing an increase in storm water runoff volumes and pollutant loadings in storm water discharged to receiving waterbodies (U.S. EPA, 1992). Urban development increases the amount of impervious surface in a watershed as farmland, forests, and meadowlands with natural infiltration characteristics are converted into buildings with rooftops, driveways, sidewalks, roads, and parking lots with virtually no ability to absorb storm water. Storm water and snow-melt runoff wash over these impervious areas, picking up pollutants along the way while gaining speed and volume because of their inability to disperse and filter into the ground. What results are storm water flows that are higher in volume, pollutants, and temperature than the flows in less impervious areas, which have more natural vegetation and soil to filter the runoff (U.S. EPA, 1997. *Urbanization and Streams: Studies of Hydrologic Impacts*. EPA 841-R-97-009. Office of Water. Washington, DC).

Studies reveal that the level of imperviousness in an area strongly correlates with the quality of the nearby receiving waters. For example, a study in the Puget Sound lowland ecoregion found that when the level of basin development exceeded 5 percent of the total impervious area, the biological integrity and physical habitat conditions that are necessary to support natural biological diversity and complexity declined precipitously (May, C.W., E.B. Welch, R.R. Horner, J.R. Karr, and B.W. May. 1997. *Quality Indices for Urbanization Effects in Puget Sound Lowland Streams*, Technical Report No. 154. University of Washington Water Resources Series). Research conducted in numerous geographical areas, concentrating on various variables and employing widely different methods, has revealed a similar conclusion: stream degradation occurs at relatively low levels of imperviousness, such as 10 to 20 percent (even as low as 5 to 10

percent according to the findings of the Washington study referenced above) (Schueler, T.R. 1994. "The Importance of Imperviousness." *Watershed Protection Techniques* 1(3); May, C., R.R. Horner, J.R. Karr, B.W. Mar, and E.B. Welch. 1997. "Effects Of Urbanization On Small Streams In The Puget Sound Lowland Ecoregion." *Watershed Protection Techniques* 2(4); Yoder, C.O., R.J. Miltner, and D. White. 1999. "Assessing the Status of Aquatic Life Designated Uses in Urban and Suburban Watersheds." In *Proceedings: National Conference on Retrofits Opportunities in Urban Environments*. EPA 625-R-99-002, Washington, DC; Yoder, C.O and R.J. Miltner. 1999. "Assessing Biological Quality and Limitations to Biological Potential in Urban and Suburban Watersheds in Ohio." In *Comprehensive Stormwater & Aquatic Ecosystem Management Conference Papers*, Auckland, New Zealand). Furthermore, research has indicated that few, if any, urban streams can support diverse benthic communities at imperviousness levels of 25 percent or more. An area of medium density single family homes can be anywhere from 25 percent to nearly 60 percent impervious, depending on the design of the streets and parking (Schueler, 1994).

In addition to impervious areas, urban development creates new pollution sources as population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, pet waste, litter, pesticides, and household hazardous wastes, which may be washed into receiving waters by storm water or dumped directly into storm drains designed to discharge to receiving waters. More people in less space results in a greater concentration of pollutants that can be mobilized by, or disposed into, storm water discharges from municipal separate storm sewer systems. A modeling system developed for the Chesapeake Bay indicated that contamination of the Bay and its tributaries from runoff is comparable to, if not greater than, contamination from industrial and sewage sources (Cohn-Lee, R. and D. Cameron. 1992. "Urban Stormwater Runoff Contamination of the Chesapeake Bay: Sources and Mitigation." *The Environmental Professional*, Vol. 14).

#### a. Large-Scale Studies and Assessments

In support of today's regulatory designation of MS4s in urbanized areas, the Agency relied on broad-based assessments of urban storm water runoff and related water quality impacts, as well as more site-specific studies. The

first national assessment of urban runoff characteristics was completed for the *Nationwide Urban Runoff Program (NURP)* study (U.S. EPA. 1983. *Results of the Nationwide Urban Runoff Program, Volume 1—Final Report*. Office of Water. Washington, D.C.). The NURP study is the largest nationwide evaluation of storm water discharges, which includes adverse impacts and sources, undertaken to date.

EPA conducted the NURP study to facilitate understanding of the nature of urban runoff from residential, commercial, and industrial areas. One objective of the study was to characterize the water quality of discharges from separate storm sewer systems that drain residential, commercial, and light industrial (industrial parks) sites. Storm water samples from 81 residential and commercial properties in 22 urban/suburban areas nationwide were collected and analyzed during the 5-year period between 1978 and 1983. The majority of samples collected in the study were analyzed for eight conventional pollutants and three heavy metals.

Data collected under the NURP study indicated that discharges from separate storm sewer systems draining runoff from residential, commercial, and light industrial areas carried more than 10 times the annual loadings of total suspended solids (TSS) than discharges from municipal sewage treatment plants that provide secondary treatment. The NURP study also indicated that runoff from residential and commercial areas carried somewhat higher annual loadings of chemical oxygen demand (COD), total lead, and total copper than effluent from secondary treatment plants. Study findings showed that fecal coliform counts in urban runoff typically range from tens to hundreds of thousands per hundred milliliters of runoff during warm weather conditions, with the median for all sites being around 21,000/100 ml. This is generally consistent with studies that found that fecal coliform mean values range from 1,600 coliform fecal units (CFU)/100 ml to 250,000 cfu/100 ml (Makepeace, D.K., D.W. Smith, and S.J. Stanley. 1995. "Urban Storm Water Quality: Summary of Contaminant Data." *Critical Reviews in Environmental Science and Technology* 25(2):93-139). Makepeace, et al., summarized ranges of contaminants from storm water, including physical contaminants such as total solids (76—36,200 mg/L) and copper (up to 1.41 mg/L); organic chemicals; organic compounds, such as oil and grease (up to 110 mg/L); and microorganisms.

Monitoring data summarized in the NURP study provided important information about urban runoff from residential, commercial, and light industrial areas. The study concluded that the quality of urban runoff can be affected adversely by several sources of pollution that were not directly evaluated in the study, including illicit discharges, construction site runoff, and illegal dumping. Data from the NURP study were analyzed further in the U.S. Geological Survey (USGS) Urban Storm Water Data Base for 22 Metropolitan Areas Throughout the United States study (Driver, N.E., M.H. Mustard, R.B. Rhinesmith, and R.F. Middleburg. 1985. *U.S. Geological Survey Urban Storm Water Data Base for 22 Metropolitan Areas Throughout the United States*. Report No. 85-337 USGS, Lakewood, CO). The USGS report summarized additional monitoring data compiled during the mid-1980s, covering 717 storm events at 99 sites in 22 metropolitan areas and documented problems associated with metals and sediment concentrations in urban storm water runoff. More recent reports have confirmed the pollutant concentration data collected in the NURP study (Marsalek, J. 1990. "Evaluation of Pollutant Loads from Urban Nonpoint Sources." *Wat. Sci. Tech.* 22(10/11):23-30; Makepeace, et al., 1995).

Commenters argued that the NURP study does not support EPA's contention that urban activities significantly jeopardize attainment of water quality standards. One commenter argued that the NURP study and the 1985 USGS study are seriously out of date. Because they were issued 10 years or more before the implementation of the current storm water permit program, the data in those reports do not reflect conditions that exist after implementation of permits issued by authorized States and EPA for storm water from construction sites, large municipalities, and industrial activities.

In response, EPA notes that it is not relying solely on the NURP study to describe current water quality impairment. Rather, EPA is citing NURP as a source of data on typical pollutant concentrations in urban runoff. Recent studies have not found significantly different pollutant concentrations in urban runoff when compared to the original NURP data (see Makepeace, et al., 1995; Marsalek, 1990; and Pitt, et al., 1995).

America's Clean Water—the States' Nonpoint Source Assessment (Association of State and Interstate Water Pollution Control Administrators (ASIWPCA). 1985. *America's Clean Water—The States' Nonpoint Source*

*Assessment*. Prepared in cooperation with the U.S. EPA, Office of Water, Washington, DC), a comprehensive study of diffuse pollution sources conducted under the sponsorship of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and EPA revealed that 38 States reported urban runoff as a major cause of designated beneficial use impairment and 21 States reported storm water runoff from construction sites as a major cause of beneficial use impairment. In addition, the 1996 305(b) Report (U.S. EPA. 1998. *The National Water Quality Inventory, 1996 Report to Congress*. EPA 841-R-97-008. Office of Water, Washington, DC), provides a national assessment of water quality based on biennial reports submitted by the States as required under CWA section 305(b) of the CWA. In the CWA 305(b) reports, States, Tribes, and Territories assess their individual water quality control programs by examining the attainment or nonattainment of the designated uses assigned to their rivers, lakes, estuaries, wetlands, and ocean shores. A designated use is the legally applicable use specified in a water quality standard for a watershed, waterbody, or segment of a waterbody. The designated use is the desirable use that the water quality should support. Examples of designated uses include drinking water supply, primary contact recreation (swimming), and aquatic life support. Each CWA 305(b) report indicates the assessed fraction of a State's waters that are fully supporting, partially supporting, or not supporting designated beneficial uses.

In their reports, States, Tribes, and Territories first identified and then assigned the sources of water quality impairment for each impaired waterbody using the following categories: industrial, municipal sewage, combined sewer overflows, urban runoff/storm sewers, agricultural, silvicultural, construction, resource extraction, land disposal, hydrologic modification, and habitat modification. The 1996 Inventory, based on a compilation of 60 individual 305(b) reports submitted by States, Tribes, and Territories, assessed the following percentages of total waters nationwide: 19 percent of river and stream miles; 40 percent of lake, pond, and reservoir acres; 72 percent of estuary square miles; and 6 percent of ocean shoreline waters. The 1996 Inventory indicated that approximately 40 percent of the Nation's assessed rivers, lakes, and estuaries are impaired. Waterbodies deemed as "impaired" are either

partially supporting designated uses or not supporting designated uses.

The 1996 Inventory also found urban runoff/discharges from storm sewers to be a major source of water quality impairment nationwide. Urban runoff/storm sewers were found to be a source of pollution in 13 percent of impaired rivers; 21 percent of impaired lakes, ponds, and reservoirs; and 45 percent of impaired estuaries (second only to industrial discharges). In addition, urban runoff was found to be the leading cause of ocean impairment for those ocean miles surveyed.

In addition, a recent USGS study of urban watersheds across the United States has revealed a link between urban development and contamination of local waterbodies. The study found the highest levels of organic contaminants, known as polycyclic aromatic hydrocarbons (PAHs) (products of combustion of wood, grass, and fossil fuels), in the reservoirs of urbanized watersheds (U.S. Geological Survey (USGS). 1998. *Research Reveals Link Between Development and Contamination in Urban Watersheds*. USGS news release. USGS National Water-Quality Assessment Program).

Urban storm water also can contribute significant amounts of toxicants to receiving waters. Pitt, et. al. (1993), found heavy metal concentrations in the majority of samples analyzed. Industrial or commercial areas were likely to be the most significant pollutant source areas (Pitt, R., R. Field, M. Lalor, M. Brown 1993. "Urban stormwater toxic pollutants: assessment, sources, and treatability" *Water Environment Research*, 67(3):260-75).

#### b. Local and Watershed-Based Studies

In addition to the large-scale nationwide studies and assessments, a number of local and watershed-based studies from across the country have documented the detrimental effects of urban storm water runoff on water quality. A study of urban streams in Milwaukee County, Wisconsin, found local streams to be highly degraded due primarily to urban runoff, while three studies in the Atlanta, Georgia, region were characterized as being "the first documentation in the Southeast of the strong negative relationship between urbanization and stream quality that has been observed in other ecoregions" (Masterson, J. and R. Bannerman. 1994. "Impacts of Storm Water Runoff on Urban Streams in Milwaukee County, Wisconsin." Paper presented at National Symposium on Water Quality: American Water Resources Association; Schueler, T.R. 1997. "Fish Dynamics in Urban Streams Near Atlanta, Georgia."

Technical Note 94. *Watershed Protection Techniques* 2(4)). Several other studies, including those performed in Arizona (Maricopa County), California (San Jose's Coyote Creek), Massachusetts (Green River), Virginia (Tuckahoe Creek), and Washington (Puget Sound lowland ecoregion), all had the same finding: runoff from urban areas greatly impair stream ecology and the health of aquatic life; the more heavily developed the area, the more detrimental the effects (Lopes, T. and K. Fossum. 1995. "Selected Chemical Characteristics and Acute Toxicity of Urban Stormwater, Streamflow, and Bed Material, Maricopa County, Arizona." *Water Resources Investigations Report* 95-4074. USGS; Pitt, R. 1995. "Effects of Urban Runoff on Aquatic Biota." In *Handbook of Ecotoxicology*; Pratt, J. and R. Coler. 1979. "Ecological Effects of Urban Stormwater Runoff on Benthic Macroinvertebrates Inhabiting the Green River, Massachusetts." Completion Report Project No. A-094. Water Resources Research Center. University of Massachusetts at Amherst.; Schueler, T.R. 1997. "Historical Change in a Warmwater Fish Community in an Urbanizing Watershed." Technical Note 93. *Watershed Protection Techniques* 2(4); May, C., R. Horner, J. Karr, B. Mar, and E. Welch. 1997. "Effects Of Urbanization On Small Streams In The Puget Sound Lowland Ecoregion." *Watershed Protection Techniques* 2(4)).

Pitt and others also described the receiving water effects on aquatic organisms associated with urban runoff (Pitt, R.E. 1995. "Biological Effects of Urban Runoff Discharges" In *Stormwater Runoff and Receiving Systems: Impact, Monitoring, and Assessment*, ed. E.E Herricks, Lewis Publishers; Crunkilton, R., J. Kleist, D. Bierman, J. Ramcheck, and W. DeVita. 1999. "Importance of Toxicity as a Factor Controlling the Distribution of Aquatic Organisms in an Urban Stream." In *Comprehensive Stormwater & Aquatic Ecosystem Management Conference Papers*. Auckland, New Zealand).

In Wisconsin, runoff samples were collected from streets, parking lots, roofs, driveways, and lawns. Source areas were broken up into residential, commercial, and industrial. Geometric mean concentration data for residential areas included total solids of about 500-800 mg/L from streets and 600 mg/L from lawns. Fecal coliform data from residential areas ranged from 34,000 to 92,000 cfu/100 mL for streets and driveways. Contaminant concentration data from commercial and industrial source areas were lower for total solids

and fecal coliform, but higher for total zinc (Bannerman, R.T., D.W. Owens, R.B. Dods, and N.J. Hornewer. 1993. "Sources of Pollutants in Wisconsin Stormwater." *Wat. Sci. Tech.* 28(3-5):241-59).

Bannerman, et al. also found that streets contribute higher loads of pollutants to urban storm water than any other residential development source. Two small urban residential watersheds were evaluated to determine that lawns and streets are the largest sources of total and dissolved phosphorus in the basins (Waschbusch, R.J., W.R. Selbig, and R.T. Bannerman. 1999. "Sources of Phosphorus in Stormwater and Street Dirt from Two Urban Residential Basins in Madison, Wisconsin, 1994-95." *Water Resources Investigations Report* 99-4021. U.S. Geological Survey). A number of other studies have indicated that urban roadways often contain significant quantities of metal elements and solids (Sansalone, J.J. and S.G. Buchberger. 1997. "Partitioning and First Flush of Metals in Urban Roadway Storm Water." *ASCE Journal of Environmental Engineering* 123(2); Sansalone, J.J., J.M. Koran, J.A. Smithson, and S.G. Buchberger. 1998. "Physical Characteristics of Urban Roadway Solids Transported During Rain Events" *ASCE Journal of Environmental Engineering* 124(5); Klein, L.A., M. Lang, N. Nash, and S.L. Kirschner. 1974. "Sources of Metals in New York City Wastewater" *J. Water Pollution Control Federation* 46(12):2653-62; Barrett, M.E, R.D. Zuber, E.R. Collins, J.F. Malina, R.J. Charbeneau, and G.H. Ward., 1993. "A Review and Evaluation of Literature Pertaining to the Quantity and Control of Pollution from Highway Runoff and Construction." Research Report 1943-1. Center for Transportation Research, University of Texas, Austin).

#### c. Beach Closings/Advisories

Urban wet weather flows have been recognized as the primary sources of estuarine pollution in coastal communities. Urban storm water runoff, sanitary sewer overflows, and combined sewer overflows have become the largest causes of beach closings in the United States in the past three years. Storm water discharges from urban areas not only pose a threat to the ecological environment, they also can substantially affect human health. A survey of coastal and Great Lakes communities reports that in 1998, more than 1,500 beach closings and advisories were associated with storm water runoff (Natural Resources Defense Council. 1999. "A Guide to Water Quality at Vacation Beaches" New York, NY). Other reports

also document public health, shellfish bed, and habitat impacts from storm water runoff, including more than 823 beach closings/advisories issued in 1995 and more than 407 beach closing/advisories issued in 1996 due to urban runoff (Natural Resources Defense Council. 1996. *Testing the Waters Volume VI: Who Knows What You're Getting Into*. New York, NY; NRDC. 1997. *Testing the Waters Volume VII: How Does Your Vacation Beach Rate*. New York, NY; Morton, T. 1997. *Draining to the Ocean: The Effects of Stormwater Pollution on Coastal Waters*. American Oceans Campaign, Santa Monica, CA). The Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay (Haile, R.W., et. al. 1996. "An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay." *Final Report prepared for the Santa Monica Bay Restoration Project*) concluded that there is a 57 percent higher rate of illness in swimmers who swim adjacent to storm drains than in swimmers who swim more than 400 yards away from storm drains. This and other studies document a relationship between gastrointestinal illness in swimmers and water quality, the latter of which can be heavily compromised by polluted storm water discharges.

#### 2. Non-Storm Water Discharges Through Municipal Storm Sewers

Studies have shown that discharges from MS4s often include wastes and wastewater from non-storm water sources. Federal regulations (§ 122.26(b)(2)) define an illicit discharge as "\* \* \* any discharge to an MS4 that is not composed entirely of storm water \* \* \*," with some exceptions. These discharges are "illicit" because municipal storm sewer systems are not designed to accept, process, or discharge such wastes. Sources of illicit discharges include, but are not limited to: sanitary wastewater; effluent from septic tanks; car wash, laundry, and other industrial wastewaters; improper disposal of auto and household toxics, such as used motor oil and pesticides; and spills from roadway and other accidents.

Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, and paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants,



including heavy metals, toxics, oil and grease, solvents, nutrients, viruses and bacteria into receiving waterbodies. The NURP study, discussed earlier, found that pollutant levels from illicit discharges were high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health. The study noted particular problems with illicit discharges of sanitary wastes, which can be directly linked to high bacterial counts in receiving waters and can be dangerous to public health.

Because illicit discharges to MS4s can create severe widespread contamination and water quality problems, several municipalities and urban counties performed studies to identify and eliminate such discharges. In Michigan, the Ann Arbor and Ypsilanti water quality projects inspected 660 businesses, homes, and other buildings and identified 14 percent of the buildings as having improper storm sewer drain connections. The program assessment revealed that, on average, 60 percent of automobile-related businesses, including service stations, automobile dealerships, car washes, body shops, and light industrial facilities, had illicit connections to storm sewer drains. The program assessment also showed that a majority of the illicit discharges to the storm sewer system resulted from improper plumbing and connections, which had been approved by the municipality when installed (Washtenaw County Statutory Drainage Board, 1987. Huron River Pollution Abatement Program).

In addition, an inspection of urban storm water outfalls draining into Inner Grays, Washington, indicated that 32 percent of these outfalls had dry weather flows. Of these flows, 21 percent were determined to have pollutant levels higher than the pollutant levels expected in typical urban storm water runoff characterized in the NURP study (U.S. EPA, 1993. *Investigation of Inappropriate Pollutant Entries Into Storm Drainage Systems—A User's Guide*. EPA 600/R-92/238. Office of Research and Development, Washington, DC). That same document reports a study in Toronto, Canada, that found that 59 percent of outfalls from the MS4 had dry-weather flows. Chemical tests revealed that 14 percent of these dry-weather flows were determined to be grossly polluted.

Inflows from aging sanitary sewer collection systems are one of the most serious illicit discharge-related problems. Sanitary sewer systems frequently develop leaks and cracks, resulting in discharges of pollutants to receiving waters through separate storm

sewers. These pollutants include sanitary waste and materials from sewer main construction (e.g., asbestos cement, brick, cast iron, vitrified clay). Municipalities have long recognized the reverse problem of storm water infiltration into sanitary sewer collection systems; this type of infiltration often disrupts the operation of the municipal sewage treatment plant.

The improper disposal of materials is another illicit discharge-related problem that can result in contaminated discharges from separate storm sewer systems in two ways. First, materials may be disposed of directly in a catch basin or other storm water conveyance. Second, materials disposed of on the ground may either drain directly to a storm sewer or be washed into a storm sewer during a storm event. Improper disposal of materials to street catch basins and other storm sewer inlets often occurs when people mistakenly believe that disposal to such areas is an environmentally sound practice. Part of the confusion may occur because some areas are served by combined sewer systems, which are part of the sanitary sewer collection system, and people assume that materials discharged to a catch basin will reach a municipal sewage treatment plant. Materials that are commonly disposed of improperly include used motor oil; household toxic materials; radiator fluids; and litter, such as disposable cups, cans, and fast-food packages. EPA believes that there has been increasing success in addressing these problems through initiatives such as storm drain stenciling and recycling programs, including household hazardous waste special collection days.

Programs that reduce illicit discharges to separate storm sewers have improved water quality in several municipalities. For example, Michigan's Huron River Pollution Abatement Program found the elimination of illicit connections caused a measurable improvement in the water quality of the Washtenaw County storm sewers and the Huron River (Washtenaw County Statutory Drainage Board, 1987). In addition, an illicit detection and remediation program in Houston, Texas, has significantly improved the water quality of Buffalo Bayou. Houston estimated that illicit flows from 132 sources had a flow rate as high as 500 gal/min. Sources of the illicit discharges included broken and plugged sanitary sewer lines, illicit connections from sanitary lines to storm sewer lines, and floor drain connections (Glanton, T., M.T. Garrett, and B. Goloby. 1992. *The Illicit Connection: Is*

It the Problem? *Wat. Env. Tech.* 4(9):63-8).

### 3. Construction Site Runoff

Storm water discharges generated during construction activities can cause an array of physical, chemical, and biological water quality impacts. Specifically, the biological, chemical, and physical integrity of the waters may become severely compromised. Water quality impairment results, in part, because a number of pollutants are preferentially absorbed onto mineral or organic particles found in fine sediment. The interconnected process of erosion (detachment of the soil particles), sediment transport, and delivery is the primary pathway for introducing key pollutants, such as nutrients (particularly phosphorus), metals, and organic compounds into aquatic systems (Novotny, V. and G. Chesters. 1989. "Delivery of Sediment and Pollutants from Nonpoint Sources: A Water Quality Perspective." *Journal of Soil and Water Conservation*, 44(6):568-76). Estimates indicate that 80 percent of the phosphorus and 73 percent of the Kjeldahl nitrogen in streams is associated with eroded sediment (U.S. Department of Agriculture. 1989. "The Second RCA Appraisal, Soil, Water and Related Resources on Nonfederal Land in the United States, Analysis of Condition and Trends." Cited in Fennessey, L.A.J., and A.R. Jarrett. 1994. "The Dirt in a Hole: A Review of Sedimentation Basins for Urban Areas and Construction Sites." *Journal of Soil and Water Conservation*, 49(4):317-23).

In watersheds experiencing intensive construction activity, the localized impacts of water quality may be severe because of high pollutant loads, primarily sediments. Siltation is the largest cause of impaired water quality in rivers and the third largest cause of impaired water quality in lakes (U.S. EPA, 1998). The 1996 305(b) report also found that construction site discharges were a source of pollution in: 6 percent of impaired rivers; 11 percent of impaired lakes, ponds, and reservoirs; and 11 percent of impaired estuaries. Introduction of coarse sediment (coarse sand or larger) or a large amount of fine sediment is also a concern because of the potential of filling lakes and reservoirs (along with the associated remediation costs for dredging), as well as clogging stream channels (e.g., Paterson, R.G., M.I. Luger, E.J. Burby, E.J. Kaiser, H.R. Malcolm, and A.C. Beard. 1993. "Costs and Benefits of Urban Erosion and Sediment Control: North Carolina Experience." *Environmental Management* 17(2):167-78). Large inputs of coarse sediment into



stream channels initially will reduce stream depth and minimize habitat complexity by filling in pools (U.S. EPA. 1991. *Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska*. EPA 910/9-91-001. Seattle, WA). In addition, studies have shown that stream reaches affected by construction activities often extend well downstream of the construction site. For example, between 4.8 and 5.6 kilometers of stream below construction sites in the Patuxent River watershed were observed to be impacted by sediment inputs (Fox, H.L. 1974. "Effects of Urbanization on the Patuxent River, with Special Emphasis on Sediment Transport, Storage, and Migration." Ph.D. dissertation. Johns Hopkins University, Baltimore, MD. As Cited in Klein, R.D. 1979. "Urbanization and Stream Quality Impairment." *Water Resources Bulletin* 15(4): 948-63).

A primary concern at most construction sites is the erosion and transport process related to fine sediment because rain splash, rills (i.e., a channel small enough to be removed by normal agricultural practices and typically less than 1-foot deep), and sheetwash encourage the detachment and transport of this material to waterbodies (Storm Water Quality Task Force. 1993. *California Storm Water Best Management Practice Handbooks—Construction Activity*. Oakland, CA: Blue Print Service). Construction sites also can generate other pollutants associated with onsite wastes, such as sanitary wastes or concrete truck washout.

Although streams and rivers naturally carry sediment loads, erosion from construction sites and runoff from developed areas can elevate these loads to levels well above those in undisturbed watersheds. It is generally acknowledged that erosion rates from construction sites are much greater than from almost any other land use (Novotny, V. and H. Olem. 1994. *Water Quality: Prevention, Identification, and Management of Diffuse Pollution*. New York: Van Nostrand Reinhold). Results from both field studies and erosion models indicate that erosion rates from construction sites are typically an order of magnitude larger than row crops and several orders of magnitude greater than rates from well-vegetated areas, such as forests or pastures (USDA. 1970. "Controlling Erosion on Construction Sites." *Agriculture Information Bulletin*, Washington, DC; Meyer, L.D., W.H. Wischmeier, and W.H. Daniel. 1971. "Erosion, Runoff and Revegetation of Denuded Construction Sites." *Transactions of the ASAE* 14(1):138-41;

Owen, O.S. 1975. *Natural Resource Conservation*. New York: MacMillan. As cited in Paterson, et al., 1993).

A recent review of the efficiency of sediment basins indicated that inflows from 12 construction sites had a mean TSS concentration of about 4,500 mg/L (Brown, W.E. 1997. "The Limits of Settling." Technical Note No. 83. *Watershed Protection Techniques* 2(3)). In Virginia, suspended sediment concentrations from housing construction sites were measured at 500-3,000 mg/L, or about 40 times larger than the concentrations from already-developed urban areas (Kuo, C.Y. 1976. "Evaluation of Sediment Yields Due to Urban Development." Bulletin No. 98. Virginia Water Resources Research Center, Virginia Polytechnic Institute and State University, Blacksburg, VA).

Similar impacts from storm water runoff have been reported in a number of other studies. For example, Daniel, et al., monitored three residential construction sites in southeastern Wisconsin and determined that annual sediment yields were more than 19 times the yields from agricultural areas (Daniel, T.C., D. McGuire, D. Stoffel, and B. Miller. 1979. "Sediment and Nutrient Yield from Residential Construction Sites" *Journal of Environmental Quality* 8(3):304-08). Daniel, et al., identified total storm runoff, followed by peak storm runoff, as the most influential factors controlling the sediment loadings from residential construction sites. Daniel, et al., also found that suspended sediment concentrations were 15,000-20,000 mg/L in moderate events and up to 60,000 mg/L in larger events.

Wolman and Schick (Wolman, M.G. and A.P. Schick. 1967. "Effects of Construction on Fluvial Sediment, Urban and Suburban Areas of Maryland." *Water Resources Research* 3(2): 451-64) studied the impacts of development on fluvial systems in Maryland and determined that sediment yields in areas undergoing construction were 1.5 to 75 times greater than detected in natural or agricultural catchments. The authors summarize the potential impacts of construction on sediment yields by stating that "the equivalent of many decades of natural or even agricultural erosion may take place during a single year from areas cleared for construction" (Wolman and Schick, 1967).

A number of studies have examined the effects of road construction on erosion rates and sediment yields. A highway construction project in West Virginia disturbed only 4.2 percent of a 4.72-square-mile basin, but resulted in a

three-fold increase in suspended sediment yields (Downs, S.C. and D.H. Appel. 1986. *Progress Report on the Effects of Highway Construction on Suspended-Sediment Discharge in the Coal River and Trace Fork, West Virginia, 1975-81*. USGS Water Resources Investigations Report 84-4275. Charlestown, WV). During the largest storm event, it was estimated that 80 percent of the sediment in the stream originated from the construction site. As is often the case, the increase in suspended sediment load could not be detected further downstream, where the drainage area was more than 50 times larger (269 square miles).

Another study evaluated the effect of 290 acres of highway construction on watersheds ranging in size from 5 to 38 square miles. Suspended sediment loads in the smallest watershed increased by 250 percent, and the estimated sediment yield from the construction area was 37 tons/acre during a 2-year period (Hainly, R.A. 1980. *The Effects of Highway Construction on Sediment Discharge into Blockhouse Creek and Stream Valley Run, Pennsylvania*. USGS Water Resources Investigations Report 80-68. Harrisburg, PA). A more recent study in Hawaii showed that highway construction increased suspended sediment loads by 56 to 76 percent in three small (1 to 4 square mile) basins (Hill, B.R. 1996. *Streamflow and Suspended-Sediment Loads Before and During Highway Construction, North Halawa, Haiku, and Kamooalii Drainage Basins, Oahu, Hawaii, 1983-91*. USGS Water Resources Investigations Report 96-4259. Honolulu, HI). A 1970 study determined that sediment yields from construction areas can be as much as 500 times the levels detected in rural areas (National Association of Counties Research Foundation. 1970. *Urban Soil Erosion and Sediment Control*. Water Pollution Control Research Series, Program #15030 DTL. Federal Water Quality Administration, U.S. Department of Interior. Washington, DC)

Yorke and Herb (Yorke, T.H., and W.J. Herb. 1978. *Effects of Urbanization on Streamflow and Sediment Transport in the Rock Creek and Anacostia River Basins, Montgomery County, Maryland, 1962-74*. USGS Professional Paper 1003, Washington, DC) evaluated nine subbasins in the Maryland portion of the Anacostia watershed for more than a decade in an effort to define the impacts of changing land use/land cover on sediment in runoff. Average annual suspended sediment yields for construction sites ranged from 7 to 100 tons/acre. Storm water discharges from construction sites that occur when the land area is disturbed (and prior to

surface stabilization) can significantly impact designated uses. Examples of designated uses include public water supply, recreation, and propagation of fish and wildlife. The siltation process described previously can threaten all three designated uses by (1) depositing high concentrations of pollutants in public water supplies; (2) decreasing the depth of a waterbody, which can reduce the volume of a reservoir or result in limited use of a water body by boaters, swimmers, and other recreational enthusiasts; and (3) directly impairing the habitat of fish and other aquatic species, which can limit their ability to reproduce.

Excess sediment can cause a number of other problems for waterbodies. It is associated with increased turbidity and reduced light penetration in the water column, as well as more long-term effects associated with habitat destruction and increased difficulty in filtering drinking water. Numerous studies have examined the effect that excess sediment has on aquatic ecosystems. For example, sediment from road construction activity in Northern Virginia reduced aquatic insect and fish communities by up to 85 percent and 40 percent, respectively (Reed, J.R. 1997. "Stream Community Responses to Road Construction Sediments." Bulletin No. 97. Virginia Water Resources Research Center, Virginia Polytechnic Institute, Blacksburg, VA. As cited in Klein, R.D. 1990. *A Survey of Quality of Erosion and Sediment Control and Storm Water Management in the Chesapeake Bay Watershed*. Annapolis, MD: Chesapeake Bay Foundation). Other studies have shown that fine sediment (fine sand or smaller) adversely affects aquatic ecosystems by reducing light penetration, impeding sight-feeding, smothering benthic organisms, abrading gills and other sensitive structures, reducing habitat by clogging interstitial spaces within a streambed, and reducing the intergravel dissolved oxygen by reducing the permeability of the bed material (Everest, F.H., J.C. Beschta, K.V. Scrivener, J.R. Koski, J.R. Sedell, and C.J. Cederholm. 1987. "Fine Sediment and Salmonid Production: A Paradox." *Streamside Management: Forestry and Fishery Interactions*, Contract No. 57, Institute of Forest Resources, University of Washington, Seattle, WA). For example, 4.8 and 5.6 kilometers of stream below construction sites in the Patuxent River watershed in Maryland were found to have fine sediment amounts 15 times greater than normal (Fox, 1974. As cited in Klein, 1979). Benthic organisms in the streambed can be smothered by

sediment deposits, causing changes in aquatic flora and fauna, such as fish species composition (Wolman and Schick, 1967). In addition, the primary cause of coral reef degradation in coastal areas is attributed to land disturbances and dredging activities due to urban development (Rogers, C.S. 1990. "Responses of Coral Reefs and Reef Organizations to Sedimentation." *Marine Ecology Progress Series*, 62:185-202).

EPA believes that the water quality impact from small construction sites is as high as or higher than the impact from larger sites on a per acre basis. The concentration of pollutants in the runoff from smaller sites is similar to the concentrations in the runoff from larger sites. The proportion of sediment that makes it from the construction site to surface waters is likely the same for larger and smaller construction sites in urban areas because the runoff from either site is usually delivered directly to the storm drain network where there is no opportunity for the sediment to be filtered out.

The expected contribution of total sediment yields from small sites depends, in part, on the extent to which erosion and sedimentation controls are being applied. Because current storm water regulations are more likely to require erosion and sedimentation controls on larger sites in urban areas, smaller construction sites that lack such programs are likely to contribute a disproportionate amount of the total sediment from construction activities (MacDonald, L.H. 1997. *Technical Justification for Regulating Construction Sites 1-5 Acres in Size*. Unpublished report submitted to U.S. EPA, Washington, DC). Smaller construction sites are less likely to have an effective plan to control erosion and sedimentation, are less likely to properly implement and maintain their plans, and are less likely to be inspected (Brown, W. and D. Caraco. 1997. *Controlling Storm Water Runoff Discharges from Small Construction Sites: A National Review*. Submitted to Office of Wastewater Management, U.S. EPA, Washington, DC., by the Center for Watershed Protection, Silver Spring, MD). The proportion of sediment that makes it from the construction site to surface waters is likely the same for larger and smaller construction sites in urban areas because the runoff from either site is usually delivered directly to the storm drain network, where there is no opportunity for the sediment to be filtered out.

To confirm its belief that sediment yields from small sites are as high as or higher than the 20 to 150 tons/acre/year

measured from larger sites, EPA gave a grant to the Dane County, Wisconsin Land Conservation Department, in cooperation with the USGS, to evaluate sediment runoff from two small construction sites. The first was a 0.34 acre residential lot and the second was a 1.72 acre commercial office development. Runoff from the sites was channeled to a single discharge point for monitoring. Each site was monitored before, during, and after construction.

The Dane County study found that total solids concentrations from these small sites are similar to total solids concentrations from larger construction sites. Results show that for both of the study sites, total solids and suspended solids concentrations were significantly higher during construction than either before or after construction. For example, preconstruction total solids concentrations averaged 642 mg/L during the period when ryegrass was established, active construction total solids concentrations averaged 2,788 mg/L, and post-construction total solids concentrations averaged 132 mg/L (on a pollutant load basis, this equaled 7.4 lbs preconstruction, 35 lbs during construction, and 0.6 lbs post-construction for total solids). While this site was not properly stabilized before construction, after construction was complete and the site was stabilized, post-construction concentrations were more than 20 times less than during construction. The results were even more dramatic for the commercial site. The commercial site had one preconstruction event, which resulted in total solids concentrations of 138 mg/L, while active construction averaged more than 15,000 mg/L and post-construction averaged only 200 mg/L (on a pollutant load basis, this equaled 0.3 lbs preconstruction, 490 lbs during construction, and 13.4 lbs post-construction for total solids). The active construction period resulted in more than 75 times more sediment than either before or after construction (Owens, D.W., P. Jopke, D.W. Hall, J. Balousek and A. Roa. 1999. "Soil Erosion from Small Construction Sites." Draft USGS Fact Sheet. USGS and Dane County Land Conservation Department, WI). The total solids concentrations from these small sites in Wisconsin are similar to total solids concentrations from larger construction sites. For example, a study evaluating the effects of highway construction in West Virginia found that a small storm produced a sediment concentration of 7,520 mg/L (Downs and Appel, 1986).

One important aspect of small construction sites is the number of small sites relative to larger construction sites

and total land area within the watershed. Brown and Caraco surveyed 219 local jurisdictions to assess erosion and sediment control (ESC) programs. Seventy respondents provided data on the number of ESC permits for construction sites smaller than 5 acres. In 27 cases (38 percent of the respondents), more than three-quarters of the permits were for sites smaller than 5 acres; in another 18 cases (26 percent), more than half of the permits were for sites smaller than 5 acres.

In addition, data on the total acreage disturbed by smaller construction sites have been collected recently in two States (MacDonald, 1997). The most recent and complete data set is the listing of the disturbed area for each of the 3,831 construction sites permitted in North Carolina for 1994–1995 and 1995–1996. Nearly 61 percent of the sites that were 1 acre or larger were between 1.0 and 4.9 acres in size. This proportion was consistent between years. Data showed that this range of sites accounted for 18 percent of the total area disturbed by construction. The values showed very little variation between the 2 years of data. The total disturbed area for all sites over this 2-year period was nearly 33,000 acres, or about 0.1 percent of the total area of North Carolina.

EPA estimates that construction sites disturbing greater than 5 acres disturb 2.1-million acres of land (78.1 percent of the total) while sites disturbing between 1 and 5 acres of land disturb 0.5-million acres of land (19.4 percent). The remaining sites on less than 1 acres of land disturb 0.07-million acres of land (only 2.5 percent of the total). Given the high erosion rates associated with most construction sites, small construction sites can be a significant source of water quality impairment, particularly in small watersheds that are undergoing rapid development. Exempting sites under 1 acre will exclude only about 2.5 percent of acreage from program coverage, but will exclude a far higher number of sites, approximately 25 percent.

Several studies have determined that the most effective construction runoff control programs rely on local plan review and field enforcement (Paterson, R. G. 1994. "Construction Practices: the Good, the Bad, and the Ugly." *Watershed Protection Techniques* 1(3)). In his review, Paterson suggests that, given the critical importance of field implementation of erosion and sediment control programs and the apparent shortcomings that exist, much more focus should be given to plan implementation.

Several commenters disputed the data presented in the proposed rule for storm water discharges from smaller construction sites. One commenter stated that EPA has not adequately explained the basis for permitting construction activity down to 1 disturbed acre. Another commenter stated that EPA did not present sufficient data on water quality impacts from construction sites disturbing less than 5 acres.

EPA believes that the data presented above sufficiently support nationwide designation of storm water discharges from construction activity disturbing more than 1 acre. Based on total disturbed land area within a watershed, the cumulative effects of numerous small construction sites can have impacts similar to those of larger sites in a particular area. In addition, waivers for storm water discharges from smaller construction activity will exclude sites not expected to impair water quality. EPA will continue to collect water quality data on construction site storm water runoff.

### C. Statutory Background

In 1972, Congress enacted the CWA to prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by an NPDES permit. Congress added CWA section 402(p) in 1987 to require implementation of a comprehensive program for addressing storm water discharges. Section 402(p)(1) required EPA or NPDES-authorized States or Tribes to issue NPDES permits for the following five classes of storm water discharges composed entirely of storm water ("storm water discharges") specifically listed under section 402(p)(2):

(A) a discharge subject to an NPDES permit before February 4, 1987

(B) a discharge associated with industrial activity

(C) a discharge from a municipal separate storm sewer system serving a population of 250,000 or more

(D) a discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000

(E) a discharge that an NPDES permitting authority determines to be contributing to a violation of a water quality standard or a significant contributor of pollutants to the waters of the United States.

Section 402(p)(3)(A) requires storm water discharges associated with industrial activity to meet all applicable provisions of section 402 and section 301 of the CWA, including technology-based requirements and any more

stringent requirements necessary to meet water quality standards. Section 402(p)(3)(B) establishes NPDES permit standards for discharges from municipal separate storm sewer systems, or MS4s. NPDES permits for discharges from MS4s (1) may be issued on a system or jurisdiction-wide basis, (2) must include a requirement to effectively prohibit non-storm water discharges into the storm sewers, and (3) must require controls to reduce pollutant discharges to the maximum extent practicable, including best management practices, and other provisions as the Administrator or the States determine to be appropriate for the control of such pollutants. At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. See sections II.L and II.H.3 of the preamble.

In CWA section 402(p)(4), Congress established statutory deadlines for the initial steps in implementing the NPDES program for storm water discharges. This section required development of NPDES permit application regulations, submission of NPDES permit applications, issuance of NPDES permits for sources identified in section 402(p)(2), and compliance with NPDES permit conditions. In addition, this section required industrial facilities and large MS4s to submit NPDES permit applications for storm water discharges by February 4, 1990. Medium MS4s were to submit NPDES permit applications by February 4, 1992. EPA and authorized NPDES States were prohibited from requiring an NPDES permit for any other storm water discharges until October 1, 1994.

Section 402(p)(5) required EPA to conduct certain studies and submit a report to Congress. This requirement is discussed in the following section.

Section 402(p)(6) requires EPA, in consultation with States and local officials, to issue regulations for the designation of additional storm water discharges to be regulated to protect water quality. It also requires EPA to extend the existing storm water program to regulate newly designated sources. At a minimum, the extension must establish (1) priorities, (2) requirements for State storm water management programs, and (3) expeditious deadlines. Section 402(p)(6) specifies that the program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as

appropriate. Today's rule implements this section.

#### D. EPA's Reports to Congress

Under CWA section 402(p)(5), EPA, in consultation with the States, was required to conduct a study. The study was to identify unregulated sources of storm water discharges, determine the nature and extent of pollutants in such discharges, and establish procedures and methods to mitigate the impacts of such discharges on water quality. Section 402(p)(5) also required EPA to report the results of the first two components of that study to Congress by October 1, 1988, and the final report by October 1, 1989.

In March 1995, EPA submitted to Congress a report that reviewed and analyzed the nature of storm water discharges from municipal and industrial facilities that were not already regulated under the initial NPDES regulations for storm water (U.S. Environmental Protection Agency, Office of Water. 1995. *Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System Storm Water Program: Report to Congress*. Washington, D.C. EPA 833-K-94-002) ("Report"). The Report also analyzed associated pollutant loadings and water quality impacts from these unregulated sources. Based on identification of unregulated municipal sources and analysis of information on impacts of storm water discharges from municipal sources, the Report recommended that the NPDES program for storm water focus on the 405 "urbanized areas" identified by the Bureau of the Census. The Report further found that a number of discharges from unregulated industrial facilities warranted further investigation to determine the need for regulation. It classified these unregulated industrial discharges in two groups: Group A and Group B. Group A comprised sources that may be considered a high priority for inclusion in the NPDES program for storm water because discharges from these sources are similar or identical to already regulated sources. These "look alike" storm water discharge sources were not covered in the initial NPDES regulations for storm water due to the language used to define "associated with industrial activity." In the initial regulations for storm water, "industrial activity" is identified using Standard Industrial Classification (SIC) codes. The use of SIC codes led to incomplete categorization of industrial activities with discharges that needed to be regulated to protect water quality. Group B consisted of 18 industrial

sectors, which included sources that EPA expected to contribute to storm water contamination due to the activities conducted and pollutants anticipated onsite (e.g., vehicle maintenance, machinery and electrical repair, and intensive agricultural activities).

EPA reported on the latter component of the section 402(p)(5) study via President Clinton's Clean Water Initiative, which was released on February 1, 1994 (U.S. Environmental Protection Agency, Office of Water. 1994. *President Clinton's Clean Water Initiative*. Washington, D.C. EPA 800-R-94-001) ("Initiative"). The Initiative addressed a number of issues associated with NPDES requirements for storm water discharges and proposed (1) establishing a phased compliance with a water quality standards approach for discharges from municipal separate storm sewer systems with priority on controlling discharges from municipal growth and development areas, (2) clarifying that the maximum extent practicable standard should be applied in a site-specific, flexible manner, taking into account cost considerations as well as water quality effects, (3) providing an exemption from the NPDES program for storm water discharges from industrial facilities with no activities or significant materials exposed to storm water, (4) providing extensions to the statutory deadlines to complete implementation of the NPDES program for the storm water program, (5) targeting urbanized areas for the requirements in the NPDES program for storm water, and (6) providing control of discharges from inactive and abandoned mines located on Federal lands in a more targeted, flexible manner. Additionally, prior to promulgation of today's rule, section 431 of the Agency's Appropriation Act for FY 2000 (Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations Act of 2000, Public Law 106-74, section 432 (1999)) directed EPA to report on certain matters to be covered in today's rule. That report supplements the study required by CWA Section 402(p)(5). EPA is publishing the availability of that report elsewhere in this issue of the **Federal Register**.

Several commenters asserted that the Report to Congress is an inadequate basis for the designation and regulation of sources covered under today's final rule, specifically the nationwide designation of small municipal separate storm sewer systems within urbanized areas and construction activities disturbing between one and five acres.

EPA believes that it has developed an adequate record for today's regulation both through the Report to Congress and the Clean Water Initiative and through more recent activities, including the FACA Subcommittee process, regulatory notices and evaluation of comments, and recent research and analysis. EPA does not interpret the congressional reporting requirements of CWA section 402(p)(5) to be the sole basis for determining sources to be regulated under today's final rule.

EPA's decision to designate on a national basis small MS4s in urbanized areas is supported by studies that clearly show a direct correlation between urbanization and adverse water quality impacts from storm water discharges. (Schueler, T. 1987. *Controlling Urban Runoff: A Practical Manual for Planning & Designing Urban BMPs*. Metropolitan Washington Council of Governments). "Urbanized areas"—within which all small MS4s would be covered—represent the most intensely developed and dense areas of the Nation. They constitute only two percent of the land area but 63 percent of the total population. See section I.B.1, Urban Development, above, for studies and assessments of the link between urban development and storm water impacts on water resources.

Commenters argued that the Report to Congress does not address storm water discharges from construction sites. They further argued that the designation of small construction sites per today's final rule goes beyond the President's 1994 Initiative because the Initiative only recommends requiring municipalities to implement a storm water management program to control unregulated storm water sources, "including discharges from construction of less than 5 acres, which are part of growth, development and significant redevelopment activities." They point out that the Initiative provides that unregulated storm water discharges not addressed through a municipal program would not be covered by the NPDES program. Commenters assert that EPA has not developed a record independent of its section 402(p)(5) studies that demonstrates the necessity of regulating under a separate NPDES permit storm water discharges from smaller construction sites "to protect water quality." EPA disagrees.

EPA evaluated the nature and extent of pollutants from construction site sources in a process that was separate and distinct from the development of the Report to Congress. Today's decision to regulate certain storm water discharges from construction sites disturbing less than 5 acres arose in part

out of the 9th Circuit remand in *NRDC v. EPA*, 966 F.2d 1292 (9th Cir. 1992). In that case, the court remanded portions of the Phase I storm water regulations related to discharges from construction sites. Those regulations define "storm water discharges associated with industrial activity" to include only those storm water discharges from construction sites disturbing 5 acres or more of total land area (see 40 CFR 122.26(b)(14)(x)). In its decision, the court concluded that the 5-acre threshold was improper because the Agency had failed to identify information "to support its perception that construction activities on less than 5 acres are non-industrial in nature" (966 F.2d at 1306). The court remanded the below 5 acre exemption to EPA for further proceedings (966 F.2d at 1310).

In a **Federal Register** notice issued on December 18, 1992, EPA noted that it did not believe that the Court's decision had the effect of automatically subjecting small construction sites to the existing application requirements and deadlines. EPA believed that additional notice and comment were necessary to clarify the status of these sites. The information received during the notice and comment process and additional research, as discussed in section I.B.3 Construction Site Runoff, formed the basis for the designation of construction activity disturbing between one and five acres on a nationwide basis. EPA's objectives in today's proposal include an effort to (1) address the 9th Circuit remand, (2) address water quality concerns associated with construction activities that disturb less than 5 acres of land, and (3) balance conflicting recommendations and concerns of stakeholders.

One commenter noted that EPA's proposal would fail to regulate industrial facilities identified as Group A and Group B in the March 1995 *Report to Congress*. EPA is relying on the analysis in the Report, which provided that the recommendation for coverage was meant as guidance and was not intended to be an identification of specific categories that must be regulated under Section 402(p)(6). *Report to Congress*, p. 4-1. The Report recognized the existence of limited data on which to base loadings estimates to support the nationwide designation of individual or categories of sources. *Report to Congress*, p. 4-44.

Furthermore, during FACA Subcommittee discussion, EPA continued to urge stakeholders to provide further data relating to industrial and commercial storm water sources, which EPA did not receive. EPA concluded that, due to insufficient

data, these sources were not appropriate for nationwide designation at this time.

#### *E. Industrial Facilities Owned or Operated by Small Municipalities*

Congress granted extensions to the NPDES permit application process for selected classes of storm water discharges associated with industrial activity. On December 18, 1991, Congress enacted the Intermodal Surface Transportation Efficiency Act (ISTEA), which postponed NPDES permit application deadlines for most storm water discharges associated with industrial activity at facilities that are owned or operated by small municipalities. EPA and States authorized to administer the NPDES program could not require any municipality with a population of less than 100,000 to apply for or obtain an NPDES permit for any storm water discharge associated with industrial activity prior to October 1, 1992, except for storm water discharges from airports, power plants, or uncontrolled sanitary landfills. See 40 CFR 122.26(e)(1); 57 FR 11524, April 2, 1992 (reservation of NPDES application deadlines for ISTEA facilities).

The facilities exempted by ISTEA discharge storm water in the same manner (and are expected to use identical processes and materials) as the industrial facilities regulated under the 1990 Phase I regulations. Accordingly, these facilities pose similar water quality problems. The extended moratorium for these facilities was necessary to allow municipalities additional time to comply with NPDES requirements. The proposal for today's rule would have maintained the existing deadline for seeking coverage under an NPDES permit (August 7, 2001).

Today's rule changes the permit application deadline for such municipally owned or operated facilities discharging industrial storm water to make it consistent with the application date for small regulated MS4s. Because EPA missed its March 1999 deadline for promulgating today's rule, and the deadline for MS4s to submit permit applications has been extended to three years and 90 days from the date of this notice, the deadline for permitting ISTEA sources has been similarly extended. The permitting of these sources is discussed below in section "II.I.3. ISTEA Sources."

#### *F. Related Nonpoint Source Programs*

Today's rule addresses point source discharges of storm water runoff and non-storm water discharges into MS4s. Many of these sources have been addressed by nonpoint source control

programs, which are described briefly below.

In 1987, section 319 was added to the CWA to provide a framework for funding State and local efforts to address pollutants from nonpoint sources not addressed by the NPDES program. To obtain funding, States are required to submit Nonpoint Source Assessment Reports identifying State waters that, without additional control of nonpoint sources of pollution, could not reasonably be expected to attain or maintain applicable water quality standards or other goals and requirements of the CWA. States are also required to prepare and submit for EPA approval a statewide Nonpoint Source Management Program for controlling nonpoint source water pollution to navigable waters within the State and improving the quality of such waters. State program submittals must identify specific best management practices (BMPs) and measures that 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.

State nonpoint source programs funded under section 319 can include both regulatory and nonregulatory State and local approaches. Section 319(b)(2)(B) specifies that a combination of "nonregulatory 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 BMPs or measures identified in the section 319 submittals.

Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990 provides that States with approved coastal zone management programs must develop coastal nonpoint pollution control programs and submit them to EPA and the National Oceanic and Atmospheric Administration (NOAA) for approval. Failure to submit an approvable program will result in a reduction of Federal grants under both the Coastal Zone Management Act and section 319 of the CWA.

State coastal nonpoint pollution control programs under CZARA must include enforceable policies and mechanisms that ensure implementation of the management measures throughout the coastal management area. *EPA issued Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* under section 6217(g) in

January 1993. The guidance identifies management measures for five major categories of nonpoint source pollution. The management measures reflect the greatest degree of pollutant reduction that is economically achievable for each of the listed sources. These management measures provide reference standards for the States to use in developing or refining their coastal nonpoint programs. A few management measures, however, contain quantitative standards that specify pollutant loading reductions. For example, the New Development Management Measure, which is applicable to construction in urban areas, requires (1) that by design or performance the average annual total suspended solid loadings be reduced by 80 percent and (2) to the extent practicable, that the pre-development peak runoff rate and average volume be maintained.

EPA and NOAA published *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance* (1993). The document clarifies that States generally must implement management measures for each source category identified in the EPA guidance developed under section 6217(g). Coastal Nonpoint Pollution Control Programs are not required to address sources that are clearly regulated under the NPDES program as point source discharges. Specifically, such programs would not need to address small MS4s and construction sites covered under NPDES storm water permits (both general and individual).

## II. Description of Program

### A. Overview

#### 1. Objectives EPA Seeks To Achieve in Today's Rule

EPA seeks to achieve several objectives in today's final rule. First,

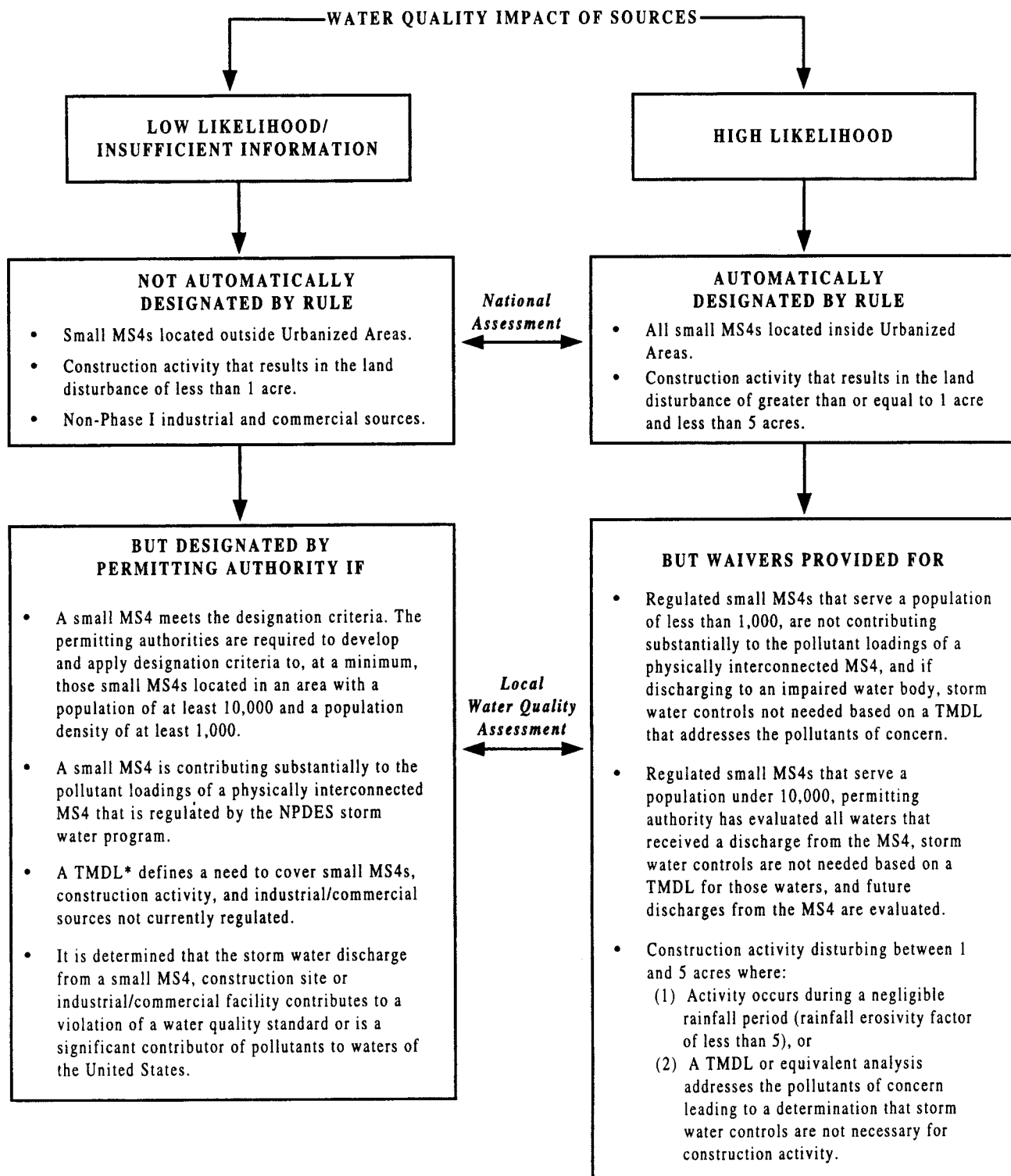
EPA is implementing the requirement under CWA section 402(p)(6) to provide a comprehensive storm water program that designates and controls additional sources of storm water discharges to protect water quality. Second, EPA is addressing storm water discharges from the activities exempted under the 1990 storm water permit application regulations that were remanded by the Ninth Circuit Court of Appeals in *NRDC v. EPA*, 966 F.2d 1292 (9th Circuit, 1992). These are construction activities disturbing less than 5 acres and so-called "light" industrial activities not exposed to storm water (see discussion of "no exposure" below). Third, EPA is providing coverage for the so-called "donut holes" created by the existing NPDES storm water program. Donut holes are geographic gaps in the NPDES storm water program's regulatory scheme. They are MS4s located within areas covered by the existing NPDES storm water program, but not currently addressed by the storm water program because it is based on political jurisdictions. Finally, EPA also is trying to promote watershed planning as a framework for implementing water quality programs where possible.

Although EPA had options for different approaches (see alternatives discussed in the January 9, 1998, proposed regulation), EPA believes it can best achieve its objectives through flexible innovations within the framework of the NPDES program. Unlike the interim section 402(p)(6) storm water regulations EPA promulgated in 1995, EPA no longer designates all of the unregulated storm water discharges for nationwide coverage under the NPDES program for storm water. The framework for today's final rule is one that balances automatic designation on a nationwide basis and

locally-based designation and waivers. Nationwide designation applies to those classes or categories of storm water discharges that EPA believes present a high likelihood of having adverse water quality impacts, regardless of location. Specifically, today's rule designates discharges from small MS4s located in urbanized areas and storm water discharges from construction activities that result in land disturbance equal to or greater than one and less than five acres. As noted under Section I.B., Water Quality Concerns/Environmental Impact Studies and Assessments, these two categories of storm water sources, when unregulated, tend to cause significant adverse water quality impacts. Additional sources are not covered on a nationwide basis either because EPA currently lacks information indicating a consistent potential for adverse water quality impact or because EPA believes that the likelihood of adverse impacts on water quality is low, with some localized exceptions. Additional individual sources or categories of storm water discharges could, however, be covered under the program through a local designation process. A permitting authority may designate additional small MS4s after developing designation criteria and applying those criteria to small MS4s located outside of an urbanized area, in particular those with a population of 10,000 or more and a population density of at least 1,000. Exhibit 1 illustrates the designation framework for today's final rule.

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**EXHIBIT 1.—PHASE II SOURCE DECISIONS**



\*EPA will continue to require States to comply with their Total Maximum Daily Load (TMDL) implementation schedules.



The designation framework for today's final rule provides a significant degree of flexibility. The proposed provisions for nationwide designation of storm water discharges from construction and from small MS4s in urbanized areas allowed for a waiver of applicable requirements based on appropriate water quality conditions. Today's final rule expands and simplifies those waivers.

The permitting authority may waive the requirement for a permit for any small MS4 serving a jurisdiction with a population of less than 1,000 unless storm water controls are needed because the MS4 is contributing to a water quality impairment. The permitting authority may also waive permit coverage for MS4s serving a jurisdiction with a population of less than 10,000 if all waters that receive a discharge from the MS4 have been evaluated and discharges from the MS4 do not significantly contribute to a water quality impairment or have the potential to cause an impairment. Today's rule also allows States with a watershed permitting approach to phase in coverage for MS4s in jurisdictions with populations under 10,000.

Water quality conditions are also the basis for a waiver of requirements for storm water discharges from construction activities disturbing between one and five acres. For these small construction sources, the rule provides significant flexibility for waiving otherwise applicable regulatory requirements where a permitting authority determines, based on water quality and watershed considerations, that storm water discharge controls are not needed.

Coverage can be extended to municipal and construction sources outside the nationwide designated classes or categories based on watershed and case-by-case assessments. For the municipal storm water program, today's rule provides broad discretion to NPDES permitting authorities to develop and implement criteria for designating storm water discharges from small MS4s outside of urbanized areas. Other storm water discharges from unregulated industrial, commercial, and residential sources will not be subject to the NPDES permit requirements unless a permitting authority determines on a case-by-case basis (or on a categorical basis within identified geographic areas such as a State or watershed) that regulatory controls are needed to protect water quality. EPA believes that the flexibility provided in today's rule facilitates watershed planning.

## 2. General Requirements for Regulated Entities Under Today's Rule

As previously noted, today's final rule defines additional classes and categories of storm water discharges for coverage under the NPDES program. These designated dischargers are required to seek coverage under an NPDES permit. Furthermore, all NPDES-authorized States and Tribes are required to implement these provisions and make any necessary amendments to current State and Tribal NPDES regulations to ensure consistency with today's final rule. EPA remains the NPDES permitting authority for jurisdictions without NPDES authorization.

Today's final rule includes some new requirements for NPDES permitting authorities implementing the CWA section 402(p)(6) program. EPA has made a significant effort to build flexibility into the program while attempting to maintain an appropriate level of national consistency. Permitting authorities must ensure that NPDES permits issued to MS4s include the minimum control measures established under the program. Permitting authorities also have the ability to make numerous decisions including who is regulated under the program, i.e., case-by-case designations and waivers, and how responsibilities should be allocated between regulated entities.

Today's final rule extends the NPDES program to include discharges from the following: small MS4s within urbanized areas (with the exception of systems waived from the requirements by the NPDES permitting authority); other small MS4s meeting designation criteria to be established by the permitting authority; and any remaining MS4 that contributes substantially to the storm water pollutant loadings of a physically interconnected MS4 already subject to regulation under the NPDES program. Small MS4s include urban storm sewer systems owned by Tribes, States, political subdivisions of States, as well as the United States, and other systems located within an urbanized area that fall within the definition of an MS4. These include, for example, State departments of transportation (DOTs), public universities, and federal military bases.

Today's final rule requires all regulated small MS4s to develop and implement a storm water management program. Program components include, at a minimum, 6 minimum measures to address: public education and outreach; public involvement; illicit discharge detection and elimination; construction site runoff control; post-construction storm water management in new

development and redevelopment; and pollution prevention and good housekeeping of municipal operations. These program components will be implemented through NPDES permits. A regulated small MS4 is required to submit to the NPDES permitting authority, either in its notice of intent (NOI) or individual permit application, the BMPs to be implemented and the measurable goals for each of the minimum control measures listed above.

The rule addresses all storm water discharges from construction site activities involving clearing, grading and excavating land equal to or greater than 1 acre and less than 5 acres, unless requirements are otherwise waived by the NPDES permitting authority. Discharges from such sites, as well as construction sites disturbing less than 1 acre of land that are designated by the permitting authority, are required to implement requirements set forth in the NPDES permit, which may reference the requirements of a qualifying local program issued to cover such discharges.

The rule also addresses certain other sources regulated under the existing NPDES program for storm water. For municipally-owned industrial sources required to be regulated under the existing NPDES storm water program but exempted from immediate compliance by the Intermodal Surface Transportation Act of 1991 (ISTEA), the rule revises the existing deadline for seeking coverage under an NPDES permit (August 7, 2001) to make it consistent with the application date for small regulated MS4s. (See section I.3. below.) The rule also provides relief from NPDES storm water permitting requirements for industrial sources with no exposure of industrial materials and activities to storm water.

## 3. Integration of Today's Rule With the Existing Storm Water Program

In developing an approach for today's final rule, numerous early interested stakeholders encouraged EPA to seek opportunities to integrate, where possible, the proposed Phase II requirements with existing Phase I requirements, thus facilitating a unified storm water discharge control program. EPA believes that this objective is met by using the NPDES framework. This framework is already applied to regulated storm water discharge sources and is extended to those sources designated under today's rule. This approach facilitates program consistency, public access to information, and program oversight.

EPA believes that today's final rule provides consistency in terms of program coverage and requirements for existing and newly designated sources. For example, the rule includes most of the municipal donut holes, those MS4s located in incorporated places, townships or towns with a population under 100,000 that are within Phase I counties. These MS4s are not addressed by the existing NPDES storm water program while MS4s in the surrounding county are currently addressed. In addition, the minimum control measures required in today's rule for regulated small MS4s are very similar to a number of the permit requirements for medium and large MS4s under the existing storm water program. Following today's rule, permit requirements for all regulated MS4s (both those under the existing program and those under today's rule) will require implementation of BMPs. Furthermore, with regard to the development of NPDES permits to protect water quality, EPA intends to apply the August 1, 1996, *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits* (hereinafter, "Interim Permitting Approach") (see Section I.L.1. for further description) to all MS4s covered by the NPDES program.

EPA is applying NPDES permit requirements to construction sites below 5 acres that are similar to the existing requirements for those above 5 acres and above. In addition, today's rule allows compliance with qualifying local, Tribal, or State erosion and sediment controls to meet the erosion and sediment control requirements of the general permits for storm water discharges associated with construction, both above and below 5 acres.

#### 4. General Permits

EPA recommends using general permits for all newly regulated storm water sources under today's rule. The use of general permits, instead of individual permits, reduces the administrative burden on permitting authorities, while also limiting the paperwork burden on regulated parties seeking permit authorization. Permitting authorities may, of course, require individual permits in some cases to address specific concerns, including permit non-compliance.

EPA recommends that general permits for MS4s, in particular, be issued on a watershed basis, but recognizes that each permitting authority must decide how to develop its general permit(s). Permit conditions developed to address concerns and conditions of a specific watershed could reflect a watershed

plan; such permit conditions must provide for attainment of applicable water quality standards (including designated uses), allocations of pollutant loads established by a TMDL, and timing requirements for implementation of a TMDL. If the permitting authority issues a State-wide general permit, the permitting authority may include separate conditions tailored to individual watersheds or urbanized areas. Of course, for a newly regulated MS4, modification of an existing individual MS4 permit to include the newly regulated MS4 as a "limited co-permittee" also remains an option.

#### 5. Tool Box

During the FACA process, many Storm Water Phase II FACA Subcommittee representatives expressed an interest, which was endorsed by the full Committee, in having EPA develop a "tool box" to assist States, Tribes, municipalities, and other parties involved in the Phase II program. EPA made a commitment to work with Storm Water Phase II FACA Subcommittee representatives in developing such a tool box, with the expectation that a tool box would facilitate implementation of the storm water program in an effective and cost-efficient manner. EPA has developed a preliminary working tool box (available on EPA's web page at [www.epa.gov/owm/sw/toolbox](http://www.epa.gov/owm/sw/toolbox)). EPA intends to have the tool box fully developed by the time of the first general permits. EPA also intends to update the tool box as resources and data become available. The tool box will include the following eight main components: fact sheets; guidances; a menu of BMPs for the six MS4 minimum measures; an information clearinghouse; training and outreach efforts; technical research; support for demonstration projects; and compliance monitoring/assistance tools. EPA intends to issue the menu of BMPs, both structural and non-structural, by October 2000. In addition, EPA will issue by October 2000 a "model" permit and will issue by October 2001 guidance materials on the development of measurable goals for municipal programs.

In an attempt to avoid duplication, the Agency has undertaken an effort to identify and coordinate sources of information that relate to the storm water discharge control program from both inside and outside the Agency. Such information includes research and demonstration projects, grants, storm water management-related programs, and compendiums of available documents, including guidances, related

directly or indirectly to the comprehensive NPDES storm water program. Based on this effort, EPA is developing a tool box containing fact sheets and guidance documents pertaining to the overall program and rule requirements (e.g., guidance on municipal and construction programs, and permitting authority guidance on designation and waiver criteria); models of current programs aimed at assisting States, Tribes, municipalities, and others in establishing programs; a comprehensive list of reference documents organized according to subject area (e.g., illicit discharges, watersheds, water quality standards attainment, funding sources, and similar types of references); educational materials; technical research data; and demonstration project results. The information collected by EPA will not only provide the background for tool box materials, but will also be made available through an information clearinghouse on the world wide web.

With assistance from EPA, the American Public Works Association (APWA) developed a workbook and series of workshops on the proposed Phase II rule. Ten workshops were held from September 1998 through May 1999. Depending on available funding, these workshops may continue after publication of today's final rule. EPA also intends to provide training to enable regional offices to educate States, Tribes, and municipalities about the storm water program and the availability of the tool box materials.

The CWA currently provides funding mechanisms to support activities related to storm water. These mechanisms will be described in the tool box. Activities funded under grant and loan programs, which could be used to assist in storm water program development, include programs in the nonpoint source area, storm water demonstration projects, source water protection and wastewater construction projects. EPA has already provided funding for numerous research efforts in these areas, including a database of BMP effectiveness studies (described below), an assessment of technologies for storm water management, a study of the effectiveness of storm water BMPs for controlling the impacts of watershed imperviousness, protocols for wet weather monitoring, development of a dynamic model for wet weather flows, and numerous outreach projects.

EPA has entered into a cooperative agreement with the Urban Water Resources Research Council of the American Society of Civil Engineers (ASCE) to develop a scientifically-based management tool for the information

needed to evaluate the effectiveness of urban storm water runoff BMPs nationwide. The long-term goal of the National Stormwater BMP Database project is to promote technical design improvements for BMPs and to better match their selection and design to the local storm water problems being addressed. The project team has collected and evaluated hundreds of existing published BMP performance studies and created a database covering about 75 test sites. The database includes detailed information on the design of each BMP and its watershed characteristics, as well as its performance. Eventually the database will include the nationwide collection of information on the characteristics of structural and non-structural BMPs, data collection efforts (e.g., sampling and flow gaging equipment), climatological characteristics, watershed characteristics, hydrologic data, and constituent data. The database will continue to grow as new BMP data become available. The initial release of

the database, which includes data entry and retrieval software, is available on CD-ROM and operates on Windows®-compatible personal computers. The ASCE project team envisions that periodic updates to the database will be distributed through the Internet. The team is currently developing a system for Internet retrieval of selected database records, and this system is expected to be available in early 2000.

EPA and ASCE invite BMP designers, owners and operators to participate in the continuing database development effort. To make this effort successful, a large database is essential. Interested persons are encouraged to submit their BMP performance evaluation data and associated BMP watershed characteristics for potential entry into the database. The software included in the CD-ROM allows data providers to enter their BMP data locally, retain and edit the data as needed, and submit them to the ASCE Database Clearinghouse when ready.

To obtain a copy of the database, please contact Jane Clary, Database Clearinghouse Manager, Wright Water Engineers, Inc., 2490 W. 26th Ave., Suite 100A, Denver, CO 80211; Phone 303-480-1700; E-mail clary@wrightwater.com.

In addition, EPA requests that researchers planning to conduct BMP performance evaluations compile and collect BMP reporting information according to the standard format developed by ASCE. The format is provided with the database software and is also available on the ASCE website at [www.asce.org/peta/tech/nsbd01.html](http://www.asce.org/peta/tech/nsbd01.html).

6. Deadlines Established in Today's Action

Exhibit 2 outlines the various deadlines established under today's final rule. EPA believes that the dates allow sufficient time for completion of both the NPDES permitting authority's and the permittee's program responsibilities.

EXHIBIT 2—STORM WATER PHASE II ACTIONS DEADLINES

Activity	Deadline date
NPDES-authorized States modify NPDES program if no statutory change is required.	1 year from date of publication of today's rule in the <b>Federal Register</b> .
NPDES-authorized States modify NPDES program if statutory change is required.	2 years from date of publication of today's rule in the <b>Federal Register</b> .
EPA issues a menu of BMPs for regulated small MS4s .....	October 27, 2000
ISTEA sources submit permit application .....	3 years and 90 days from date of publication of today's rule in the <b>Federal Register</b> .
Permitting authority issues general permit(s) (if this type of permit coverage is selected).	3 years from date of publication of today's rule in the <b>Federal Register</b> .
Regulated small MS4s submit permit application:	
a. If designated under § 122.32(a)(1) unless the permitting authority has established a phasing schedule under § 123.35(d)(3).	a. 3 years and 90 days from date of publication of today's rule in the <b>Federal Register</b> .
b. If designated under § 122.32(a)(2) or §§ 122.26(a)(9)(i) (C) or (D).	b. Within 180 days of notice.
Storm water discharges associated with small construction activity submit permit application:	
a. If designated under § 122.26(b)(15)(i) .....	a. 3 years and 90 days from date of publication of today's rule in the <b>Federal Register</b>
b. If designated under § 122.26(b)(15)(ii) .....	b. Within 180 days of notice.
Permitting authority designates small MS4s under § 123.35(b)(2) .....	3 years from date of publication of today's rule in the <b>Federal Register</b> or 5 years from date of publication of today's rule in the <b>Federal Register</b> if a watershed plan is in place
Regulated small MS4s' program fully developed and implemented .....	Up to 5 years from date of permit issuance.
Reevaluation of the municipal storm water rules by EPA .....	13 years from date of publication of today's rule in the <b>Federal Register</b>
Permitting authority determination on a petition .....	Within 180 days of receipt.
Non-municipal sources designated under § 122.26(a)(9)(i) (C) or (D) submit permit application.	Within 180 days of notice.
Submission of No Exposure Certification .....	Every 5 years.

B. Readable Regulations

Today, EPA is finalizing new regulations in a "readable regulation" format. This reader-friendly, plain language approach is a departure from traditional regulatory language and should enhance the rule's readability. These plain language regulations use

questions and answers, "you" to identify the person who must comply, and terms like "must" rather than "shall" to identify a mandate. This new format, which minimizes layers of subparagraphs, should also allow the reader to easily locate specific provisions of the regulation.

Some sections of today's final rule are presented in the traditional language and format because these sections amend existing regulations. The readable regulation format was not used in these existing provisions in an attempt to avoid confusion or disruption

of the readability of the existing regulations.

Most commenters supported EPA's use of plain language and agreed with EPA that the question and answer format makes the rule easier to understand. Three commenters thought that EPA should retain the traditional rule format. The June 1, 1998, Presidential memorandum directs all government agencies to write documents in plain language. Based on the majority of the comments, EPA has retained the plain language format used in the January 9, 1998, proposal in today's final rule.

The proposal to today's final rule included guidance as well as legal requirements. The word "must" indicates a requirement. Words like "should," "could," or "encourage" indicate a recommendation or guidance. In addition, the guidance was set off in parentheses to distinguish it from requirements.

EPA received numerous comments supporting the inclusion of guidance in the text of the Code of Federal Regulations (CFR), as well as comments opposing inclusion of guidance. Supporters stated that preambles and guidance documents are often not accessible when rules are implemented. Any language not included in the CFR is therefore not available when it may be most needed. Commenters that opposed including guidance in the CFR expressed the concern that any language in the rule might be interpreted as a requirement, in spite of any clarifying language. They suggested that guidance be presented in the preamble and additional guidance documents.

The majority of commenters on this issue thought that the guidance should be retained but the distinction between requirements and guidance should be better clarified. Suggestions included clarifying text, symbols, and a change from use of the word "should" to "EPA recommends" or "EPA suggests". EPA believes that it is important to include the guidance in the rule and agrees that the distinction between requirements and EPA recommendations must be very clear. In today's final rule, EPA has put the guidance in paragraphs entitled "Guidance" and replaced the word "should" with "EPA recommends." This is intended to clarify that the recommendations contained in the guidance paragraphs are not legally binding.

### *C. Program Framework: NPDES Approach*

Today's rule regulates Phase II sources using the NPDES permit program. EPA interprets Clean Water

Act section 402(p)(6) as authorizing the Agency to develop a storm water program for Phase II sources either as part of the existing NPDES permit program or as a stand alone non-NPDES program such as a self-implementing rule. Under either approach, EPA interprets section 402(p)(6) as directing EPA to publish regulations that "regulate" the remaining unregulated sources, specifically to establish requirements that are federally enforceable under the CWA. Although EPA believes that it has the discretion to not require sources regulated under CWA section 402(p)(6) to be covered by NPDES permits, the Agency has determined, for the reasons discussed below, that it is most appropriate to use NPDES permits in implementing the program to address the sources designated for regulation in today's rule.

As discussed in Section II.A, Overview, EPA sought to achieve certain goals in today's final rule. EPA believes that the NPDES program best achieves EPA's goals for today's final rule for the reasons discussed below.

Requiring Phase II sources to be covered by NPDES permits helps address the consistency problems currently caused by municipal "donut holes." Donut holes are gaps in program coverage where a small unregulated MS4 is located next to or within a regulated larger MS4 that is subject to an NPDES permit under the Phase I NPDES storm water program. The existence of such "donut holes" creates an equity problem because similar discharges may remain unregulated even though they cause or contribute to the same adverse water quality impacts. Using NPDES permits to regulate the unregulated discharges in these areas is intended to facilitate the development of a seamless regulatory program for the mitigation and control of contaminated storm water discharges in an urbanized area. For example, today's rule allows a newly regulated MS4 to join as a "limited" co-permittee with a regulated MS4 by referencing a common storm water management program. Such cooperation should be further encouraged by the fact that the minimum control measures required in today's rule for regulated small MS4s are very similar to a number of the permit requirements for medium and large MS4s under the Phase I storm water program. The minimum control measures applicable to discharges from smaller MS4s are described with slightly more generality than under the Phase I permit application regulations for larger MS4s, thus enabling maximum flexibility for operators of

smaller MS4s to optimize efforts to protect water quality.

Today's rule also applies NPDES permit requirements to construction sites below 5 acres that are similar to the existing requirements for those 5 acres and above. In addition, the rule would allow compliance with qualifying local, Tribal, or State erosion and sediment controls to meet the erosion and sediment control requirements of the general permits for storm water discharges associated with construction, both above and below 5 acres.

Incorporating the CWA section 402(p)(6) program into the NPDES program capitalizes upon the existing governmental infrastructure for administration of the NPDES program. Moreover, much of the regulated community already understands the NPDES program and the way it works.

Another goal of the NPDES program approach is to provide flexibility in order to facilitate and promote watershed planning and sensitivity to local conditions. NPDES permits promote those goals in several ways. NPDES general permits may be used to cover a category of regulated sources on a watershed basis or within political boundaries. The NPDES permitting process provides a mechanism for storm water controls tailored on a case-by-case basis, where necessary. In addition, the NPDES permit requirements of a permittee may be satisfied by another cooperating entity. Finally, NPDES permits may incorporate the requirements of existing State, Tribal and local programs, thereby accommodating State and Tribes seeking to coordinate the storm water program with other programs, including those that focus on watershed-based nonpoint source regulation.

In promoting the watershed approach to program administration, EPA believes NPDES general permits can cover a category of dischargers within a defined geographic area. Areas can be defined very broadly to include political boundaries (e.g., county), watershed boundaries, or State or Tribal land.

NPDES permits generally require an application or a notice of intent (NOI) to trigger coverage. This information exchange assures communication between the permitting authority and the regulated community. This communication is critical in ensuring that the regulated community is aware of the requirements and the permitting authority is aware of the potential for adverse impacts to water quality from identifiable locations. The NPDES permitting process includes the public as a valuable stakeholder and ensures

that the public is included and information is made publicly available.

Another concern for EPA and several stakeholders was that the program ensure citizen participation. The NPDES approach ensures opportunities for citizen participation throughout the permit issuance process, as well as in enforcement actions. NPDES permits are also federally enforceable under the CWA.

EPA believes that the use of NPDES permits makes a significant difference in the degree of compliance with regulations in the storm water program. The NPDES program provides for public participation in the development, enforcement and revision of storm water management programs. Citizen suit enforcement has assisted in focusing attention on adverse water quality impacts on a localized, public priority basis. Citizens frequently rely on the NPDES permitting process and the availability of NOIs to track program implementation and help them enforce regulatory requirements.

NPDES permits are also advantageous to the permittee. The NPDES permit informs the permittee about the scope of what it is expected to do in compliance with the Clean Water Act. As explained more fully in EPA's April 1995 guidance, *Policy Statement on Scope of Discharge Authorization and Shield Associated with NPDES Permits*, compliance with an NPDES permit constitutes compliance with the Clean Water Act (see CWA section 402(k)). In addition, NPDES permittees are excluded from duplicative regulatory regimes under the Resource Conservation and Recovery Act and the Comprehensive Emergency Response, Compensation and Liability Act under RCRA's exclusions to the definition of "solid waste" and CERCLA's exemption for "federally permitted releases."

EPA considered suggestions that the Agency authorize today's rule to be implemented as a self-implementing rule. This would be a regulation promulgated at the Federal, State, or Tribal level to control some or all of the storm water dischargers regulated under today's rule. Under this approach, a rule would spell out the specific requirements for dischargers and impose the restrictions and conditions that would otherwise be contained in an NPDES permit. It would be effective until modified by EPA, a State, or a Tribe, unlike an NPDES permit which cannot exceed a duration of five years. Some stakeholders believed that this approach would reduce the burden on the regulated community (e.g., by not requiring permit applications), and considerably reduce the amount of

additional paperwork, staff time and accounting required to administer the proposed permit requirements.

EPA is sensitive to the interest of some stakeholders in having a streamlined program that minimizes the burden associated with permit administration and maximizes opportunities for field time spent by regulatory authorities. Key provisions in today's rule address some of these concerns by promoting a streamlined approach to permit issuance by, for example, using general permits and allowing the incorporation of existing programs. By adopting the NPDES approach rather than a self-implementing rule, today's rule also allows for consistent regulation between larger MS4s and construction sites regulated under the existing storm water management rule and smaller sources regulated under today's rule.

EPA believes that it is most appropriate to use NPDES permits to implement a program to address the sources regulated by today's rule. In addition to the reasons discussed above, NPDES permits provide a better mechanism than would a self-implementing rule for tailoring storm water controls on a case-by-case basis, where necessary. One commenter reasoned this concern could be addressed by including provisions in the regulation that allow site-specific BMPs (*i.e.*, case-by-case permits), suggesting storm water discharges that might require site-specific BMPs can be identified during the designation process of the regulatory authority. EPA believes that, in addition to its complexity, the commenter's approach lacks the other advantages of the NPDES permitting process.

A self-implementing rule would not ensure the degree of public participation that the NPDES permit process provides for the development, enforcement and revision of the storm water management program. A self-implementing rule also might not have provided the regulated community the "permit shield" under CWA section 402(k) that is provided by an NPDES permit. Based on all these considerations, EPA declined to adopt a self-implementing rule approach and adopted the NPDES approach.

Some State representatives sought alternative approaches for State implementation of the storm water program for Phase II sources. These State representatives asserted that a non-NPDES alternative approach best facilitated watershed management and avoided duplication and overlapping regulations. These representatives believed the NPDES approach would undercut State programs that had

developed storm water controls tailored to local watershed concerns. Finally, a number of commenters expressed the view that States implement a variety of programs not based on the CWA that are effective in controlling storm water, and that EPA should provide incentives for their implementation and improvement in performance.

Throughout the development of the rule, State representatives sought alternatives to the NPDES approach for State implementation of the storm water program for Phase II sources. Discussions focused on an approach whereby States could develop an alternative program that EPA would approve or disapprove based on identified criteria, including that the alternative non-NPDES program would result in "equivalent or better protection of water quality." The State representatives, however, were unable to propose or recommend criteria for gauging whether a program would provide equivalent protection. EPA also did not receive any suggestions for objective, workable criteria in response to the Agency's explicit request for specific criteria (by which EPA could objectively judge such programs) in the preamble to the proposed rule.

EPA evaluated several existing State initiatives to address storm water and found many cases where standards under State programs may be coordinated with the Federal storm water program. Where the NPDES permit is developed in coordination with State standards, there are opportunities to avoid duplication and overlapping requirements. Under today's rule, an NPDES permitting authority may include conditions in the NPDES permit that direct an MS4 to follow the requirements imposed under State standards, rather than the requirements of § 122.34(b). This is allowed as long as the State program at a minimum imposes the relevant requirements of § 122.34(b). Additional opportunities follow from other provisions in today's rule.

Seeking to further explore the feasibility of a non-NPDES approach, the Agency, after the proposal, had extensive discussions with representatives of a number of States. Discussions related specifically to possible alternatives for regulations of urban storm water discharges and MS4s specifically. The Agency also sought input on these issues from other stakeholders.

As a result of these discussions, many of the commenters provided input on issues such as: whether or not the Agency should require NPDES permits; whether location of MS4s in urbanized

areas should be the basis for designation or whether designation should be based on other determinations relating to water quality; whether States should be allowed to satisfy the conditions of the rule through the use of existing State programs; and issues concerning timing and resources for program implementation.

In response, today's rule still follows the regulatory scheme of the proposed rule, but incorporates additional flexibility to address some of the concerns raised by commenters.

In order to facilitate implementation by States that utilize a watershed permitting approach or similar approach (*i.e.*, based on a State's unified watershed assessments), today's rule allows States to phase in coverage for MS4s in jurisdictions with a population less than 10,000. Under such an approach, States could focus their resources on a rolling basis to assist smaller MS4s in developing storm water programs.

In addition, in response to concerns that the rule should not require permit coverage for MS4s that do not significantly contribute to water quality impairments, today's rule provides options for two waivers for small MS4s. The rule allows permitting authorities to exempt from the requirement for a permit any MS4 serving a jurisdiction with a population less than 1,000, unless the State determines that the MS4 must implement storm water controls because it is significantly contributing to a water quality impairment. A second waiver option applies to MS4s serving a jurisdiction with a population less than 10,000. For those MS4s, the State must determine that discharges from the MS4 do not significantly contribute to a water quality impairment, or have the potential for such an impairment, in order to provide the exemption. The State must review this waiver on a periodic basis no less frequently than once every five years.

Throughout the development of today's rule, commenters questioned whether the Clean Water Act authorized the use of the NPDES permit program, pointing out that the text of CWA 402(p)(6) does not use the word "permit." Based on the absence of the word "permit" and the express mention of State storm water management programs, the commenters asserted that Congress did not intend for Phase II sources to be regulated using NPDES permits.

EPA disagrees with the commenters' interpretation of section 402(p)(6). Section 402(p)(6) does not preclude use of permits as part of the

"comprehensive program" to regulate designated sources. The language provides EPA with broad discretion in the establishment of the "comprehensive program." Absence of the word "permit" (a term that the statute does not otherwise define) does not preclude use of a permit, which is a familiar and reasonably well understood regulatory implementation vehicle. First, section 402(p)(6) says that EPA must establish a comprehensive program that "shall, at a minimum, establish priorities, establish requirements for State stormwater management programs, and establish expeditious deadlines." The "at a minimum" language suggests that the Agency may, and perhaps should, develop a comprehensive program that does more than merely attend to these minimum criteria. Use of the term "at a minimum" preserves for the Agency broad discretion to establish a comprehensive program that includes use of NPDES permits.

Further, in the final sentence of the section, Congress included additional language to affirm the Agency's discretion. The final sentence clarifies that the Phase II program "may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate." Under existing CWA programs, performance standards, (effluent limitations) guidelines, management practices, and treatment requirements are typically implemented through NPDES or dredge and fill permits.

Although EPA believes that it had the discretion to not require permits, the Agency has determined that it is reasonable to interpret section 402(p)(6) to authorize permits. Moreover, for the reasons discussed above, the Agency believes that it is appropriate to use NPDES permits in implementing today's rule.

#### *D. Federal Role*

Today's final rule describes EPA's approach to expand the existing storm water program under CWA section 402(p)(6). As in all other Federal programs, the Federal government plays an integral role in complying with, developing, implementing, overseeing, and enforcing the program. This section describes EPA's role in the revised storm water program.

##### 1. Develop Overall Framework of the Program

The storm water discharge control program under CWA section 402(p)(6) consists of the rule, tool box, and permits. EPA's primary role is to ensure

timely development and implementation of all components. Today's rule is a refinement of the first step in developing the program. EPA is fully committed to continuing to work with involved stakeholders on developing the tool box and issuing permits. As noted in today's rule, EPA will assess the municipal storm water program based on (1) evaluations of data from the NPDES municipal storm water program, (2) research concerning water quality impacts on receiving waters from storm water, and (3) research on BMP effectiveness. (Section II.H, Municipal Role, provides a more detailed discussion of this provision.)

EPA is planning to standardize minimum requirements for construction and post-construction BMPs in a new rulemaking under Title III of the CWA. While larger construction sites are already subject to NPDES permits (and smaller sites will be subject to permits pursuant to today's rule), the permits generally do not contain specific requirements for BMP design or performance. The permits require the preparation of storm water pollution prevention plans, but actual BMP selection and design is at the discretion of permittees, in conformance with applicable State and local requirements. Where there are existing State and local requirements specific to BMPs, they vary widely, and many jurisdictions do not have such requirements.

In developing these regulations, EPA intends to evaluate the inclusion of design and maintenance criteria as minimum requirements for a variety of BMPs used for erosion and sediment control at construction sites, as well as for permanent BMPs used to manage post-construction storm water discharges. The Agency plans to consider the merits and performance of all appropriate management practices (both structural and non-structural) that can be used to reduce adverse water quality impacts. EPA does not intend to require the use of particular BMPs at specific sites, but plans to assist builders and developers in BMP selection by publishing data on the performance to be expected by various BMP types. EPA would like to build upon the successes of some of the effective State and local storm water programs currently in place around the country, and to establish nation-wide criteria to support builders and local jurisdictions in appropriate BMP selection.

##### 2. Encourage Consideration of Smart Growth Approaches

In the proposal, EPA invited comment on possible approaches for providing

incentives for local decision making that would limit the adverse impacts of growth and development on water quality. EPA asked for comments on this "smart growth" approach.

EPA received comments on all sides of this issue. A number of commenters supported the idea of "smart growth" incentives but did not present concrete ideas. Several commenters suggested "smart growth" criteria. States that have adopted "smart growth" laws were worried that EPA's focus on urbanized areas for municipal requirements could encourage development outside of designated growth areas. Today's final rule clearly allows States to expand coverage of their municipal storm water program outside of urbanized areas. In addition, the flexibility of the six municipal minimum measures should avoid encouragement of development into rural rather than urban areas. For example, as part of the post-construction minimum measure, EPA recommends that municipalities consider policies and ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure, in order to meet the measure's intent.

EPA also received several comments expressing concern that incorporating "smart growth" incentives threatened the autonomy of local governments. One commenter was worried that "incentives" could become more onerous than the minimum measures. EPA is very aware of municipal concerns about possible federal interference with local land use planning. EPA is also cognizant of the difficulty surrounding incentives for "smart growth" activities due to these concerns. However, the Agency believes it has addressed these concerns by proposing a flexible approach and will continue to support the concept of "smart growth" by encouraging policies that limit the adverse impacts of growth and development on water quality.

### 3. Provide Financial Assistance

Although Congress has not established a fund to fully finance implementation of the proposed extension of the existing NPDES storm water program under CWA section 402(p)(6), numerous federal financing programs (administered by EPA and other federal agencies) can provide some financial assistance. The primary funding mechanism is the Clean Water State Revolving Fund (SRF) program, which provides sources of low-cost financing for a range of water quality infrastructure projects, including storm water. In addition to the SRF, federal financial assistance programs include

the Water Quality Cooperative Agreements under CWA section 104(b)(3), Water Pollution Control Program grants to States under CWA section 106, and the Transportation Equity Act for the 21st Century (TEA-21) among others. In addition, Section 319 funds may be used to fund any urban storm water activities that are not specifically required by a draft or final NPDES permit. EPA will develop a list of potential funding sources as part of the tool box implementation effort. EPA anticipates that some of these programs will provide funds to help develop and, in limited circumstances, implement the CWA section 402(p)(6) storm water discharge control program.

EPA received numerous comments that requested additional funding. Congress provided one substantial new source of potential funding for transportation related storm water projects—TEA-21. The Department of Transportation has included a number of water-related provisions in its TEA-21 planning. These include Transportation Enhancements, Environmental Restoration and Pollution Abatement, and Environmental Streamlining. More information on TEA-21 is available at the following internet sites: [www.fhwa.dot.gov/tea21/outreach.htm](http://www.fhwa.dot.gov/tea21/outreach.htm) and [www.tea21.org](http://www.tea21.org).

### 4. Implement the Program in Jurisdictions Not Authorized To Administer the NPDES Program

Because today's final rule uses the NPDES framework, EPA will be the NPDES permitting authority in several States, Tribal jurisdictions, and Territories. As such, EPA will have the same responsibilities as any other NPDES permitting authority—issuing permits, designating additional sources, and taking appropriate enforcement actions—and will seek to tailor the storm water discharge control program to the specific needs in that State, Tribal jurisdiction, or Territory. EPA also plans to provide support and oversight, including outreach, training, and technical assistance to the regulated communities. Section II.G. of today's preamble provides a separate discussion related to the NPDES permitting authority's responsibilities for today's final rule.

### 5. Oversee State and Tribal Programs

Under the NPDES program, EPA plays an oversight role for NPDES-approved States and Tribes. In this role, EPA and the State or Tribe work together to implement, enforce, and improve the NPDES program. Part of this oversight role includes working with States and

Tribes to modify their programs where programmatic or implementation concerns impede program effectiveness. This role will be vitally important when States and Tribes make adjustments to develop, implement, and enforce today's extension of the existing NPDES storm water discharge control program. In addition, States maintain a continuing planning process (CPP) under CWA section 303(e), which EPA periodically reviews to assess the program's achievements.

In its oversight role, EPA takes action to address States and Tribes who have obtained NPDES authorization but are not fulfilling their obligations under the NPDES program. If an NPDES-authorized State or Tribe fails to implement an adequate NPDES storm water program, for example, EPA typically enters into extensive discussions to resolve outstanding issues. EPA has the authority to withdraw the entire NPDES program when resolution cannot be reached. Partial program withdrawal is not provided for under the CWA except for partial approvals.

EPA is also working with the States and Tribes to improve nonpoint source management programs and assessments to incorporate key program elements. Key nonpoint source program elements include setting short and long term goals and objectives; establishing public and private partnerships; using a balanced approach incorporating Statewide and watershed-wide abatement of existing impairments; preventing future impairments; developing processes to address both impaired and threatened waters; reviewing and upgrading all program components, including program revisions on a 5-year cycle; addressing federal land management and activities inconsistent with State programs; and managing State nonpoint source management programs effectively.

In particular, EPA works with the States and Tribes to strengthen their nonpoint source pollution programs to address all significant nonpoint sources, including agricultural sources, through the CWA section 319 program. EPA is working with other government agencies, as well as with community groups, to effect voluntary changes regarding watershed protection and reduced nonpoint source pollution.

In addition, EPA and NOAA have published programmatic and technical guidance to address coastal nonpoint source pollution. Under Section 6217 of the CZARA, States are developing and implementing coastal nonpoint pollution control programs approved by EPA and NOAA.



## 6. Comply With Applicable Requirements as a Discharger

Today's final rule covers federally operated facilities in a variety of ways. These facilities are generally areas where people reside, such as a federal prison, hospital, or military base. It also includes federal parkways and road systems with separate storm sewer systems. Today's rule requires federal MS4s to comply with the same application deadlines that apply to regulated small MS4s generally. EPA believes that all federal MS4s serve populations of less than 100,000.

EPA received several comments that asked if individual buildings like post offices are considered to be small MS4s and thereby regulated in today's rule if they are in an urbanized area. Most of these buildings have at most a parking lot with runoff or a storm sewer that connects with a municipality's MS4. EPA does not intend that individual federal buildings be considered to be small MS4s. This is discussed in section II.H.2.b. of today's preamble.

Federal facilities can also be included under requirements addressing storm water discharges associated with small construction activities. In any case, discharges from these facilities will need to comply with all applicable NPDES requirements and any additional water quality-related requirements imposed by a State, Tribal, or local government. Failure to comply can result in enforcement actions. Federal facilities can act as models for municipal and private sector facilities and implement or test state-of-the-art management practices and control measures.

### E. State Role

Today's final rule sets forth an NPDES approach for implementing the extension of the existing storm water discharge control program under CWA section 402(p)(6). State assumption of the NPDES program is voluntary, consistent with the principles of federalism. Because most States are approved to implement the NPDES program, they will tailor their storm water discharge control programs to address their water quality needs and objectives. While today's rule establishes the basic framework for the section 402(p)(6) program, States as well as Tribes (see discussion in section II.F) have an important role in fine-tuning the program to address the water quality issues within their jurisdictions. The basic framework allows for adjustments based on factors that vary geographically, including climate patterns and terrain.

Where States do not have NPDES authority, they are not required to implement the storm water discharge control program, but they may still participate in water quality protection through participation in the CWA section 401 certification process (for any permits) and through development of water quality standards and TMDLs.

### 1. Develop the Program

In expanding the existing NPDES program for storm water discharges, States must evaluate whether revisions to their NPDES programs are necessary. If so, modifications must be made in accordance with § 123.62. Under § 123.62, States must revise their NPDES programs within 1 year, or within 2 years if statutory changes are necessary.

Some States and departments of transportation (DOTs) commented that this timeframe is too short, anticipating that the State legislative process and the modification of regulations combined would take beyond 2 years. The deadline language in § 123.62 is not new language for the storm water discharge control program; it applies to all NPDES programs. EPA believes the vast majority of States will meet the deadline and will work with States in those cases where there may be difficulty meeting this deadline due to the timing of legislative sessions and the regulatory development process.

An authorized State NPDES program must meet the requirements of CWA section 402(b) and conform to the guidelines issued under CWA section 304(i)(2). Today's final rule under § 123.25 adds specific cross references to the storm water discharge control program components to ensure that States adequately address these requirements.

### 2. Comply With Applicable Requirements as a Discharger

Today's final rule covers State operated separate storm sewer systems in a variety of ways. These systems generally drain areas where people reside, such as a prison, hospital, or other populated facility. These systems are included under the definition of a regulated small MS4, which specifically identifies systems operated by State departments of transportation. Alternatively, storm water discharges from State activities may be regulated under the section addressing storm water discharges associated with small construction activities. In any case, discharges from these facilities must comply with all applicable NPDES requirements. Failure to comply can result in enforcement actions. State facilities can act as models for

municipal and private sector facilities and implement or test state-of-the-art management practices and control measures.

### 3. Communicate With EPA

Under approved NPDES programs, States have an ongoing obligation to share information with EPA. This dialogue is particularly important in the CWA section 402(p)(6) storm water program where these governments continue to develop a great deal of the guidance and outreach related to water quality.

### F. Tribal Role

The proposal to today's final rule provides background information on EPA's 1984 Indian Policy and the criteria for treatment of an Indian Tribe in the same manner as a State. Today's final rule extends the existing NPDES program for storm water discharges to two types of dischargers located in Indian country. First, the final rule designates storm water discharges from any regulated small MS4, including Tribal systems. Second, the final rule regulates discharges associated with construction activity disturbing between one and five acres of land, including sites located in Indian country. Operators in each of these categories of regulated activity must apply for coverage under an NPDES permit by 3 years and 90 days from the date of publication of today's final rule. Under existing regulations, however, EPA or an authorized NPDES Tribe may require a specified storm water discharger to apply for NPDES permit coverage before this deadline based on a determination that the discharge is contributing to a violation of a water quality standard (including designated uses) or is a significant contributor of pollutants.

Under today's rule, a Tribal governmental entity may regulate storm water discharges on its reservation in two ways—as either an NPDES-authorized Tribe or as a regulated MS4. If a Tribe is authorized to operate the NPDES program, the Tribe must implement today's final rule for the NPDES program for storm water for covered dischargers located within the EPA recognized boundaries. Otherwise, EPA is generally the permitting/program authority within Indian country. Discussions about the State Role in the preceding section also apply to NPDES authorized Tribes. For additional information on the role and responsibilities of the permitting authority in the NPDES storm water program, see § 123.35 (and Section II.G. of today's preamble) and § 123.25(a).

Under today's final rule, if the Indian reservation is located entirely or partially within an "urbanized area," as defined in § 122.32(a)(1), the Tribe must obtain an NPDES permit if it operates a small MS4 within the urbanized area portion. Tribal MS4s located outside an urbanized area are not automatically covered, but may be designated by EPA pursuant to § 122.32(a)(2) of today's rule or may request designation as a regulated small MS4 from EPA. A Tribe that is a regulated MS4 for NPDES program purposes is required to implement the six minimum control measures to the extent allowable under Federal law.

The Tribal representative on the Storm Water Phase II FACA Subcommittee asked EPA to provide a list of the Tribes located in urbanized areas that would fall within the NPDES storm water program under today's final rule. In December 1996, EPA developed a list of federally recognized American Indian Areas located wholly or partially in Bureau of the Census-designated urbanized areas (see Appendix 1). Appendix 1 not only provides a listing of reservations and individual Tribes, but also the name of the particular urbanized area in which the reservation is located and an indication of whether the urbanized area contains a medium or large MS4 that is already covered by the existing Phase I regulations.

Some of the Tribes listed in Appendix 1 are only partially located in an urbanized area. If the Tribe's MS4 serves less than 1,000 people within an urbanized area, the permitting authority may waive the Tribe's MS4 storm water requirements if it meets the conditions of § 122.32(c). EPA does not have information on the Tribal populations within the urbanized areas, so it can not identify the Tribes that are eligible for a waiver. Therefore, a Tribe that believes it qualifies for a waiver should contact its permitting authority.

#### *G. NPDES Permitting Authority's Role for the NPDES Storm Water Small MS4 Program*

As noted previously, the NPDES permitting authority can be EPA or an authorized State or an authorized Tribe. The following discussion describes the role of the NPDES permitting authority under today's final rule.

#### 1. Comply With Implementation Requirements

NPDES permitting authorities must perform certain duties to implement the NPDES storm water municipal program. Section 123.35(a) of today's final rule emphasizes that permitting authorities have existing obligations under the

NPDES program. Section 123.35 focuses on specific issues related to the role of the NPDES authority to support administration and implementation of the municipal storm water program under CWA section 402(p)(6).

#### 2. Designate Sources

Section 123.35(b) of today's final rule addresses the requirements for the NPDES permitting authority to designate sources of storm water discharges to be regulated under §§ 122.32 through 122.36. NPDES permitting authorities must develop a process, as well as criteria, to designate small MS4s. They must also have the authority to designate a small MS4 if and when circumstances that support a waiver under § 122.32(c) change. EPA may make designations if an NPDES-approved State or Tribe fails to do so.

NPDES permitting authorities must examine geographic jurisdictions that they believe should be included in the storm water discharge control program but are not located in an "urbanized area". Small MS4s in these areas are not designated automatically. Discharges from such areas should be brought into the program if found to have actual or potential exceedances of water quality standards, including impairment of designated uses, or other adverse impacts on water quality, as determined by local conditions or watershed and TMDL assessments. EPA's aim is to address discharges to impaired waters and to protect waters with the potential for problems. EPA encourages NPDES permitting authorities, local governments, and the interested public to work together in the context of a watershed plan to address water quality issues, including those associated with municipal storm water runoff.

EPA received comments stating that the process of developing criteria and applying it to all MS4s outside an urbanized area serving a population of 10,000 or greater and with a density of 1,000 people per square mile is too time-consuming and resource-intensive. These commenters believe that the permitting authority should decide which MS4s must be brought into the storm water discharge control program and that population and density should not be an overriding criteria. One suggested way of doing so was to only designate MS4s with demonstrated contributions to the impairment of water quality uses as shown by a TMDL. EPA disagrees with this suggestion. The TMDL process is time-consuming. MS4s outside of urbanized areas may cause water quality problems long before a TMDL is completed.

EPA believes that permitting authorities should consider the potential water quality impacts of storm water from all jurisdictions with a population of 10,000 or greater and a density of 1,000 people per square mile. EPA is using data summarized in the NURP study and in the CWA section 305(b) reports to support this approach for targeted designation outside of urbanized areas. EPA is not mandating which criteria are to be used, but has provided examples of criteria that may be useful in evaluating potential water quality impacts. EPA believes that the flexibility provided in this section of today's final rule allows the permitting authority to develop criteria and a designation process that is easy to use and protects water quality. Therefore, the provisions of § 123.35(b) remain as proposed.

#### a. Develop Designation Criteria

Under § 123.35(b), the NPDES permitting authority must establish designation criteria to evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including adverse habitat and biological impacts.

EPA recommends that NPDES permitting authorities consider, in a balanced manner, certain locally-focused criteria for designating any MS4 located outside of an urbanized area on the basis of significant water quality impacts. EPA recommends consideration of criteria such as discharge to sensitive waters, high growth or growth potential, high population density, contiguity to an urbanized area, significant contribution of pollutants to waters of the United States, and ineffective control of water quality concerns by other programs. These suggested designation criteria are intended to help encourage the permitting authority to use an objective method for identifying and designating, on a local basis, sources that adversely impact water quality. More information about these criteria and the reasons why they are suggested by EPA is included in the January 9, 1998, proposal (63 FR 1561) for today's final rule.

The suggested criteria are meant to be taken in the aggregate, with a great deal of flexibility as to how each should be weighed in order to best account for watershed and other local conditions and to allow for a more tailored case-by-case analysis. The application of criteria is meant to be geographically specific. Furthermore, each criterion does not have to be met in order for a small MS4

to qualify for designation, nor should an MS4 necessarily be designated on the basis of one or two criteria alone.

EPA believes that the application of the recommended designation criteria provides an objective indicator of real and potential water quality impacts from urban runoff on both the local and watershed levels. EPA encourages the application of the recommended criteria in a watershed context, thereby allowing for the evaluation of the water quality impacts of the portions of a watershed outside of an urbanized area. For example, situations exist where the urbanized area represents a small portion of a degraded watershed, and the adjacent nonurbanized areas of the watershed have significant cumulative effects on the quality of the receiving waters.

EPA received numerous suggestions of additional criteria that should be added and reasons why some of the criteria in the proposal to today's final rule were not appropriate. EPA developed its suggested designation criteria based on findings of the NURP study and other studies that indicate pollutants of concern, including total suspended solids, chemical oxygen demand, and temperature. These criteria were the subject of considerable discussion by the Storm Water Phase II FACA Subcommittee. EPA developed them in response to recommendations from the subcommittee during development of the proposed rule. The listed criteria are only suggestions. Permitting authorities are required to develop their own criteria. EPA has not found any reason to change its suggested list of criteria and the suggestions remain as proposed.

#### b. Apply Designation Criteria

After customizing the designation criteria for local conditions, the permitting authority must apply such criteria, at a minimum, to any MS4 located outside of an urbanized area serving a jurisdiction with a population of at least 10,000 and a population density of 1,000 people per square mile or greater (see § 123.35(b)(2)). If the NPDES permitting authority determines that an MS4 meets the criteria, the permitting authority must designate it as a regulated small MS4. This designation must occur within 3 years of publication of today's final rule. Alternatively, the NPDES authority can designate within 5 years from the date of final regulation if the designation criteria are applied on a watershed basis where a comprehensive watershed plan exists (a comprehensive watershed plan is one that includes the equivalents of TMDLs) (see § 123.35(b)(3)). The extended 5 year

deadline is intended to provide incentives for watershed-based designations. If an NPDES-authorized State or Tribe does not develop and apply designation criteria within this timeframe, then EPA has the opportunity to do so in lieu of the authorized State or Tribe.

NPDES permitting authorities can designate any small MS4, including one below 10,000 in population and 1,000 in density. EPA established the 10,000/1,000 threshold based on the likelihood of adverse water quality impacts at these population and density levels. In addition, the 1,000 persons per square mile threshold is consistent with both the Bureau of the Census definition of an "urbanized area" (see Section II.H.2. below) and stakeholder discussions concerning the definition of a regulated small MS4.

One commenter requested that EPA develop interim deadlines for development of designation criteria. EPA believes that the designation deadline identified in today's final rule at § 123.35(b)(3) provides States and Tribes with a flexibility that allows them to develop and apply the criteria locally in a timely fashion, while at the same time establishing an expeditious deadline.

#### c. Designate Physically Interconnected Small MS4s

In addition to applying criteria on a local basis for potential designation, the NPDES permitting authority must designate any MS4 that contributes substantially to the pollutant loadings of a physically interconnected municipal separate storm sewer that is regulated by the NPDES program for storm water discharges (see § 123.35(b)(4)). To be "physically interconnected," the MS4 of one entity, including roads with drainage systems and municipal streets, is physically connected directly to the municipal separate storm sewer of another entity. This provision applies to all MS4s located outside of an urbanized area. EPA added this section in recognition of the concerns of local government stakeholders that a local government should not have to shoulder total responsibility for a storm water program when storm water discharges from another MS4 are also contributing pollutants or adversely affecting water quality. This provision also helps to provide some consistency among MS4 programs and to facilitate watershed planning in the implementation of the NPDES storm water program. EPA recommended physical interconnectedness in the existing NPDES storm water regulations as a

factor for consideration in the designation of additional sources.

Today's final rule does not include interim deadlines for identifying physically interconnected MS4s. However, consistent with the deadlines identified in § 123.35(b)(3) of today's final rule, EPA encourages the permitting authority to make these determinations within 3 years from the date of publication of the final rule or within 5 years if the permitting authority is implementing a comprehensive watershed plan. Alternatively, the affected jurisdiction could use the petition process under 40 CFR 122.26(f) in seeking to have the permitting authority designate the contributing jurisdiction.

Several commenters expressed concerns about who could be designated under this provision (§ 123.35(b)(4)). One commenter requested that the word "substantially" be deleted from the rule because they believe any MS4 that contributes at all to a physically interconnected municipal separate storm sewer should be regulated. EPA believes that the word "substantially" provides necessary flexibility to the permitting authorities. The permitting authority can decide if an MS4 is contributing discharges to another municipal separate storm sewer in a manner that requires regulation. If the operator of a regulated municipal separate storm sewer believes that some of its pollutant loadings are coming from an unregulated MS4, it can petition the permitting authority to designate the unregulated MS4 for regulation.

#### d. Respond to Public Petitions for Designation

Today's final rule reiterates the existing opportunity for the public to petition the permitting authority for designation of a point source to be regulated to protect water quality. The petition opportunity also appears in existing NPDES regulations at 40 CFR 122.26(f). Any person may petition the permitting authority to require an NPDES permit for a discharge composed entirely of storm water that contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States (see § 123.32(b)). The NPDES permitting authority must make a final determination on any petition within 180 days after receiving the petition (see § 123.35(c)). EPA believes that a 180 day limit balances the public's need for a timely final determination with the NPDES permitting authority's need to prioritize its workload. If an NPDES-approved State or Tribe fails to act

within the 180-day timeframe, EPA may make a determination on the petition. EPA believes that public involvement is an important component of the NPDES program for storm water and feels that this provision encourages public participation. Section II.K, Public Involvement/Public Role, further discusses this topic.

### 3. Provide Waivers

Today's rule provides two opportunities for the NPDES permitting authority to exempt certain small MS4s from the need for a permit based on water quality considerations. See §§ 122.32(d) and (e). The two waiver opportunities have different size thresholds and take different approaches to considering the water quality impacts of discharges from the MS4.

In the proposal, EPA requested comment on the option of waiving coverage for all MS4s with less than 1,000 people unless the permitting authority determined that the small MS4 should be regulated based on significant adverse water quality impacts. A number of commenters supported this option. They expressed concern that compliance with the rule requirements and certification of one of the waiver provisions were both costly for very small communities. They stated that the permitting authority should identify a water quality problem before requiring compliance. Today's rule essentially adopts this alternative approach for MS4s serving a population under 1,000.

The final rule has expanded the waiver provision that EPA proposed for small MS4s with a population less than 1,000. The proposed rule would have required a small MS4 operator to certify that storm water controls are not needed based on either wasteload allocations that are part of TMDLs that address the pollutants of concern, or a comprehensive watershed plan implemented for the waterbody that includes the equivalents of TMDLs and addresses the pollutant(s) of concern. Commenters noted that the proposed waivers would be unattainable if a TMDL or equivalent analysis was required for every pollutant that could possibly be present in any amount in discharges from an MS4 regardless of whether the pollutant is causing water quality impairment. Commenters asked that EPA identify what constitutes the "pollutant(s) of concern" for which a TMDL or its equivalent must be developed. For example, § 122.30(c) indicates that the MS4 program is intended to control "sediment, suspended solids, nutrients, heavy

metals, pathogens, toxins, oxygen-demanding substances, and floatables." Commenters asked whether TMDLs or equivalent analyses have to address all of these.

EPA has revised the proposed waiver in response to these concerns. Under today's rule, NPDES permitting authorities may waive the requirements of today's rule for any small MS4 with a population less than 1,000 that does not contribute substantially to the pollutant loadings of a physically interconnected MS4, unless the small MS4 discharges pollutants that have been identified as a cause of impairment of the waters to which the small MS4 discharges. If the small MS4 does discharge pollutants that have been identified as impairing the water body into which the small MS4 discharges, the NPDES permitting authority may grant a waiver only if it determines that storm water controls are not needed based on an EPA approved or established TMDL that addresses the pollutant(s) of concern.

Unlike the proposed rule, § 122.32(d) does not allow the waiver for MS4s serving a population under 1,000 to be based on "the equivalent of a TMDL." Because § 122.32(d) requires a pollutant specific analysis only for a pollutant that has been identified as a cause of impairment, a TMDL is required for such pollutant before the waiver may be granted. Once a pollutant has been identified as the cause of impairment of a water body, the State should develop a TMDL for that pollutant for that water body. Thus, § 122.32(d) takes a different approach than that taken for the waiver in § 122.32(e) for MS4s serving a population under 10,000, which can be based upon an analysis that is "the equivalent of a TMDL." This is because § 122.32(d) requires an analysis to support the waiver for MS4s under 1,000 only if a waterbody to which the MS4 discharges has been identified as impaired. The § 122.32(e) waiver, on the other hand, would be available for larger MS4s but only after the State affirmatively establishes lack of impairment based upon a comprehensive analysis of smaller urban waters that might not otherwise be evaluated for the purposes of CWA section 303. Since § 122.32(e) requires the analysis of waters that have not been identified as impaired, an actual TMDL is not required and an analysis that is the equivalent of a TMDL can suffice to support the waiver.

Where a State is the NPDES permitting authority, the permitting authority is responsible for the development of the TMDLs as well as the assessment of the extent to which a

small MS4's discharge contributes pollutants to a neighboring regulated system. In States where EPA is the permitting authority, EPA will use a State's TMDLs to determine whether storm water controls are required for the small MS4s.

The proposed rule would have required the operator of the small MS4 serving a population under 1,000 to certify that its discharge was covered under a TMDL that indicated that discharges from its particular system were not having an adverse impact on water quality (*i.e.*, it was either not assigned wasteload allocations under TMDLs or its discharge is within an assigned allocation). Many commenters expressed concerns that MS4 operators serving less than 1,000 persons may lack the technical capacity to certify that their discharges are not contributing to adverse water quality impacts. These commenters thought that the permitting authority should make such a certification. Today's rule provides flexibility as to how the waiver is administered. Permitting authorities are ultimately responsible for granting the waiver, but are free to determine whether or not to require small MS4 operators that are seeking waivers to submit information or a written certification.

Under § 122.32(e) a State may grant a waiver to an MS4 serving a population between 1,000 and 10,000 only if the State has made a comprehensive effort to ensure that the MS4 will not cause or contribute to water quality impairment. To grant a § 122.32(e) waiver, the NPDES permitting authority must evaluate all waters of the U.S. that receive a discharge from the MS4 and determine that storm water controls are not needed. The permitting authority's evaluation must be based on wasteload allocations that are part of an EPA approved or established TMDL or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern. The pollutants of concern that the permitting authority must evaluate include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the MS4. Finally, the permitting authority must have determined that future discharges from the MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant

water quality impacts, including habitat and biological impacts.

Although EPA did not propose this specific approach, the Agency did request comment on whether to increase the proposed 1,000 population threshold for a waiver. The § 122.32(e) waiver was developed in response to comments, including States' concerns that they needed greater flexibility to focus their efforts on MS4s that were causing water quality impairment. Several commenters thought that the threshold should be increased from 1,000 to 5,000 or 10,000. Others suggested additional ways of qualifying for a waiver for MS4s that discharge to waters that are not covered by a TMDL or watershed plan. EPA carefully considered all the options for expanding the waiver provisions and has decided to expand the waiver only in the very narrow circumstances described above where a comprehensive analysis has been undertaken to demonstrate that the MS4 is not causing water quality impairment.

The NPDES permitting authority can, at any time, mandate compliance with program requirements from a previously waived small MS4 if circumstances change. For example, a waiver can be withdrawn in circumstances where the permitting authority later determines that a waived small MS4's storm water discharge to a small stream will cause adverse impacts to water quality or significantly interfere with attainment of water quality standards. A "change in circumstances" could involve receipt of new information. Changed circumstances can also allow a regulated small MS4 operator to request a waiver at any time.

Some commenters expressed concerns about allowing any small MS4 waivers. One commenter stated that storm water pollution prevention plans are necessary to control storm water pollution and should be required from all regulated small MS4s. For the reasons stated in the Background section above, EPA agrees that the discharges from most MS4s in urbanized areas should be addressed by a storm water management program outlined in today's rule. For MS4s serving very small areas, however, the TMDL development process provides an opportunity to determine whether an MS4 serving a population less than 1,000 is having a negative impact on any receiving water that is impaired by a pollutant that the MS4 discharges. MS4s serving populations up to 10,000 may receive a waiver only if a comprehensive analysis of its impact on receiving water has been performed.

Other commenters said that waivers should not be allowed for small MS4s that discharge into another regulated MS4. These commenters stated that the word "substantially" should be removed from § 122.32(d)(i) so that a waiver would not be allowed for any system "contributing to the storm water pollutant loadings of a physically interconnected regulated MS4." As previously mentioned under the designation discussion of section II.G.2.c, EPA believes that the word "substantially" provides needed flexibility to the permitting authorities. It is important to note that this is only one aspect that the permitting authority must consider when deciding on the appropriateness of a waiver.

#### 4. Issue Permits

NPDES permitting authorities have a number of responsibilities regarding the permit process. Sections 123.35(d) through (g) ensure a certain level of consistency for permits, yet provide numerous opportunities for flexibility. NPDES permitting authorities must issue NPDES permits to cover municipal sources to be regulated under § 122.32, unless waived under § 122.32(c). EPA encourages permitting authorities to use general permits as the vehicle for permitting and regulating small MS4s. The Agency notes, however, that some operators may wish to take advantage of the option to join as a co-permittee with an MS4 regulated under the existing NPDES storm water program.

Today's final rule includes a provision, § 123.35(f), that requires NPDES permitting authorities to either include the requirements in § 122.34 for NPDES permits issued for regulated small MS4s or to develop permit limits based on a permit application submitted by a small MS4. See Section II.H.3.a, Minimum Control Measures, for more details on the actual § 122.34 requirements. See Section II.H.3.c for alternative and joint permitting options.

In an attempt to avoid duplication of effort, § 122.34(c) allows NPDES permitting authorities to include permit conditions that direct an MS4 to meet the requirements of a qualifying local, Tribal, or State municipal storm water management program. For a local, Tribal, or State program to "qualify," it must impose, at a minimum, the relevant requirements of § 122.34(b). A regulated small MS4 must still follow the procedural requirements for an NPDES permit (*i.e.*, submit an application, either an individual application or an NOI under a general permit) but will instead follow the substantive pollutant control

requirements of the qualifying local, Tribal, or State program.

Under § 122.35(b), NPDES permitting authorities may also recognize existing responsibilities among governmental entities for the minimum control measures in an NPDES small MS4 storm water permit. For example, the permit might acknowledge the existence of a State administered program that addresses construction site runoff and require that the municipalities only develop substantive controls for the remaining minimum control measures. By acknowledging existing programs, this provision is meant to reduce the duplication of efforts and to increase the flexibility of the NPDES storm water program.

Section 123.35(e) of today's final rule requires permitting authorities to specify a time period of up to 5 years from the issuance date of an NPDES permit for regulated small MS4 operators to fully develop and implement their storm water programs. As discussed more fully below, permitting authorities should be providing extensive support to the local governments to assist them in developing and implementing their programs.

In the proposed rule, EPA stated that the permitting authority would develop the menu of BMPs and if they failed to do so, EPA would develop the menu. Commenters felt that EPA should develop a menu of BMPs, rather than just providing guidance. In the settlement agreement for seeking an extension to the deadline for issuing today's rule, EPA committed to developing a menu of BMPs by October 27, 2000. Permitting authorities can adopt EPA's menu or develop their own. The menu itself is not intended to replace more comprehensive BMP guidance materials. As part of the tool box efforts, EPA will provide separate guidance documents that discuss the results from EPA-sponsored nationwide studies on the design, operation and maintenance of BMPs. Additionally, EPA expects that the new rulemaking on construction BMPs may provide more specific design, operation and maintenance criteria.

#### 5. Support and Oversee the Local Programs

NPDES permitting authorities are responsible for supporting and overseeing the local municipal programs. Section 123.35(h) of today's final rule highlights issues associated with these responsibilities.

To the extent possible, NPDES permitting authorities should provide financial assistance to MS4s, which

often have limited resources, for the development and implementation of local programs. EPA recognizes that funding for programs at the State and Tribal levels may also be limited, but strongly encourages States and Tribes to provide whatever assistance is possible. In lieu of actual dollars, NPDES permitting authorities can provide cost-cutting assistance in a number of ways. For example, NPDES permitting authorities can develop outreach materials for MS4s to distribute or the NPDES permitting authority can actually distribute the materials. Another option is to implement an erosion and sediment control program across an entire State (or Tribal land), thus alleviating the need for the MS4 to implement its own program. The NPDES permitting authority must balance the need for site-specific controls, which are best handled by a local MS4, with its ability to offer financial assistance. EPA, States, Tribes, and MS4s should work as a team in making these kinds of decisions.

NPDES permitting authorities are responsible for overseeing the local programs. Permitting authorities should work with the regulated community and other stakeholders to assist in local program development and implementation. This might include sharing information, analyzing reports, and taking enforcement actions, as necessary. NPDES permitting authorities play a vital role in supporting local programs by providing technical and programmatic assistance, conducting research projects, and monitoring watersheds. The NPDES permitting authority can also assist the MS4 permittee in obtaining adequate legal authority at the local level in order to implement the local component of the CWA section 402(p)(6) program.

NPDES permitting authorities are encouraged to coordinate and utilize the data collected under several programs. States and Tribes address point and nonpoint source storm water discharges through a variety of programs. In developing programs to carry out CWA section 402(p)(6), EPA recommends that States and Tribes coordinate all of their water pollution evaluation and control programs, including the continuing planning process under CWA section 303(e), the existing NPDES program, the CZARA program, and nonpoint source pollution control programs.

In addition, NPDES permitting authorities are encouraged to provide a brief (e.g., two-page) reporting format to facilitate compilation and analysis of data from reports submitted under § 122.34(g)(3). EPA intends to develop a model form for this purpose.

#### H. Municipal Role

##### 1. Scope of Today's Rule

Today's final rule attempts to establish an equitable and comprehensive four-pronged approach for the designation of municipal sources. First, the approach defines for automatic coverage the municipal systems believed to be of highest threat to water quality. Second, the approach designates municipal systems that meet a set of objective criteria used to measure the potential for water quality impacts. Third, the approach designates on a case-by-case basis municipal systems that "contribute substantially to the pollutant loadings of a physically-interconnected [regulated] MS4." Finally, the approach designates on a case-by-case basis, upon petition, municipal systems that "contribute to a violation of a water quality standard or are a significant contributor of pollutants."

Today's final rule automatically designates for regulation small MS4s located in urbanized areas, and requires that NPDES permitting authorities examine for potential designation, at a minimum, a particular subset of small MS4s located outside of urbanized areas. Today's rule also includes provisions that allow for waivers from the otherwise applicable requirements for the smallest MS4s that are not causing impairment of a receiving water body. Qualifications for the waivers vary depending on whether the MS4 serves a population under 1,000 or a population under 10,000. See §§ 122.32(d) and (e). These waivers are discussed further in section II.G.3. Any small MS4 automatically designated by the final rule or designated by the permitting authority under today's final rule is defined as a "regulated" small MS4 unless it receives a waiver.

In today's final rule, all regulated small MS4s must establish a storm water discharge control program that meets the requirements of six minimum control measures. These minimum control measures are public education and outreach on storm water impacts, public involvement participation, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations.

Today's rule allows for a great deal of flexibility in how an operator of a regulated small MS4 is authorized to discharge under an NPDES permit, by providing various options for obtaining permit coverage and satisfying the

required minimum control measures. For example, the NPDES permitting authority can incorporate by reference qualifying State, Tribal, or local programs in an NPDES general permit and can recognize existing responsibilities among different governmental entities for the implementation of minimum control measures. In addition, a regulated small MS4 can participate in the storm water management program of an adjoining regulated MS4 and can arrange to have another governmental entity implement a minimum control measure on their behalf.

##### 2. Municipal Definitions

###### a. Municipal Separate Storm Sewer Systems (MS4s)

The CWA does not define the term "municipal separate storm sewer." EPA defined municipal separate storm sewer in the existing storm water permit application regulations to mean, in part, a conveyance or system of conveyances (including roads with drainage systems and municipal streets) that is "owned or operated by a State, city, town borough, county, parish, district, association, or other public body \* \* \* designed or used for collecting or conveying storm water which is not a combined sewer and which is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2" (see § 122.26(b)(8)(i)). Section 122.26 contains definitions of medium and large municipal separate storm sewer systems but no definition of a municipal separate storm sewer system, even though the term MS4 is commonly used. In today's rule, EPA is adding a definition of municipal separate storm sewer system and small municipal separate storm sewer system along with the abbreviations MS4 and small MS4.

The existing municipal permit application regulations define "medium" and "large" MS4s as those located in an incorporated place or county with a population of at least 100,000 (medium) or 250,000 (large) as determined by the latest Decennial Census (see §§ 122.26(b)(4) and 122.26(b)(7)). In today's final rule, these regulations have been revised to define all medium and large MS4s as those meeting the above population thresholds according to the 1990 Decennial Census.

Today's rule also corrects the titles and contents of Appendices F, G, H, & I to Part 122. EPA is adding those incorporated places and counties whose 1990 population caused them to be defined as a "medium" or "large" MS4. All of these MS4s have applied for

permit coverage so the effect of this change to the appendices is simply to make them more accurate. They will not need to be revised again because today's rule "freezes" the definition of "medium" and "large" MS4s at those that qualify based on the 1990 census.

EPA received several comments supporting and opposing the proposal to "freeze" the definitions based on the 1990 census. Commenters who disagreed with EPA's position cited the unfairness of municipalities that reach the medium or large threshold at a later date having fewer permitting requirements compared to those that were already at the population thresholds when the existing storm water regulations took effect. EPA recognizes this disparity but does not believe it is unfair, as explained in the proposed rule. The decision was based on the fact that the deadlines from the existing regulations have lapsed, and because the permitting authority can always require more from operators of MS4s serving "newly over 100,000" populations.

#### b. Small Municipal Separate Storm Sewer Systems

The proposal to today's final rule added "the United States" as a potential owner or operator of a municipal separate storm sewer. This addition was intended to address an omission from existing regulations and to clarify that federal facilities are, in fact, covered by the NPDES program for municipal storm water discharges when the federal facility is like other regulated MS4s. EPA received a comment that this change would cause federal facilities located in Phase 1 areas to be considered Phase 1 dischargers due to the definition of medium and large MS4s. All MS4s located in Phase 1 cities or counties are defined as Phase 1 medium or large MS4s. EPA believes that all federal facilities serve a population of under 100,000 and should be regulated as small MS4s. Therefore, in § 122.26(a)(16) of today's final rule, EPA is adding federal facilities to the NPDES storm water discharge control program by changing the proposed definition of small municipal separate storm sewer system. Paragraph (i) of this section restates the definition of municipal separate storm sewer with the addition of "the United States" as a owner or operator of a small municipal separate storm sewer. Paragraph (ii) repeats the proposed language that states that a small MS4 is a municipal separate storm sewer that is not medium or large.

Most commenters agreed that federal facilities should be covered in the same

way as other similar MS4s. However, EPA received several comments asking whether individual federal buildings such as post offices or urban offices of the U.S. Park Service must apply for coverage as regulated small MS4s. Most of these buildings have, at most, a parking lot with runoff or a storm sewer that connects with a municipality's MS4. In § 122.26(a)(16)(iii), EPA clarifies that the definition of small MS4 does not include individual buildings. These buildings may have a municipal separate storm sewer but they do not have a "system" of conveyances. The minimum measures for small MS4s were written to apply to storm sewer "systems" providing storm water drainage service to human populations and not to individual buildings. This is true of municipal separate storm sewers from State buildings as well as from federal buildings.

There will likely be situations where the permitting authority must decide if a federal or State complex should be regulated as a small MS4. A federal complex of two or three buildings could be treated as a single building and not be required to apply for coverage. In these situations, permitting authorities will have to use their best judgment as to the nature of the complex and its storm water conveyance system. Permitting authorities should also consider whether the federal or State complex cooperates with its municipality's efforts to implement their storm water management program.

Along with the questions about individual buildings, EPA received many questions about how various provisions of the rule should be interpreted for federal and State facilities. EPA acknowledges that federal and State facilities are different from municipalities. EPA believes, however, that the minimum measures are flexible enough that they can be implemented by these facilities. As an example, DOD commenters asked about how to interpret the term "public" for military installations when implementing the public education measure. EPA agrees with the suggested interpretation of "public" for DOD facilities as "the resident and employee population within the fence line of the facility."

EPA also received many comments from State departments of transportation (DOTs) that suggested the ways in which they are different from municipalities and should therefore be regulated differently. Storm water discharges from State DOTs in Phase 1 areas should already be regulated under Phase I. The preamble to Phase 1 clearly states that "all systems within a

geographical area including highways and flood control districts will be covered." Many permitting authorities regulated State DOTs as co-permittees with the Phase 1 municipality in which the highway is located. State DOTs that are already regulated under Phase I are not required to comply with Phase II. State DOTs that are not already regulated have various options for meeting the requirements of today's rule. These options are discussed in Section II.H.3.c.iv below. Several DOTs commented that some of the minimum measures are outside the scope of their mission or that they do not have the legal authority required for implementation. EPA believes that the flexibility of the minimum measures allows them to be implemented by most MS4s, including DOTs. When a DOT does not have the necessary legal authority, EPA encourages the DOT to coordinate their storm water management efforts with the surrounding municipalities and other State agencies. Under today's rule, DOTs can use any of the options of § 122.35 to share their storm water management responsibilities. DOTs may also want to work with their permitting authority to develop a State-wide DOT storm water permit.

There are many storm water discharges from State DOTs and other State MS4s located in Phase 1 areas that were not regulated under Phase 1. Today's rule adds many more State facilities as well as all federal facilities located in urbanized areas. All of these State and federal facilities that fit the definition of a small MS4 must be covered by a storm water management program. The individual permitting authorities must decide what type of permit is most applicable.

The existing NPDES storm water program already regulates storm water from federally or State-operated industrial sources. Federal or State facilities that are currently regulated due to their industrial discharges may already be implementing some of today's rule requirements.

EPA received comments that questioned the apparent inconsistency between regulating a federal facility such as a hospital and not regulating a similar private facility. Normally, this type of private facility is regulated by the MS4. EPA believes that federal facilities are subject to local water quality regulations, including storm water requirements, by virtue of the waiver of sovereign immunity in CWA section 313. However, there are special problems faced by MS4s in their efforts to regulate federal facilities that have not been encountered in regulating



similar private facilities. To ensure comprehensive coverage, today's rule merely clarifies the need for permit coverage for these federal facilities.

*i. Combined Sewer Systems (CSS).*

The definition of small MS4s does not include combined sewer systems. A combined sewer system is a wastewater collection system that conveys sanitary wastewater and storm water through a single set of pipes to a publicly-owned treatment works (POTW) for treatment before discharging to a receiving waterbody. During wet weather events when the capacity of the combined sewer system is exceeded, the system is designed to discharge prior to the POTW treatment plant directly into a receiving waterbody. Such an overflow is a combined sewer overflow or CSO. Combined sewer systems are not subject to existing regulations for municipal storm water discharges, nor will they be subject to today's regulations. EPA addresses combined sewer systems and CSOs in the National Combined Sewer Overflow (CSO) Control Policy issued on April 19, 1994 (59 FR 18688). The CSO Control Policy contains provisions for developing appropriate, site-specific NPDES permit requirements for combined sewer systems. CSO discharges are subject to limitations based on the best available technology economically achievable for toxic pollutants and based on the best conventional pollutant control technology for conventional pollutants. MS4s are subject to a different technology standard for all pollutants, specifically to reduce pollutants to the maximum extent practicable.

Some municipalities are served by both separate storm sewer systems and combined sewer systems. If such a municipality is located within an urbanized area, only the separate storm sewer systems within that municipality is included in the NPDES storm water program and subject to today's final rule. If the municipality is not located in an urbanized area, then the NPDES permitting authority has discretion as to whether the discharges from the separate storm sewer system is subject to today's final rule. The NPDES permitting authority will use the same process to designate discharges from portions of an MS4 for permit coverage where the municipality is also served by a combined sewer system.

EPA recognizes that municipalities that have both combined and separate storm sewer systems may wish to find ways to develop a unified program to meet all wet weather water pollution control requirements more efficiently. In the proposal to today's final rule, EPA sought comment on ways to achieve

such a unified program. Many municipalities that are served by CSSs and MS4s commented that it is inequitable to force them to comply with Phase II at this time because implementation of the CSO Control Policy through their NPDES permits already imposes a significant financial burden. They requested an extension of the implementation time frame. They did not provide ideas on how to unify the two programs. EPA encourages permitting authorities to work with these municipalities as they develop and begin implementation of their CSO and storm water management programs. If both sets of requirements are carefully coordinated early, a cost-effective wet weather program can be developed that will address both CSO and storm water requirements.

*ii. Owners/Operators.* Several commenters mentioned the difference between the existing storm water application requirement for municipal operators and the proposed municipal requirement for owners or operators to apply. They felt that this inconsistency is confusing. The preamble to the existing regulations makes numerous references to owner/operator so there was no intent to make a clear distinction between Phase I and Phase II. Section 122.21(b) states that when the owner and operator are different, the operator must obtain the permit. MS4s often have several operators. The owner may be responsible for one part of the system and a regional authority may be responsible for other aspects. EPA proposed the "owner or operator" language to convey this dual responsibility. However, when the owner is responsible for some part of a storm water management plan, it is also an operator.

EPA has revised the regulation language to clarify that "an operator" must apply for a permit. When responsibilities for the MS4 are shared, all operators must apply.

*c. Regulated Small MS4s*

In today's final rule, all small MS4s located in an urbanized area are automatically designated as "regulated" small MS4s provided that they were not previously designated into the existing storm water program. Unlike medium and large MS4s under the existing storm water regulations, not all small MS4s are designated under today's final rule. Therefore, today's rule distinguishes between "small" MS4s and "regulated small" MS4s.

EPA's definition of "regulated small MS4s" in the proposal to today's rule included mention of incorporated places and counties. Along with the

definition, EPA included Appendices 6 and 7 to assist in the identification of areas that would probably require coverage as "automatically designated" (Appendix 6) or "potentially designated" (Appendix 7). The definition and the appendices raised many questions about exactly who was required to comply with the proposed requirements. Commenters raised issues about the definition of "incorporated place" and the status of towns, townships, and other places that are not considered incorporated by the Census Bureau. They also asked about special districts, regional authorities, MS4s already regulated, and other questions in order to clarify the rule's coverage.

EPA has revised § 122.32(a) to clarify that discharges are regulated under today's rule if they are from a small MS4 that is in an urbanized area and has not received a waiver or they are designated by the permitting authority. Today's rule does not regulate the county, city, or town. Today's rule regulates the MS4. Therefore, even though a county may be listed in Appendix 6, if that county does not own or operate the municipal storm sewer systems, the county does not have to submit an application or develop a storm water management program. If another entity does own or operate an MS4 within the county, for example, a regional utility district, that other entity needs to submit the application and develop the program.

Some commenters suggested that EPA should change the rule language to specifically allow regional authorities to be the permitted entity and to allow small MS4s to apply as co-permittees. EPA believes that the best way to clarify that regional authorities can be the primary permitted entity is the change to § 122.32(a) and the explanation above. Because EPA assumes that today's regulation will be implemented through general permits, MS4s will not be co-permittees under a general permit in the same manner as under individual permits. EPA has added § 122.33(a)(4) and made a minor change to § 122.35(a) to clarify that small MS4s can work together to share the responsibilities of a storm water management program. This is discussed further in Section II.H.3.c.iv below.

The proposed rule stated that when a county or Federal Indian reservation is only partially included in an urbanized area, only MS4s in the urbanized portion of the county or Federal Indian reservation would be regulated. In the rare cases when an incorporated place is only partially included in the urbanized area, the entire incorporated place would be regulated. EPA received comments asking about towns and

townships, because they were not considered to be incorporated areas according to the Census Bureau's definition. Would the whole town/township be covered or only the part of the town/township in the urbanized area? States use many different types of systems in their geographical divisions. Some towns are similar to incorporated cities and others are large areas that are more similar to counties. Some commenters thought that the urbanized area boundary was arbitrary, and if part of a town or county was covered, it all should be covered. Other commenters noted that some townships and counties encompass very large areas of which only a small portion is urbanized. Due to the great variety of situations, EPA has decided that for all geographical entities, only MS4s in the urbanized area are automatically designated. The population densities associated with the Census Bureau's designation of urbanized areas provide the basis for designation of these areas to protect water quality. This focused designation provides for consistency and allows for flexibility on the part of the MS4 and the permitting authority. In those situations where an incorporated place or a town is not all in an "urbanized area", there is a good possibility that it is served by more than one MS4. In those cases where the area is served by the same MS4, it makes sense to develop a storm water program for the whole area. Permitting authorities may also decide to designate all MS4s within a county or township, if they believe it is necessary to protect water quality.

Most operators of MS4s will not need to independently determine the status of coverage under today's rule. EPA has revised the proposed Appendices 6 and 7 to include towns and townships. Therefore, these appendices will alert most MS4s as to whether they are likely to be covered under today's rule. However, each permitting authority must make the decision as to who requires coverage. Most likely, an illustrative list of the regulated areas will be published with the general permit. If not, the operator can contact its permitting authority or the Bureau of the Census to find out if their separate storm sewer systems are within an urbanized area.

*i. Urbanized Area Description.* Under the Bureau of the Census definition of "urbanized area," adopted by EPA for the purposes of today's final rule, "an urbanized area (UA) comprises a place and the adjacent densely settled surrounding territory that together have a minimum population of 50,000 people." The proposal to today's rule provided the full definition and case

studies to help explain the census category of "urbanized area." Appendix 2 is a simplified urbanized area illustration to help demonstrate the concept of urbanized areas in relation to today's final rule. The "urbanized area" is the shaded area that includes within its boundaries incorporated places, a portion of a Federal Indian reservation, portions of two counties, an entire town, and portions of another town. All small MS4s located in the shaded area are covered by the rule, unless and until waived by the permitting authority. Any small MS4s located outside of the shaded area are subject to potential designation by the permitting authority.

There are 405 urbanized areas in the United States that cover 2 percent of total U.S. land area and contain approximately 63 percent of the nation's population (see Appendix 3 for a listing of urbanized areas of the United States and Puerto Rico). These numbers include U.S. Territories, although Puerto Rico is the only territory to have Census-designated urbanized areas. Urbanized areas constitute the largest and most dense areas of settlement. The purpose of determining an "urbanized area" is to delineate the boundaries of development and map the actual built-up urban area. The Bureau of the Census geographers liken it to flying over an urban area and drawing a line around the boundary of the built-up area as seen from the air.

Using data from the latest decennial census, the Census Bureau applies the urbanized area definition nationwide (including U.S. Tribes and Territories) and determines which places and counties are included within each urbanized area. For each urbanized area, the Bureau provides full listings of who is included, as well as detailed maps and special CD-ROM files for use with computerized mapping systems (such as GIS). Each State's data center receives a copy of the list, and some maps, automatically. The States also have the CD-ROM files and a variety of publications available to them for reference from the Bureau of the Census. In addition, local or regional planning agencies may have urbanized area files already. New listings for urbanized areas based on the 2000 Census will be available by July/August 2001, but the more comprehensive computer files will not be available until late 2001/early 2002.

Additional designations based on subsequent census years will be governed by the Bureau of the Census' definition of an urbanized area in effect for that year. Based on historical trends, EPA expects that any area determined by the Bureau of the Census to be

included within an urbanized area as of the 1990 Census will not later be excluded from the urbanized area as of the 2000 Census. However, it is important to note that even if this situation were to occur, for example, due to a possible change in the Bureau of the Census' urbanized area definition, a small MS4 that is automatically designated into the NPDES program for storm water under an urbanized area calculation for any given Census year will remain regulated regardless of the results of subsequent urbanized area calculations.

*ii. Rationale for Using Urbanized Areas.* EPA is using urbanized areas to automatically designate regulated small MS4s on a nationwide basis for several reasons: (1) studies and data show a high correlation between degree of development/urbanization and adverse impacts on receiving waters due to storm water (U.S. EPA, 1983; Driver et al., 1985; Pitt, R.E. 1991. "Biological Effects of Urban Runoff Discharges." Presented at the Engineering Foundation Conference: *Urban Runoff and Receiving Systems; An Interdisciplinary Analysis of Impact, Monitoring and Management*, August 1991. Mt. Crested Butte, CO. American Society of Civil Engineers, New York. 1992.; Pitt, R.E. 1995. "Biological Effects of Urban Runoff Discharges," in *Storm water Runoff and Receiving Systems: Impact, Monitoring, and Assessment*. Lewis Publishers, New York.; Galli, J. 1990. *Thermal Impacts Associated with Urbanization and Storm water Management Best Management Practices*. Prepared for the Sediment and Storm water Administration of the Maryland Department of the Environment.; Klein, 1979), (2) the blanket coverage within the urbanized area encourages the watershed approach and addresses the problem of "donut-holes," where unregulated areas are surrounded by areas currently regulated (storm water discharges from donut hole areas present a problem due to their contributing uncontrolled adverse impacts on local waters, as well as by frustrating the attainment of water quality goals of neighboring regulated communities), (3) this approach targets present and future growth areas as a preventative measure to help ensure water quality protection, and (4) the determination of urbanized areas by the Bureau of the Census allows operators of small MS4s to quickly determine whether they are included in the NPDES storm water program as a regulated small MS4.

Urbanized areas have experienced significant growth over the past 50 years. According to EPA calculations

based on Census data from 1980 to 1990, the national average rate of growth in the United States during that 10-year period was more than 4 percent. For the same period, the average growth within urbanized areas was 15.7 percent and the average for outside of urbanized areas was just more than 1 percent. The new development occurring in these growing areas can provide some of the best opportunities for implementing cost-effective storm water management controls.

EPA received many comments on the proposal to designate discharges based on location within urbanized areas. EPA considered numerous other approaches, several of which are discussed in the proposal to today's final rule. Several commenters wanted designation to be based on proven water quality problems rather than inclusion in an urbanized area. One commenter proposed an approach based on the CWA 303(d) listing of impaired waters and the wasteload allocation conducted under the TMDL process. (See section II.L. on the section 303(d) and TMDL process). The commenter's proposal would designate small MS4s on a case-by-case basis, covering only those discharges where receiving streams are shown to have water quality problems, particularly a failure to meet water quality standards, including designated uses. The commenter further described a non-NPDES approach where a State would require cost-effective measures based on a proportionate share under a waste load allocation, equitably allocated among all pollutant contributors. These waste load allocations would be developed with input from all stakeholders, and remedial measures would be implemented in a phased manner based on the probability of results and/or economic feasibility. The States would then periodically reassess the receiving streams to determine whether the remedial measures are working, and if not, require additional control measures using the same procedure used to establish the initial measures. What the commenter describes is almost a TMDL.

EPA considered a remedial approach based on water quality impairment and rejected it for failure to prevent almost certain degradation caused by urban storm water. EPA's main concern in opting not to take a case-by-case approach to designation was that this approach would not provide controls for storm water discharges in receiving streams until after a site-specific demonstration of adverse water quality impact. The commenter's suggestion would do nothing to prevent pollution in waters that may be meeting water

quality standards, including supporting designated uses. The approach would also rely on identifying storm water management programs following comprehensive watershed plans and TMDL development. In most States, water quality assessments have traditionally been conducted for principal mainstream rivers and their major tributaries, not all surface waters. The establishment of TMDLs nationwide will take many years, and many States will conduct additional monitoring to determine water quality conditions prior to establishing TMDLs. In addition, a case-by-case approach would not address the problem of "donut holes" within urbanized areas and a lack of consistency among similarly situated municipal systems would remain commonplace. After careful consideration of all comments, EPA still believes that the approach in today's rule is the most appropriate to protect water quality. Protection includes prevention as well as remediation.

#### d. Municipal Designation by the Permitting Authority

Today's final rule also allows NPDES permitting authorities to designate MS4s that should be included in the storm water program as regulated small MS4s but are not located within urbanized areas. The final rule requires, at a minimum, that a set of designation criteria be applied to all small MS4s within a jurisdiction that serves a population of at least 10,000 and has a population density of at least 1,000. Appendix 7 to this preamble provides an illustrative list of places that the Agency anticipates meet this criteria. In addition, any small MS4 may be the subject of a petition to the NPDES permitting authority for designation. See Section II.G, NPDES Permitting Authority's Role for more details on the designation and petition processes. EPA believes that the approach of combining nationwide and local designation to determine municipal coverage balances the potential for significant adverse impacts on water quality with local watershed protection and planning efforts.

#### e. Waiving the Requirements for Small MS4s

Today's final rule includes some flexibility in the nationwide coverage of all small MS4s located in urbanized areas by providing the NPDES permitting authority with the discretion to waive the otherwise applicable requirements of the smallest MS4s that are not causing the impairment of a receiving water body. Qualifications for

the waiver vary depending on whether the MS4 serves a population under 1,000 or a population between 1,000 and 10,000. Note that even if a small MS4 has requirements waived, it can subsequently be brought back into the program if circumstances change. See Section II.G, NPDES Permitting Authority's Role, for more details on this process.

### 3. Municipal Permit Requirements

#### a. Overview

*i. Summary of Permitting Options.* Today's rule outlines six minimum control measures that constitute the framework for a storm water discharge control program for regulated small MS4s that, when properly implemented, will reduce pollutants to the maximum extent practicable (MEP). These six minimum control measures are specified in § 122.34(b) and are discussed below in section "II.H.3.b, Program Requirements-Minimum Control Measures." All operators of regulated small MS4s are required to obtain coverage under an NPDES permit, unless the requirement is waived by the permitting authority in accordance with today's rule. Implementation of § 122.34(b) may be required either through an individual permit or, if the State or EPA makes one available to the facility, through a general permit. The process for issuing and obtaining these permits is discussed below in section "II.H.3.c, Application Requirements."

As an alternative to implementing a program that complies with the requirements of § 122.34, today's rule provides operators of regulated small MS4s with the option of applying for an individual permit under § 122.26(d). The permit application requirements in § 122.26 were originally drafted to apply to medium and large MS4s. Although EPA believes that the requirements of § 122.34 provide a regulatory option that is appropriate for most small MS4s, the operators of some small MS4s may prefer more individualized requirements. This alternative permitting option for regulated small MS4s that wish to develop their own program is discussed below in section "II.H.3.c.iii. Alternative Permit Option." The second alternative permitting option for regulated small MS4s is to become co-permittees with a medium or large MS4 regulated under § 122.26(d), as discussed below in section "II.H.3.c.v. Joint Permit Programs."

*ii. Water Quality-Based Requirements.* Any NPDES permit issued under today's rule must, at a minimum, require the operator to develop, implement, and

enforce a storm water management program designed to reduce the discharge of pollutants from a regulated system to the MEP, to protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act (see MEP discussion in the following section). Absent evidence to the contrary, EPA presumes that a small MS4 program that implements the six minimum measures in today's rule does not require more stringent limitations to meet water quality standards. Proper implementation of the measures will significantly improve water quality. As discussed further below, however, small MS4 permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program. If the program is inadequate to protect water quality, including water quality standards, then the permit will need to be modified to include any more stringent limitations necessary to protect water quality.

Regardless of the basis for the development of the effluent limitations (whether designed to implement the six minimum measures or more stringent or prescriptive limitations to protect water quality), EPA considers narrative effluent limitations requiring implementation of BMPs to be the most appropriate form of effluent limitations for MS4s. CWA section 402(p)(3)(b)(iii) expresses a preference for narrative rather than numeric effluent limits, for example, by reference to "management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." 33 U.S.C. 1342(p)(3)(B)(iii). EPA determines that pollutants from wet weather discharges are most appropriately controlled through management measures rather than end-of-pipe numeric effluent limitations. As explained in the Interim Permitting Policy for Water Quality-Based Effluent Limitations in Storm Water Permits, issued on August 1, 1996 [61 FR 43761 (November 26, 1996)], EPA believes that the currently available methodology for derivation of numeric water quality-based effluent limitations is significantly complicated when applied to wet weather discharges from MS4s (compared to continuous or periodic batch discharges from most other types of discharge). Wet weather discharges from MS4s introduce a high degree of variability in the inputs to the models currently available for

derivation of water quality based effluent limitations, including assumptions about instream and discharge flow rates, as well as effluent characterization. In addition, EPA anticipates that determining compliance with any such numeric limitations may be confounded by practical limitations in sample collection.

In the first two to three rounds of permit issuance, EPA envisions that a BMP-based storm water management program that implements the six minimum measures will be the extent of the NPDES permit requirements for the large majority of regulated small MS4s. Because the six measures represent a significant level of control if properly implemented, EPA anticipates that a permit for a regulated small MS4 operator implementing BMPs to satisfy the six minimum control measures will be sufficiently stringent to protect water quality, including water quality standards, so that additional, more stringent and/or more prescriptive water quality based effluent limitations will be unnecessary.

If a small MS4 operator implements the six minimum control measures in § 122.34(b) and the discharges are determined to cause or contribute to non-attainment of an applicable water quality standard, the operator needs to expand or better tailor its BMPs within the scope of the six minimum control measures. EPA envisions that this process will occur during the first two to three permit terms. After that period, EPA will revisit today's regulations for the municipal separate storm sewer program.

If the permitting authority (rather than the regulated small MS4 operator) needs to impose additional or more specific measures to protect water quality, then that action will most likely be the result of an assessment based on a TMDL or equivalent analysis that determines sources and allocations of pollutant(s) of concern. EPA believes that the small MS4's additional requirements, if any, should be guided by its equitable share based on a variety of considerations, such as cost effectiveness, proportionate contribution of pollutants, and ability to reasonably achieve wasteload reductions. Narrative effluent limitations in the form of BMPs may still be the best means of achieving those reductions.

See Section II.L, Water Quality Issues, for further discussion of this approach to permitting, consistent with EPA's interim permitting guidance. Pursuant to CWA section 510, States implementing their own NPDES programs may develop more stringent or

more prescriptive requirements than those in today's rule.

EPA's interpretation of CWA section 402(p)(3)(B)(iii) was recently reviewed by the Ninth Circuit in *Defenders of Wildlife, et al v. Browner*, No. 98-71080 (September 15, 1999). The Court upheld the Agency's action in issuing five MS4 permits that included water quality-based effluent limitations. The Court did, however, disagree with EPA's interpretation of the relationship between CWA sections 301 and 402(p). The Court reasoned that MS4s are not compelled by section 301(b)(1)(C) to meet all State water quality standards, but rather that the Administrator or the State may rely on section 402(p)(3)(B)(iii) to require such controls. Accordingly, the *Defenders of Wildlife* decision is consistent with the Agency's 1996 "Interim Permitting Policy for Water Quality-Based Effluent Limitations in Storm Water Permits."

As noted, the 1996 Policy describes how permits would implement an iterative process using BMPs, assessment, and refocused BMPs, leading toward attainment of water quality standards. The ultimate goal of the iteration would be for water bodies to support their designated uses. EPA believes this iterative approach is consistent with and implements section 301(b)(1)(C), notwithstanding the Ninth Circuit's interpretation. As an alternative to basing these water quality-based requirements on section 301(b)(1)(C), however, EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii). For this reason, today's rule specifies that the "compliance target" for the design and implementation of municipal storm water control programs is "to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA." The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to

MS4s, as they would to other point sources.

EPA does not presume that water quality will be protected if a small MS4 elects not to implement all of the six minimum measures and instead applies for alternative permit limits under § 122.26(d). Operators of such small MS4s that apply for alternative permit limits under § 122.26(d) must supply additional information through individual permit applications so that the permit writer can determine whether the proposed program reduces pollutants to the MEP and whether any other provisions are appropriate to protect water quality and satisfy the appropriate water quality requirements of the Clean Water Act.

iii. *Maximum Extent Practicable.* Maximum extent practicable (MEP) is the statutory standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve. The CWA requires that NPDES permits for discharges from MS4s "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods." CWA Section 402(p)(3)(B)(iii). This section also calls for "such other provisions as the [EPA] Administrator or the State determines appropriate for the control of such pollutants." EPA interprets this standard to apply to all MS4s, including both existing regulated (large and medium) MS4s, as well as the small MS4s regulated under today's rule.

For regulated small MS4s under today's rule, authorization to discharge may be under either a general permit or individual permit, but EPA anticipates and expects that general permits will be the most common permit mechanism. The general permit will explain the steps necessary to obtain permit authorization. Compliance with the conditions of the general permit and the series of steps associated with identification and implementation of the minimum control measures will satisfy the MEP standard. Implementation of the MEP standard under today's rule will typically require the permittee to develop and implement appropriate BMPs to satisfy each of the required six minimum control measures.

In issuing the general permit, the NPDES permitting authority will establish requirements for each of the minimum control measures. Permits typically will require small MS4 permittees to identify in their NOI the BMPs to be performed and to develop the measurable goals by which

implementation of the BMPs can be assessed. Upon receipt of the NOI from a small MS4 operator, the NPDES permitting authority will have the opportunity to review the NOI to verify that the identified BMPs and measurable goals are consistent with the requirement to reduce pollutants under the MEP standard, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. If necessary, the NPDES permitting authority may ask the permittee to revise their mix of BMPs, for example, to better reflect the MEP pollution reduction requirement. Where the NPDES permit is not written to implement the minimum control measures specified under § 122.34(b), for example in the case of an individual permit under § 122.33(b)(2)(ii), the MEP standard will be applied based on the best professional judgment of the permit writer.

Commenters argued that MEP is, as yet, an undefined term and that EPA needs to further clarify the MEP standards by providing a regulatory definition that includes recognition of cost considerations and technical feasibility. Commenters argued that, without a definition, the regulatory community is not adequately on notice regarding the standard with which they need to comply. EPA disagrees that affected MS4 permittees will lack notice of the applicable standard. The framework for the small MS4 permits described in this notice provides EPA's interpretation of the standard and how it should be applied.

EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis. EPA envisions that this evaluative process will consider such factors as conditions of receiving waters, specific local concerns, and other aspects included in a comprehensive watershed plan. Other factors may include MS4 size, climate, implementation schedules, current ability to finance the program, beneficial uses of receiving water, hydrology, geology, and capacity to perform operation and maintenance.

The pollutant reductions that represent MEP may be different for each small MS4, given the unique local hydrologic and geologic concerns that may exist and the differing possible pollutant control strategies. Therefore, each permittee will determine appropriate BMPs to satisfy each of the six minimum control measures through an evaluative process. Permit writers may evaluate small MS4 operator's

proposed storm water management controls to determine whether reduction of pollutants to the MEP can be achieved with the identified BMPs.

EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards. If, after implementing the six minimum control measures there is still water quality impairment associated with discharges from the MS4, after successive permit terms the permittee will need to expand or better tailor its BMPs within the scope of the six minimum control measures for each subsequent permit. EPA envisions that this process may take two to three permit terms.

One commenter observed that MEP is not static and that if the six minimum control measures are not achieving the necessary water quality improvements, then an MS4 should be expected to revise and, if necessary, expand its program. This concept, it is argued, must be clearly part of the definition of MEP and thus incorporated into the binding and operative aspects of the rule. As is explained above, EPA believes that it is. The iterative process described above is intended to be sensitive to water quality concerns. EPA believes that today's rule contains provisions to implement an approach that is consistent with this comment.

#### b. Program Requirements' Minimum Control Measures

A regulated small MS4 operator must develop and implement a storm water management program designed to reduce the discharge of pollutants from their MS4 to protect water quality. The storm water management program must include the following six minimum measures.

i. *Public Education and Outreach on Storm Water Impacts.* Under today's final rule, operators of small MS4s must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps to reduce storm water pollution. The public education program should inform individuals and households about the problem and the steps they can take to reduce or prevent storm water pollution.

EPA believes that as the public gains a greater understanding of the storm water program, the MS4 is likely to gain

more support for the program (including funding initiatives). In addition, compliance with the program will probably be greater if the public understands the personal responsibilities expected of them. Well-informed citizens can act as formal or informal educators to further disseminate information and gather support for the program, thus easing the burden on the municipalities to perform all educational activities.

MS4s are encouraged to enter into partnerships with their States in fulfilling the public education requirement. It may be more cost-effective to utilize a State education program instead of numerous MS4s developing their own programs. MS4 operators are also encouraged to work with other organizations (e.g., environmental, nonprofit and industry organizations) that might be able to assist in fulfilling this requirement.

The public education program should be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities (particularly minority and disadvantaged communities). Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. Operators of MS4s may use storm water educational information provided by the State, Tribe, EPA, or environmental, public interest, trade organizations, or other MS4s. Examples of successful public education efforts concerning polluted runoff can be found in many State nonpoint source pollution control programs under CWA section 319.

The public education program should inform individuals and households about steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes. Additionally, the program could inform individuals and groups on how to become involved in local stream and beach restoration activities as well as activities coordinated by youth service and conservation corps and other citizen groups. Finally, materials or outreach programs should be directed toward targeted groups of commercial,

industrial, and institutional entities likely to have significant storm water impacts. For example, MS4 operators should provide information to restaurants on the impact of grease clogging storm drains and to auto garages on the impacts of used oil discharges.

EPA received comments from representatives of State DOTs and U.S. Department of Defense (DOD) installations seeking exemption from the public education requirement. While today's rule does not exempt DOTs and military bases from the user education requirement, the Agency believes the flexibility inherent in the Rule addresses many of the concerns expressed by these commenters.

Certain DOT representatives commented that if their agencies were not exempt from the user education measure's requirements, they should at least be allowed to count DOT employee education as an adequate substitute. EPA supports the use of existing materials and programs, granted such materials and programs meet the rule's requirement that the MS4 user community (*i.e.*, the public) is also educated concerning the impacts of storm water discharges on water bodies and the steps to reduce storm water pollution.

Finally, certain DOD representatives requested that "public," as applied to their installations, be defined as the resident and employee populations within the fence line of the facility. EPA agrees that the education effort should be directed toward those individuals who frequent the federally owned land (*i.e.*, residents and individuals who come there to work and use the MS4 facilities).

EPA also received a number of comments from municipalities stating that education would be more thorough and cost effective if accomplished by EPA on the national level. EPA believes that a collaborative State and local approach, in conjunction with significant EPA technical support, will best meet the goal of targeting, and reaching, specific local audiences. EPA technical support will include a tool box which will contain fact sheets, guidance documents, an information clearinghouse, and training and outreach efforts.

Finally, EPA received comments expressing concern that the public education program simply encourages the distribution of printed material. EPA is sensitive to this concern. Upon evaluation, the Agency made changes to the proposal's language for today's rule. The language has been changed to reflect EPA's belief that a successful

program is one that includes a variety of strategies locally designed to reach specific audiences.

*ii. Public Involvement/Participation.* Public involvement is an integral part of the small MS4 storm water program. Accordingly, today's final rule requires that the municipal storm water management program must comply with applicable State and local public notice requirements. Section 122.34(b)(2) recommends a public participation process with efforts to reach out and engage all economic and ethnic groups. EPA believes there are two important reasons why the public should be allowed and encouraged to provide valuable input and assistance to the MS4's program.

First, early and frequent public involvement can shorten implementation schedules and broaden public support for a program. Opportunities for members of the public to participate in program development and implementation could include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. Moreover, members of the public may be less likely to raise legal challenges to a MS4's storm water program if they have been involved in the decision making process and program development and, therefore, internalize personal responsibility for the program themselves.

Second, public participation is likely to ensure a more successful storm water program by providing valuable expertise and a conduit to other programs and governments. This is particularly important if the MS4's storm water program is to be implemented on a watershed basis. Interested stakeholders may offer to volunteer in the implementation of all aspects of the program, thus conserving limited municipal resources.

EPA recognizes that there are a number of challenges associated with public involvement. One challenge is in engaging people in the public meeting and program design process. Another challenge is addressing conflicting viewpoints. Nevertheless, EPA strongly believes that these challenges can be addressed by use of an aggressive and inclusive program. Section II.K. provides further discussion on public involvement.

A number of municipalities sought clarification from EPA concerning what the public participation program must

actually include. In response, the actual requirements are minimal, but the Agency's recommendations are more comprehensive. The public participation program must only comply with applicable State and local public notice requirements. The remainder of the preamble, as well as the Explanatory Note accompanying the regulatory text, provide guidance to the MS4s concerning what elements a successful and inclusive program should include. EPA will provide technical support as part of the tool box (*i.e.*, providing model public involvement programs, conducting public workshops, *etc.*) to assist MS4 operators meet the intent of this measure.

Finally, the Agency encourages MS4s to seek public participation prior to submitting an NOI. For example, public participation at this stage will allow the MS4 to involve the public in developing the BMPs and measurable goals for their NOI.

*iii. Illicit Discharge Detection and Elimination.* Discharges from small MS4s often include wastes and wastewater from non-storm water "illicit" discharges. Illicit discharge is defined at 40 CFR 122.26(b)(2) as any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to an NPDES permit and discharges resulting from fire fighting activities. As detailed below, other sources of non-storm water, that would otherwise be considered illicit discharges, do not need to be addressed unless the operator of the MS4 identifies one or more of them as a significant source of pollutants into the system. EPA's Nationwide Urban Runoff Program (NURP) indicated that many storm water outfalls still discharge during substantial dry periods. Pollutant levels in these dry weather flows were shown to be high enough to significantly degrade receiving water quality. Results from a 1987 study conducted in Sacramento, California, revealed that slightly less than one-half of the water discharged from a municipal separate storm sewer system was not directly attributable to precipitation runoff (U.S. Environmental Protection Agency, Office of Research and Development, 1993. *Investigation of Inappropriate Pollutant Entries Into Storm Drainage Systems—A User's Guide*. Washington, DC EPA 600/R-92/238.) A significant portion of these dry weather flows results from illicit and/or inappropriate discharges and connections to the municipal separate storm sewer system. Illicit discharges enter the system through either direct connections (*e.g.*, wastewater piping either mistakenly or

deliberately connected to the storm drains) or indirect connections (*e.g.*, infiltration into the storm drain system or spills collected by drain inlets).

Under the existing NPDES program for storm water, permit applications for large and medium MS4s are to include a program description for effective prohibition against non-storm water discharges into their storm sewers (see 40 CFR 122.26 (d)(1)(v)(B) and (d)(1)(iv)(B)). Further, EPA believes that in implementing municipal storm water management plans under these permits, large and medium MS4 operators generally found their illicit discharge detection and elimination programs to be cost-effective. Properly implemented programs also significantly improved water quality.

In today's rule, any NPDES permit issued to an operator of a regulated small MS4 must, at a minimum, require the operator to develop, implement and enforce an illicit discharge detection and elimination program. Inclusion of this measure for regulated small MS4s is consistent with the "effective prohibition" requirement for large and medium MS4s. Under today's rule, the NPDES permit will require the operator of a regulated small MS4 to: (1) Develop (if not already completed) a storm sewer system map showing the location of all outfalls, and names and location of all waters of the United States that receive discharges from those outfalls; (2) to the extent allowable under State, Tribal, or local law, effectively prohibit through ordinance, or other regulatory mechanism, illicit discharges into the separate storm sewer system and implement appropriate enforcement procedures and actions as needed; (3) develop and implement a plan to detect and address illicit discharges, including illegal dumping, to the system; and (4) inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

The illicit discharge and elimination program need only address the following categories of non-storm water discharges if the operator of the small MS4 identifies them as significant contributors of pollutants to its small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and

wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the definition of illicit discharge and only need to be addressed where they are identified as significant sources of pollutants to waters of the United States). If the operator of the MS4 identifies one or more of these categories of sources to be a significant contributor of pollutants to the system, it could require specific controls for that category of discharge or prohibit the discharges completely.

Several comments were received on the mapping requirements of the proposal. Most comments said that more flexibility should be given to the MS4s to determine their mapping needs, and that resources could be better spent in addressing problems once the illicit discharges are detected. EPA reviewed the mapping requirements in the proposed rule and agrees that some of the information is not necessary in order to begin an illicit discharge detection and elimination program. Today's rule requires a map or set of maps that show the locations of all outfalls and names and locations of receiving waters. Knowing the locations of outfalls and receiving waters are necessary to be able to conduct dry weather field screening for non-storm water flows and to respond to illicit discharge reports from the public. EPA recommends that the operator collect any existing information on outfall locations (*e.g.*, review city records, drainage maps, storm drain maps), and then conduct field surveys to verify the locations. It will probably be necessary to "walk" (*i.e.* wade small receiving waters or use a boat for larger receiving waters) the streambanks and shorelines, and it may take more than one trip to locate all outfalls. A coding system should be used to mark and identify each outfall. MS4 operators have the flexibility to determine the type (*e.g.* topographic, GIS, hand or computer drafted) and size of maps which best meet their needs. The map scale should be such that the outfalls can be accurately located. Once an illicit discharge is detected at an outfall, it may be necessary to map that portion of the storm sewer system leading to the outfall in order to locate the source of the discharge.

Several comments requested clarification of the requirement to develop and implement a plan to detect and eliminate illicit discharges. EPA recommends that plans include procedures for the following: locating priority areas; tracing the source of an illicit discharge; removing the source of the discharge; and program evaluation



and assessment. EPA recommends that MS4 operators identify priority areas (*i.e.*, problem areas) for more detailed screening of their system based on higher likelihood of illicit connections (*e.g.*, areas with older sanitary sewer lines), or by conducting ambient sampling to locate impacted reaches. Once priority areas are identified, EPA recommends visually screening outfalls during dry weather and conducting field tests, where flow is occurring, of selected chemical parameters as indicators of the discharge source. EPA's manual for investigation of inappropriate pollutant entries into the storm drainage system (EPA, 1993) suggests the following parameter list: specific conductivity, fluoride and/or hardness concentration, ammonia and/or potassium concentration, surfactant and/or fluorescence concentration, chlorine concentration, pH and other chemicals indicative of industrial sources. The manual explains why each parameter is a good indicator and how the information can be used to determine the type of source flow. The Agency is not recommending that fluoride and chlorine, generally used to locate potable water discharges, be addressed under this program, therefore a short list of parameters may include conductivity, ammonia, surfactant and pH. Some MS4s have found it useful to measure for fecal coliform or *E. coli* in their testing program. Observations of physical characteristics of the discharge are also helpful such as flow rate, temperature, odor, color, turbidity, floatable matter, deposits and stains, and vegetation.

The implementation plan should also include procedures for tracing the source of an illicit discharge. Once an illicit discharge is detected and field tests provide source characteristics, the next step is to determine the actual location of the source. Techniques for tracing the discharge to its place of origin may include: following the flow up the storm drainage system via observations and/or chemical testing in manholes or in open channels; televising storm sewers; using infrared and thermal photography; conducting smoke or dye tests.

The implementation plan should also include procedures for removing the source of the illicit discharge. The first step may be to notify the property owner and specify a length of time for eliminating the discharge. Additional notifications and escalating legal actions should also be described in this part of the plan.

Finally, the implementation plan should include procedures for program evaluation and assessment. Procedures

could include documentation of actions taken to locate and eliminate illicit discharges such as: number of outfalls screened, complaints received and corrected, feet of storm sewers televised, numbers of discharges and quantities of flow eliminated, number of dye or smoke tests conducted. Appropriate records of such actions should be kept and should be submitted as part of the annual reports for the first permit term, as specified by the permitting authority (reports only need to be submitted in years 2 and 4 in later permits). For more on reporting requirements, see § 122.34(g).

EPA received comments regarding an MS4's legal authority beyond its jurisdictional boundaries to inspect or take enforcement against illicit discharges. EPA recognizes that illicit flows may originate in one jurisdiction and cross into one or more jurisdictions before being discharged at an outfall. In such instances, EPA expects the MS4 that detects the illicit flow to trace it to the point where it leaves their jurisdiction and notify the adjoining MS4 of the flow, and any other physical or chemical information. The adjoining MS4 should then trace it to the source or to the location where it enters their jurisdiction. The process of notifying the adjoining MS4 should continue until the source is located and eliminated. In addition, because any non-storm water discharge to waters of the U.S. through an MS4 is subject to the prohibition against unpermitted discharges pursuant to CWA section 301 (a), remedies are available under the federal enforcement provisions of CWA sections 309 and 505.

EPA requested and received comments regarding the prohibition and enforcement provision for this minimum measure. Commenters specifically questioned the proposal that the operator only has to implement the appropriate prohibition and enforcement procedures "to the extent allowable under State or Tribal law." They raised concerns that by qualifying prohibition and enforcement procedures in this manner, the operator could altogether ignore this minimum measure where affirmative legal authority did not exist. Comments suggested that EPA require States to grant authority to those municipalities where it did not exist. Other comments, however, stated that municipalities cannot exercise legal authority not granted to them under State law, which varies considerably from one State to another. EPA has no intention of directing State legislatures on how to allocate authority and responsibility under State law. As noted above, there is at least one remedy (the

federal CWA) to control non-storm water discharges through MS4s. If State law prevents political subdivisions from controlling discharges through storm sewers, EPA anticipates common sense will prevail to provide those MS4 operators with the ability to meet the requirements applicable for their discharges.

One comment reinforced the importance of public information and education to the success of this measure. EPA agrees and suggests that MS4 operators consider a variety of ways to inform and educate the public which could include storm drain stenciling; a program to promote, publicize, and facilitate public reporting of illicit connections or discharges; and distribution of visual and/or printed outreach materials. Recycling and other public outreach programs could be developed to address potential sources of illicit discharges, including used motor oil, antifreeze, pesticides, herbicides, and fertilizers.

EPA received comments that State DOT's lack authority to implement this measure. EPA believes that most DOTs can implement most parts of this measure. If a DOT does not have the necessary legal authority to implement any part of this measure, EPA encourages them to coordinate their storm water management efforts with the surrounding MS4s and other State agencies. Many DOTs that are regulated under Phase I of this program are co-permittees with the local regulated MS4. Under today's rule, DOTs can use any of the options of § 122.35 to share their storm water management responsibilities.

EPA received comments requesting clarification of various terms such as "outfall" and "illicit discharge." One comment asked EPA to reinforce the point that a "ditch" could be considered an outfall. The term "outfall" is defined at 40 CFR 122.26(b)(9) as "a point source at the point where a municipal separate storm sewer discharges to waters of the United States \* \* \*". The term municipal separate storm sewer is defined at 40 CFR § 122.26(b)(8) as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) \* \* \*". Following the logic of these definitions, a "ditch" may be part of the municipal separate storm sewer, and at the point where the ditch discharges to waters of the United States, it would be an outfall. As with any determination about jurisdictional provisions of the CWA, however, final decisions require case specific evaluations of fact.

One commenter specifically requested clarification on the relationship between the term "illicit discharge" and non-storm water discharges from fire fighting. The comment suggested that it would be impractical to attempt to determine whether the flow from a specific fire (*i.e.*, during a fire) is a significant source of pollution. EPA intends that MS4s will address all allowable non-storm water flows categorically rather than individually. If an MS4 is concerned that flows from fire fighting are, as a category, contributing substantial amounts of pollutants to their system, they could develop a program to address those flows prospectively. The program may include an analysis of the flow from several sources, steps to minimize the pollutant contribution, and a plan to work with the sources of the discharge to minimize any adverse impact on water quality. During the development of such a program, the MS4 may determine that only certain types of flows within a particular category are a concern, for example, fire fighting flows at industrial sites where large quantities of chemicals are present. In this example, a review of existing procedures with the fire department and/or hazardous materials team may reveal weaknesses or strengths previously unknown to the MS4 operator.

EPA received comments requesting modifications to the rule to include on-site sewage disposal systems (*i.e.*, septic systems) in the scope of the illicit discharge program. On-site sewage disposal systems that flow into storm drainage systems are within the definition of illicit discharge as defined by the regulations. Where they are found to be the source of an illicit discharge, they need to be eliminated similar to any other illicit discharge source. Today's rule was not modified to include discharges from on-site sewage disposal systems specifically because those sources are already within the scope of the existing definition of illicit discharge.

*iv. Construction Site Storm Water Runoff Control.* Over a short period of time, storm water runoff from construction site activity can contribute more pollutants, including sediment, to a receiving stream than had been deposited over several decades (see section I.B.3). Storm water runoff from construction sites can include pollutants other than sediment, such as phosphorus and nitrogen, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. Generally, properly

implemented and enforced construction site ordinances effectively reduce these pollutants. In many areas, however, the effectiveness of ordinances in reducing pollutants is limited due to inadequate enforcement or incomplete compliance with such local ordinances by construction site operators (Paterson, R.G. 1994. "Construction Practices: The Good, the Bad, and the Ugly." *Watershed Protection Techniques* 1(2)).

Today's rule requires operators of regulated small MS4s to develop, implement, and enforce a pollutant control program to reduce pollutants in any storm water runoff from construction activities that result in land disturbance of 1 or more acres (see § 122.34(b)(4)). Construction activity on sites disturbing less than one acre must be included in the program if the construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

The construction runoff control program of the regulated small MS4 must include an ordinance or other regulatory mechanism to require erosion and sediment controls to the extent practicable and allowable under State, Tribal or local law. The program also must include sanctions to ensure compliance (for example, non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance). The program must also include, at a minimum: requirements for construction site operators to implement appropriate erosion and sediment control BMPs, such as silt fences, temporary detention ponds and diversions; procedures for site plan review by the small MS4 which incorporate consideration of potential water quality impacts; requirements to control other waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may adversely impact water quality; procedures for receipt and consideration of information submitted by the public to the MS4; and procedures for site inspection and enforcement of control measures by the small MS4.

Today's rule provides flexibility for regulated small MS4s by allowing them to exclude from their construction pollutant control program runoff from those construction sites for which the NPDES permitting authority has waived NPDES storm water small construction permit requirements. For example, if the NPDES permitting authority waives permit coverage for storm water discharges from construction sites less than 5 acres in areas where the rainfall erosivity factor is less than 5, then the regulated small MS4 does not have to

include these sites in its storm water management program. Even if requirements for a discharge from a given construction site are waived by the NPDES permitting authority, however, the regulated small MS4 may still choose to control those discharges under the MS4's construction pollutant control program, particularly where such discharges may cause siltation problems in storm sewers. See Section II.I.1.b for more information on construction waivers by the permitting authority.

Some commenters suggested that the proposed construction minimum measure requirements went beyond the permit application requirements concerning construction for medium and large MS4s. In response, EPA has made changes to the proposed measure so that it more closely resembles the MS4 permit application requirements in existing regulations. For example, as described below, the Agency revised the proposed requirements for "pre-construction review of site management plans" to require "procedures for site plan review."

One commenter expressed concerns that addressing runoff from construction sites within urbanized areas (through the small MS4 program) differently from construction sites outside urbanized areas (which will not be covered by the small MS4 program) will encourage urban sprawl. Today's rule, together with the existing requirements, requires all construction greater than or equal to 1 acre, unless waived, to be covered by an NPDES permit whether it is located inside or outside of an urbanized area (see § 122.26(b)(15)). Today's rule does not require small MS4s to control runoff from construction sites more stringently or prescriptively than is required for construction site runoff outside urbanized areas. Therefore, today's rule imposes no substantively different onsite controls on runoff of storm water from construction sites in urbanized areas than from construction sites outside of urbanized areas.

One commenter recommended that the small MS4 construction site storm water runoff control program address all storm water runoff from construction sites, not just the runoff into the MS4. The commenter also believed that MS4s should provide clear, objective standards for all construction sites. EPA agrees. Because today's rule only regulates discharges from the MS4, the construction pollutant control measure only requires small MS4 operators to control runoff into its system. As a practical matter, however, EPA anticipates that MS4 operators will find that regulation of all construction site

runoff, whether they runoff into the MS4 or not, will prove to be the most simple and efficient program. The Agency may provide more specific criteria for construction site BMPs in the forthcoming rule being developed under CWA section 402(m). See section II.D.1 of today's rule.

One commenter stated that there is no need for penalties at the local level by the small MS4 because the CWA already imposes sufficient penalties to ensure compliance. EPA disagrees and believes that enforcement and compliance at the local level is both necessary and preferable. Examples of sanctions, some not available under the CWA, include non-monetary penalties, monetary fines, bonding requirements, and denial of future or other local permits.

One commenter recommended that EPA should not include the requirement to control pollutants other than sediment from construction sites in this measure. EPA disagrees with this comment. The requirement is to control waste that "may cause adverse impacts on water quality." Such wastes may include discarded building materials, concrete truck washout, chemicals, pesticides, herbicides, litter, and sanitary waste. These wastes, when exposed to and mobilized by storm water, can contribute to water quality impairment.

The proposed rule required "procedures for pre-construction review of site management plans." EPA requested comment on expanding this provision to require both review and approval of construction site storm water plans. Many commenters expressed the concern that review and approval of site plans is not only costly and time intensive, but may unnecessarily delay construction projects and unduly burden staff who administer the local program. In addition, some commenters expressed confusion whether EPA proposed pre-construction review for all site management plans or only higher priority sites. To address these comments, and be consistent with the permit application requirements for larger MS4s, EPA changed "procedures for pre-construction review of site management plans" to "procedures for site plan review." Today's rule requires the small MS4 to develop procedures for site plan review so as to incorporate consideration of adverse potential water quality impacts. Procedures should include review of site erosion and sediment control plans, preferably before construction activity begins on a site. The objective is for the small MS4 operator and the construction site operator to address storm water runoff

from construction activity early in the project design process so that potential consequences to the aquatic environment can be assessed and adverse water quality impacts can be minimized or eliminated.

One commenter requested that EPA delete the requirement for "procedures for receipt and consideration of information submitted by the public" because it went beyond existing storm water requirements. Another commenter stated that establishing a separate process to respond to public inquiries on a project is a burden to small communities, especially if the project has gone through an environmental review. One commenter requested clarification of this provision. EPA has retained this requirement in today's final rule to require some formality in the process for addressing public inquiries regarding storm water runoff from construction activities. EPA does not intend that small MS4s develop a separate, burdensome process to respond to every public inquiry. A small MS4 could, for example, simply log public complaints on existing storm water runoff problems from construction sites and pass that information on to local inspectors. The inspectors could then investigate complaints based on the severity of the violation and/or priority area.

One commenter believed that the proposed requirement of "regular inspections during construction" would require every construction project to be inspected more than once by the small MS4 during the term of a construction project. EPA has deleted the reference to "regular inspections." Instead, the small MS4 will be required to "develop procedures for site inspection and enforcement of control measures." Procedures could include steps to identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, and the characteristics of soils and receiving water quality.

In order to avoid duplication of small MS4 construction requirements with NPDES construction permit requirements, today's rule adds § 122.44(s) to recognize that the NPDES permitting authority can incorporate qualifying State, Tribal, or local erosion and sediment control requirements in NPDES permits for construction site discharges. For example, a construction site operator who complies with MS4 construction pollutant control programs that are referenced in the NPDES construction permit would satisfy the requirements of the NPDES permit. See section II.I.1.d for more information on incorporating qualifying programs by

reference into NPDES construction permits. This provision has no impact on, or direct relation to, the small MS4 operator's responsibilities under the construction site storm water runoff control minimum measure. Conversely, under § 122.35(b), the permitting authority may recognize in the MS4's permit that another governmental entity, or the permitting authority itself, is responsible for implementing one or more of the minimum measures (including construction site storm water runoff control), and not include this measure in the small MS4's permit. In this case, the other governmental entity's program must satisfy all of the requirements of the omitted measure.

*v. Post-Construction Storm Water Management in New Development and Redevelopment.* The NURP study and more recent investigations indicate that prior planning and designing for the minimization of pollutants in storm water discharges is the most cost-effective approach to storm water quality management. Reducing pollutant concentrations in storm water after the discharge enters a storm sewer system is often more expensive and less efficient than preventing or reducing pollutants at the source. Increased human activity associated with development often results in increased pollutant loading from storm water discharges. If potential adverse water quality impacts are considered from the beginning stages of a project, new development and redevelopment provides more opportunities for water quality protection. For example, minimization of impervious areas, maintenance or restoration of natural infiltration, wetland protection, use of vegetated drainage ways, and use of riparian buffers have been shown to reduce pollutant loadings in storm water runoff from developed areas. EPA encourages operators of regulated small MS4s to identify specific problem areas within their jurisdictions and initiate innovative solutions and designs to focus attention on those areas through local planning.

In today's rule at § 122.34(b)(5), NPDES permits issued to an operator of a regulated small MS4 will require the operator to develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. Specifically, the NPDES permit will require the operator of a regulated small MS4 to: (1) Develop and implement

strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the community; (2) use an ordinance, or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law; (3) ensure adequate long-term operation and maintenance of BMPs; and (4) ensure that controls are in place that would minimize water quality impacts. EPA intends the term "redevelopment" to refer to alterations of a property that change the "footprint" of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse storm water quality impacts and offer no new opportunity for storm water controls.

EPA received comments requesting guidance and clarification of the rule requirements. The scope of the comments ranged from general requests for more details on how MS4 operators should accomplish the four requirements listed above, to specific requests for information regarding transfer of ownership for structural controls, as well as ongoing responsibility for operation and maintenance. By the term "combination" of BMPs, EPA intends a combination of structural and/or non-structural BMPs. For this requirement, the term "combination" is meant to emphasize that multiple BMPs should be considered and adopted for use in the community. A single BMP generally cannot significantly reduce pollutant loads because pollutants come from many sources within a community. The BMPs chosen should: (1) Be appropriate for the local community; (2) minimize water quality impacts; and (3) attempt to maintain pre-development runoff conditions. In choosing appropriate BMPs, EPA encourages small MS4 operators to participate in locally-based watershed planning efforts which attempt to involve a diverse group of stakeholders. Each new development and redevelopment project should have a BMP component. If an approach is chosen that primarily focuses on regional or non-structural BMPs, however, then the BMPs may be located away from the actual development site (e.g., a regional water quality pond).

Non-structural BMPs are preventative actions that involve management and source controls such as: (1) Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas

such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; (2) policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure; (3) education programs for developers and the public about project designs that minimize water quality impacts; and (4) other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention. Detailed examples of non-structural BMPs follow.

Preserving open space may help to protect water quality as well as provide other benefits such as recharging groundwater supplies, detaining storm water, supporting wildlife and providing recreational opportunities. Although securing funding for open space acquisition may be difficult, various funding mechanisms have been used. New Jersey uses a portion of their State sales tax (voter approved for a ten year period) as a stable source of funding to finance the preservation of historic sites, open space and farmland. Colorado uses part of the proceeds from the State lottery to acquire and manage open space. Some local municipalities use a percentage of the local sales tax revenue to pay for open space acquisition (e.g., Jefferson County, CO has had an open space program in place since 1977 funded by a 0.50 percent sales tax). Open space can be acquired in the form of: fee simple purchase; easements; development rights; purchase and sellback or leaseback arrangements; purchase options; private land trusts; impact fees; and land dedication requirements. Generally, fee simple purchases provide the highest level of development control and certainty of preservation, whereas the other forms of acquisition may provide less control, though they would also generally be less costly.

Cluster development, while allowing housing densities comparable to conventional zoning practice, concentrates housing units in a portion of the total site area which provides for greater open space, recreation, stream protection and storm water control. This type of development, by reducing lot sizes, can protect sensitive areas and result in less impervious surface, as well

as reduce the cost for roads and other infrastructure.

Minimizing directly connected impervious areas (DCIAs) is a drainage strategy that seeks to reduce paved areas and directs storm water runoff to landscaped areas or to structural controls such as grass swales or buffer strips. This strategy can slow the rate of runoff, reduce runoff volumes, attenuate peak flows, and encourage filtering and infiltration of storm water. It can be made an integral part of drainage planning for any development (Urban Drainage and Flood Control District, Denver, CO. 1992. *Urban Storm Drainage Criteria Manual, Volume 3—Best Management Practices*). The Urban Drainage and Flood Control District manual describes three levels for minimizing DCIAs. At Level 1 all impervious surfaces are made to drain over grass-covered areas before reaching a storm water conveyance system. Level 2 adds to Level 1 and replaces street curb and gutter systems with low-velocity grass-lined swales and pervious street shoulders. In addition to Levels 1 and 2, Level 3 over-sizes swales and configures driveway and street crossing culverts to use grass-lined swales as elongated detention basins.

Structural BMPs include: (1) Storage practices such as wet ponds and extended-detention outlet structures; (2) filtration practices such as grassed swales, sand filters and filter strips; and (3) infiltration practices such as infiltration basins and infiltration trenches.

EPA recommends that small MS4 operators ensure the appropriate implementation of the structural BMPs by considering some or all of the following: (1) Pre-construction review of BMP designs; (2) inspections during construction to verify BMPs are built as designed; (3) post-construction inspection and maintenance of BMPs; and (4) sanctions to ensure compliance with design, construction or operation and maintenance (O&M) requirements of the program.

EPA cautions that certain infiltration systems such as dry wells, bored wells or tile drainage fields may be subject to Underground Injection Control (UIC) program requirements (see 40 CFR Part 144.12.). To find out more about these requirements, contact your state UIC Program, or call EPA's Safe Drinking Water Hotline at 1-800-426-4791.

In order to meet the third post-construction requirement (ensuring adequate long-term O&M of BMPs), EPA recommends that small MS4 operators evaluate various O&M management agreement options. The most common options are agreements between the

MS4 operator and another party such as post-development landowners (e.g., homeowners' associations, office park owners, other government departments or entities), or regional authorities (e.g., flood control districts, councils of government). These agreements typically require the post-construction property owner to be responsible for the O&M and may include conditions which: allow the MS4 operator to be reimbursed for O&M performed by the MS4 operator that is the responsibility of the property owner but is not performed; allow the MS4 operator to enter the property for inspection purposes; and in some cases specify that the property owner submit periodic reports.

In providing the guidance above, EPA intends the requirements in today's rule to be consistent with the permit application requirements for large MS4s for post-construction controls for new development and redevelopment. MS4 operators have significant flexibility both to develop this measure as appropriate to address local concerns, and to apply new control technologies as they become available. Storm water pollution control technologies are constantly being improved. EPA recommends that MS4s be responsive to these changes, developments or improvements in control technologies. EPA will provide more detailed guidance addressing the responsibility for long-term O&M of storm water controls in guidance materials. The guidance will also provide information on appropriate planning considerations, structural controls and non-structural controls. EPA also intends to develop a broad menu of BMPs as guidance to ensure flexibility to accommodate local conditions.

EPA received comments suggesting that requirements for new development be treated separately from redevelopment in the rule. The comment stressed that new development on raw land presents fewer obstacles and more opportunities to incorporate elements for preventing water quality impacts, whereas redevelopment projects are constrained by space limitations and existing infrastructure. Another comment suggested allowing waivers from the redevelopment requirements if the redevelopment does not result in additional adverse water quality impacts, and where BMPs are not technologically or economically feasible. EPA recognizes that redevelopment projects may have more site constraints which narrow the range of appropriate BMPs. Today's rule provides small MS4 operators with the

flexibility to develop requirements that may be different for redevelopment projects, and may also include allowances for alternate or off-site BMPs at certain redevelopment projects. Non-structural BMPs may be the most appropriate approach for smaller redevelopment projects.

EPA received comments requesting clarification on what is meant by "pre-development" conditions within the context of redevelopment. Pre-development refers to runoff conditions that exist onsite immediately before the planned development activities occur. Pre-development is not intended to be interpreted as that period before any human-induced land disturbance activity has occurred.

EPA received comments on the guidance language in the proposed rule and preamble which suggest that implementation of this measure should "attempt to maintain pre-development runoff conditions" and that "post-development conditions should not be different than pre-development conditions in a way that adversely affects water quality." Many comments expressed concern that maintaining pre-development runoff conditions is impossible and cost-prohibitive, and objected to any reference to "flow" or increase in volume of runoff. Other comments support the inclusion of this language in the final rule. Similar references in today's rule relating to pre-development runoff conditions are intended as *recommendations to attempt to maintain pre-development runoff conditions*. With these recommendations, EPA intends to prevent water quality impacts resulting from increased discharges of pollutants, which may result from increased volume of runoff. In many cases, consideration of the increased flow rate, velocity and energy of storm water discharges following development unavoidably must be taken into consideration in order to reduce the discharge of pollutants, to meet water quality standards and to prevent degradation of receiving streams. EPA recommends that municipalities consider these factors when developing their post-construction storm water management program.

Some comments said that the quoted phrases in the paragraph above are directives that imply federal land use control, which they argue is beyond the authority of the CWA. EPA recognizes that land use planning is within the authority of local governments.

EPA disagrees, however, with the implication that today's rule dictates any such land use decisions. The requirement for small MS4 operators to

develop a program to address discharges resulting from new development and redevelopment is essentially a pollution prevention measure. The Rule provides the MS4 operator with flexibility to determine the appropriate BMPs to address local water quality concerns. EPA recognizes that these program goals may not be applied to every site, and expects that MS4s will develop an appropriate combination of BMPs to be applied on a site-by-site, regional or watershed basis.

*vi. Pollution Prevention/Good Housekeeping for Municipal Operations.* Under today's final rule, operators of MS4s must develop and implement an operation and maintenance program ("program") that includes a training component and has the ultimate goal of preventing or reducing storm water from municipal operations (in addition to those that constitute storm water discharges associated with industrial activity). This measure's emphasis on proper O&M of MS4s and employee training, as opposed to requiring the MS4 to undertake major new activities, is meant to ensure that municipal activities are performed in the most efficient way to minimize contamination of storm water discharges.

The program must include government employee training that addresses prevention measures pertaining to municipal operations such as: parks, golf courses and open space maintenance; fleet maintenance; new construction or land disturbance; building oversight; planning; and storm water system maintenance. The program can use existing storm water pollution prevention training materials provided by the State, Tribe, EPA, or environmental, public interest, or trade organizations.

EPA also encourages operators of MS4s to consider the following in developing a program: (1) Implement maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from the separate storm sewers; (2) implement controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas operated by the MS4; (3) adopt procedures for the proper disposal of waste removed from the separate storm sewer systems and areas listed above in (2), including dredge

spoil, accumulated sediments, floatables, and other debris; and (4) adopt procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices. Ultimately, the effective performance of the program measure depends on the proper maintenance of the BMPs, both structural and non-structural. Without proper maintenance, BMP performance declines significantly over time. Additionally, BMP neglect may produce health and safety threats, such as structural failure leading to flooding, undesirable animal and insect breeding, and odors. Maintenance of structural BMPs could include: replacing upper levels of gravel; dredging of detention ponds; and repairing of retention basin outlet structure integrity. Maintenance of non-structural BMPs could include updating educational materials periodically.

EPA emphasizes that programs should identify and incorporate existing storm water practices and training, as well as non-storm water practices or programs that have storm water pollution prevention benefits, as a means to avoid duplication of efforts and reduce overall costs. EPA recommends that MS4s incorporate these new obligations into their existing programs to the greatest extent feasible and urges States to evaluate MS4 programs with programmatic efficiency in mind. EPA designed this minimum control measure as a modified version of the permit application requirements for medium and large MS4s described at 40 CFR 122.26(d)(2)(iv), in order to provide more flexibility for these smaller MS4s. Today's requirements provide for a consistent approach to control pollutants from O&M among medium, large, and regulated small MS4s.

By properly implementing a program, operators of MS4s serve as a model for the rest of the regulated community. Furthermore, the establishment of a long-term program could result in cost savings by minimizing possible damage to the system from floatables and other debris and, consequently, reducing the need for repairs.

EPA received comments requesting clarification of what this measure requires. Certain municipalities expressed concern that the measure has the potential to impose significant costs associated with EPA's requirement that operators of MS4s consider implementing controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, and salt/sand storage

locations and snow disposal areas operated by the municipality. EPA disagrees that a requirement to *consider* such controls will impose considerable costs.

One commenter objected to the preamble language from the proposal suggesting that EPA does not expect the MS4 to undertake new activity. While it remains the Agency's expectation that major new activity will not be required, the MEP process should drive MS4s to incorporate the measure's obligations into their existing programs to achieve the pollutant reductions to the maximum extent practicable.

Certain commenters requested a definition for "municipal operations." EPA has revised the language to more clearly define municipal operations. Questions may remain concerning whether discharges from specific municipal activities constitute discharges associated with industrial activities (requiring NPDES permit authorization according to the requirements for industrial storm water that apply in that State) or from municipal operations (subject only to the controls developed in the MS4 control program). Even though there may be different substantive requirements that apply depending on the source of the discharge, EPA has modified the deadlines for permit coverage so that all the regulated municipally owned and operated sources become subject to permit requirements on the same date. The deadline is the same for permit coverage for this minimum measure as for permit coverage for municipally owned/operated industrial sources.

#### c. Application Requirements

An NPDES permit that authorizes the discharge from a regulated small MS4 may take the form of either an individual permit issued to one or more facilities as co-permittees or a general permit that applies to a group of MS4s. For reasons of administrative efficiency and to reduce the paperwork burden on permittees, EPA expects that most discharges from regulated small MS4s will be authorized under general permits. These NPDES general permits will provide specific instructions on how to obtain coverage, including application requirements. Typically, such application requirements will be satisfied by the submission of a Notice of Intent (NOI) to be covered by the general permit. In this section, EPA explains the small MS4 operator's application requirements for obtaining coverage under a NPDES permit for storm water.

*i. Best Management Practices and Measurable Goals*, Section 122.34(d) of today's rule requires the operator of a regulated small MS4 that wishes to implement a program under § 122.34 to identify and submit to the NPDES permitting authority a list of the best management practices ("BMPs") that will be implemented for each minimum control measure in their storm water management program. They also must submit measurable goals for the development and implementation of each BMP. The BMPs and the measurable goals must be included either in an NOI to be covered under a general permit or in an individual permit application.

The operator's submission must identify, as appropriate, the months and years in which the operator will undertake actions required to implement each of the minimum control measures, including interim milestones and the frequency of periodic actions. The Agency revised references to "starting and completing" actions from the proposed rule because many actions will be repetitive or ongoing. The submission also must identify the person or persons responsible for implementing or coordinating the small MS4 storm water program. See § 122.34(d). The submitted BMPs and measurable goals become enforceable according to the terms of the permit. The first permit can allow the permittee up to five years to fully implement the storm water management program.

Several commenters opposed making the measurable goals enforceable permit conditions. Some suggested that a permittee should be able to change its goals so that BMPs that are not functioning as intended can be replaced. EPA agrees that a permittee should be free to switch its BMPs and corresponding goals to others that accomplish the minimum measure or measures. The permittee is required to implement BMPs that address the minimum measures in § 122.34(b). If the permittee determines that its original combination of BMPs are not adequate to achieve the objectives of the municipal program, the MS4 should revise its program to implement BMPs that are adequate and submit to the permitting authority a revised list of BMPs and measurable goals. EPA suggests that permits describe the process for revising BMPs and measurable goals, such as whether the permittee should follow the same procedures as were required for the submission of the original NOI and whether the permitting authority's approval is necessary prior to the permittee implementing the revised

BMPs. The permittee should indicate on its periodic report whether any BMPs and measurable goals have been revised since the last periodic report.

Some commenters expressed concern that making the measurable goals enforceable would encourage the development of easily attained goals and, conversely, discourage the setting of ambitious goals. Others noted that it is often difficult to determine the pollutant reduction that can be achieved by BMPs until several years after implementation. Much of the opposition to the enforceability of measurable goals appears to have been based on a mistaken understanding that measurable goals must consist of pollutant reduction targets to be achieved by the corresponding BMPs.

Today's rule requires the operator to submit either measurable goals that serve as BMP design objectives or goals that quantify the progress of implementation of the actions or performance of the permittee's BMPs. At a minimum, the required measurable goals should describe specific actions taken by the permittee to implement each BMP and the frequency and the dates for such actions. Although the operator may choose to do so, it is not required to submit goals that measure whether a BMP or combination of BMPs is effective in achieving a specific result in terms of storm water discharge quality. For example, a measurable goal might involve a commitment to inspect a given number of drainage areas of the collection system for illicit connections by a certain date. The measurable goal need not commit to achieving a specific amount of pollutant reduction through the elimination of illicit connections. Other measurable goals could include the date by which public education materials would be developed, a certain percentage of the community participating in a clean-up campaign, the development of a mechanism to address construction site runoff, and a reduction in the percentage of imperviousness associated with new development projects.

To reduce the risk that permittees will develop inadequate BMPs, EPA intends to develop a menu of BMPs to assist the operators of regulated small MS4s with the development of municipal programs. States may also develop a menu of BMPs. Today's rule provides that the measurable goals that demonstrate compliance with the minimum control measures in §§ 122.34(b)(3) through (b)(6) do not have to be met if the State or EPA has not issued a menu of BMPs at the time the MS4 submits its NOI. Commenters pointed out that the proposed rule would have

made the measurable goals unenforceable if the menu of BMPs was not available, but the proposal was silent as to the enforceability of the implementation of BMPs. Today's rule clarifies that the operators are not free to do nothing prior to the issuance of a menu of BMPs; they still must make a good faith effort to implement the BMPs designed to comply with each measure. See § 122.34(d)(2). The operators would not, however, be liable for failure to meet its measurable goals if a menu of BMPs was not available at the time they submit their NOI.

The proposed rule provision in § 123.35 stated that the "[f]ailure to issue the menu of BMPs would not affect the legal status of the general permit." This concept is included in the final rule in § 122.34(d)(2)'s clarification that the permittee still must comply with other requirements of the general permit.

Unlike the proposed rule, today's rule does not require that each BMP in the menu developed by the State or EPA be regionally appropriate, cost-effective and field-tested. Various commenters criticized those criteria as unworkable, and one described them as "ripe for ambiguity and abuse." Other commenters feared that the operators of regulated small MS4s would never be required to achieve their goals until menus were developed that were cost-effective, field-tested and appropriate for every conceivable subregion.

While some municipal commenters supported the requirement that a menu of BMPs be made available that included BMPs that had been determined to be regionally appropriate, field-tested and cost-effective, others raised concerns that they would be restricted to a limited menu. Some commenters supported such a detailed menu because they thought they would only be able to select BMPs that were on the menu, while others thought that it was the permitting authority's responsibility to develop BMPs narrowly tailored to their situation. In response, EPA notes that the operators will not be restricted to implementing only, or all of, the BMPs included on the menu. Since the menu does not require permittees to implement the BMPs included on the menu, it is also not necessary to apply the public notice and other procedures that some commenters thought should be applied to the development of the menu of BMPs.

The purpose of the BMP menu is to provide guidance to assist the operators of regulated small MS4s with the development and refinement of their local program, not to limit their options. Permittees may implement BMPs other

than those on the menu unless a State restricts its permittees to specific BMPs. To the extent possible, EPA will develop a menu of BMPs that describes the appropriateness of BMPs to specific regions, whether the BMPs have been field-tested, and their approximate costs. The menu, however, is not intended to relieve permittees of the need to implement BMPs that are appropriate for their specific circumstances.

If there are no known relevant BMPs for a specific circumstance, a permittee has the option of developing and implementing pilot BMPs that may be better suited to their circumstances. Where BMPs are experimental, the permittee should consider committing to measurable goals that address its schedule for implementing its selected BMPs rather than goals of achieving specific pollutant reductions. If the BMPs implemented by the permittee do not achieve the desired objective, the permittee may be required to commit to different or revised BMPs.

As stated in § 123.35(g), EPA is committed to issuing a menu of BMPs prior to the deadline for the issuance of permits. This menu would serve as guidance for all operators of regulated small MS4s nationwide. After developing the initial menu of BMPs, EPA intends to periodically modify, update, and supplement the menu of BMPs based on the assessments of the MS4 storm water program and research. States may rely on EPA's menu of BMPs or issue their own. If States develop their own menus, they would constitute additional guidance (or perhaps requirements in some States) for the operators to follow. Several commenters were confused by the proposed rule language that stated that States must provide or issue a menu of BMPs and, if they fail to do so, EPA "may" do so. Some read this language as not requiring either EPA or the State to develop the menu. EPA had intended that it would develop a menu and that States could either provide the EPA developed menu or one developed by the State.

EPA has dropped the proposed language that States "must" develop the menu of BMPs. Some commenters thought that it was inappropriate to require States to issue guidance. A menu of BMPs issued by either EPA or a permittee's State will satisfy the condition in § 122.34(d) that a regulatory authority provide a menu of BMPs. A State could require its permittees to follow its menu of BMPs provided that they are adequate to implement § 122.34(b).

Several commenters raised concerns that operators of small MS4s could be



required to submit their BMPs and measurable goals before EPA or the State has issued a menu of BMPs. EPA has assumed primary responsibility for developing a menu of BMPs to minimize the possibility of this occurring. Should a general permit be issued before a menu of BMPs is available, the permit writer would have the option of delaying the date by which the identification of the BMPs and measurable goals must be submitted to the permitting authority until some time after a menu of BMPs is available.

Several municipal commenters raised concerns that they would begin to develop a program only to be later told by the permitting authority or challenged in a citizen suit that their BMPs were inadequate. They expressed a need for certainty regarding what their permit required. Several commenters suggested that EPA require permitting authorities to approve or disapprove the submitted BMPs and measurable goals. EPA disagrees that formal approval or disapproval by the permitting authority is needed.

EPA acknowledges that the lack of a formal approval process does place on the permittee some responsibility for designing and determining the adequacy of its BMPs. Once the permittee has submitted its BMPs to the permitting authority as part of its NOI, it must implement them in order to achieve the corresponding measurable goals. EPA does not believe that this results in the uncertainty to the extent expressed by some commenters or unduly expose the permittee to the risk of citizen suit. If the permit is very specific regarding what the permittee must do, then the uncertainty is eliminated. If the permit is less prescriptive, the permittee has greater latitude in determining for itself what constitutes an adequate program. A citizen suit could impose liability on the permittee only if the program that it develops and implements clearly does not satisfy the requirements of the general permit. EPA believes today's approach strikes a balance between the competing goals of providing certainty as to what constitutes an adequate program and providing flexibility to the permittees.

Commenters were divided on whether five years was a reasonable and expeditious schedule for a MS4 to implement its program. Some thought that it was an appropriate amount of time to allow for the development and implementation of adequate programs. One questioned whether the permittee had to be implementing all of its program within that time, and suggested that there may be cases where a permitting authority would need

flexibility to allow more time. One commenter suggested that five years is too long and would amount to a relaxation of implementation in their area. EPA believes it will take considerable time to complete the tasks of initially developing a program, commencing to implement it, and achieving results. EPA notes, however, that full implementation of an appropriate program must occur as expeditiously as possible, and not later than five years.

EPA solicited comment on how an NOI form might best be formatted to allow for measurable goal information (e.g., through the use of check boxes or narrative descriptions) while taking into account the Agency's intention to facilitate computer tracking. All commenters supported the development of a checklist NOI, but most noted that there would need to be room for additional information to cover unusual situations. One noted that, while a summary of measurable goals might be reduced to one sheet, attachments that more fully described the program and the planned BMPs would be necessary. EPA agrees that in most cases a "checklist" will not be able to capture the information on what BMPs a permittee intends to implement and its measurable goals for their implementation. EPA will continue to consider whether to develop a model NOI form and make it available for permitting authorities that choose to use it. What will be required on an MS4's NOI, however, is more extensive than what is usually required on an NOI, so a "form" NOI for MS4s may be impractical.

*ii. Individual Permit Application for a § 122.34(b) program.* In some cases, an operator of a regulated small MS4s may seek coverage under an individual NPDES permit, either because it chooses to do so or because the NPDES permitting authority has not made the general permit option available to that source. For small MS4s that are to implement a § 122.34(b) program in today's rule, EPA is promulgating simplified individual permit application requirements at § 122.33(b)(2)(i). Under the simplified individual permit application requirements, the operator submits an application to the NPDES permitting authority that includes the information required under § 122.21(f) and an estimate of square mileage served by the small MS4. They are also required to supply the BMP and measurable goal information required under § 122.34(d). Consistent with CWA section 308 and analogous State law, the permitting authority could request any additional information to gain a better

understanding of the system and the areas draining into the system.

Commenters suggested that the requirements of § 122.21(f) are not necessarily applicable to a small MS4. One suggested that it was not appropriate to require the following information: a description of the activities conducted by the applicant which require it to obtain an NPDES permit; the name, mailing address, and location of the facility; and up to four Standard Industrial Classification ("SIC") codes which best reflect the principal products or services provided by the facility. In response, EPA notes that the requirements in § 122.21(f) are generic application requirements applicable to NPDES applicants. With the exception of the SIC code requirement, EPA believes that they are applicable to MS4s. In the SIC code portion of the standard application, the applicant may simply put "not applicable."

One commenter asked that EPA clarify whether § 122.21(f)(5)'s requirement to indicate "whether the facility is located on Indian lands," referred to tribal lands, Indian country, or Indian reservations. For some local governments this is a complex issue with no easy "yes" or "no" answer. See the discussion in the Section II.F in the proposal to today's rule regarding what tribal lands are subject to the federal trust responsibility for purposes of the NPDES program.

One commenter suggested that the application should not have to list the permits and approvals required under § 122.21(f)(6). EPA notes that the applicant must only list the environmental permits that the applicant has received that cover the small MS4. The applicant is not required to list permits for other operations conducted by the small MS4 operator (e.g., for an operation of an airport or landfill). Again, in most cases the applicant could respond "not applicable" to this portion of the application.

One commenter suggested that the topographic map requirement of § 122.21(f)(7) was completely different from, and significantly more onerous than, the mapping requirement outlined in the proposed rule at § 122.34(b)(3)(i). EPA agrees and has modified the final rule to clarify that a map that satisfies the requirements of § 122.34(b)(3)(i) also satisfies the map requirements for MS4 applicants seeking individual permits under § 122.33(b)(2)(i).

EPA is adding a new paragraph to § 122.44(k) to clarify that requirements to implement BMPs developed pursuant to CWA 402(p) are appropriate permit

conditions. While such conditions could be included under the existing provision in § 122.44(k)(3) for “practices reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA,” EPA believes it is clearer to specifically list in § 122.44(k) BMPs that implement storm water programs in light of the frequency with which they are used as effluent limitations.

*iii. Alternative Permit Options/Tenth Amendment.* As an alternative to implementing a program that addresses each of the six minimum measures according to the requirements of § 122.34(b), today’s rule provides the operators of regulated small MS4s with the option of applying for an individual permit under existing § 122.26(d). See § 122.33(b)(2)(ii). If a system operator does not want to be held accountable for implementation of each of the minimum measures, an individual permit option under § 122.33(b)(2)(ii) remains available. (As explained in the next section of this preamble, § 122.35(b) also provides an opportunity for relief from permit obligations for some of the minimum measures, but that relief exists within the framework of the minimum measures.)

EPA originally drafted the individual permit application requirements in § 122.26(d) to apply to medium and large MS4s. Today’s rule abbreviates the individual permit application requirements for small MS4s. Although EPA believes that the storm water management program requirements of § 122.34, including the minimum measures, provide the most appropriate means to control pollutants from most small MS4s, the Agency does recognize that the operators of some small MS4s may prefer more individualized permit requirements. Among other possible reasons, an operator may seek to avoid having to “regulate” third parties discharging into the separate storm sewer system. Alternatively, an operator may determine that structural controls, such as constructed wetlands, are more appropriate or effective to address the discharges that would otherwise be addressed under the construction and/or development/redevelopment measures.

Some MS4s commenters alleged that an absolute requirement to implement the minimum measures violates the Tenth Amendment to the U.S. Constitution. While EPA disagrees that requiring MS4s to implement the minimum measures would violate the Constitution, today’s rule does provide small MS4s with the option of developing more individualized measures to reduce the pollutants and

pollution associated with urban storm water that will be regulated under today’s rule.

Some commenters specifically objected that § 122.34’s minimum measures for small MS4s violate the Tenth Amendment insofar as they require the operators of MS4s to regulate third parties. The minimum measures include requirements for small MS4 operators to prohibit certain non-storm water discharges, control storm water discharges from construction greater than one acre, and take other actions to control third party sources of storm water discharges into their MS4s. Commenters also argued that it was inappropriate for EPA to require local governments to enact ordinances that will consume local revenues and put local governments in the position of bearing the political responsibility for implementing the program. One commenter argued that EPA was prohibited from conditioning the issuance of an NPDES permit upon the small MS4 operators waiving their constitutional right to be free from such requirements to regulate third parties. The Agency replies to each comment in turn.

Because the rule does rely on local governments—who operate municipal separate storm sewer systems—to regulate discharges from third parties into storm sewers, EPA acknowledges that the rule implicates the Tenth Amendment and constitutional principles of federalism. EPA disagrees, however, that today’s rule is inconsistent with federalism principles. [As political subdivisions of States, municipalities enjoy the same protections as States under the Tenth Amendment.]

The Supreme Court has interpreted the Tenth Amendment to preclude federal actions that compel States or their political subdivisions to enact or administer a federal regulatory program. See *New York v. United States*, 505 U.S. 144 (1992); *Printz v. United States*, 117 S.Ct. 2365 (1997). The *Printz* case, however, did acknowledge that the restriction does not apply when federal requirements of general applicability—requirements that regulate all parties engaging in a particular activity—do not excessively interfere with the functioning of State governments when those requirements are applied to States (or their political subdivisions). See *Printz*, 117 S.Ct. at 2383.

Today’s rule imposes a federal requirement of general applicability, namely, the requirement to obtain and comply with an NPDES permit, on municipalities that operate a municipal separate storm sewer system. By virtue

of this rule, the permit will require the municipality/storm sewer operator to develop a storm water control program. The rule specifies the components of the control program, which are primarily “management”-type controls, for example, municipal regulation of third party storm water discharges associated with construction, as well as development and redevelopment, when those discharges would enter the municipal system.

Unlike the circumstances reviewed in the *New York* and *Printz* cases, today’s rule merely applies a generally applicable requirement (the CWA permit requirement) to municipal point sources. The CWA establishes a generally applicable requirement to obtain an NPDES permit to authorize point source discharge to waters of the United States. Because municipalities own and operate separate storm sewers, including storm sewers into which third parties may discharge pollutants, NPDES permits may require municipalities to control the discharge of pollutants into the storm sewers in the first instance. Because NPDES permits can impose end-of-pipe numeric effluent limits, narrative effluent limits in the form of “management” program requirements are also within the scope of Clean Water Act authority. As noted above, however, EPA believes that such narrative limitations are the most appropriate form of effluent limitation for these types of permits. For municipal separate storm sewer permits, CWA section 402(p)(3)(B)(iii) specifically authorizes “controls to reduce pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

The Agency did not design the minimum measures in § 122.34 to “commandeer” state regulatory mechanisms, but rather to reduce pollutant discharges from small MS4s. The permit requirement in CWA section 402 is a requirement of general applicability. The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts “title” for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties. Section 122.34 requires the operator of a regulated small MS4 to control a third

party only to the extent that the MS4 collection system receives pollutants from that third party and discharges it to the waters of the United States. The operators of regulated small MS4s cannot passively receive and discharge pollutants from third parties. The Agency concedes that administration of a municipal program will consume limited local revenues for implementation; but those consequences stem from the municipal operator's identity as a permitted sewer system operator. The Tenth Amendment does not create a blanket municipal immunity from generally applicable requirements. Development of a program based on the minimum measures and implementation of that program should not "excessively interfere" with the functioning of municipal government, especially given the "practicability" threshold under CWA section 402(p)(3)(B)(iii).

As noted above, today's rule also allows regulated small MS4s to opt out of the minimum measures approach. The individual permit option provides for greater flexibility in program implementation and also responds to the comment about requiring a municipal permit applicant's waiver of any arguable constitutional rights. The individual permit option responds to questions about the rule's alleged unconstitutionality by more specifically focusing on the pollutants discharged from municipal point sources. Today's rule gives operators of MS4s the option to seek an individual permit that varies from the minimum measures/management approach that is otherwise specified in today's rule. Even if the minimum measures approach was constitutionally suspect, a requirement that standing alone would violate constitutional principles of federalism does not raise concerns if the entity subject to the requirement may opt for an alternative action that does not raise a federalism issue.

For municipal system operators who seek to avoid third party regulation according to all or some of the minimum measures, § 122.26(d) requires the operator to submit a narrative description of its storm water sewer system and any existing storm water control program, as well as the monitoring data to enable the permit writer to develop appropriate permit conditions. The permit writer can then develop permit conditions and limitations that vary from the six minimum measures prescribed in today's rule. The information will enable the permit writer to develop an NPDES permit that will result in pollutant reduction to the maximum

extent practicable. *See NRDC v. EPA*, 966 F.2d at 1308, n17. If determined appropriate under CWA section 402(p)(3)(B)(iii), for example BMPs to meet water quality standards, the permit could also incorporate any more stringent or prescriptive effluent limits based on the individual permit application information.

For small MS4 operators seeking an individual permit, both Part 1 and Part 2 of the application requirements in § 122.26(d)(1) and (2) are required to be submitted within 3 years and 90 days of the date of publication of this **Federal Register** notice. Some of the information required in Part 1 will necessarily have to be developed by the permit applicant prior to the development of Part 2 of the application. The permit applicant should coordinate with its permitting authority regarding the timing of review of the information.

The operators of regulated small MS4s that apply under § 122.26(d) may apply to implement certain of the § 122.34(b) minimum control measures, and thereby focus the necessary evaluation for additional limitations on alternative controls to the § 122.34(b) measures that the small MS4 will not implement. The permit writer may determine "equivalency" for some or all of the minimum measures by developing a rough estimate of the pollutant reduction that would be achieved if the MS4 implemented the § 122.34 minimum measure and to incorporate that pollutant reduction estimate in the small MS4's individual permit as an effluent limitation. The Agency recognizes that, based on current information, any such estimates will probably have a wide range.

Anticipation of this wide range is one of the reasons EPA believes MS4 operators need flexibility in determining the mix of BMPs (under the minimum measures) to achieve water quality objectives. Therefore, for example, if a system operator seeks to employ an alternative that involves structural controls, wide ranges will probably be associated with gross pollutant reduction estimates. Permit writers will undoubtedly develop other ways to ensure that permit limits ensure reduction of pollutants to the maximum extent practicable.

Small MS4 operators that pursue this individual permit option do not need to submit details about their future program requirements (e.g., the MS4's future plans to obtain legal authority required by §§ 122.26(d)(1)(ii) and (d)(2)). A small MS4 operator might elect to supply such information if it intends for the permit writer to take those plans into account when

developing the small MS4's permit conditions.

Several operators of small MS4s commented that they currently lacked the authority they would need to implement one or more of the minimum measures in § 122.34(b). Today's rule recognizes that the operators of some small MS4s might not have the authority under State law to implement one or more of the measures using, for example, an ordinance or other regulatory mechanism. To address these situations, each minimum measure in § 122.34(b) that would require the small MS4 operator to develop an ordinance or other regulatory mechanism states that the operator is only required to implement that requirement to "the extent allowable under State, Tribal or local law." See § 122.34(b)(3)(ii) (illicit discharge elimination), § 122.34(b)(4)(ii) (construction runoff control) and § 122.34(b)(5)(ii) (post-construction storm water management). This regulatory language does not mean that a operator of a small MS4 with ordinance making authority can simply fail to pass an ordinance necessary for a § 122.34(b) program. The reference to "the extent allowable under \* \* \* local law" refers to the local laws of *other* political subdivisions to which the MS4 operator is subject. Rather, a small MS4 operator that seeks to implement a program under section § 122.34(b) may omit a requirement to develop an ordinance or other regulatory mechanism only to the extent its municipal charter, State constitution or other legal authority prevents the operator from exercising the necessary authority. Where the operator cannot obtain the authority to implement any activity that is only required to "the extent allowable under State, Tribal or local law," the operator may satisfy today's rule by administering the remaining § 122.34(b) requirements.

Finally, although today's rule provides operators of small MS4s with an option of applying for a permit under § 122.26(d), States authorized to administer the NPDES program are not required to provide this option. NPDES-authorized States could require all regulated small MS4s to be permitted under the minimum measures management approach in § 122.34 as a matter of State law. Such an approach would be deemed to be equally or more stringent than what is required by today's rule. *See* 40 CFR 123.2(i). The federalism concerns discussed above do not apply to requirements imposed by a State on its political subdivisions.

*iv. Satisfaction of Minimum Measure Obligations by Another Entity.* An operator of a regulated small MS4 may

satisfy the requirement to implement one or more of the six minimum measures in § 122.34(b) by having a third party implement the measure or measures. Today's rule provides a variety of means for small MS4 operators to share responsibility for different aspects of their storm water management program. The means by which the operators of various MS4s share responsibility may affect who is ultimately responsible for performance of the minimum measure and who files the periodic reports on the implementation of the minimum measure. Section 122.35 addresses these issues. The rule describes two different variants on third party implementation with different consequences if the third party fails to implement the measure.

If the permit covering the discharge from a regulated small MS4 identifies the operator as the entity responsible for a particular minimum control measure, then the operator-permittee remains responsible for the implementation of that measure even if another entity has agreed to implement the control measure. Section 122.35(a). Another party may satisfy the operator-permittee's responsibility by implementing the minimum control measure in a manner at least as stringent or prescriptive as the corresponding NPDES permit requirement. If the third party fails to do so, the operator-permittee remains responsible for its performance. The operator of the MS4 should consider entering into an agreement with the third party that acknowledges the responsibility to implement the minimum measure. The operator-permittee's NOI and its annual § 122.34(f)(3) reports submitted to the NPDES permitting authority must identify the third party that is satisfying one or more of the permit obligations. This requirement ensures that the permitting authority is aware which entity is supposed to implement which minimum measures.

If, on the other hand, the regulated small MS4's permit recognizes that an NPDES permittee other than the operator-permittee is responsible for a particular minimum control measure, then the operator-permittee is relieved from the responsibility for implementing that measure. The operator-permittee is also relieved from the responsibility for implementing any measure that the operator's permit indicates will be performed by the NPDES permitting authority. Section 122.35(b). The MS4 operator-permittee would be responsible for implementing the remaining minimum measures.

Today's final rule differs from the proposed version of § 122.35(b), which

stated that, even if the third party's responsibility is recognized in the permit, the MS4 operator-permittee remained responsible for performance if the third party failed to perform the measure consistent with § 122.34(b). Under today's rule, the operator-permittee is relieved from responsibility for performance of a measure if the third party is an NPDES permittee whose permit makes it responsible for performance of the measure (including, for example, a State agency other than the State agency that issues NPDES permits) or if the third party is the NPDES permitting authority itself. Because the permitting authority is acknowledging the third party's responsibility in the permit, commenters thought that the MS4 operator-permittee should not be responsible for ensuring that the other entity is implementing the control measure properly. EPA agrees that the operator-permittee should not be conditionally responsible when the requirements are enforceable against some other NPDES permittee. If the third party fails to perform the minimum measure, the requirements will be enforceable against the third party. In addition, the NPDES permitting authority could reopen the operator-permittee's permit under § 122.62 and modify the permit to make the operator responsible for implementing the measure. A new paragraph has been added to § 122.62 to clarify that the permit may be reopened in such circumstances.

Today's rule also provides that the operator-permittee is not conditionally responsible where it is the State NPDES permitting authority itself that fails to implement the measure. The permitting authority does not need to issue a permit to itself (i.e., to the same State agency that issues the permit) for the sole purpose of relieving the small MS4 from responsibility in the event the State agency does not satisfy its obligation to implement a measure. EPA does not believe that the small MS4 should be responsible in the situation where the NPDES permit issued to the small MS4 operator recognizes that the State agency that issues the permit is responsible for implementing a measure. If the State does fail to implement the measure, the State agency could be held accountable for its commitment in the permit to implement the measure. Where the State does not fulfill its responsibility to implement a measure, a citizen also could petition for withdrawal of the State's NPDES program or it could petition to have the MS4's permit reopened to require the

MS4 operator to implement the measure.

EPA notes that not every State program that addresses erosion and sediment control from construction sites will be adequate to satisfy the requirement that each regulated small MS4 have a program to the extent required by § 122.34(b)(4). For example, although all NPDES States are required to issue NPDES permits for construction activity that disturbs greater than one acre, the State's NPDES permit program will not necessarily be extensive enough to satisfy a regulated small MS4's obligation under § 122.34(b)(4). NPDES States will not necessarily be implementing all of the required elements of that minimum measure, such as procedures for site plan review in each jurisdiction required to develop a program and procedures for receipt and consideration of information submitted by the public on individual construction sites. In order for a State erosion and sediment control program to satisfy a small MS4 operator's obligation to implement § 122.34(b)(4), the State program would have to include all of the elements of that minimum measure.

Where the operator-permittee is itself performing one or more of the minimum measures, the operator-permittee remains responsible for all of the reporting requirements under § 122.34(f)(3). The operator-permittee's reports should identify each entity that is performing the control measures within the geographic jurisdiction of the regulated small MS4. If the other entity also operates a regulated MS4 and files reports on the progress of implementation of the measures within the geographic jurisdiction of the MS4, then the operator-permittee need not include that same information in its own reports.

If the other entity operates a regulated MS4 and is performing all of the minimum measures for the permittee, the permittee is not required to file the reports required by § 122.34(f)(3). This relief from reporting is specified in § 122.35(a).

Section 122.35 addresses the concerns of some commenters who sought relief for governmental facilities that are classified as small MS4s under today's rule. These facilities frequently discharge storm water through another regulated MS4 and could be regulated by that MS4's program. For example, a State owned office complex that operates its storm sewer system in an urbanized area will be regulated as an MS4 under today's rule even though its system may be subject to the storm water controls of the municipality in

which it is located. Today's rule specifically revised the definition of MS4 to recognize that different levels of government often operate MS4s and that each such separate entity (including the federal government) should be responsible for its discharges. If both MS4s agree, the downstream MS4 can develop a storm water management program that regulates the discharge from both MS4s. The upstream small MS4 operator still must submit an NOI that identifies the entity on which the upstream small MS4 operator is relying to satisfy its permit obligations. No reports are required from the upstream small MS4 operator, but the upstream operator must remain in compliance with the downstream MS4 operator's storm water management program. This option allows small MS4s to work together to develop one storm water management program that satisfies the permit obligations of both. If they cannot agree, the upstream small MS4 operator must develop its own program.

As mentioned previously, comments from federal facilities and State organizations that operate MS4s requested that their permit requirements differ from those of MS4s that are political subdivisions of States (cities, towns, counties, etc.). EPA acknowledges that there are differences; e.g., many federal and State facilities do not serve a resident population and thus might require a different approach to public education. EPA believes, however, that MS4s owned by State and federal governments can develop storm water management plans that address the minimum measures. Federal and State owned small MS4s may choose to work with adjacent municipally owned MS4s to develop a unified plan that addresses all of the required measures within the jurisdiction of all of the contiguous MS4s. The options in § 122.35 minimize the burden on small MS4s that are covered by another MS4's program.

One commenter recommended that if one MS4 discharges into a second MS4, the operator of the upstream MS4 should have to provide a copy of its NOI or permit application to the operator of the receiving MS4. EPA did not adopt this recommendation because the NOI and permit application will be publicly available; but EPA does recommend that NPDES permitting authorities consider it as a possible permit requirement. The commenter also suggested that monitoring data should be collected by the upstream MS4 and provided to the downstream MS4. EPA is not adopting such a uniform monitoring requirement because EPA believes it is more appropriate to let the MS4 operators

work out the need for such data. If necessary, the downstream MS4s might want to make such data a condition to allowing the upstream MS4 to connect to its system.

*v. Joint Permit Programs.* Many commenters supported allowing the operators of small MS4s to apply as co-permittees so they each would not have to develop their own storm water management program. Today's rule specifically allows regulated small MS4s to join with either other small MS4s regulated under § 122.34(d) or with medium and large MS4s regulated under § 122.26(d).

As is discussed in the previous section, regulated small MS4s may indicate in their NOIs that another entity is performing one or more of its required minimum control measures. Today's rule under § 122.33(b)(1) also specifically allows the operators of regulated small MS4s to jointly submit an NOI. The joint NOI must clearly indicate which entity is required to implement which control measure in each geographic jurisdiction within the service area of the entire small MS4. The operator of each regulated small MS4 remains responsible for the implementation of each minimum measure for its MS4 (unless, as is discussed in the previous section above, the permit recognizes that another entity is responsible for completing the measure.) The joint NOI, therefore, is legally equivalent to each entity submitting its own NOI. EPA is, however, revising the rule language to specifically authorize the joint submission of NOIs in response to comments that suggested that such explicit authorization might encourage programs to be coordinated on a watershed basis.

Section 122.33(b)(2)(iii) authorizes regulated small MS4s to jointly apply for an individual permit to implement today's rule, where allowed by an NPDES permitting authority. The permit application should contain sufficient information to allow the permitting authority to allocate responsibility among the parties under one of the two permitting options in §§ 122.33(b)(2)(i) and (ii).

Section 122.33(b)(3) of today's rule also allows an operator of a regulated small MS4 to join as a co-permittee in an existing NPDES permit issued to an adjoining medium or large MS4 or source designated under the existing storm water program. This co-permittee option applies only with the agreement of all co-permittees. Under this co-permittee arrangement, the operator of the regulated small MS4 must comply with the terms and conditions of the

applicable permit rather than the permit condition requirements of § 122.34 of today's rule. The regulated small MS4 that wishes to be a co-permittee must comply with the applicable requirements of § 122.26(d), but would not be required to fulfill all the permit application requirements applicable to medium and large MS4s. Specifically, the regulated small MS4 is not required to comply with the application requirements of § 122.26(d)(1)(iii) (Part 1 source identification), § 122.26(d)(1)(iv) (Part 1 discharge characterization), and § 122.26(d)(2)(iii) (Part 2 discharge characterization data). Furthermore, the regulated small MS4 operator could satisfy the requirements in § 122.26(d)(1)(v) (Part 1 management programs) and § 122.26(d)(2)(iv) (Part 2 proposed management program) by referring to the adjoining MS4 operator's existing plan. An operator pursuing this option must describe in the permit modification request how the adjoining MS4's storm water program addresses or needs to be supplemented in order to adequately address discharges from the MS4. The request must also explain the role of the small MS4 operator in coordinating local storm water activities and describe the resources available to accomplish the storm water management plan.

EPA sought comments regarding the appropriateness of the application requirements in these subsections of § 122.26(d). One commenter stated that newly regulated smaller MS4s should not be required to meet the existing regulations' Part II application requirements under § 122.26(d) regarding the control of storm water discharges from industrial activity. EPA disagrees. The smaller MS4 operators designated for regulation in today's rule may satisfy this requirement by referencing the legal authority of the already regulated MS4 program to the extent the newly regulated MS4 will rely on such legal authority to satisfy its permit requirements. If the smaller MS4 operator plans to rely on its own legal authorities, it must identify it in the application. If the smaller MS4 operator does not elect to use its own legal authority, they may file an individual permit application for an alternate program under § 122.33(b)(2)(ii).

The explanatory language in § 122.33(b)(3) recommends that the smaller MS4s designated under today's rule identify how an existing plan "would need to be supplemented in order to adequately address your discharges." One commenter suggested that this must be regulatory language and not guidance. EPA disagrees that this needs to be mandatory language.

Since many of the smaller MS4s designated today are “donut holes” within the geographic jurisdiction of an already regulated MS4, the larger MS4’s program generally will be adequate to address the newly regulated MS4’s discharges. The small MS4 applicant should consider the adequacy of the existing MS4’s program to address the smaller MS4’s water quality needs, but EPA is not imposing specific requirements. Where circumstances suggest that the existing program is inadequate with respect to the newly designated MS4 and the applicant does not address the issue, the NPDES permitting authority must require that the existing program be supplemented.

Commenters recommended that the application deadline for smaller MS4s designated today be extended so that existing regulated MS4s would not have to modify their permit in the middle of their permit term, provided that permit renewal would occur within a reasonable time (12 to 18 months) of the deadline. In response, EPA notes that today’s rule allows operators of newly designated small MS4s up to three years and 90 days from the promulgation of today’s rule to submit an application to be covered under the permit issued to an already regulated MS4. The permitting authority has a reasonable time after receipt of the application to modify the existing permit to include the newly designated source. If an existing MS4’s permit is up for renewal in the near future, the operator of a newly designated small MS4 may take that into account when timing its application and the NPDES permitting authority may take that into account when processing the application.

Another commenter suggested that the rule should include a provision to allow permit application requirements for smaller MS4s designated today to be determined by the permitting authority to account for the particular needs/wants of an already regulated MS4 operator. EPA does not believe that the regulations should specifically require this approach. When negotiating whether to include a newly designated MS4 in its program, the already regulated MS4 operator may require the newly designated MS4’s operator to provide any information that is necessary.

The co-permitting approach allows small MS4s to take advantage of existing programs to ease the burden of creating their own programs. The operators of regulated small MS4s, however, may find it simpler to apply for a program under today’s rule, and to identify the medium or large MS4 operator that is

implementing portions of its § 122.34(b) minimum measures.

#### d. Evaluation and Assessment

Under today’s rule, operators of regulated small MS4s are required to evaluate the appropriateness of their identified BMPs and progress toward achieving their identified measurable goals. The purpose of this evaluation is to determine whether or not the MS4 is meeting the requirements of the minimum control measures. The NPDES permitting authority is responsible for determining whether and what types of monitoring needs to be conducted and may require monitoring in accordance with State/Tribe monitoring plans appropriate to the watershed. EPA does not encourage requirements for “end-of-pipe” monitoring for regulated small MS4s. Rather, EPA encourages permitting authorities to carefully examine existing ambient water quality and assess data needs. Permitting authorities should consider a combination of physical, chemical, and biological monitoring or the use of other environmental indicators such as exceedance frequencies of water quality standards, impacted dry weather flows, and increased flooding frequency. (Claytor, R. and W. Brown. 1996. *Environmental Indicators to Assess Storm Water Control Programs and Practices*. Center for Watershed Protection, Silver Spring, MD.) Section II.L., Water Quality Issues, discusses monitoring in greater detail.

As recommended by the Intergovernmental Task Force on Monitoring Water Quality (ITFM), the NPDES permitting authority is encouraged to consider the following watershed objectives in determining monitoring requirements: (1) To characterize water quality and ecosystem health in a watershed over time, (2) to determine causes of existing and future water quality and ecosystem health problems in a watershed and develop a watershed management program, (3) to assess progress of watershed management program or effectiveness of pollution prevention and control practices, and (4) to support documentation of compliance with permit conditions and/or water quality standards. With these objectives in mind, the Agency encourages participation in group monitoring programs that can take advantage of existing monitoring programs undertaken by a variety of governmental and nongovernmental entities. Many States may already have a monitoring program in effect on a watershed basis. The ITFM report is included in the docket for today’s rule

(Intergovernmental Task Force on Monitoring Water Quality. 1995. *The Strategy for Improving Water-Quality Monitoring in the United States: Final Report of the Intergovernmental Task Force on Monitoring Water Quality*. Copies can be obtained from: U.S. Geological Survey, Reston, VA.).

EPA expects that many types of entities will have a role in supporting group monitoring activities—including federal agencies, State agencies, the public, and various classes or categories of point source dischargers. Some regulated small MS4s might be required to contribute to such monitoring efforts. EPA expects, however, that their participation in monitoring activities will be relatively limited. For purposes of today’s rule, EPA recommends that, in general, NPDES permits for small MS4s should not require the conduct of any additional monitoring beyond monitoring that the small MS4 may be already performing. In the second and subsequent permit terms, EPA expects that some limited ambient monitoring might be appropriately required for perhaps half of the regulated small MS4s. EPA expects that such monitoring will only be done in identified locations for relatively few pollutants of concern. EPA does not anticipate “end-of-pipe” monitoring requirements for regulated small MS4s.

EPA received a wide range of comments on this section of the rule. Some commenters believe that EPA should require monitoring; others want a strong statement that the newly regulated small MS4s should not be required to monitor. Many commenters raised questions about exactly what EPA expects MS4s to do to evaluate and assess their BMPs. EPA has intentionally written today’s rule to provide flexibility to both MS4s and permitting authorities regarding appropriate evaluation and assessment. Permitting authorities can specify monitoring or other means of evaluation when writing permits. If additional requirements are not specified, MS4s can decide what they believe is the most appropriate way to evaluate their storm water management program. As mentioned above, EPA expects that the necessity for monitoring and its extent may change from permit cycle to permit cycle. This is another reason for making the evaluation and assessment rule requirements very flexible.

*i. Recordkeeping.* The NPDES permitting authority is required to include at least the minimum appropriate recordkeeping conditions in each permit. Additionally, the NPDES permitting authority can specify that permittees develop, maintain, and/or

submit other records to determine compliance with permit conditions. The MS4 operator must keep these records for at least 3 years but is not required to submit records to the NPDES permitting authority unless specifically directed to do so. The MS4 operator must make the records, including the storm water management program, available to the public at reasonable times during regular business hours (see 40 CFR 122.7 for confidentiality provision). The MS4 operator is also able to assess a reasonable charge for copying and to establish advance notice requirements for members of the public.

EPA received a comment that questioned EPA's authority to require MS4s to make their records available to the public. EPA disagrees with the commenter and believes that the CWA does give EPA the authority to require that MS4 records be available. It is also more practical for the public to request records directly from the MS4 than to request them from EPA who would then make the request to the MS4. Based on comments, EPA revised the proposed rule so as not to limit the time for advance notice requirements to 2 business days.

*ii. Reporting.* Under today's rule, the operator of a regulated small MS4 is required to submit annual reports to the NPDES permitting authority for the first permit term. For subsequent permit terms, the MS4 operator must submit reports in years 2 and 4 unless the NPDES permitting authority requires more frequent reports. EPA received several comments supporting this timing for report submittal. Other commenters suggested that annual reports during the first permit cycle are too burdensome and not necessary. EPA believes that annual reports are needed during the first 5-year permit term to help permitting authorities track and assess the development of MS4 programs, which should be established by the end of the initial term. Information contained in these reports can also be used to respond to public inquiries.

The report must include (1) the status of compliance with permit conditions, an assessment of the appropriateness of identified BMPs and progress toward achieving measurable goals for each of the minimum control measures, (2) results of information collected and analyzed, including monitoring data, if any, during the reporting period, (3) a summary of what storm water activities the permittee plans to undertake during the next reporting cycle, and (4) a change in any identified measurable goal(s) that apply to the program elements.

The NPDES permitting authority is encouraged to provide a brief two-page reporting format to facilitate compiling and analyzing the data from submitted reports. EPA does not believe that submittal of a brief annual report of this nature is overly burdensome, and has not changed the required reporting time frame from the proposal. The permitting authority will use the reports in evaluating compliance with permit conditions and, where necessary, will modify the permit conditions to address changed conditions.

*iii. Permit-As-A-Shield.* Section 122.36 describes the scope of authorization (i.e. "permit-as-a-shield") under an NPDES permit as provided by section 402(k) of the CWA. Section 402(k) provides that compliance with an NPDES permit is deemed compliance, for purposes of enforcement under CWA sections 309 and 505, with CWA sections 301, 302, 306, 307, and 403, except for any standard imposed under section 307 for toxic pollutants injurious to human health.

EPA's Policy Statement on Scope of Discharge Authorization and Shield Associated with NPDES Permits, originally issued on July 1, 1994, and revised on April 11, 1995, provides additional information on this matter.

#### e. Other Applicable NPDES Requirements

Any NPDES permit issued to an operator of a regulated small MS4 must also include other applicable NPDES permit requirements and standard conditions, specifically the applicable requirements and conditions at 40 CFR 122.41 through 122.49. Reporting requirements for regulated small MS4s are governed by § 122.34 and not the existing requirements for medium and large MS4s at § 122.42(c). In addition, the NPDES permitting authority is encouraged to consult the Interim Permitting Approach, issued on August 1, 1996. The discussion on the Interim Permitting Approach in Section I.L.1, Water Quality Based Effluent Limits, provides more information. The provisions of §§ 122.41 through 122.49 establish permit conditions and limitations that are broadly applicable to the entire range of NPDES permits. These provisions should be interpreted in a manner that is consistent with provisions that address specific classes or categories of discharges. For example, § 122.44(d) is a general requirement that each NPDES permit shall include conditions to meet water quality standards. This requirement will be met by the specific approach outlined in today's rule for the implementation of BMPs. BMPs are the most appropriate

form of effluent limitations to satisfy technology requirements and water quality-based requirements in MS4 permits (see the introduction to Section I.H.3, Municipal Permit Requirements, Section I.H.3.h, Reevaluation of Rule, and the discussion of the Interim Permitting Policy in Section I.L.1. below).

#### f. Enforceability

NPDES permits are federally enforceable. Violators may be subject to the enforcement actions and penalties described in CWA sections 309, 504, and 505 or under similar water pollution enforcement provisions of State, tribal or local law. Compliance with a permit issued pursuant to section 402 of the Clean Water Act is deemed compliance, for purposes of sections 309 and 505, with sections 301, 302, 306, 307, and 403 (except any standard imposed under section 307 for toxic pollutants injurious to human health).

#### g. Deadlines

Today's final rule includes "expeditious deadlines" as directed by CWA section 402(p)(6). In proposed § 122.26(e), the permit application for the "ISTEA" facilities was maintained as August 7, 2001 and the permit application deadline for storm water discharges associated with other construction activity was established as 3 years and 90 days from the final rule date. In proposed § 122.33(c)(1), operators of regulated small MS4s were required to seek permit coverage within 3 years and 90 days from the date of publication of the final rule. In proposed § 122.33(c)(2), operators of regulated small MS4s designated by the NPDES permitting authority on a local basis under § 122.32(a)(2) must seek coverage under an NPDES permit within 60 days of notice, unless the NPDES permitting authority specifies a later date.

In order to increase the clarity of today's final rule, EPA has changed the location of some of the above requirements. All application deadlines for both Phase I and Phase II are now listed or referenced in § 122.26(e). Section 122.26(e)(1) contains the deadlines for storm water associated with industrial activity. Paragraph (i) has been changed to correct a typographical error. Paragraph (ii) has been revised to reflect the changed application date for "ISTEA" facilities. (See discussion in section I.3, ISTEA Sources). The application deadline for storm water discharges associated with other construction activity is now in a new § 122.26(e)(8). The application deadline for regulated small MS4s



remains in § 122.33(c) because this section is written in “readable regulation” format, but it is also described in a new § 122.26(e)(9).

Under today’s rule, permitting authorities are allowed up to 3 years to issue a general permit and MS4s designated under § 122.32(a)(1) are allowed up to 3 years and 90 days to submit a permit application. Operators of regulated small MS4s that choose to be a co-permittee with an adjoining MS4 with an existing NPDES storm water permit must apply for a modification of that permit within the same time frame. Several commenters stated that 90 days was not adequate time to submit an NOI. This might be true if facilities did not start developing their storm water program until publication of their general permit. In fact, municipalities should start developing their storm water program upon publication of today’s final rule, if they have not already done so. Municipalities that are uncertain if they fall within the urbanized area should ask their permitting authority. EPA believes that municipalities should not automatically take three years and 90 days to develop a program and submit their NOI. Three years is the maximum amount of time to issue a general permit. MS4s that are automatically designated under today’s rule may have less than 3 years and 90 days if the permitting authority issues a permit that requires submission of NOIs before that time. EPA encourages States to modify their NPDES program to include storm water and issue their permits as soon as possible. It is important for permitting authorities to keep their municipalities informed of their progress in developing or modifying their NPDES storm water requirements.

EPA recognizes that MS4s brought into the program due to the 2000 Census calculations do not have as much time to develop a program as those already designated from the 1990 Census. However, the official Bureau of the Census urbanized area calculation for the 2000 Census is expected to be published in the **Federal Register** in the spring of 2002, which should give the potentially affected MS4s adequate time to prepare for compliance under the applicable permit. However, if the publication of this information is delayed, MS4s in newly designated urbanized areas will have 180 days from the time the new designations are published to submit an NOI, consistent with the time frame for other regulated MS4s that are designated after promulgation of the rule.

The proposed application deadline for MS4s designated under § 122.32(a)(2)

was within 60 days of notice. Many commenters stated that 60 days does not provide adequate time for the preparation of an NOI or permit application. EPA agrees that newly designated MS4s may not be aware that they might be designated since the permitting authority could take several years to develop designation criteria. EPA has decided that the application time frame for these facilities should be consistent with the 180 days allowed for facilities designated under §§ 122.26(a)(9)(i)(C) and (D). Section 122.33(c)(2) of today’s final rule contains the modified time frame of 180 days to apply for coverage.

#### h. Reevaluation of Rule

The municipal caucus of the Storm Water Phase II FACA Subcommittee asked EPA to demonstrate its commitment to revisit the municipal requirements of today’s rule and make changes where necessary after evaluating the storm water program and researching the effectiveness of municipal BMPs. In § 122.37 of today’s final rule, EPA commits to revisiting the regulations for the municipal storm water discharge control program after completion of the first two permit terms. EPA intends to use this time to work closely with stakeholders on research efforts. Gathering and analyzing data related to the storm water program, including data regarding the effectiveness of BMPs, is critical to EPA’s storm water program evaluation. EPA does not intend to change today’s NPDES municipal storm water program until the end of this period, except under the following circumstances: a court decision requires changes; a technical change is necessary for implementation; or the CWA is modified, thereby requiring changes. After careful analysis, EPA might also consider changes from consensus-based stakeholder requests regarding requirements applicable to newly regulated MS4s. EPA will apply the August 1, 1996, Interim Permitting Approach to today’s program during this interim period and encourages all permitting authorities to use this approach in municipal storm water permits for newly regulated MS4s and in determining MS4 permit requirements under a TMDL approach. After careful consideration of the data, EPA will make modifications as necessary.

EPA received comments that supported waiting two permit cycles before re-evaluating the rule and other comments that requested re-evaluation much sooner. EPA anticipates two full permit cycles are necessary to obtain

enough data to significantly evaluate the rule. The re-evaluation time frame of 13 years from today remains as proposed.

#### I. Other Designated Storm Water Discharges

##### 1. Discharges Associated with Small Construction Activity

Section 122.26(b)(15) of today’s rule designates certain construction activities for regulation as “storm water discharges associated with small construction activity.” Specifically, storm water discharges from construction activity equal to or greater than 1 acre and less than 5 acres are automatically designated except in those circumstances where the operator (i.e., person responsible for discharges that might occur) certifies to the permitting authority that one of two specific waiver circumstances (described in section b. below) applies. Sites below one acre may be designated under § 122.26(b)(15)(ii) where necessary to protect water quality.

Today’s rule regulates these construction-related storm water sources under CWA section 402(p)(6) to protect water quality rather than under CWA section 402(p)(2). Designation under 402(p)(6) gives States and EPA the flexibility to waive the permit requirement for construction activity that is not likely to impair water quality, and to designate additional sources below one acre that are likely to cause water quality impairment. Thus, the one acre threshold of today’s rule is not an absolute threshold like the five acre threshold that applies under the existing storm water rule.

Today’s rule regulating certain storm water discharges from construction activity disturbing less than 5 acres is consistent with the 9th Circuit remand in *NRDC v. EPA*, 966 F.2d 1292 (9th Cir. 1992). In that case, the court remanded portions of the existing storm water regulations related to discharges from construction sites. The existing Phase I regulations define “storm water discharges associated with industrial activity” to include storm water discharges from construction sites disturbing 5 acres or more of total land area (see 40 CFR 122.26(b)(14)(x)). In its decision, the court concluded that the 5-acre threshold was improper because the Agency had failed to identify information “to support its perception that construction activities on less than 5 acres are non-industrial in nature” (966 F.2d at 1306). The court remanded the exemption to EPA for further proceedings (966 F.2d at 1310). EPA’s objectives in today’s action include an effort to (1) address the 9th Circuit

remand to reconsider regulation of storm water discharges from construction activities that disturb less than 5 acres of land, (2) address water quality concerns associated with such activities, and (3) balance conflicting recommendations and concerns of stakeholders in the regulation of additional construction activity.

EPA responded to the Ninth Circuit's decision by designating discharges from construction activities that disturb between 1 and 5 acres as "discharges associated with small construction activity" under CWA section 402(p)(6), rather than as "discharges associated with industrial activity" under CWA section 402(p)(2)(B). Although a size criterion alone may be an indicator of whether runoff from construction sites between 1 and 5 acres is "associated with industrial activity," the Agency is instead relying on a size threshold in tandem with provisions that allow for designations and waivers based on potential for "predicted water quality impairments" to regulate construction sites between 1 and 5 acres under CWA section 402(p)(6). This approach was chosen by the Agency for the sake of simplicity and certainty and, most importantly, to protect water quality consistent with the mandate of CWA section 402(p)(6). Today's rule also includes extended application deadlines for this new category of dischargers under the authority of CWA section 402(p)(6) (see § 122.26(e)(8) of today's rule).

In today's rule, EPA is regulating storm water discharges from additional construction sites to better protect the Nation's waters, while remaining sensitive to a concern that the Agency should not regulate discharges from construction sites that might not or do not have adverse water quality impacts. EPA believes that today's rule will successfully accomplish this objective by establishing a 1-acre threshold nationwide that includes the flexibility to allow the permitting authority to both waive requirements for discharges from sites that are not expected to cause adverse water quality impacts and to designate discharges from sites below 1-acre based on adverse water quality impacts.

In addition to the diminishing water quality benefits of regulating all sites below one acre, the Agency relied on practical considerations in establishing a one acre threshold and not setting a lower threshold. Regardless of the threshold established by EPA, a NPDES permit can only be required if a construction site has a point source discharge. A point source discharge means that pollutants are added to

waters of the United States through a discernible, confined, discrete conveyance. "Sheet flow" runoff from a small construction site would not result in a point source discharge unless and until it channelized. As the amount of disturbed land surface decreases, precipitation is less likely to channelize and create a "point source" discharge (assuming the absence of steep slopes or other factors that lead to increased channelization). Categorical designation of very small sites may create confusion about applicability of the NPDES permitting program to those sites. EPA's one acre threshold reflects, in part, the need to recognize that smaller sites are less likely to result in point source discharges. Of course, the NPDES permitting authority could designate smaller sites (below one acre, assuming point source discharges occur from the smaller designated sites) for regulation if a watershed or other local assessment indicated the need to do so. The Phase II rule includes this designation authority at 40 CFR 122.26(a)(9)(i)(D) and (b)(15)(ii).

The one acre threshold also provides an administrative tool for more easily identifying those sites that are identified for coverage by the rule (but may receive a waiver) and those that are not automatically covered (but may be designated for inclusion). Although all construction sites less than five acres could have a significant water quality impact cumulatively, EPA is automatically designating for permit coverage only those storm water discharges from construction sites that disturb land equal to or greater than one acre. Categorical regulation of discharges from construction below this one acre threshold would overwhelm the resources of permitting authorities and might not yield corresponding water quality benefits. Construction activities that disturb less than one acre make up, in total, a very small percentage of the total land disturbance from construction nationwide. The one acre threshold is reasonable for accomplishing the water quality goals of CWA section 402(p)(6) because it results in 97.5% of the total acreage disturbed by construction being designated for coverage by the NPDES storm water program, while excluding from automatic coverage the numerous smaller sites that represent 24.7% of the total number of construction sites.

Some commenters believed that EPA has not adequately identified water quality problems associated with storm water discharges from construction activity disturbing less than five acres. Other commenters believed that storm water discharges from small

construction activity is a significant water quality problem nationwide. Section I.B.3, Construction Site Runoff, provides a detailed discussion of adverse water quality impacts resulting from construction site storm water discharges. EPA is regulating storm water discharges from construction activity disturbing between 1 and 5 acres because the cumulative impact of many sources, and not just a single identified source, is typically the cause for water quality impairments, particularly for sediment-related water quality standards.

Several commenters requested that EPA regulate discharges from small construction activity as "discharges associated with industrial activity" under CWA 402(p)(4) and not, as proposed, as "storm water discharges associated with other activity" under CWA 402(p)(6). EPA is regulating discharges from small construction sites as "small construction activity" under the authority of CWA section 402(p)(6), rather than section 402(p)(4), to ensure that regulation of these sources is water quality-sensitive. CWA section 402(p)(6) affords the opportunity for designations and waivers of sources based on potential for "predicted water quality impairments." Regulation of storm water "associated with industrial activity" does not necessarily focus regulation to protect water quality.

#### a. Scope

The definition of "storm water discharges associated with small construction activity" includes discharges from construction activities, such as clearing, grading, and excavating activities, that result in the disturbance of equal to or greater than 1 acre and less than 5 acres (see § 122.26(b)(15)(i)). Such activities could include: road building; construction of residential houses, office buildings, or industrial buildings; or demolition activity. The definition of "storm water discharges associated with small construction activity" also includes any other construction activity, regardless of size, designated based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States (§ 122.26(b)(15)(ii)). This designation is made by the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator.

For the purposes of today's rule, the definition of "storm water discharges associated with small construction activity" includes discharges from activities disturbing less than 1 acre if that construction activity is part of a

“larger common plan of development or sale” with a planned disturbance of equal to or greater than 1 acre of land. A “larger common plan of development or sale” means a contiguous area where multiple separate and distinct construction activities are planned to occur at different times on different schedules under one plan, e.g., a housing development of five ¼ acre lots (§ 122.26(b)(15)(i)).

In addition to the regulatory text for smaller construction, the Agency is also revising the existing text of § 122.26(b)(14)(x) to clarify EPA’s intention regarding construction projects involving a larger common plan of development or sale ultimately disturbing 5 or more acres. Operators of such sites are required to seek coverage under an NPDES permit regardless of the number of lots in the larger plan because designation for permit coverage is based on the total amount of land area to be disturbed under the common plan. This designation attempts to address the potential cumulative effects of numerous construction activities concentrated in a given area.

Several commenters asked that EPA allow the permitting authority to set the appropriate size threshold based on water quality studies. While EPA agrees that location-specific water quality studies provide an ideal information base from which to make regulatory decisions, today’s rule establishes a default standard for regulation in the absence of location-specific studies. The rule does allow for deviation from the default standard through additional designations and waivers, however, when supported by location-specific water quality information. The rule codifies the ability of permitting authorities to provide waivers for sites greater than or equal to one acre (the default standard) and designate additional discharges from small sites below one acre when location-specific information suggests that the default 1 acre standard is either unnecessary (waivers) or too limited (designations) to protect water quality.

Some commenters wanted EPA to base the regulation of storm water discharges from construction sites not only on size, but also on the duration and intensity of activity occurring on the site. EPA believes that a national 1-acre threshold, in combination with waivers and additional designations, is the most effective and simplest way to address adverse water quality impacts from storm water from small construction sites. Moreover, as discussed below, the waiver for rainfall erosivity does account for projects of limited duration. EPA believes,

however, that the intensity of activity occurring on-site would be a very difficult condition to quantify.

Many commenters requested that EPA maintain the 5 acre threshold from the existing regulations, which include opportunities for site-specific designation, as the regulatory scope for regulating storm water from construction sites, i.e., that the Agency not automatically regulate storm water discharges from sites less than 5 acres. Several commenters wanted construction requirements to be applied to sites smaller than 1 acre, while some commenters suggested alternative thresholds of 2 or 3 acres. The rest of the commenters supported the 1 acre threshold. None of the commenters presented any data or rationales to support a specific size threshold.

EPA examined alternative size thresholds, including 0.5 acre, 1 acre, 2 acres and 5 acres. EPA had difficulty evaluating the alternative size thresholds because, while directly proportional to the size of the disturbed site, the water quality threat posed by discharges from construction sites of differing sizes varies nationwide, depending on the local climatological, geological, geographical, and hydrological influences. In order to ensure improvements in water quality nationwide, however, today’s rule does not allow various permitting authorities to establish different size thresholds except based on the waiver and designation provisions of the rule. EPA believes that the water quality impact from small construction sites is as high as or higher than the impact from larger sites on a per acre basis. By selecting the 1 acre size threshold and coupling it with waivers and additional designations, EPA is seeking to standardize improvement of water quality on a national basis while providing permitting authorities with the opportunity to designate those unregulated activities causing water quality impairments regardless of site size, as well as to waive requirements when information demonstrates that regulation is unnecessary.

EPA recognizes that the size criterion alone may not be the most ideal predictor of the need for regulation, but effective protection of water quality depends as much on simplicity in implementation as it does on the scientific information underlying the regulatory criteria. The default size criterion of 1 acre will ensure protection against adverse water quality impacts from storm water from small construction sites while not overburdening the resources of permitting authorities and the

construction industry to implement the program to protect water quality in the first place.

One commenter stated a need to clarify whether routine road maintenance is considered construction activity for the purpose of today’s rule. The NPDES general permit for discharges from construction sites larger than 5 acres defined “commencement of construction” as the *initial* disturbance of soils associated with clearing, grading, or excavating activities or other construction activities (63 FR 7913). For construction sites disturbing less than 5 acres, EPA does not consider construction activity to include *routine* maintenance performed to maintain the *original* line and grade, hydraulic capacity, or original purpose of the facility.

Two commenters believed that the Multi-Sector General Permit for storm water discharges from industrial activities (MSGP) (60 FR 50804) already applies to storm water discharges from construction activities at oil and gas exploration and production sites and asked for a clarification on this issue. Commenters also requested a single general permit to authorize both industrial storm water discharges and construction site discharges which occur at the same industrial site.

Currently, when construction activity disturbing more than 5 acres occurs on an industrial site covered by the MSGP, authorization under a separate NPDES construction permit is needed because the MSGP does not include the “construction” industrial sector. While the MSGP does address sediment and erosion control, it is not as specific as the NPDES general permit for storm water discharges from construction activities disturbing more than 5 acres. Though permitting authorities could conceivably develop a single general permit to authorize storm water discharges associated with construction activity at these industrial facilities, the commenter’s request is not addressed by today’s rulemaking. When today’s rule is implemented through general permits (to be issued later), the permitting authority will have discretion whether or not to incorporate the permit requirements for both the industrial storm water discharges and construction site storm water discharges into a single general permit. This type of request should be addressed to the permitting authority.

One commenter suggested that discharges from small construction sites should be regulated through a “self-implementing rule” approach. While today’s rule is not a self-implementing rule, it does add § 122.28(b)(2)(v), which

gives the permitting authority the discretion to authorize a construction general permit for sites less than 5 acres without submitting a notice of intent. Such non-registration general permits function similarly to self-implementing rules, but are, in fact, permits. Today's rule will be implemented through NPDES permits rather than self-implementing regulations to capitalize on the compliance, tracking, enforcement, and public participation associated with NPDES permits (see discussion in section II.C).

Other commenters believed that only the permitting authority should regulate construction site storm water discharges (under a NPDES permit) and that a small MS4 operator's regulation of storm water discharges associated with construction (under the small MS4 NPDES storm water program) is redundant. EPA disagrees that control measure implementation by the NPDES authority and the small MS4 operator is redundant. To the extent the two efforts overlap, today's rule provides for consolidation and coordination of substantive requirements via incorporation by reference permitting. Small MS4s operators may choose to impose more prescriptive requirements than an NPDES permitting authority based on localized water quality needs. In those cases, EPA intends that the substantive requirements from the small MS4 program should apply as the NPDES permit requirements for the construction site discharger. In cases where a small MS4 program does not prioritize and focus on storm water from construction sites (beyond the small MS4 minimum control measure in today's rule, which does not require the small MS4 operator to control construction site discharges in a manner as prescriptive as is expected for discharges regulated under NPDES permits), the Agency intends that the NPDES general permit will provide the substantive standards applicable to the construction site discharge. EPA does anticipate, however, that implementation of MS4 programs to address construction site runoff within their jurisdiction will enhance overall NPDES compliance by construction site dischargers. EPA also notes that under § 122.35(b), the permitting authority may recognize its own program to control storm water discharges from construction sites in lieu of requiring such a program in an MS4's NPDES permit, provided that the permitting authority's program satisfies the requirements of § 122.34(b)(4), including, for example, procedures for site plan reviews and consideration of

information submitted by the public on individual construction sites in each jurisdiction required to be covered by the program.

#### b. Waivers

Under § 122.26(b)(15)(i) of today's rule, NPDES permitting authorities may waive today's requirement for construction site operators to obtain a permit in two circumstances. The first waiver is intended to apply where little or no rainfall is expected during the period of construction. The second waiver may be granted when a TMDL or equivalent analysis indicates that controls on construction site discharges are not needed to protect water quality.

The first waiver is based on "low predicted rainfall erosivity" which can be found using tables of rainfall-runoff erosivity (R) values published for each region in the U.S. R factors are published in the U.S. Department of Agriculture (USDA) Agricultural Handbook 703 (Renard, K.G., Foster, G.R., Weesies, G.A., McCool, D.K., and D.C. Yoder. 1997. *Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE)*). U.S. Department of Agriculture Handbook 703). The R factor varies based on the time during the year when construction activity occurs, where in the country it occurs, and how long the construction activity lasts. The permitting authority may determine, using Handbook 703, which times of year, if any, the waiver opportunity is available for construction activity. EPA will provide assistance either through computer programs or the World Wide Web on how to determine whether this waiver applies for a particular geographic area and time period. Application of this waiver for regulatory purposes will be determined by the authorized NPDES authority. This waiver is discussed further in the following section titled Rainfall-Erosivity Waiver.

The second waiver is based on a consideration of ambient water quality. This waiver is available after a State or EPA develops and implements TMDLs for the pollutant(s) of concern from storm water discharges associated with construction activity. This waiver is also available for sites discharging to non-impaired waters that do not require TMDLs, when an equivalent analysis has determined allocations for small construction sites for the pollutant(s) of concern or determined that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant

contributions from all sources, and a margin of safety. The Agency envisions an equivalent analysis that would demonstrate that water quality is *not* threatened by storm water discharges from small construction activity. This waiver is discussed further below in the sections titled TMDL Waiver and Water Quality Issues.

The proposed rule included a waiver based on "low predicted soil loss." This waiver provision would have been applicable on a case-by-case basis where the annual soil loss rate for the period of construction for a site, using the Revised Universal Soil Loss Equation (RUSLE), would be less than 2 tons/acre/year. The annual soil loss rate of less than 2 tons/acre/year would be calculated through the use of the RUSLE equation, assuming the constants of no ground cover and no runoff controls in place.

Several commenters found the low soil loss waiver too complex and impractical, and stated that expertise is not available at the local level to prepare and evaluate eligibility for the waiver. Another commenter questioned whether two tons/acre/year was an appropriate threshold for predicting adverse water quality impacts. Two other commenters said that RUSLE was never intended to predict off-site impacts and is not an indicator of potential harm to water quality. EPA agrees with the commenters on the difficulty associated with determining and implementing this waiver. Most construction site operators are not familiar with the RUSLE program, and the potential burden on the permitting authority, construction industry, USDA's Natural Resources Conservation Service and conservation districts probably would have been significant. The Agency has not included this waiver in the final rule.

Two commenters asked that EPA allow States the flexibility to develop their own waiver criteria but did not suggest how the Agency (or affected stakeholders) could evaluate the acceptability of alternative State waiver criteria. Therefore, the final rule does not provide for any such alternative waivers. If a State does seek to develop alternate waiver criteria, then EPA procedures afford the opportunity for subsequent actions, for example, under the Project XL Program in EPA's Office of Reinvention, which seeks cleaner, smarter, and cheaper solutions to environmental problems. Many commenters suggested that EPA extend these waivers to existing industrial storm water regulations for construction activity greater than 5 acres. These construction site discharges are

regulated as industrial storm water discharges under CWA 402(p)(2) and are not eligible for such water quality-based waivers.

Two commenters were concerned that waivers would create a potential for significant degradation of small streams. EPA disagrees. If small streams are threatened, the permitting authority would choose not to provide any waivers. In addition, permitting authorities may protect small streams by designating discharges from small construction activity based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the U.S.

Two commenters asked that the waiver options be eliminated. They felt it would create a gross inequity within the construction community if some projects will not be subject to the requirements of today's rule. While the comments may be valid, EPA disagrees that waivers should be disallowed on this basis. Construction site discharges that qualify for a waiver from permitting requirements are not expected to present a threat to water quality, which is the basis for designation and regulation under today's rule.

A number of commenters suggested additional waivers in cases where new development will result in no additional adverse impacts to water quality as compared to the existing development it replaces. EPA believes these waivers are either unworkable or unnecessary. It would be very difficult for most construction operators to determine, as well as for other stakeholders to verify, on a site-by-site basis, that there is no potential for adverse impact to water quality compared to the replaced development.

Other commenters proposed waivers in cases where a local erosion and sediment control program covers the project or a separate waiver for small linear utility projects. Instead of waivers, today's rule addresses the first suggestion through the qualifying program provision described in the section titled Cross-Referencing State/Local Erosion and Sediment Control Programs below. Today's rule provides waivers for small linear projects in so far as they satisfy conditions for low rainfall erosivity. (See § 122.26(b)(15)(i)(A).)

Other commenters suggested waivers based on distance to water body, existence of vegetated buffer around water body, slope of disturbed land, or if discharging to very large bodies of water. As a result of public outreach, EPA believes that these proposed waivers would be generally unworkable

for construction site dischargers and permitting authorities because of the difficulty in applying them to all small sites.

One commenter mentioned that waivers for the R factor (rainfall-erosivity) and soil loss are effluent standards that have not been developed in accordance with sections 301 and 304 of the CWA. EPA disagrees that these sections are relevant to the designation of sources in today's rule. The waiver provisions in this section of the rule are jurisdictional because they affect the scope of the universe of entities subject to the NPDES program. Therefore, the waiver provisions are not themselves substantive control standards implemented through NPDES permits, and thus, not subject to the statutory criteria in sections 301 and 304.

Another commenter stated that waivers would allow exemptions to the technology based requirements and would thus be inconsistent with the two-fold approach of the CWA (a technology based minimum and a water quality based overlay). EPA acknowledges that the CWA does not generally provide for waivers for the Act's technology-based requirements. The waiver provisions do not create exemptions from technology-based standards that apply to NPDES dischargers; they provide exemption from the underlying requirement for an NPDES permit in the first place. Protection of water quality is the reason these smaller sites are designated for regulation under NPDES. The Act's two fold approach imposes more stringent water quality based effluent limitations when technology-based limitations applicable to regulated dischargers are insufficient to meet water quality standards. Under today's rule, water quality protection is the basis for determining which of the unregulated sources should be regulated at all. Thus, today's rule is entirely consistent with the Act's two fold approach.

*i. Rainfall-Erosivity Waiver.* The rainfall-erosivity waiver under § 122.26(b)(15)(i)(A) is intended to exempt the requirements for a permit when and where negligible rainfall/runoff-erosivity is expected. In the development of the Universal Soil Loss Equation, analysis of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy times the maximum 30 minute intensity. The average annual sum of the storm energy and intensity values for an area comprise the R factor—the rainfall erosivity index. A detailed explanation of the R factor can be found in

*Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)* (USDA, 1997).

This waiver is time-sensitive and is dependent on when during the year a construction activity takes place, how long it lasts, and the expected rainfall and intensity during that time. R factors vary based on location. EPA anticipates that this waiver opportunity responds to concerns about the requirement for a permit when it is not expected to rain, especially in the arid areas of the U.S. Under today's rule, the permitting authority could waive the requirements for a permit for time periods when the rainfall-erosivity factor ("R" in RUSLE) is less than five during the period of construction. For the purposes of calculating this waiver, the period of construction activity starts at the time of initial disturbance and ends with the time of final stabilization. The operator must submit a written certification to the Director in order to apply for such a waiver. EPA believes that those areas receiving negligible rainfall during certain times of the year are unlikely to have storm events causing discharges that could adversely impact receiving streams. Consequently, BMPs would not be necessary on those smaller sites. This waiver is most applicable to projects of short duration and to the arid regions of the country where the occurrence of rainfall follows a cyclic pattern—between no rain and extremely heavy rain. EPA review of rainfall records for these areas indicates that, during periods of the year when the number of events and quantity of rain are low, storm water discharges from the smaller construction sites regulated under today's rule should be minimal.

Some commenters supported the use of the R factor as a waiver, while others felt that a waiver based on rainfall statistics ignores the fact that it may rain on any given day and it is the cumulative effect of wet weather discharges which cause water quality impairments. A commenter also asked what happens in "El Nino" years when significantly more rainfall than normal occurs. Another commenter also expressed concern that this waiver was not based on a measured water quality impact, but instead on an indicator of potential impact. In response to the previous comments, EPA notes that, under CWA 402(p)(6), sources are designated on their *potential* for adverse impact. Designation under the section is prospective, not retrospective or remedial only. For that reason, the waivers under today's rule also operate prospectively. EPA wanted to waive requirements for sites with little

potential to impair water quality, and the R factor is the most straightforward way to do this. The permitting authority, if electing to use waivers, could always suspend the use of waivers in certain areas or during certain times. In addition, the permitting authority may choose to use a lower R factor threshold than the one set by EPA. Application of this waiver is at the discretion of the permitting authority, subject only to the limitation that R factors cannot exceed 5.

One commenter expressed the need for EPA to provide a justification for the threshold value used for the R factor. None of the commenters included any data to show that EPA's proposed R factor of 2 was either too high or too low. EPA is using the R factor as an indicator of the potential to impact water quality. In an effort to determine which R threshold should be used, EPA conducted additional analysis of the rainfall/runoff erosivity factor for 134 sites across the country. For an R factor threshold of 5, approximately 12% of sites would be waived if the project period lasted 6 months, 27% for 3 months, 47% for 1 month, and 60% of sites would be waived if the project lasted for only 15 days. None of the 134 sites would be waived if the project lasted an entire year. For an R factor threshold of 2, approximately 9% of sites would be waived if the project period lasted 6 months, 15% for 3 months, 31% for 1 month, and 43% for 15 days. For an R factor threshold of 10, approximately 22% of sites would be waived if the project period lasted 6 months, 37% for 3 months, 60% for 1 month, and 78% for 15 days. EPA believes that an R factor of 5 is an adequate threshold to waive requirements for sites because they would not reasonably be expected to impair water quality.

EPA will develop, as part of the tool box described in section II.A.5, guidance materials and computer or web-accessible programs to assist permitting authorities and construction site discharges in determining if any resulting storm water discharges from specific projects are eligible for this waiver.

*ii. Water Quality Waiver.* The water quality waiver under § 122.26(b)(15)(i)(B) is available where storm water controls are not needed based on a comprehensive, location-specific evaluation of water quality needs. The waiver is available based on either an EPA-approved "total maximum daily load" (TMDL) under section 303(d) of the CWA that addresses the pollutant(s) of concern or, for sites discharging to non-impaired

waters that do not require TMDLs, an equivalent analysis that has either determined allocations for small construction sites for the pollutant(s) of concern or determined that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutants of concern that must be addressed include sediment or a parameter that addresses sediment (such as total suspended solids (TSS), turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the NPDES permitting authority that the construction activity will take place, and storm water discharges will occur, within the applicable drainage area evaluated in the TMDLs or equivalent analyses.

Today's rule modifies the approach in the proposed rule. EPA proposed to allow a waiver of permit requirements for small construction if storm water controls were determined to be unnecessary based on "wasteload allocations that are part of 'total maximum daily loads' (TMDLs) that address the pollutants of concern," or "a comprehensive watershed plan, implemented for the water body, that includes the equivalents of TMDLs, and addresses the pollutants of concern."

Commenters asked for clarification of the terms "comprehensive watershed plans" and "equivalent of TMDLs." EPA intended that both terms would include a comprehensive analysis that determines that controls on small construction sites are not needed based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. Today's rule makes this clarification.

One commenter pointed out that there are no water quality standards for suspended solids, the major pollutant expected in discharges from construction activity. The commenter asserted that no waiver would ever be available. Another commenter noted that there are no sediment criteria developed for streams, also making this waiver useless. EPA notes that a number of States and Tribes have water quality standards that address TSS, which are narrative in form, and that may serve as a basis for water quality-based effluent limits. As efforts to identify impairments and improve water quality progress, some States may yet develop water quality standards for suspended

solids. Although several TMDLs for sediment and related parameters have been established, EPA does recognize that currently it is extremely difficult to develop TMDLs for sediment. EPA is partially addressing this concern by clarifying in today's rule that the waivers may be based on a TMDL or equivalent analyses for sediment or one of the various pollutant parameters that are a proxy for sediment. These include TSS, turbidity and siltation.

Other commenters noted that this waiver was unattainable if a TMDL or equivalent analysis must be available for every pollutant that could possibly be present in any amount in discharges from small construction sites regardless of whether the pollutant is causing water quality impairment. Commenters asked that EPA identify what constitutes the "pollutants of concern" for which a TMDL or its equivalent must be developed. EPA has revised the proposed rule in response to these concerns.

In order for discharges from construction sites under five acres to qualify for the water quality waiver of today's rule, the construction site operator must demonstrate that storm water controls are not necessary for sediment or a parameter that addresses sediment (such as TSS, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. Even if the water body is not currently impaired for sediment, today's rule requires an analysis of the potential impacts of sediment because the storm water discharges from the construction activity will be a new source of loading to the water body that could constitute a new impairment. Because the water body will not necessarily have been included on a "303(d) list" and a TMDL will not necessarily be required, the rule continues to allow an analysis that is the equivalent of a TMDL. The designation of storm water discharges from small construction activity for regulation in today's rule is intended to control pollutants other than sediment. This waiver provision requires a TMDL or equivalent analysis for a pollutant other than gross particulates (*i.e.*, sediment and other particulate-focused pollutant parameters) only if the receiving water is currently impaired for that pollutant.

One commenter expressed the concern that construction operators will not know if they are in a watershed covered by a TMDL. To the extent this is an operator's concern, he or she could contact their NPDES permitting

authority before applying for permit coverage to determine if receiving water is subject to a TMDL. Alternatively, the permitting authority could identify the TMDL (or equivalent analysis) areas in the general permit or another operator-accessible information source.

Another commenter expressed the concern that a TMDL waiver is likely to be ineffective because the TMDL list is submitted only once every 2 years. By the time a water is listed, the activity may have been completed and stabilized. The commenter argued that, if a watershed is impaired due to sediment from construction, then storm water controls will still be needed, because small construction can only be waived when it is not identified as a source of impairment. In response, EPA notes that an analysis that is the equivalent of a TMDL (specifically, equivalent to the component of a TMDL that comprehensively analyses existing ambient conditions against the applicable water quality standards) may also provide a basis for waiver from the default 1 acre designation. Also, even if a water has been identified as impaired for sediment, it is possible that a site or category of sites may receive an allocation that is sufficiently high enough to allow discharges without storm water controls.

#### c. Permit Process and Administration

The operator of the construction site, as with any operator of a point source discharge, is responsible for obtaining coverage under a NPDES permit as required by § 122.21(b). The “operator” of the construction site, as explained in the current NPDES construction general permit, is typically the party or parties that either individually or collectively meet the following two criteria: (1) Operational control over the site specifications, including the ability to make modifications in the specifications; and (2) day-to-day operational control of those activities at the site necessary to ensure compliance with permit conditions (63 FR 7859). If more than one party meets these criteria, then each party involved would typically be a co-permittee with any other operators. The operator could be the owner, the developer, the general contractor, or individual contractor. When responsibility for operational control is shared, all operators must apply.

In today’s rule, EPA is not requiring an NOI for NPDES general permits for storm water discharges from construction activities regulated by § 122.26(b)(15) if the NPDES permitting authority finds that the use of NOIs would be inappropriate (see

§ 122.28(b)(2)(v)). Under this approach, the NPDES permitting authority will have the discretion to decide whether or not to require NOIs for discharges from construction activity less than 5 acres. Compared to the existing storm water regulation, the permitting authority thus has increased flexibility in program implementation. EPA does recommend the use of NOIs, however because NOIs track permit coverage and provide a useful information source to prioritize inspections or enforcement. Requiring an NOI allows for greater accountability by, and tracking of, dischargers. This simple permit application and reporting mechanism also allows for better outreach to the regulated community, uses an existing and familiar mechanism, and is consistent with the existing requirements for storm water discharges from larger construction activities. Today’s rule does not amend the requirement for NOIs in general permits for storm water discharges from construction activity disturbing 5 acres or more. See § 122.28(b)(2)(v).

EPA expects that the vast majority of discharges of storm water associated with small construction activity identified in § 122.26(b)(15) will be regulated through general permits. In the event that an NPDES permitting authority decides to issue an individual construction permit, however, individual application requirements for these construction site discharges are found at § 122.26(c)(1)(ii). For any discharges of storm water associated with small construction activity identified in § 122.26(b)(15) that are not authorized by a general permit, a permit application made pursuant to § 122.26(c) must be submitted to the Director by 3 years and 90 days after publication of the final rule.

Some commenters expressed concern that linear construction projects (*e.g.*, roads, highways, pipelines) that cross several jurisdictions will have to comply with multiple sets of requirements from various jurisdictions, including multiple local governments and States. EPA is limited in its options to address these concerns because the Agency cannot issue NPDES permits in States authorized to implement the NPDES program nor preempt other more stringent local and State requirements. EPA believes, however, that the option for incorporating by reference the State, Tribal or local requirements (see discussion in Section II.I.2.d., Cross-Referencing State/Local Erosion and Sediment Control Programs) should limit the administrative burden on the operator responsible for discharges from linear construction projects. If the operator were to implement the most

comprehensive of the various requirements for the whole project, it could avoid confusion due to differing requirements for different sections of the project. In addition, linear utility projects, which usually have a shorter project period, are more likely to be eligible for the rainfall erosivity waiver.

One commenter stated there was no reason to delay the application period for regulated storm water discharges from small construction activities. The commenter requested that the newly regulated construction site discharges should be required to seek permit coverage within 90 days, as opposed to 3 years, of the effective date of the rule. The Agency does not accept this request. EPA anticipates that NPDES permitting authorities will need one to two years to develop adequate legal authority to implement a program to address this new category of discharges, as well as to develop and issue general permits. Moreover, to ensure effective implementation to protect water quality, regulatory authorities will need additional time to inform small construction site operators of requirements and provide guidance and training on these requirements.

Finally, EPA received a comment requesting that the three year file retention requirement be deleted for discharges from small construction sites. While EPA recognizes that the three year record retention schedule may be unnecessary for certain construction projects, the Agency has determined it is necessary to retain files after the completion of the project to ensure permit compliance, including applicable construction site stabilization enabling permit termination for such sites.

#### d. Cross-Referencing State, Tribal or Local Erosion and Sediment Control Programs

In developing the NPDES permit requirements for construction sites less than 5 acres, members of the Storm Water Phase II FACA Subcommittee asked EPA to try to minimize redundancy in the construction permit requirements. In response, today’s rule at § 122.44(s) provides for incorporation of qualifying State, Tribal or local erosion and sediment control program requirements by reference into the NPDES permit authorizing storm water discharges from construction sites (described under §§ 122.26(b)(15) and (b)(14)(x)). The incorporation by reference approach applies not only to the newly regulated storm water discharges (from construction activity disturbing between 1 and 5 acres, including designated sites, but



excluding waived sites) but also to discharges from construction activity disturbing 5 or more acres already covered by the existing storm water regulations. For this latter category of discharges from construction activity disturbing 5 or more acres, the incorporation by reference approach requires that the pollutant control requirements from the incorporated program also satisfy the statutory standard for limitations representing application of the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT).

For permits issued for discharges from small construction activity defined under § 122.26(b)(15), a qualifying State, Tribal, or local erosion and sediment control program is one that includes the program elements described under § 122.44(s)(1). These elements include requirements for construction site operators to implement appropriate erosion and sediment control BMPs, requirements to control waste, a requirement to develop a storm water pollution prevention plan, and requirements to submit a site plan for review. A storm water pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges. The construction site's permit would require it to follow the requirements of the qualifying local program rather than require it to follow two different sets of requirements. If a partially-qualifying program does not have all of the elements described under § 122.44(s)(1), then the NPDES permitting authority may still incorporate language in the small construction site discharge's permit that requires the construction site operator to follow the program, but the construction site discharge permit also must incorporate the missing required elements in order to satisfy CWA requirements.

The term "local" refers to the geographic area of applicability, not the form of government that develops and administers the program. Thus, a qualifying federal erosion and control program, such as certain programs developed and administered by the federal Bureau of Land Management, could be a qualifying local program.

As a result of this provision, local requirements will, in effect, provide the substantive construction site erosion and sediment control requirements for the NPDES permit authorization. Therefore, by following one set of

erosion and sediment control requirements, construction site operators satisfy both local and NPDES permit requirements without duplicative effort. At the same time, noncompliance with the referenced local requirements will be considered noncompliance with the NPDES permit which is federally enforceable. The NPDES permitting authority will, of course, retain the discretion to decide whether to include the alternative requirements in the general permit. EPA believes that this approach will best balance the need for consideration of specific local requirements and local implementation with the need for federal and citizen oversight, and will extend supplemental NPDES requirements to control storm water discharges from construction sites.

EPA developed the "incorporation by reference" approach based on implementation efforts designed by the State of Michigan. Michigan relies on localities to develop substantive controls for storm water discharges associated with construction activities on a localized basis. Localities, however, are not required to do so. In areas where the local authority does not choose to participate, the State administers the sedimentation and erosion control requirements. The State agency, as the NPDES permitting authority, receives an NOI (termed "notice of coverage" by Michigan) under the general permit and tracks and exercises oversight, as appropriate, over the activity causing the storm water discharge. Michigan's goal under these procedures is to utilize the existing erosion and sediment control program infrastructure authorized under State law for storm water discharge regulation. (See U.S. Environmental Protection Agency, Office of Water, January 7, 1994, Memo: From Michael B. Cook, Director OWEC, to Water Management Division Directors, Regarding the "Approach Taken by Michigan to Regulate Storm Water Discharges from Construction Activities.")

Most commenters supported the general concept of incorporating by reference qualifying programs. Two commenters expressed concern that different local construction requirements will create an impossible regulatory scheme for builders who work in different localities. EPA believes that allowing States to incorporate qualifying programs by reference will minimize the differences for builders who work in different areas of the State. These differences already exist, however, not only for erosion and sediment controls, but also other aspects

of construction. In any event, the criteria for qualification for localized programs should provide a certain degree of standardization for various localities' requirements. EPA expects that the new rule for construction and post-construction BMPs being developed under CWA section 304(m) will also encourage standardization of local requirements. (See discussion of this new rulemaking in section II.D.1, Federal Role of this preamble).

Two commenters requested that an "incorporation by reference" should include permission, in writing, from the qualifying local program administrator because of a perceived extra burden on the referenced program. Any program requirements incorporated by reference in NPDES permits should already apply to construction site dischargers in the applicable area and therefore should not add any additional burden to the referenced program. EPA has left to the discretion of the permitting authority the decision on whether to seek permission from the qualifying program before cross-referencing it in an NPDES permit.

One commenter stated that a qualifying local program should require a SWPPP. The proposed rule defined the qualifying local program as a program that meets the minimum program requirements established in the proposed construction minimum control measure for small MS4s. To ensure consistency in the controls for storm water discharges between the larger, already regulated construction sites and the discharges from smaller sites that will be regulated as a result of today's rule, EPA has made a change to define a qualifying local program as one that includes the elements described in § 122.44(s)(1). Section 122.44(s)(1) requires the development and implementation of a storm water pollution prevention plan as a criterion for qualification of local programs for incorporation by reference. As noted above, if a qualifying program does not include all the elements in § 122.44(s)(1) then the permitting authority will need to specify the missing elements in order to rely on the incorporation by reference approach.

One commenter asked what happens in regard to the use of qualifying programs when a construction site operator is also the qualifying local program operator. The provision for incorporation by reference applies in this situation also. The local program operator will be required to comply with requirements it has established for others.

#### e. Alternative Approaches

EPA received a number of comments on alternative permitting approaches. Several commenters supported regulating discharges only from those construction sites within urbanized areas. Other commenters opposed this approach. EPA chose to address storm water discharges from construction sites located both within and outside urbanized areas because of the potential for adverse water quality impact from storm water discharges from smaller sites in all areas. Regulating only those sites within urbanized areas would have excluded a large number of potential contributors to water quality impairment and would not address large areas of new development occurring on the outer fringes of urbanized areas. In fact, designating only small construction discharges within urbanized areas might create a perverse incentive for building only outside urbanized areas. Such an incentive would be inconsistent with the Agency's intention behind designating to protect water quality. The Agency intends that designation to protect water quality in today's rule should be both remedial and preventive.

A number of commenters encouraged EPA to cover municipal construction activities under the small MS4 general permit, instead of issuing a separate NPDES construction permit to these municipal construction projects. Similarly, a number of commenters supported EPA giving industrial facilities the option of having storm water from construction activities on the site covered by the industrial storm water permit. Several other commenters found that combining multiple permit types under one general permit introduced a degree of complexity which was confusing to permittees. Permitting authorities have the option of combining MS4 and construction permits or industrial and construction permits, however, specific requirements for each would still need to be included in the permit issued. EPA agrees that this would probably result in a more complex and confusing permit compared to the existing component permits.

Several commenters supported an alternative for regulated small MS4s where a local qualified program alone, without an NPDES permit, is sufficient to enforce compliance with construction site discharge requirements. On the other hand, one commenter stated that linking the local construction erosion and sediment control program to the existing NPDES program for storm water from larger construction has driven improvements in many local programs.

Another commenter stated that the potential fines under the NPDES program will encourage compliance and will be much stronger than any fines a local program may have. EPA agrees that the NPDES program is the best approach to address water quality impacts from construction sites and provides benefits such as accountability and federal enforcement.

A number of commenters supported issuing one permit for each construction company, instead of a permit for each individual construction activity (also requested for storm water discharges from the larger, already regulated construction sites). Other commenters found that a 'licensing' program for construction site operators would have many problems, including identifying who to permit and tracking information on active sites. EPA is regulating only the storm water discharges associated with construction activity from small sites, not the construction activity itself. Separate NPDES permits (either individual or general permit coverage) for construction site discharges avoid potential problems in tracking sites and operator accountability. Section 122.28(b)(2)(v) gives permitting authorities the option to issue a general permit without requiring an NOI. If an NOI is not required for each activity, permitting authorities could pursue other options such as a company-wide NOI, license instead of an NOI, or another mechanism.

#### 2. Other Sources

In the *Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System Storm Water Program*, Report to Congress, March 1995, ("Report") submitted by EPA pursuant to CWA section 402(p)(5), EPA examined the remaining unregulated point sources of storm water for the potential to adversely affect water quality. Due to very limited national data on which to estimate pollutant loadings on the basis of discharge categories, the discussion of the extent of unregulated storm water discharges is limited to an analysis of the number and geographic distribution of the unregulated storm water discharges. Therefore, EPA is not designating any additional unregulated point sources of storm water on a nationwide, categorical basis. Instead, the remainder of the sources will be regulated based on case-by-case post-promulgation designations by the NPDES permitting authority.

EPA did, however, evaluate a variety of categories of discharges for potential designation in the Report. EPA's efforts to identify sources and categories of

unregulated storm water discharges for potential designation for regulation in today's rule started with an examination of approximately 7.7 million commercial, retail, industrial, and institutional facilities identified as "unregulated." In general, the distribution of these facilities follows the distribution of population, with a large percentage of facilities concentrated within urbanized areas (see page 4-35 of the Report). This examination resulted in identification of two general classes of facilities with the potential for discharging pollutants to waters of the United States through storm water point sources.

The first group (Group A) included sources that are very similar, or identical, to regulated "storm water discharges associated with industrial activity" but that were not included in the existing storm water regulations because EPA used SIC codes in defining the universe of regulated industrial activities. By relying on SIC codes, a classification system created to identify industries rather than environmental impacts from these industries discharges, some types of storm water discharges that might otherwise be considered "industrial" were not included in the existing NPDES storm water program. The second general class of facilities (Group B) was identified on the basis of potential for activities and pollutants that could contribute to storm water contamination.

EPA estimates that Group A has approximately 100,000 facilities. Discharges from facilities in this group, which may be of high priority due to their similarity to regulated storm water discharges from industrial facilities, include, for example, auxiliary facilities or secondary activities (e.g., maintenance of construction equipment and vehicles, local trucking for an unregulated facility such as a grocery store) and facilities intentionally omitted from existing storm water regulations (e.g., publicly owned treatment works with a design flow of less than 1 million gallons per day, landfills that have not received industrial waste).

Group B consists of nearly one million facilities. EPA organized Group B sources into 18 sectors for the purposes of the Report. The automobile service sector (e.g., gas/service stations, general automobile repair, new and used car dealerships, car and truck rental) makes up more than one-third of the total number of facilities identified in all 18 sectors.

EPA conducted a geographical analysis of the industrial and commercial facilities in Groups A and

B. The geographical analysis shows that the majority are located in urbanized areas (see Section 4.2.2, Geographic Extent of Facilities, in the Report). In general, about 61 percent of Group A facilities and 56 percent of Group B facilities are located in urbanized areas. The analysis also showed that nearly twice as many industrial facilities are found in all urbanized areas as are found in large and medium municipalities alone. Notable exceptions to this generalization included lawn/garden establishments, small unregulated animal feedlots, wholesale livestock, farm and garden machinery repair, bulk petroleum wholesale, farm supplies, lumber and building materials, agricultural chemical dealers, and petroleum pipelines, which can frequently be located in smaller municipalities or rural areas.

In identifying potential categories of sources for designation in today's notice, EPA considered designation of discharges from Group A and Group B facilities. EPA applied three criteria to each potential category in both groups to determine the need for designation: (1) The likelihood for exposure of pollutant sources included in that category, (2) whether such sources were adequately addressed by other environmental programs, and (3) whether sufficient data were available at this time on which to make a determination of potential adverse water quality impacts for the category of sources. As discussed previously, EPA searched for applicable nationwide data on the water quality impacts of such categories of facilities.

By application of the first criterion, the likelihood for exposure, EPA considered the nature of potential pollutant sources in exposed portions of such sites. As precipitation contacts industrial materials or activities, the resultant runoff is likely to mobilize and become contaminated by pollutants. As the size of these exposed areas increases, EPA expects a proportional increase in the pollutant loadings leaving the site. If EPA concluded that a category of sources has a high potential for exposure of raw materials, intermediate products, final products, waste materials, byproducts, industrial machinery, or industrial activity to rainfall, the Agency rated that category of sources as having "high" potential for adverse water quality impact. EPA's application of the first criterion showed that a number of Group A and B sources have a high likelihood of exposure of pollutants.

Through application of the second criterion, EPA assessed the likelihood

that pollutant sources are regulated in a comprehensive fashion under other environmental protection programs, such as programs under the Resource Conservation and Recovery Act (RCRA) or the Occupational Health and Safety Act (OSHA). If EPA concluded that the category of sources was sufficiently addressed under another program, the Agency rated that source category as having "low" potential for adverse water quality impact. Application of the second criterion showed that some categories were likely to be adequately addressed by other programs.

After application of the third criterion, availability of nationwide data on the various storm water discharge categories, EPA concluded that available data would not support any such nationwide designations. While such data could exist on a regional or local basis, EPA believes that permitting authorities should have flexibility to regulate only those categories of sources contributing to localized water quality impairments.

EPA received comments requesting designation of additional industrial, commercial and retail sources (*e.g.* industrial activity "look-alikes", roads, commercial facilities and institutions, and vehicle maintenance facilities) in the final rule, because the commenters believe that the data exist to support national designation of some of these sources. Other comments were received opposing designation of any additional sources. Today's rule does not designate any additional industrial or commercial category of sources either because EPA currently lacks information indicating a consistent potential for adverse water quality impact or because of EPA's belief that the likelihood of adverse impacts on water quality is low, with some possible exceptions on a more local basis. Since the time the Agency submitted the Report, EPA has continued to seek additional data and has requested available data from the FACA members. If sufficient regional or nationwide data become available in the future, the permitting authority could at that time designate a category of sources or individual sources on a case-by-case basis. Therefore, today's rule encourages control of storm water discharges from Groups A and B through self-initiated, voluntary BMPs, unless the discharge (or category of discharges) is designated for permitting by the permitting authority. See discussion in section I.D., EPA's Reports to Congress.

### 3. ISTEA Sources

Provisions within the Intermodal Surface Transportation and Efficiency Act (ISTEA) of 1991 temporarily

exempted storm water discharges associated with industrial activity that are owned or operated by municipalities serving populations less than 100,000 people (except for airports, power plants, and uncontrolled sanitary landfills) from the need to apply for or obtain a storm water discharge permit (section 1068(c) of ISTEA). Congress extended the NPDES permitting moratorium for these facilities to allow small municipalities additional time to comply with NPDES requirements for certain sources of industrial storm water. The August 7, 1995 storm water final rule (60 FR 40230) further extended this moratorium until August 7, 2001. However, today's rule changes this deadline so that previously exempted industrial facilities owned or operated by municipalities serving populations less than 100,000 people, must now submit an application for a permit within 3 years and 90 days from date of publication of today's rule.

EPA received comments recommending that permit requirements for municipally owned or operated industrial storm water discharges, including those previously exempt under ISTEA, be included in a single NPDES permit for all MS4 storm water discharges. The existing NPDES regulations already provide permitting authorities the ability to issue a single "combination" permit for MS4 discharges. However, if the permitting authorities chose to issue this type of permit, they must make sure that in doing so, they are not creating a double standard for industrial facilities covered under the combination permit versus those covered under separate general or individual permits. In order to avoid this double standard, combination permits would have to contain requirements that are the same or very similar to the requirements found in separate MS4 and industrial permits, *i.e.*, the minimum measures and other necessary requirements of an MS4 permit, and the SWPPP, monitoring and reporting requirements, and other necessary requirements of an industrial permit. If such a combined MS4 general permit were issued, the regulations require that each discharger submit NOIs for their respective discharges, except for discharges from small construction activities. Flexibility exists in developing a combination NOI which could reduce the need to submit duplicative information, *e.g.* owner/operator name and address. The combination NOI would still need to require specific information for each separate municipally owned or operated industrial location, including

construction projects disturbing 5 or more acres. The regulations at § 122.28(b)(2)(ii) list the necessary contents of an NOI, which require: the facility name, facility address, type of facility or discharge and receiving stream for each industrial discharge location. When viewed in its entirety, a combination permit, which by necessity would need to contain all elements of otherwise separate industrial and MS4 permit requirements, and require NOI information for each separate industrial activity, may have few advantages when compared to obtaining separate MS4 and industrial general permit coverage.

In order to allow the permitting authority to issue a single storm water permit for the MS4 and all municipally owned or operated industrial facilities, including those previously exempt under ISTEA, today's rule requires applications for ISTEA sources within 3 yrs and 90 days from date of publication of today's rule. The permitting authority has the ultimate decision to determine whether or not a single all-encompassing MS4 permit is appropriate.

#### 4. Residual Designation Authority

The NPDES permitting authority's existing designation authority, as well as the petition provisions are being retained. Today's rule contains two provisions related to designation authority at §§ 122.26(a)(9)(i)(C) and (D). Subsection (C) adds designation authority where storm water controls are needed for the discharge based upon wasteload allocations that are part of TMDLs that address the pollutant(s) of concern. EPA intends that the NPDES permitting authority have discretion in the matter of designations based on TMDLs under subsection (C). Subsection (D) carries forward residual designation authority under former § 122.26(g), and has been modified to provide clarification on categorical designation. Under today's rule, EPA and authorized States continue to exercise the authority to designate remaining unregulated discharges composed entirely of storm water for regulation on a case-by-case basis (including § 123.35). Individual sources are subject to regulation if EPA or the State, as the case may be, determines that the storm water discharge from the source contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. This standard is based on the text of section CWA 402(p). In today's rule, EPA believes, as Congress did in drafting section CWA 402(p)(2)(E), that individual instances of storm water discharge might warrant

special regulatory attention, but do not fall neatly into a discrete, predetermined category. Today's rule preserves the regulatory authority to subsequently address a source (or category of sources) of storm water discharges of concern on a localized or regional basis. For example, as States and EPA implement TMDLs, permitting authorities may need to designate some point source discharges of storm water on a categorical basis either locally or regionally in order to assure progress toward compliance with water quality standards in the watershed.

EPA received comments asking that § 122.26(a)(9)(i)(D) as proposed be modified to include specific language clarifying the permitting authority's ability to designate additional sources on a categorical basis as explained in the preamble to the proposed rule. One comment requested that the designation language include "categories of sources on a Statewide basis." EPA agrees that the intent of the language may not have been clear regarding categorical designation. Today's rule modifies subsection (D) to clarify that the designation authority can be applied within different geographic areas to any single discharge (i.e., a specific facility), or category of discharges that are contributing to a violation of a water quality standard or are significant contributors of pollutants to waters of the United States. The added term "within a geographic area" allows "State-wide" or "watershed-wide" designation within the meaning of the terms.

One commenter questioned the Agency's legal authority to provide for such residual designation authority. The stakeholder argued that the lapse of the October 1, 1994, permitting moratorium under CWA section 402(p)(1) eliminated the significance of the CWA section 402(p)(2) exceptions to the moratorium, including the exception for discharges of storm water determined to be contributing to a violation of a water quality standard or a significant contributor of pollutants under CWA section 402(p)(2)(E). The stakeholder further argued that EPA's authority to designate sources for regulation under CWA section 402(p)(6) is limited to storm water discharges other than those described under CWA section 402(p)(2). Because CWA section 402(p)(2)(E) describes individually designated discharges, the stakeholder concluded that regulations under CWA section 402(p)(6) cannot provide for post-promulgation designation of individual sources. EPA disagrees.

First, as explained previously, EPA anticipates that NPDES permitting

authorities may yet determine that individual unregulated point sources of storm water discharges require regulation on a case-by-case basis. This conclusion is consistent with the Congress' recognition of the potential need for such designation under the first phase of storm water regulation as described in CWA section 402(p)(2)(E). Under CWA section 402(p)(2)(E), Congress recognized the need for both EPA and the State to retain authority to regulate unregulated point sources of storm water under the NPDES permit program. Second, to the extent that CWA section 402(p)(6) requires designation of a "category" of sources, the permitting authority may designate such (as yet unidentified) sources as a category that should be regulated to protect water quality. Though such sources may exist and discharge today, if neither EPA nor the State/Tribal NPDES permitting authority has designated the source for regulation under CWA section 402(p)(2)(E) to date, then CWA section 402(p)(6) provides the authority to designate such sources.

The Agency can designate a category of "not yet identified" sources to be regulated, based on local concerns, even if data do not exist to support nationwide regulation of such sources. EPA does not interpret the language in CWA section 402(p) to preclude States from exercising designation authority under these provisions because such designation (and subsequent regulation of designated sources) is within the "scope" of the NPDES program.

EPA also believes that sources regulated pursuant to a State designation are part of (and regulated under) a federally approved State NPDES program, and thus subject to enforcement under CWA sections 309 and 505. Under existing NPDES State program regulations, State programs that are "greater in scope of coverage" are not part of the federally-approved program. By contrast, any such State regulation of sources in this "reserved category" will be within the scope of the federal program because today's rule recognizes the need for such post promulgation designations of unregulated point sources of storm water. Such regulation will be "more stringent" than the federal program rather than "greater in scope of coverage" (40 CFR 123.1(h)).

EPA does not interpret the congressional direction in CWA section 402(p)(6) to preclude regulation of point sources of storm water that should be regulated to protect water quality. Under CWA section 510, Congress expressly recognized and preserved the authority of States to adopt and enforce

more stringent regulation of point sources, as well as any requirement respecting the control or abatement of pollution. Section 510 applies, "except as expressly provided" in the CWA. CWA section 502(14) does expressly provide affirmative limitations on the regulation of certain pollutant sources through the point source control program, the NPDES permitting program. Section 502(14) excludes agricultural storm water and return flows from irrigated agriculture from the definition of point source, and section 402(l) limits applicability of the section 402 permit program for return flows from irrigated agriculture, as well as for storm water runoff from certain oil, gas, and mining operations. Unlike sections 502(14) and 402(l), EPA does not interpret CWA section 402(p)(6) as an express provision limiting the authority to designate point sources of storm water for regulation on a case-by-case basis after the promulgation of final regulations. Any source of storm water discharge is encouraged to assess its potential for storm water contamination and take preventive measures against contamination. Such proactive actions could result in the avoidance of future regulation.

One comment was received requesting clarification of the term "non-municipal" in § 122.26(a)(9)(ii). The commenter is concerned that the term "non-municipal," in this context, implies that municipally owned or operated facilities cannot be designated. The term "non-municipal" in this context refers to the universe of unregulated industrial and commercial facilities that could potentially be designated according to § 122.26(a)(9)(i) authority. There is no exemption for municipally owned or operated facilities under these designation provisions.

Finally, EPA received comments and evaluated the proposal under which operators of regulated small, medium, and large MS4s would be responsible for controlling discharges from industrial and other facilities into their systems in lieu of requiring NPDES permit coverage for such facilities. EPA did not adopt this framework due to concerns with administrative and technical burden on the MS4 operators, as well as concerns about such an intergovernmental mandate.

#### *J. Conditional Exclusion for "No Exposure" of Industrial Activities and Materials to Storm Water*

##### 1. Background

In 1992, the Ninth Circuit court remanded to EPA for further

rulemaking, a portion of the definition of "storm water discharge associated with industrial activity" that excluded the category of industrial activity identified as "light industry" when industrial materials and/or activities were not exposed to storm water. See *NRDC v. EPA*, 966 F.2d 1292, 1305 (9th Cir. 1992). Today's final rule responds to that remand. In the 1990 storm water regulations, EPA excluded the light industry category from the requirement for an NPDES permit if the industrial materials and/or activities were not "exposed" to storm water (see § 122.26(b)(14)). The Agency had reasoned that most of the activity at these types of facilities takes place indoors and that emissions from stacks, use of unboxed manufacturing equipment, outside material storage or disposal, and generation of large amounts of dust or particles would be atypical (55 FR 48008, November 16, 1990).

The Ninth Circuit determined that the exemption was arbitrary and capricious for two reasons. First, the court found that EPA had not established a record to support its assumption that light industry that was not exposed to storm water was not "associated with industrial activity," particularly when other types of industrial activity not exposed to storm water remained "associated with industrial activity." The court specifically found that "[t]o exempt these industries from the normal permitting process based on an unsubstantiated assumption about this group of facilities is arbitrary and capricious." Second, the court concluded that the exemption impermissibly "altered the statutory scheme" for permitting because the exemption relied on the unverified judgment of the light industrial facility operator to determine non-applicability of the permit application requirements. In other words, the court was critical that the operator would determine for itself that there was "no exposure" and then simply not apply for a permit without any further action. Without a basis for ensuring the effective operation of the permitting scheme—either that facilities would self-report actual exposure or that EPA would be required to inspect and monitor such facilities—the court vacated and remanded the rule to EPA for further rulemaking.

One of the major concerns expressed by the FACA Committee, was that EPA streamline and reinvent certain troublesome or problematic aspects of the existing permitting program for storm water discharges. One area identified was the mandatory applicability of the permitting program

to all industrial facilities, even those "light industrial" activities that are of very low risk or of no risk to storm water contamination. Such dischargers may not have any industrial sources of storm water contamination on the plant site, yet they are still required to apply for an NPDES storm water permit and meet all permitting requirements. Examples of such facilities are a soap manufacturing plant (SIC Code 28) or hazardous waste treatment and disposal facility, where all industrial activities, even loading docks, are inside a building or under a roof.

Although they did not provide a written report, the FACA Committee members advised EPA that the existing storm water program should be revised to allow such facilities to seek an exclusion from the NPDES storm water permitting requirements. The Committee agreed that such an exclusion should also provide a strong incentive for other industrial facilities that conduct industrial activities outdoors to move the activities under cover or into buildings to prevent contamination of rainfall and storm water runoff. The committee believed that such a "no exposure" permit exclusion could be a valuable incentive for storm water pollution prevention.

In today's final rule, the Agency responds to both of the bases for the court's remand. The exclusion from permitting based on "no exposure" applies to all industrial categories listed in the existing storm water regulations except construction. The court's opinion rejected EPA's distinction between light industry and other industry, but it did not preclude an interpretation that treats all "non-exposed" industrial facilities in the same fashion. Presuming that an industrial facility adequately prevents exposure of industrial materials and activities to storm water, today's rule treats discharges from "non-exposed" industrial facilities in a manner similar to the way Congress intended for discharges from administrative buildings and parking lots. Specifically, permits will not be required for storm water discharges from these facilities on a categorical basis.

To assure that discharges from industrial facilities really are similar to discharges from administrative buildings and parking lots, and to respond to the second basis for the court's remand, the permitting exclusion is "conditional". The person responsible for a point source discharge from a "no exposure" industrial source must meet the conditions of the exclusion, and complete, sign and submit the certification to the permitting authority for tracking and

accountability purposes. EPA believes today's rule, therefore, is fully consistent with the direction provided by the court.

EPA relied upon the "no exposure" concept discussed by the FACA Committee in developing the "no exposure" provisions of today's rule. EPA is deleting the sentence regarding "no exposure" for the facilities in § 122.26(b)(14)(xi) and adding a new § 122.26(g) titled "Conditional Exclusion for No Exposure of Industrial Activities to Storm Water." The "no exposure" provision will make storm water discharges from all classes of industrial facilities eligible for exclusion, except storm water discharges from regulated construction activities. Regulated construction activities cannot claim "no exposure" because the main pollutants of concern (e.g., sediment) generally cannot entirely be sheltered from storm water.

Today's rule represents a significant expansion in the scope of the "no exposure" provision originally promulgated in the 1990 rule, which was only for storm water discharges from light industry. The intent of today's "no exposure" provision is to provide a simplified method for complying with the CWA to all industrial facilities that are entirely indoors. This includes facilities that are located within a large office building, or at which the only items permanently exposed to precipitation are roofs, parking lots, vegetated areas, and other non-industrial areas or activities.

EPA received several comments related to storm water runoff from parking lots, roof tops, lawns, and other non-industrial areas of an industrial facility. Storm water discharges from these areas, which may contain pollutants or which may result in additional storm water flows, are not directly regulated under the existing storm water permitting program because they are not "storm water discharges associated with industrial activity". Many comments on this issue supported maintaining the exclusion from the existing regulations for storm water permitting for discharges from administrative buildings, parking lots, and other non-industrial areas. Other comments opposed allowing the continued exclusion for discharges from non-industrial areas of the site because discharges from these areas are potentially a significant cause of receiving water impairment. These comments urged that such discharges should not be excluded from NPDES permit coverage. Today's rule does not require permit coverage for discharges from a facility's exposed areas that are

separate from industrial activities such as runoff from office buildings and accompanying parking lots, lawns and other non-industrial areas. This approach is consistent with the existing storm water rules which were based on Congress's intent to exclude non-industrial areas such as "parking lots and administrative and employee buildings." 133 Cong. Rec. 985 (1987). EPA also lacks data indicating that discharges from these areas at an industrial facility cause significant receiving water impairments. Therefore, the non-industrial areas at a facility do not need to be assessed as part of the "no exposure" certification.

EPA received comments related to industrial facilities that achieve "no exposure" by constructing large amounts of impervious surfaces, such as roofs, where previously there were pervious or porous surfaces into which storm water could infiltrate. Some commenters made the point that large amounts of impervious area may cause a significant increase in storm water volume flowing off the industrial facility, and thus may cause adverse receiving water impacts simply due to the increased quantity of storm water flow. Some commenters said that storm water discharges from impervious areas at an industrial facility are generally more frequent, and often larger, than discharges from the pre-existing natural surfaces. They believe that these discharges will contain pollutants typical of commercial areas and roads and are an equal threat to direct human uses of the water and can cause equal damage to aquatic life and its habitat. Other commenters believe that if Congress or EPA addresses the issue of flow, it should be addressed on a broader scale than merely through the "no exposure" exclusion, and that EPA has no authority under any existing legal framework to regulate flow directly. Some commenters stated that developing federal parameters for the control of water quantity, *i.e.* flow, would result in federal intrusion into land use planning, an authority that they claim is solely within the purview of State governments and their political subdivisions.

EPA is not attempting to regulate flow via the "no exposure" provisions. EPA does agree, however, that increases in impervious surfaces can result in increased runoff volumes from the site which in turn may increase pollutant loading. In addition, the Agency notes that in some States water quality standards include water quality criteria for flow or turbidity. Therefore, in order to provide a minimal amount of information on possible impacts from

increased pollutant loading and runoff volume, EPA's "no exposure" certification form (see Appendix 4) asks the discharger to indicate if they have paved or roofed over a formerly exposed, pervious area in order to qualify for the "no exposure" exclusion. If the answer is yes, the discharger must indicate, by choosing from three possible responses, approximately how much impervious area was created to achieve "no exposure". The choices are: (1) less than 1 acre, (2) 1 to 5 acres, and (3) more than 5 acres. This requirement provides additional information that will aid in determining if discharges from the facility are causing adverse receiving water impacts. EPA intends to prevent water quality impacts resulting from increased discharges of pollutants, which may result from increased volume of runoff. In many cases, consideration of the increased flow rate, velocity and energy of storm water discharges, following construction of large amounts of impervious surfaces, must be taken into consideration in order to reduce the discharge of pollutants, to meet water quality standards and to prevent degradation of receiving streams. EPA recommends that dischargers consider these factors when making modifications to their site in order to qualify for the "no exposure" exclusion.

## 2. Today's Rule

In order to claim relief under the "no exposure" provision, the discharger of an otherwise regulated facility must submit a no exposure certification that incorporates the questions of § 122.26(g)(4)(iii) to the NPDES permitting authority once every 5 years. This provision applies across all categories of industrial activity covered by the existing program, except discharges from construction activities.

In addition to submitting a "no exposure" certification every 5 years, the facility must allow the NPDES permitting authority or operator of an MS4 (where there is a storm water discharge to the MS4) to inspect the facility and to make such inspection reports publicly available upon request. Also, upon request, the facility must submit a copy of the "no exposure" certification to the operator of the MS4 into which the facility discharges (if applicable). All "no exposure" certifications must be signed in accordance with the signatory requirements of § 122.22. The "no exposure" certification is non-transferable. In the event that the facility operator changes, the new discharger must submit a new "no exposure" certification.

Members of the FACA Committee urged that EPA not allow dischargers certifying "no exposure" to take actions to qualify for this provision that result in a net environmental detriment. In developing a regulatory implementation mechanism, however, EPA found that the phrase "no net environmental detriment," was too imprecise to use within this context. Therefore, today's rule addresses this issue by requiring information that should help the permitting authority to determine whether actions taken to qualify for the exclusion interfere with the attainment or maintenance of water quality standards, including designated uses. Permitting authorities will be able, where necessary, to make a determination by evaluating the activities that changed at the industrial site to achieve "no exposure", and assess whether these changes cause an adverse impact on, or have the reasonable potential to cause an instream excursion of, water quality standards, including designated uses. EPA anticipates that many efforts to achieve "no exposure" will employ simple good housekeeping and contaminant cleanup activities. Other efforts may involve moving materials and industrial activities indoors into existing buildings or structures.

In very limited cases, industrial operators may make major changes at a site to achieve "no exposure". These efforts may include constructing a new building or cover to eliminate exposure or constructing structures to prevent run-on and storm water contact with industrial materials or activities. Where major changes to achieve "no exposure" increase the impervious area of the site, the facility operator must provide this information on the "no exposure" certification form as discussed above. Using this and other available data and information, permitting authorities should be able to assess whether any major change has resulted in increased pollutant concentrations or loadings, toxicity of the storm water runoff, or a change in natural hydrological patterns that would interfere with the attainment and maintenance of water quality standards, including designated uses or appropriate narrative, chemical, biological, or habitat criteria where such State or Tribal water quality standards exist. In these instances, the facility operator and their NPDES permitting authority should take appropriate actions to ensure that attainment or maintenance of water quality standards can be achieved. The NPDES permitting authority should decide if the facility must obtain coverage under an

individual or general permit to ensure that appropriate actions are taken to address adverse water quality impacts.

While the intent of today's "no exposure" provision is to reduce the regulatory burdens on industrial facilities and government agencies, the FACA Committee suggested that the NPDES permitting authority consider a compliance assessment program to ensure that facilities that have availed themselves of this "no exposure" option meet the applicable requirements. Inspections could be conducted at the discretion of the NPDES authority and be coordinated with other facility inspections. EPA expects, however, that the permitting authority will conduct inspections when it becomes aware of potential water quality impacts possibly caused by the facility's storm water discharges or when requested to do so by adversely affected members of the public. The intent of this provision is that the 5 year "no exposure" certification be fully available to, and enforceable by, appropriate federal and State authorities under the CWA. Private citizens can enforce against facilities for discharges of storm water that are inconsistent with a "no exposure" certification if storm water discharges from such facilities are not otherwise permitted and in compliance with applicable requirements.

EPA received comments from owners, operators and representatives of Phase I facilities classified as "light industry" as defined by the regulations at § 122.26(b)(14)(xi). The comments recommended maintaining the approach of the existing regulations which does not require the discharger to submit any supporting documentation to the permitting authority in order to claim the "no exposure" exclusion from permitting. As discussed previously, the "no exposure" concept was developed in response to the Ninth Circuit court's remand of part of the existing rules back to EPA. The court found that EPA cannot rely on the "unverified judgment" of the facility. The comments opposing documentation did not address the "unverified judgment" concern.

Today's rule is a "conditional" exclusion from permitting which requires all categories, including the "light industrial" facilities that have no exposure of materials to storm water, to submit a certification to the permitting authority. Upon receipt of a complete certification, the permitting authority can review the information, or call, or inspect the facility if there are doubts about the facility's "no exposure" claim. Also, if the facility discharges into an MS4, the operator of the MS4 can

request a copy of the certification, and can inspect the facility. The public can request a copy of the certification and/or inspection reports. In adopting these conditional "no exposure" provisions, the Agency addressed the Ninth Circuit court's ruling regarding the discharger's unverified judgment.

EPA received one comment requesting clarification on whether the anti-backsliding provisions in the regulations at § 122.44(l) apply to industrial facilities that are currently covered under an NPDES storm water permit, and whether such facilities could qualify for the "no exposure" exclusion under today's rule. The anti-backsliding provisions will not prevent most industrial facilities that can certify "no exposure" under today's rule from qualifying for an exclusion from permitting. The anti-backsliding provisions contain 5 exceptions that allow permits to be renewed, reissued or modified with less stringent conditions. One exception at § 122.44(l)(2)(A) allows less stringent conditions if "material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation." Section 122.44(l)(B)(1) also allows less stringent requirements if "information is available which was not available at the time of permit issuance and which would have justified the application of less stringent effluent limitations at the time of permit issuance." Facility's operators who certify "no exposure" and submit the required information once every 5 years will have provided the permitting authority "information that was not available at the time of permit issuance." Also, some facilities may, in order to achieve "no exposure", make "material and substantial alterations or additions to the permitted facility." Therefore, most facilities covered under existing NPDES general permits for storm water (e.g., EPA's Multi-Sector General Permit) will be eligible for the conditional "no exposure" exclusion from permitting without concern about the anti-backsliding provisions. Such dischargers will have met one or both of the anti-backsliding exceptions detailed above. Facilities that are covered under individual permits containing numeric limitations for storm water should consult with their permitting authority to determine whether the anti-backsliding provisions will prevent them from qualifying for the exclusion from permitting (for that discharge point) based on a certification of "no exposure".



EPA received several comments regarding the timing of when the “no exposure” certification should be submitted. The proposed rule said that the “no exposure” certification notice must be submitted “at the beginning of each permit term or prior to commencing discharges during a permit term.” Some commenters interpreted this statement to mean that existing facilities can only submit the certification at the time a permit is being issued or renewed. EPA intended the phrase “at the beginning of each permit term” to mean “once every 5 years” and today’s rule reflects this clarification. EPA envisions that the NPDES storm water program will be implemented primarily through general permits which are issued for a 5 year term. Likewise the “no exposure” certification term is 5 years. The NPDES permitting authority will maintain a simple registration list that should impose only a minor administrative burden on the permitting authority. The registration list will allow for tracking of industrial facilities claiming the exclusion. This change allows a facility to submit a “no exposure” certification at any time during the term of the permit, provided that a new certification is submitted every 5 years from the time it is first submitted (assuming that the facility maintains a “no exposure” status). Once a discharger has established that the facility meets the definition of “no exposure”, and submits the necessary “no exposure” certification, the discharger must maintain their “no exposure” status. Failure to maintain “no exposure” at their facility could result in the unauthorized discharge of pollutants to waters of the United States and enforcement for violation of the CWA. Where a discharger believes that exposure could occur in the future due to some anticipated change at the facility, the discharger should submit an application and obtain coverage under an NPDES permit prior to such discharge to avoid penalties.

Where EPA is the permitting authority, dischargers may submit a “no exposure” certification at any time after the effective date of today’s rule. Where EPA is not the permitting authority, dischargers may not be able to submit the certification until the non-federal permitting authority completes any necessary statutory or regulatory changes to adopt this “no exposure” provision. EPA recommends that the discharger contact the permitting authority for guidance on when the “no exposure” certification should be submitted.

EPA received comments on the proposed rule requirement that the

discharger “must comply immediately with all the requirements of the storm water program including applying for and obtaining coverage under an NPDES permit,” if changes occur at the facility which cause exposure of industrial activities or materials to storm water. The comments expressed the difficulty of immediate compliance. EPA expects that most facility changes can be anticipated, therefore dischargers should apply for and obtain NPDES permit coverage in advance of changes that result in exposure to industrial activities or materials. Permitting authorities may grant additional time, on a case-by-case basis, for preparation and implementation of a storm water pollution prevention plan.

Finally, today’s rule at § 122.26(g)(4) includes the information which must be included on the “no exposure” certification. Authorized States, Tribes or U.S. Territories may develop their own form which includes this required information, at a minimum. EPA adopted the requirements (with modification) from the draft “No Exposure Certification Form” published as an appendix to the proposed rule. Modifications were made to the draft form to address comments received and to streamline the required information. EPA included these certification requirements in today’s rule in order to preserve its integrity. Dischargers in areas where EPA is the permitting authority should use the “No Exposure Certification” form included in Appendix 4.

### 3. Definition of “No Exposure”

For purposes of this section, “no exposure” means that all industrial materials or activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. However, storm resistant shelter is not required for: (1) Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak; (2) adequately maintained vehicles used in material handling; and (3) final products, other than products that would be mobilized in storm water discharge (e.g., rock salt). Each of these three exceptions to the no exposure

definition are discussed in more detail below.

EPA intends the term “storm resistant shelter” to include completely roofed and walled buildings or structures, as well as structures with only a top cover but no side coverings, provided material under the structure is not otherwise subject to any run-on and subsequent runoff of storm water. While the Agency intends that this provision promote permanent “no exposure”, EPA understands that certain vehicles could pass between buildings and, during passage, be exposed to rain and snow. Adequately maintained vehicles such as trucks, automobiles, forklifts, or other such general purpose vehicles at the industrial site that are not industrial machinery, and that are not leaking contaminants or are not otherwise a source of industrial pollutants, could be exposed to precipitation or runoff. Such activities alone does not prevent a discharger from being able to certify no exposure under this provision. Similarly, trucks or other vehicles awaiting maintenance at vehicle maintenance facilities, as defined at § 122.26(b)(14)(viii), that are not leaking contaminants or are not otherwise a source of industrial pollutants, are not considered exposed.

In addition, EPA recognizes that there are circumstances where permanent “no exposure” of industrial activities or materials is not possible. Under such conditions, materials and activities may be sheltered with temporary covers, such as tarps, between periods of permanent enclosure. The final rule does not specify every such situation. EPA intends that permitting authorities will address this issue on a case-by-case basis. Permitting authorities can determine the circumstances under which temporary structures will or will not meet the requirements of this section. Until permitting authorities specifically determine otherwise, EPA recommends application of the “no exposure” exclusion for temporary sheltering of industrial materials or activities only during facility renovation or construction, provided that the temporary shelter achieves the intent of this section. Moreover, “exposure” that results from a leak in protective covering would only be considered “exposure” if not corrected prior to the next storm water discharge event. EPA received one comment requesting that this allowance for temporary shelter be limited to facility renovation or construction directly related to the industrial activity requiring temporary shelter, and be scheduled to minimize the use of temporary shelter. Another comment suggested placing time limits

on the use of temporary shelter. The commenter did not recommend a specific time period, rather the comment said that renovation in some instances may take years, and that EPA should not allow temporary shelter over prolonged periods. EPA agrees that the use of temporary shelter must be related to the renovation or construction at the site, and be scheduled or designed to minimize the use of temporary shelter. Further, EPA agrees that the use of temporary shelter should be limited in duration, but does not intend to define "temporary" or "prolonged period".

Many final products are intended for outdoor use and pose little risk of storm water contamination, such as new cars. Therefore, final products, except those that can be mobilized in storm water discharge, can be "exposed" and still allow the discharge to certify "no exposure". EPA intends the term "final products" to mean those products that are not used in producing another product. Any product that can be used to make another product is considered an "intermediate product." For example, a facility that makes horse trailers can store the finished trailers outdoors as a final product. The storage of those final products does not prevent eligibility to claim "no exposure". However, any facility that makes parts for the horse trailers (e.g., metal tubing, sheet metal, paint) is not eligible for the "no exposure" exclusion from permitting if those "intermediate products" are stored outdoors (i.e., "exposed").

EPA received comments related to materials in drums, barrels, tanks and similar containers. Some comments objected to the language in the preamble to the proposed rule that would have recommended that the "exposure" determination for drums and barrels be based on the "potential to leak." Those comments said that all drums and barrels have the potential to leak, thereby making certification impossible. They recommended allowing outdoor storage of drums and barrels except for those that "are leaking" at the time of certification. Other comments suggested allowing drums and barrels to be stored outside only if the drums and barrels: are empty; have secondary containment; or there is a spill contingency plan in place. Opposing comments suggested that allowing outdoor exposure of drums and barrels, based on existing integrity and condition, is inconsistent with the "however packaged" proposed rule language, and also would not satisfy the Ninth Circuit remand. The comments point out that the former rule was invalidated by the court in part because it relied on the "unverified

judgment" of the light industrial facility operator to determine the non-applicability of the permit requirements, and that allowing the facility operator to determine the condition of their drums and barrels would result in the same flaw.

In response, EPA believes that drums and barrels that are stored outdoors pose little risk of storm water contamination unless they are open, deteriorated or leaking. The Agency has modified today's rule accordingly. EPA intends the term "open" to mean any container that is not tightly sealed and "sealed" to mean banded or otherwise secured and without operational taps or valves. Drums, barrels, tanks, and similar containers may only be stored outdoors under this conditional exclusion. The addition of material to or withdrawing of material from these containers while outside is deemed "exposure". Moving the containers while outside does not create "exposure" provided that the containers are not open, deteriorated or leaking. In order to complete the "no exposure" certification, a facility operator must inspect all drums, barrels, tanks or other containers stored outside to ensure that they are not open, deteriorated, or leaking. EPA recommends that the discharger designate someone at the facility to conduct frequent inspections to verify that the drums, barrels, tanks or other containers remain in a condition such that they are not open, deteriorated or leaking. Drums, barrels, tanks or other containers stored outside that have valves which are used to put material in or take material out of the container, and that have dripped or may drip, are considered to be "leaking" and must be under a storm resistant shelter in order to qualify for the no exposure exclusion. Likewise, leaking pipes containing contaminants exposed to storm water are deemed "exposed." If at any time drums, barrels, tanks or similar containers are opened, deteriorated or leaking, the discharger should take immediate actions to close or replace the container. Any resulting unpermitted discharge would violate the CWA. The Director, the operator of the MS4, or the municipality may inspect the facility to verify that all of the applicable areas meet the "no exposure" conditions as specified in the rule language. In requiring submission of the conditional "no exposure" certification and allowing the permitting authority and the operator of the MS4 to inspect the facility, today's rule does not rely on the unverified judgment of the facility to determine that the no exposure provision is being met.

EPA received several comments related to trash dumpsters that are located outside. The preamble to the proposed rule listed dumpsters in the same grouping as drums and barrels, which based exposure on the "potential to leak". Today's rule distinguishes between dumpsters and drums/barrels. In the Phase I Question and Answer document (volume 1, question 52) the Agency noted that a covered dumpster containing waste material that is kept outside is not considered "exposed" as long as "the container is completely covered and nothing can drain out holes in the bottom, or is lost in loading onto a garbage truck." EPA affirms this approach today. Industrial refuse and industrial trash that is left uncovered is deemed "exposed."

For purposes of this provision, particulate matter emissions from roof stacks/vents that are regulated and in compliance under other environmental protection programs, such as air quality control programs, and that do not cause storm water contamination, are considered "not exposed." EPA received comments on the phrase in the draft "no exposure" certification form that asked whether "particulate emissions from roof stacks/vents not otherwise regulated, and in quantities detectable in the storm water outflow," are exposed to precipitation. One comment expressed concern that the phrase "in quantities detectable in the storm water outflow" implies that the facility must conduct monitoring prior to completing the checklist, and must continue to monitor after receiving the no exposure exclusion, in order to be able to verify compliance with the no exposure provision. Another comment said that current measurement technology allows detection of pollutants at levels that may not cause environmental harm. EPA does not intend to require monitoring of runoff from facilities with roof stacks/vents prior to or after completing and submitting the no exposure certification. EPA has thus replaced the phrase "in quantities detectable" with "evident" to convey the message that emissions from some roof stacks/vents have the potential to contaminate storm water discharges in quantities that are considered significant or that cause or contribute to a water quality standards violation. In those instances where the permitting authority determines that particulate emissions from facility roof stacks/vents are a significant contributor of pollutants or contributing to water quality violations, the permitting authority may require the discharger to apply for and obtain coverage under a

permit. Visible deposits of residuals (e.g., particulate matter) near roof or side vents are considered "exposed". Likewise, visible "track out" (i.e., pollutants carried on the tires of vehicles) or windblown raw materials are deemed "exposed."

EPA received a comment requesting an allowance under the "no exposure" provision for industrial facilities with several outfalls at a site where some, but not all of the outfalls drain non-exposed areas. The commenter provided an example of an industrial facility that has 5 outfalls draining different areas of the site, where two of those outfalls drain areas where industrial activities or materials are not exposed to storm water. The comment requested that the facility in this example be allowed to submit a "no exposure" certification in order to be relieved of permitting obligations for discharges from those two outfalls.

EPA agrees, but the comment would be implemented on an outfall-by-outfall basis in the permitting process, not through the "no exposure" exclusion. The "no exposure" provision was developed to allow exclusion from permitting of discharges from entire industrial facilities (except construction), based on a claim of "no exposure" for all areas of the facility where industrial materials or activities occur. Where exposure to industrial materials or activities exist at some but not all areas of the facility, the "no exposure" exclusion from permitting is not allowed because permit coverage is still required for storm water discharges from the exposed areas. Relief from permit requirements for outfalls draining non-exposed areas should be addressed through the permit process, in coordination with the permitting authority. Most NPDES general permits for storm water discharge provide enough flexibility to allow minimal or no requirements for non-exposed areas at industrial facilities. If the permitting authority determines that additional flexibility is needed for this scenario, the permits could be modified as necessary.

#### K. Public Involvement/Public Role

The Phase II FACA Subcommittee discussed the appropriate role of the public in successful implementation of a municipal storm water program. EPA believes that an educated and actively involved public is essential to a successful municipal storm water program. An educated public increases program compliance from residents and businesses as they realize their individual and collective responsibility for protecting water resources (e.g., the

residents and businesses could be subject to a local ordinance that prohibits dumping used oil down storm sewers). Finally, the program is also more likely to receive public support and participation when the public is actively involved from the program's inception and allowed to participate in the decision making process.

In a time of limited staff and financial resources, public volunteers offer diverse backgrounds and expertise that may be used to plan, develop, and implement a program that is tailored to local needs (e.g., participate in public meetings and other opportunities for input, perform lawful volunteer monitoring, assist in program coordination with other preexisting and related programs, aid in the development and distribution of educational materials, and provide public training activities). The public's participation is also useful in the areas of information dissemination/education and reporting of violators, where large numbers of community members can be more effective than a few regulators.

The public can also petition the NPDES permitting authority to require an NPDES permit for a discharge composed entirely of storm water that contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. In evaluating such a petition, the NPDES permitting authority is encouraged to consider the set of designation criteria developed for the evaluation of small MS4s located outside of an urbanized area in places with a population of at least 10,000 and a population density of 1,000 or more. Furthermore, any person can protect water bodies by taking civil action under section 505 of the CWA against any person who is alleged to be in violation of an effluent standard or permit condition. If civil action is taken, EPA encourages citizen plaintiffs to resolve any disagreements or concerns directly with the parties involved, either informally or through any available alternative dispute resolution process.

EPA recognizes that public involvement and participation pose challenges. It requires a substantial initial investment of staff and financial resources, which could be very limited. Even with this investment, the public might not be interested in participating. In addition, public participation could slow down the decision making process. However, the benefits are numerous.

EPA encourages members of the public to contact the NPDES permitting authority or local MS4s operator for information on the municipal storm water program and ways to participate.

Such information may also be available from local environmental, nonprofit and industry groups.

Some commenters stressed the need to suggest to the public that they have a responsibility to fund the municipal storm water program. While EPA believes it is important that the program be adequately funded, today's rule does not address appropriate mechanisms or levels for such funding.

EPA received comments expressing concern that considerable public involvement requirements could result in increased litigation. EPA is not convinced there is a correlation between meaningful public education programs and any increased probability of litigation.

Finally, EPA received comments stating that the Agency should not encourage volunteer monitoring unless proper procedures are followed. EPA agrees. EPA encourages only lawful monitoring, i.e., obtaining the necessary approval if there is any question about lawful access to sites. Moreover, as a matter of good practice and to enhance the validity and usefulness of the results, any party, public or private, conducting water quality monitoring is encouraged to use appropriate quality control procedures and approved sampling and analytic methods.

#### L. Water Quality Issues

##### 1. Water Quality Based Effluent Limits

In addition to technology based requirements, all point source discharges of industrial storm water are subject to more stringent NPDES permitting requirements when necessary to meet water quality standards. CWA sections 402(p)(3)(A) and 301(b)(1)(C). For municipal separate storm sewers, EPA or the State may determine that other permit provisions (e.g. one of the minimum measures) are appropriate to protect water quality and, for discharges to impaired waters, to achieve reasonable further progress toward attainment of water quality standards pending implementation of a TMDL. CWA section 402(p)(3)(B)(iii). See *Defenders of Wildlife, et al. Browner*, No. 98-71080 (9th cir., August 11, 1999). Discharges of storm water also must comply with applicable antidegradation policies and implementation methods to maintain and protect water quality. 40 CFR 131.12. Section 122.34(a) emphasizes this point by specifically noting that a storm water management program designed to reduce the discharge of pollutants from the storm sewer system "to the maximum extent practicable" is also designed to protect water quality.

Permits issued to non-municipal sources of storm water must include water quality-based effluent limits where necessary to meet water quality standards.

Commenters challenged EPA's interpretation of the CWA as requiring water quality-based effluent limits for MS4s when necessary to protect water quality. Commenters asserted that CWA 402(p)(3)(B), which addresses permit requirements for municipal discharges, limits the scope of municipal program requirements to an effective prohibition on non-storm water discharges to a separate storm sewer and to controls which reduce pollutants to the "maximum extent practicable, including management practices, control techniques and system design and engineering methods." They asserted that the final rule should clarify that neither numeric nor narrative water quality-based limits are appropriate or authorized for MS4s.

EPA disagrees that section 402(p)(3) divests permitting authorities of the tools necessary to issue permits to meet water quality standards. Section 402(p)(3)(B)(iii) specifically preserves the authority for EPA or the State to include other provisions determined appropriate to reduce pollutants in order to protect water quality. *Defenders of Wildlife*, slip op. at 11688. Small MS4s regulated under today's rule are designated under CWA 402(p)(6) "to protect water quality."

Commenters argued that water quality standards, particularly numeric criteria, were not designed to address storm water discharges. The episodic nature and magnitude of storm water events, they argue, make it impossible to apply the "end of pipe" compliance assessment approach, for example, in the development of water quality based effluent limits.

EPA's disagrees with the commenters arguments about the inability of water quality criteria to address high flow conditions. Today's final rule does, however, address the concern that numeric effluent limits will necessitate end of pipe treatment and the need to provide a workable alternative.

Today's rule was developed under the approach outlined in the Interim Permitting Policy for Water Quality-Based Effluent Limitations in Storm Water Permits, issued on August 1, 1996. 61 FR 43761 (November 26, 1996) (the "Interim Permitting Policy"). EPA intends to issue NPDES permits consistent with the Interim Permitting Policy, which provides as follows:

In response to recent questions regarding the type of water quality-based effluent limitations that are most

appropriate for NPDES storm water permits, EPA is adopting an interim permitting approach for regulating wet weather storm water discharges. Due to the nature of storm water discharges, and the typical lack of information on which to base numeric water quality-based effluent limitations (expressed as concentration and mass), EPA will use an interim permitting approach for NPDES storm water permits.

"The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards. In cases where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits, as necessary and appropriate. This interim permitting approach is not intended to affect those storm water permits that already include appropriately derived numeric water quality-based effluent limitations. Since the interim permitting approach only addresses water quality-based effluent limitations, it also does not affect technology-based effluent limitations, such as those based on effluent limitations guidelines or developed using best professional judgment, that are incorporated into storm water permits.

"Each storm water permit should include a coordinated and cost-effective monitoring program to gather necessary information to determine the extent to which the permit provides for attainment of applicable water quality standards and to determine the appropriate conditions or limitations of subsequent permits. Such a monitoring program may include ambient monitoring, receiving water assessment, discharge monitoring (as needed), or a combination of monitoring procedures designed to gather necessary information.

"This interim permitting approach applies only to EPA; however, EPA also encourages authorized States and Tribes to adopt similar policies for storm water permits. This interim permitting approach provides time, where necessary, to more fully assess the range of issues and possible options for the control of storm water discharges for the protection of water quality. This interim permitting approach may be modified as a result of the ongoing Urban Wet Weather Flows Federal Advisory Committee policy dialogue on this subject."

One commenter challenged the Interim Permitting Policy on a procedural basis, arguing that it was published without opportunity for public notice and comment. In response, EPA notes that the Policy was included verbatim and made available for public comment in the proposal to today's final rule. Prior to that proposal, the Agency defended the application of the Policy on a case-by-case basis in individual permit proceedings. Moreover, the essential elements of the Policy—that narrative effluent limitations are the most appropriate form of effluent limitations for storm water dischargers from municipal sources—was inherent in § 122.34(a) of the proposed rule, and was the subject of extensive public comment. In any event, the Policy does not constitute a binding obligation. It is policy, not regulation.

Consistent with the recognition of data needs underlying the Policy, EPA will evaluate the small MS4 storm water regulations after the second round of permit issuance. Section 122.34(e)(2) of today's rule expressly provides that for the interim ten-year period, "EPA strongly recommends that until the evaluation of the storm water program in § 122.37, no additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL or equivalent analysis provides adequate information to develop more specific measures to protect water quality." This approach addresses the concern for protecting water resources from the threat posed by storm water discharges with the important qualification that there must be adequate information on the watershed or a specific site as a basis for requiring tailored storm water controls beyond the minimum control measures. As indicated, the Interim Permitting Policy has several important limitations—it does not apply to technology-based controls or to sources that already have numeric end of pipe effluent limitations. EPA encourages authorized States and Tribes to adopt policies similar to the Interim Permitting Policy when developing storm water discharge programs. For a discussion of appropriate monitoring activities, see Section H.3.d., Evaluation and Assessment.

Where a water quality analysis indicates there is a need and basis for deriving water quality-based effluent limits in NPDES permits for storm water discharges regulated under today's rule, EPA believes that most of these cases would be satisfied by narrative effluent

limitations that require the implementation of BMPs. NPDES permit limits will in most cases continue to be based on the specific approach outlined in today's rule for the implementation of BMPs as the most appropriate form of effluent limitation to satisfy technology and water quality-based requirements. See § 122.34(a). For storm water management plans with existing BMPs, this may require further tailoring of BMPs to address the pollutant(s) of concern, the nature of the discharge and the receiving water. If the permitting authority determines that, through implementation of appropriate BMPs required by the NPDES storm water permit, the discharge has the necessary controls to provide for attainment of water quality standards, additional controls are not needed in the permit. Conversely, if a discharger (MS4, industrial or construction) fails to adopt and implement adequate BMPs, the permittee and/or the permitting authority should consider a different mix of BMPs or more specific conditions to ensure water quality protection.

Some commenters observed that there was no evidence from the experience of storm water dischargers regulated under the existing NPDES storm water program, or from studies or reports that allegedly support EPA's position, that implementation of BMPs to satisfy the six minimum control measures would meet applicable water quality standards for a regulated small MS4. In response, EPA acknowledges that the six minimum measures are intended to implement the statutory requirement to control discharges to the maximum extent practicable, and they may not result in the attainment of water quality standards in all cases. The control measures do, however, focus on and address well-documented threats to water quality associated with storm water discharges. Based on the collective expertise of the FACA Subcommittee, EPA believes that implementation of the six minimum measures will, for most regulated small MS4s, be adequate to protect water quality, and for other regulated small MS4s will substantially reduce the adverse impacts of their discharges on water quality.

Some commenters asserted that analyses of existing water quality criteria suggest that numeric criteria for aquatic life may be overprotective if applied to storm water discharges. These comments maintained that an approach that prohibits exceedance of applicable water quality criteria is unworkable. Various commenters recommended wet weather specific

criteria, variances to the criteria during wet weather events, and seasonal designated uses. Other commenters noted that water quality-based effluent limits in NPDES permits have traditionally been developed based on dry weather flow conditions (e.g., assuming critical low-flow conditions in the receiving water to ensure protection of aquatic life and human health). Wet weather discharges, however, typically occur under high-flow conditions in the receiving water. Assumptions regarding mass balance equations and size of mixing zones may also not be pertinent during wet weather.

EPA acknowledges the need to devise a regulatory program that is both flexible enough to accommodate the episodic nature, variability and volume of wet weather discharges and prescriptive enough to ensure protection of the water resource. EPA believes that wet weather discharges can be adequately addressed in the existing regulations through refining designated uses and assigning criteria that are tailored to the level of water quality protection described by the refined designated use.

EPA believes that lack of precision in assigning designated uses and corresponding criteria by States and Tribes, in many cases may result in application of water quality criteria that may not appropriately match the intended condition of the water body. States and Tribes have frequently designated uses without regard to site-specific wet weather conditions. Because certain uses (swimming, for example) might not exist during high-intensity storm events or in the winter, States may factor such climatic conditions and seasonal uses into their use designations with appropriate analyses. This would acknowledge that a lower level of control, at lower compliance cost, would be appropriate to protect that use. Before modifying any designated use, however, States would need to evaluate the effect of less stringent water quality criteria on protecting other uses, including any threatened or endangered species, drinking water supplies and downstream uses. EPA will further evaluate these issues in the context of the Water Quality Standards Regulation, Advance Notice of Proposed Rule Making (ANPRM), 63 FR, 36742, July 7, 1998.

One of the major themes presented by EPA in the ANPRM is that refinement in use designations and tailoring of water quality criteria to match refined use designations is an important future direction of the water quality standards program. In assigning criteria to protect

general use classifications, a State or Tribe must ensure that the criteria are sufficiently protective to safeguard the full range of waters of the State, i.e., criteria would be based on the most sensitive use. This approach has been disputed, especially for aquatic life uses, where evidence suggests that the general use criteria will require controls more stringent than needed to protect the existing or potential aquatic life community for a specific water body. EPA recognizes that there is a growing need to more precisely tailor use descriptions and criteria to match site-specific conditions, ensuring that uses and criteria provide an appropriate level of protection, which, to the extent possible, are not overprotective. EPA is engaged in an ongoing evaluation of its regulations in this area through the ANPRM effort. At the same time, EPA continues to encourage States and Tribes to review the applicability of the designated uses and associated criteria using existing provisions in the water quality standards regulation.

## 2. Total Maximum Daily Loads and Analysis To Determine the Need for Water Quality-Based Limitations

The development and implementation of total maximum daily loads (TMDLs) provide a link between water quality standards and effluent limitations. CWA section 303(d) requires States to develop TMDLs to provide more stringent water quality-based controls when technology-based controls are inadequate to achieve applicable water quality standards. A TMDL is the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources, with consideration for natural background conditions. A TMDL quantifies the maximum allowable loading of a pollutant to a water body and allocates this maximum load to contributing point and nonpoint sources so that water quality criteria will not be exceeded and designated uses will be protected. A TMDL also includes a margin of safety to account for uncertainty about the relationship between pollutant loads and water quality.

Today's final rule refers to TMDLs in several provisions. For the purpose of today's rule, EPA relies on the component of the TMDL that evaluates existing conditions and allocates loads. For discharges to waters that are not impaired and for which a TMDL has not been developed, today's rule also refers to an "equivalent analysis." The discussion that follows uses the term "TMDL" for both.

Under revised § 122.26(a)(9)(i)(C), the permitting authority may designate

storm water discharges that require NPDES permits based on TMDLs that address the pollutants of concern. For storm water discharges associated with small construction activity, § 122.26(b)(15)(i)(B) provides a waiver provision where it may be determined that storm water controls are not needed based on TMDLs that address sediment and any other pollutants of concern. The NPDES permitting authority may waive requirements under the program for certain small MS4s within urbanized areas serving less than 1,000 persons provided that, if the small MS4 discharges any pollutant that has been identified as a cause of impairment of a water body into which it discharges, the discharge is in compliance with a wasteload allocation in a TMDL for the pollutant of concern. The permitting authority may also waive requirements for MS4s in urbanized areas serving between 1,000 and 10,000 persons, if the permitting authority determines that storm water controls are not needed, as provided in § 123.35(d)(2). See § 122.32(c).

Under CWA section 303(d), States identify which of their water bodies need TMDLs and rank them in order of priority. Generally, once a TMDL has been completed for one or more pollutants in a water body, a wasteload allocation for each point source discharging the pollutant(s) is implemented as an enforceable condition in the NPDES permit. Regulated small MS4s are essentially like other point source discharges for purposes of the TMDL process.

A TMDL and the resulting wasteload allocations for pollutant(s) of concern in a water body may not be available because the water body is not on the State's 303(d) list, the TMDL has not yet been completed, or the TMDL did not include specific pollutants of concern. In these cases, the permitting authority must determine whether point sources discharge pollutant(s) in amounts that cause, have the reasonable potential to cause, or contribute to excursions above State water quality standards, including narrative water quality criteria. This so-called "reasonable potential" analysis is intended to determine whether and for what pollutants water quality based effluent limits are required. The analysis is, in effect, a substitute for a similar determination that would be made as part of a TMDL, where necessary. When "reasonable potential" exists, regulations at § 122.44(d) require a water quality-based effluent limit for the pollutant(s) of concern in NPDES permits. The water quality-based effluent limits may be narrative requirements to implement BMPs or,

where necessary, may be numeric pollutant effluent limitations.

Commenters, generally from the regulated community, objected that, due to references to the need to develop a program "to protect water quality" and to additional NPDES permit requirements beyond the minimum control measures based on TMDLs or their equivalent, regulated small MS4s will be subject to uncertain permit limitations beyond the six minimum control measures. Commenters also asserted that through the imposition of a wasteload allocation under a TMDL in impaired water bodies, there is a likelihood that unattainable, yet enforceable narrative and numeric standards will be imposed on regulated small MS4s.

As is discussed in the preceding section, NPDES permits must include any more stringent limitations when necessary to meet water quality standards. However, even if a regulated small MS4 is subject to water quality based effluent limits, such limits may be in the form of narrative effluent limitations that require the implementation of BMPs. As discussed earlier, EPA has adopted the Interim Permitting Policy and incorporated it in the development of today's rule to recognize the appropriateness of BMP-based limits developed on a case-by-case basis.

EPA formed a Federal Advisory Committee to provide advice to EPA on identifying water quality-limited water bodies, establishing TMDLs for them as appropriate, and developing appropriate watershed protection programs for these impaired waters in accordance with CWA section 303(d). Operating under the auspices of the National Advisory Council for Environmental Policy and Technology (NACEPT), the committee produced its *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program* (July 1998). EPA recently published a proposed rule to implement the Report's recommendations (64 FR 46012, August 23, 1999).

### 3. Anti-Backsliding

In general, the term "anti-backsliding" refers to statutory provisions at CWA sections 303(d)(4) and 402(o) and regulatory provisions at 40 CFR 122.44(l). These provisions prohibit the renewal, reissuance, or modification of an existing NPDES permit that contain effluent limits, permit terms, limitations and conditions, or standards that are less stringent than those established in the previous permit. There are also

exceptions to this prohibition known as "antibacksliding exceptions."

The issue of backsliding from prior permit limits, standards, or conditions is not expected to initially apply to most storm water dischargers designated under today's proposal because they generally have not been previously authorized by an NPDES permit. However, the backsliding prohibition would apply if a storm water discharge was previously covered under another NPDES permit. Also, the backsliding prohibition could apply when an NPDES storm water permit is reissued, renewed, or modified. In most cases, however, EPA does not believe that these provisions would restrict revisions to storm water NPDES permits.

One commenter questioned whether, if BMPs implemented by a regulated small MS4 operator fail to produce results in removal of pollutants and the permittee attempts to substitute a more effective BMP, the small MS4 operator could be accused of violating the anti-backsliding provisions and also be exposed to citizen lawsuits. In response, EPA notes that in such circumstances the MS4's permit has not changed and, therefore, the prohibition against backsliding is not applicable. Further, any change in the mix of BMPs that was intended to be more effective at controlling pollutants would not be considered backsliding, even if it did not include all of the previously implemented BMPs.

### 4. Water Quality-Based Waivers and Designations

Several sections of today's final rule refer to water quality standards in identifying those storm water discharges that are and are not required to be permitted under today's rule. As noted in § 122.30 of today's rule, CWA section 402(p)(6) requires the designation of municipal storm water sources that need to be regulated to protect water quality and the establishment of a comprehensive storm water program to regulate these sources. Requirements applicable to certain municipal sources may be waived based on the absence of demonstrable water quality impacts. Section 122.32(c). The section 402(p)(6) mandate to protect water quality also provides the basis for regulating discharges associated with small construction. See also § 122.26(b)(15)(i). Further, today's rule carries forward the existing authority for the permitting authority to designate sources of storm water discharges based upon water quality considerations. Section 122.26(a)(9)(i)(C) and (D).

As is discussed above in sections II.H.2.e (for small MS4s) and II.I.1.b.ii

(for small construction), the requirements of today's rule may be waived based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutants of concern or, in the case of small construction and municipalities serving between 1,000 and 10,000 persons, the equivalents of TMDLs. One commenter stated that waivers would allow exemptions to the technology based requirements and would thus be inconsistent with the two-fold approach of the CWA (a technology based minimum and a water quality based overlay). EPA acknowledges that waivers are not allowed for other technology-based requirements under the CWA. A more flexible approach is allowed, however, for sources designated for regulation under 402(p)(6) to protect water quality. For such sources EPA may allow a waiver where it is demonstrated that an individual source does not present the

threat to water quality that was the basis for EPA's designation.

**III. Cost-Benefit Analysis**

EPA has determined that the range of the rule's benefits exceeds the range of regulatory costs. The estimated rule costs range from \$847.6 million to \$981.3 million annually with corresponding estimated monetized annual benefits which range from \$671.5 million to \$1.628 billion, expected to exceed costs.

The rule's cost and benefit estimates are based on an annual comparison of costs and benefits for a representative year (1998) in which the rule is implemented. This differs from the approach used for the proposed rule which projected cost and benefits over three permit terms. EPA has chosen to use the current approach because it determined that the ratio of annual benefits and costs would not change significantly over time. Moreover,

because there is not an initial outlay of capital costs with benefits accruing in the future (i.e., benefits and costs are almost immediately at a steady state), it is not necessary to discount costs in order to account for a time differential.

EPA developed detailed estimates of the costs and benefits of complying with each of the incremental requirements imposed by the rule. The Agency used two approaches, a national water quality model and national water quality assessment, to estimate the potential benefits of the rule. Both approaches show that the benefits are likely to exceed costs.

These estimates, including descriptions of the methodology and assumptions used, are described in detail in the *Economic Analysis of the Final Phase II Rule*, which is included in the record of this rule making. Exhibit 3 summarizes costs and benefits associated with the basic elements of today's rule.

**EXHIBIT 3.—COMPARISON OF ANNUAL COMPLIANCE COST AND BENEFIT ESTIMATES <sup>1</sup>**

Monetized benefits	National water quality model (millions of 1998 dollars)	National water quality assessment (millions of 1998 dollars)
Municipal Minimum Measures .....	.....	\$131.0–\$410.2
Controls for Construction Sites .....	.....	\$540.5–\$686.0
<b>Total Annual Benefits .....</b>	<b>\$1,628.5 .....</b>	<b>\$671.5–\$1,096.2</b>
Costs	Millions of 1998 dollars <sup>2</sup>	
Municipal Minimum Measures .....	\$297.3	
Controls/Waivers for Construction Sites .....	\$545.0–\$678.7	
Federal/State Administrative Costs .....	\$5.3	
<b>Total Annual Costs .....</b>	<b>\$847.6–\$981.31</b>	

<sup>1</sup> National level benefits are not inclusive of all categories of benefits that can be expected to result from the regulation.

<sup>2</sup> Total may not add due to rounding.

**A. Costs**

**1. Municipal Costs**

Initially, to determine municipal costs for the proposed rule, EPA used anticipated expenditure data included in permit applications from a sample of 21 Phase I MS4s. Certain commenters criticized the Agency for using anticipated expenditures because they could be significantly different from the actual expenditures. These commenters suggested that the Agency use the actual cost incurred by the Phase I MS4s. Other comments stated that because the Phase I MS4s, in general, are large municipalities, they may not be representative of the Phase II MS4s for estimating regulatory costs. Finally, one commenter noted that the sample of 21 municipalities used to project cost was relatively small.

To address the concerns of the commenters, EPA utilized a National Association of Flood and Stormwater Management Agencies (NAFSMA) survey of the Phase II community to obtain incremental cost estimates for Phase II municipalities. Using the list of potential Phase II designees published in the **Federal Register** (63 FR 1616), NAFSMA contacted more than 1,600 jurisdictions. The goal of the survey was to solicit information from those communities about the proposed Phase II NPDES storm water program. Several of the survey questions corresponded directly to the minimum measures required by the Phase II rule. One hundred twenty-one surveys were returned to NAFSMA and were used to develop municipal costs.

Using the NAFSMA information, EPA estimated average annual per household

program costs for automatically designated municipalities. EPA also estimated an average annual per household administrative cost for municipalities to address application, record keeping, and reporting requirements of the Rule. The total average per household cost of the rule is expected to \$9.16 per household.

To determine potential national level costs for municipalities, EPA multiplied the number of households (32.5 million) by the per household cost (\$9.16). EPA estimates the annual cost of the Phase II municipal program at \$298 million.

As an alternative method, and point of comparison, to the NAFSMA-based approach, EPA reviewed actual expenditures reported from 35 Phase I MS4s. The Agency targeted these 35 Phase I MS4s because they had participated in the NPDES program for



nearly one permit term, were smaller in size and had detailed data reflecting their actual program implementation costs. Of the 35 MS4s, appropriate cost data was only available for 26 of those MS4s. EPA analyzed the expenditure data and identified the relevant expenditures, excluding costs presented in the annual reports unrelated to the requirements of the Rule. The cost range and annual per household program costs of \$9.08 are similar to those found using the NAFSMA survey data.

## 2. Construction Costs

In order to estimate the rule's construction-related cost on a national level (the soil and erosion controls (SEC) requirements of the rule and the potential impacts of the post-construction municipal measure on construction), EPA estimated a per site cost for sites of one, three, and five acres and multiplied these costs by the total number of estimated Phase II construction starts across these size categories.

To estimate the percentage of starts subject to the soil and erosion control requirements between 1 and 5 acres, with respect to each category of building permits (residential, commercial, *etc.*), EPA initially used data from Prince George's County (PGC), Maryland, and applied these percentages to national totals. In the proposal, EPA recognized that the PGC data may not be representative of the entire country and requested data that could be used to develop better estimates of the number of construction sites between 1 and 5 acres. EPA did not receive any substantiated national data from commenters.

In view of the unavailability of national data from commenters, EPA made extensive efforts to collect construction site data around the country. The Agency contacted more than 75 municipalities. EPA determined that 14 of the contacted municipalities had useable construction site data. Using data from these 14 municipalities, EPA developed an estimate of the percentage of construction starts on one to five acres. EPA then multiplied this percentage by the number of building permits issued nationwide to determine the total number of construction starts occurring on one to five acres. Finally, to isolate the number of construction starts incrementally regulated by Phase II, EPA subtracted the number of activities regulated under equivalent programs (*e.g.*, areas covered by the Coastal Zone Act Reauthorization Amendments of 1990, and areas covered by equivalent State level soil and erosion control requirements).

Ultimately, EPA estimated that 110,223 construction starts would be incrementally covered by the rule annually.

EPA then used standard cost estimates from *Building Construction Cost Data* and *Site Work Landscape Cost Data* (R.S. Means, 1997a and 1997b) to estimate construction BMP costs for 27 model sites in a variety of typical site conditions across the United States. The model sites included three different site sizes (one, three and five acres), three slope variations (3%, 7%, and 12%), and three soil erosivity conditions (low, medium, and high). EPA chose BMP combinations appropriate to the model site conditions. Based on the assumption that any combination of site factors is equally likely to occur in a given site, EPA developed average cost of sediment and erosion control for all model sites. EPA estimated that, on average, BMPs for a 1 acre site will cost \$1,206, for a 3 acre site \$4,598 and for a 5 acre site \$8,709.

EPA then estimated administrative costs per construction site for the following elements required under the rule: Submittal of a notice of intent for permit coverage; notification to municipalities; development of a storm water pollution prevention plan; record retention; and submittal of a notice of termination. EPA estimated the average total administrative cost per site to be \$937.

EPA also considered the cost implications of NPDES permit authorities waiving the applicability of requirements to storm water discharges from small construction sites based on two different criteria involving water quality impact and low rainfall. EPA received comments stating that a waiver would require a significant investment in training or acquisition of a consultant. Based on comments received, EPA eliminated one of the waiver conditions involving low soil loss threshold because it necessitated use of the Revised Universal Soil Loss Equation which could require extensive technical expertise.

Based on the opinions of construction industry experts, EPA estimates that 15 percent of the construction sites that would otherwise be covered by today's rule will be eligible to receive waivers. Therefore, the Agency has excluded 15 percent of the construction sites when deriving costs of sediment and erosion control. The average cost for sites to qualify for the waiver is expected to be \$34 per site. The construction cost analysis for the proposed rule did not include any costs for the preparation and submission of waiver applications

because EPA believed those costs would be negligible. However, in response to public comments, EPA has estimated these potential costs.

EPA has also estimated the potential costs for construction site operators to implement the post-construction minimum measure. These are costs that may be incurred by construction site operators if the MS4 chooses to meet the post-construction minimum measure by requiring on-site structural, site-by-site control of post-construction runoff. Municipalities may select from an array of structural and non-structural options in implementing this measure, so the potential costs to construction operators is uncertain. Nonetheless, EPA developed average annual BMP costs for sites of one, three, five and seven acres. EPA's analysis accounted for varying levels of imperviousness that characterize residential, commercial, and institutional land uses. Nationwide, these costs are expected to range from \$44 million to \$178 million annually.

Finally, to establish national incremental annual costs for Phase II construction starts, EPA multiplied the total costs of compliance for the chosen site size categories by the total number of Phase II construction starts and added post-construction costs. EPA estimates the annual compliance cost to range from \$545 million to \$678.7 million.

## B. Quantitative Benefits

In the Economic Analysis for the proposed rule, a "top-down" approach was used to estimate economic benefits. Under this approach, the combined economic benefits for wet weather programs were estimated first, and then were divided among various water programs on the basis of expert opinion. As a result, the benefits estimates for an individual program were rather uncertain. Moreover, this approach was inconsistent with the approach used to estimate the cost of the proposed storm water rule, which was developed using municipal-based and cost-based data to develop "bottom-up" costs. Therefore, EPA decided to use a "bottom-up" approach for estimating benefits of the Phase II rule. To adequately reflect the quantifiable benefits of the rule, EPA used two different methods: (1) National Water Quality Model and (2) National Water Quality Assessment.

To monetize benefits in both approaches, the Agency applied Carson and Mitchell's (1993) estimates of household willingness-to-pay (WTP) for water quality improvement to estimates of waters impaired by storm water discharges. Carson and Mitchell's 1993 study reports the results of their 1983 national survey of WTP for incremental

improvements in fresh water quality. Carson and Mitchell estimate the WTP for three minimum levels of fresh water quality: boatable, fishable, and sizable. EPA adjusted the WTP amounts to account for inflation, growth in real per capita income, and increased attitudes towards pollution control. The adjusted WTP amounts for improvements in fresh water quality are \$210 for boatable, \$158 for fishable, and \$177 for sizable. A brief summary of the national water quality model and national water quality assessment approaches follow.

1. National Water Quality Model

One approach EPA used to estimate the benefits of the Phase II municipal and construction site controls was the National Water Pollution Control Assessment Model (NWPCAM). NWPCAM estimates benefits of the storm water program at the national level, including the impact on small streams. This model estimates water quality and the resultant use support for the 632,000 miles of rivers and streams in the USEPA Reach File Version 1 (RF1), which covers the continental

United States. The model analyzes water quality changes by stream reach. The parameters modeled in the NWPCAM are biological oxygen demand (BOD), total suspended solids (TSS), dissolved oxygen (DO), and fecal coliforms (FC).

The model projects changes in water quality due to the Phase II municipal and construction site controls. To calculate the economic benefits of change in water quality, the number of households in the proximity of the stream reach are determined, by overlaying the model results on the 1990 Census of Populated Places and Minor Civil Divisions, and updating the population to 1998. Economic benefits are calculated using the Carson and Mitchell WTP values. The benefits are separately estimated for local and non-local waters on the basis of WTP values and proximity to water quality changes.

The value of the change in use support for local waters is greater than the value of the non-local waters because of the opportunity to use local waters by the local population. This model assumes that if improvement

occurs in waters that are not close to population centers the economic value is lower. Therefore, benefits are estimated for local and non-local waters separately. This assumption is based on Carson and Mitchell's survey which asked respondents to apportion each of their stated WTP values between achieving the water quality goals in their own State and achieving those goals in the nation as a whole. On average, respondents allocated 67% of their values to achieving in-State water quality goals and the remainder to the nation as a whole. Carson and Mitchell argue that for valuing local water quality changes 67% is a reasonable upper bound for the local multiplier and 33% for the non-local water quality changes. For the purposes of this analysis, the locality is defined as urban sites and associated populations linked into the NWPCAM framework. Using this methodology, the total monetized benefits of Phase II control of urban and construction site runoff is estimated to be \$1.628 billion per year. The local and non-local benefits due to Phase II controls are presented in Exhibit 4.

EXHIBIT 4.—LOCAL AND NON-LOCAL BENEFITS ESTIMATES DUE TO PHASE II CONTROLS NATIONAL WATER QUALITY MODEL ESTIMATE

Use support	Local benefits (\$million/yr)	Non-local benefits <sup>1</sup> (\$million/yr)	Total benefits (\$million/yr)
Swimming, Fishing, and Boating .....	306.20	60.60	366.80
Fishing and Boating .....	395.10	51.90	447.00
Boating .....	700.10	114.60	814.70
Total .....	1401.40	227.10	1628.50

<sup>1</sup> To estimate non-local willingness to pay per household, the 33% of willingness is multiplied by the fraction of previously impaired national waters (in each use category) that attain the beneficial use as a result of the Phase II rule. To estimate the aggregate non-local benefits, non-local willingness to pay is multiplied with the total number of households in the US.

While the numbers of miles that are estimated to change their use support are small, the benefits estimates are quite significant. This is because urban runoff and, to a large extent, construction activity occurs where the people actually reside and the water quality changes mostly occur close to these population centers. NWPCAM indicates that changes in pollution loads have the most effect immediately downstream of pollution changes. As a result, the aggregate WTP is large because large numbers of households in these population centers are associated with the local waters that reflect improvement in designated use support.

2. National Water Quality Assessment

EPA also estimated benefits of the Phase II Storm Water program using the 1998 National Water Quality Inventory (305(b)) Report to Congress, rather than

the NWPCAM as a basis for estimating impairment addressed by the rule. The Water Quality Assessment method separately estimates benefits associated with improvements to fresh water, marine water and construction site controls, and then aggregates these separate categories into an estimate of total annual benefits.

a. Municipal Measures

i. Fresh Waters Benefits

In order to develop estimates for the potential value of the municipal measures (except storm water runoff controls for construction sites), EPA applied Carson & Mitchell WTP values to estimated existing and projected future fresh water impairment. Carson & Mitchell did not evaluate marine waters, so only fresh water values were available from their research. Even

though the Carson and Mitchell estimates apply to all fresh water, it is not clear how these values would be apportioned among rivers, lakes, and the Great Lakes. The 305(b) data indicate that lakes are the most impaired by urban runoff/storm sewers, followed closely by the Great Lakes, and then rivers. Therefore, EPA applied the WTP values to the categories separately and assumed that the higher resulting value for lakes represents the high end of the range (i.e., assuming that lake impairment is more indicative of national fresh water impairment) and that the lower resulting value for impaired rivers represents the low end of a value range for all fresh waters (i.e., assuming that river impairment is more indicative of national fresh water impairment). In addition, EPA estimated that the post-construction runoff

requirements of the municipal program might result in benefits of at least \$16.8 million annually from avoided future runoff. The post-construction estimate significantly underestimates potential program benefits because it does not account for avoided hydrologic changes and resulting water quality impairment associated with increases in imperviousness from development and redevelopment. Summing the benefits across the water quality use support levels yields an estimate of benefits ranging from approximately \$121.9 million to \$378.2 million per year.

ii. Marine Waters Benefits

In addition to the fresh water benefits captured by the Carson and Mitchell study, EPA anticipates benefits as a result of improvements to marine waters. Sufficient methods have not been developed to quantify national-level benefits for commercial or recreational fishing. EPA used beach closure data and visitation estimates from its Beach Watch Program to estimate potential reductions in marine swimming visits due to storm water runoff contamination events in 1997. The estimated 86,100 trips that did not occur because of beach closures in coastal Phase II communities is a lower bound because it represents only those beaches that report both closures and visitation data. EPA estimates potential swimming benefits from the rule to be at least \$2.1 million annually.

EPA developed an analysis of potential benefits associated with avoided health impacts from exposure to contaminants in storm sewer effluent. Based on a study of incremental illnesses found among people who swam within one yard of storm drains in Santa Monica Bay, EPA estimated a range of incremental illnesses (Haile *et al.*, 1996). Depending on assumptions made about number of exposures to contaminants and contaminant concentrations, benefits ranged from \$7.0 million to \$29.9 million annually.

b. Construction Benefits

The major pollutant resulting from construction activities is sediment. However, in addition to sediment, construction activities also yield pollutants such as pesticides, petroleum products, and solvents. Because circumstances will vary considerably from site to site, data is not available with which to develop estimates of benefits for each site and aggregate to obtain a national-level estimate.

In the proposed rule, EPA estimated the combined benefits of all wet weather programs, and then used expert opinions to allocate them to different individual programs. To eliminate the possible overlap between the benefits of the soil and erosion control requirements, municipal measures, and other wet weather storm water programs, EPA chose to use an approach in today's final rule that directly

estimates the benefits of soil and erosion requirements.

A survey of North Carolina residents (Paterson *et al.*, 1993) indicated that households are willing to pay for erosion and sediment controls similar to those in today's rule. Based on income and other indicators, the values derived from the study are expected to be similar to values held in the rest of the country. Using the mean value of the willingness to pay of \$25 per household, EPA projects annual benefits of the soil and erosion requirements to range from \$540.5–\$686 million.

c. Summary of Benefits From the National Water Quality Assessment

Total benefits from municipal measures and construction site controls are expected to range from \$671.5 million to \$1.1 billion per year, including benefits of approximately \$13.7 million per year associated with small stream improvements. A summary of the potential benefits is presented in Exhibit 5.

As shown in Exhibit 5, it was not possible to monetize all categories of benefits using the WTP estimates. In particular, benefits for improving marine water quality such as fishing and passive use benefits are not included in the values used to estimate the potential benefits of the municipal minimum measures (excluding construction sites controls), and they are not estimated separately, because information is not currently available.

EXHIBIT 5.—POTENTIAL ANNUAL BENEFITS OF THE PHASE II STORM WATER RULE NATIONAL WATER QUALITY ASSESSMENT ESTIMATE

Benefit category	Annual WTP
<b>Municipal Minimum Measures <sup>1</sup></b>	
Fresh Water Use and Passive Use <sup>2</sup> .....	\$121.9–\$378.2
Marine Recreational Swimming .....	\$2.1
Human Health (Marine Waters) .....	\$7.0–\$29.9
Other Marine Use and Passive Use .....	(+)
<b>Erosion and Sediment Controls for Construction Sites</b>	
Fresh Water and Marine Use and Passive Use <sup>3</sup> .....	\$540.5–\$686
<b>Total Phase II Program</b>	
Total Use & Passive Use (Fresh Water and Marine) .....	>\$671.5–>\$1,096.2

+ = positive benefits expected but not monetized.

<sup>1</sup> Includes water quality benefit of municipal programs, based on 80% effectiveness of municipal programs.

<sup>2</sup> Based on research by Carson and Mitchell (1993). Fresh water value only. Does not include commercial fishery, navigation, or diversionary (e.g. municipal drinking water cost savings or risk reductions) benefits. May not fully capture human health risk reduction or ecological values.

<sup>3</sup> Based on research by Paterson *et al.* (1993). Although the survey's description of the benefits of reducing soil erosion from construction sites included reduced dredging, avoided flooding, and water storage capacity benefits, these benefit categories may not be fully incorporated in the WTP values. Small streams may account for over 2% of total benefits.

C. Qualitative Benefits

There are additional benefits to storm water control that cannot be quantified

or monetized. Thus, the current estimate of monetized benefits may understate the true value of storm water controls

because it omits many ways in which society is likely to benefit from reduced storm water pollution, such as improved

aesthetic quality of waters, benefits to wildlife and to threatened and endangered species, cultural values, and biodiversity benefits.

A benefit that EPA did not monetize completely is the flood control benefits attributable to municipal storm water controls reducing downstream flooding, although flood control benefits associated with sediment and erosion control are already reflected to some extent in the construction benefits. Similarly, the Agency could not value the benefits from increased property value due to storm water controls reflected in the rule, even though a commenter suggested inclusion of these benefits in the estimates.

Moreover, while a number of commenters requested that EPA include ecological benefits, the Agency was not able to fully monetize these benefits. Urbanization usually increases the amount of sediment, nutrients, metals and other pollutants associated with land disturbance and development. Development usually not only results in a dramatic increase in the volume of water runoff, but also in a substantial decrease in that water's quality due to stream scour, runoff and dispersion of toxic pollutants, and oversiltation. These kinds of secondary benefits could not be fully reflected in the monetized benefits. EPA was able to only monetize the aquatic life support benefits for waters assumed to be impaired. Thus, only the aquatic life support benefits attributable to municipal controls, reflected through human satisfaction, are taken into account.

Reduced nutrient level is another benefit of the storm water control which is not fully captured by the economic analysis. High nutrient levels often lead to eutrophication of the aquatic system. The quality change in ecological sources as the result of storm water controls to reduce pollutants is not fully reflected in the present benefits.

**D. National Economic Impact**

Finally, the Agency determined that the rule will have minimal impacts on

the economy or employment. This is because the final rule regulates small MS4s and construction sites under 5 acres, not the typical industrial plants or other non-construction activities that could directly impact production and thus those sectors of the economy.

Discussions with representatives within the construction industry indicate that construction costs will likely be passed on to buyers, thus not seriously affecting the housing industry directly. One commenter argued that the rule will have a negative employment effect because the builders will build fewer homes requiring less building materials as a result of the declining demand induced by the cost of the soil and erosion controls. EPA disagrees with this argument because the cost of the controls, as the percentage of the price of a median home, is negligible and will be passed on to final buyers.

Flexibility within the rule allows MS4s to tailor the storm water program requirements to their needs and financial position, minimizing impacts. For sedimentation and erosion controls on construction sites, the rule contemplates application of commonly used BMPs to reduce costs for the construction industry. Thus, the rule attempts to use existing practices to prevent pollution, which should minimize impacts on States, Tribes, municipalities and the construction industry.

Thus, EPA concludes that the effect of the rule, if any, on the national economy will be minimal. The benefits of today's rule more than offset any cost impacts on the national economy.

**IV. Regulatory Requirements**

**A. Paperwork Reduction Act**

The Office of Management and Budget (OMB) has approved some of the information collection requirements contained in this final rule (*i.e.* those found in 40 CFR 122.26(g) and 123.35(b)) under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2040-0211.

The burden and costs described below are for the information collection, reporting, and record keeping requirements for the three year period beginning with the effective date of today's rule. Additional information collection requirements for regulated small MS4s and small construction sites will occur after this initial three year period and will be counted in a subsequent information collection requirement. The total burden of the information collection requirements for the first three years of this rule is estimated at 56,369 hours with a corresponding cost of \$2,151,305 million annually. This burden and cost is for industrial facilities to complete and submit the no exposure certification, for NPDES-authorized States to process and review the no exposure certification, and for the NPDES-authorized States to develop designation criteria and assess additional MS4s outside of urbanized areas. Compliance with the applicable information collection requirements imposed under this rule are mandatory, pursuant to CWA section 402.

Exhibit 6 presents average annual burden and cost estimates for Phase II respondents for the first three years. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust existing ways for complying with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

EXHIBIT 6.—AVERAGE ANNUAL BURDEN AND COST ESTIMATES FOR PHASE II RESPONDENTS

Information collection activity	A Respondents per year (projected) <sup>1</sup>	B Burden hours per respondent per year (predicted)	(A)×(B)=C Annual re- spondent bur- den hours (projected)	D Respondent labor cost (\$/ hr) (1998 \$)	(C)×(D)=E Annual Cost (\$ (projected)
Ind. No Expos. Facilities: <sup>2</sup> No Expos. Certification .....	36,377	1.0	36,377	44.35	1,613,320
Annual Subtotal .....			36,377		1,613,320
NPDES-Authorized States: <sup>3</sup> Designation of Addit. MS4s <sup>4</sup> .....	15	332.8	4,892	26.91	131,644

EXHIBIT 6.—AVERAGE ANNUAL BURDEN AND COST ESTIMATES FOR PHASE II RESPONDENTS—Continued

Information collection activity	A Respondents per year (projected) <sup>1</sup>	B Burden hours per respond- ent per year (predicted)	(A)×(B)=C Annual re- spondent bur- den hours (projected)	D Respondent labor cost (\$/ hr) (1998 \$)	(C)×(D)=E Annual Cost (\$) (projected)
No Exp. Cert. Proc. & Rev .....	30,200	0.5	15,100	26.91	406,341
Annual Subtotal .....			19,992		537,985
Annual Totals .....			56,369		2,151,305

**Notes:**

<sup>1</sup>Source: U.S. EPA, Office of Wastewater Management. Economic Analysis for the Storm Water Phase II Rule.

<sup>2</sup>The total number of potential no exposure respondents was divided by 5 to estimate an annual total. It was assumed that the annual number of respondents for the no exposure certification would be spread over the five year period the exclusion applies.

<sup>3</sup>The number of respondents in each category represents only those respondents located within the 44 NPDES-authorized States and Territories. The burden and cost estimates provided in this section are for the NPDES-authorized States in their role as the permitting authority for municipal designations and industrial no exposure.

<sup>4</sup>The number of respondents for this activity, 15, represents the number of NPDES-authorized States and Territories that must develop designation criteria and assess small MS4s located outside of an urbanized area for possible Phase II coverage divided by the three year ICR period.

Given the requirements of today’s regulation, EPA believes there will be no capital startup and no operation and maintenance costs associated with information collection requirements of the rule.

The government burden associated with today’s rule will impact State, Tribal, and Territorial governments (NPDES-authorized governmental entities) that have storm water program authority, as well as the federal government (i.e., EPA), where it is the NPDES permitting authority. As of March 1999, 43 States and the Virgin Islands had NPDES authority.

The annual burden imposed upon authorized governmental entities (delegated States and the Virgin Islands) and the federal government for the next three years is estimated to be 19,992 hours (\$537,985) and 4,087 hours (\$115,948) respectively, for a total of 24,079 hours (\$653,933). This estimate is based on the average time that governments will expend to carry out the following activities: designate additional MS4s (332.8 hours) and process and review “no exposure” certificates from industrial dischargers (0.5 hour).

Under the existing rule, storm water discharges from light industrial activities identified under § 122.26(b)(14)(xi) were exempted from the permit application requirements if they were not exposed to storm water. Today’s rule expands the applicability of the “no exposure” exclusion to include all industrial activity regulated under § 122.26(b)(14) (except category (x), construction). The “no exposure” provision is applied through the use of a written certification process, thus representing a slight reporting burden increase for “light” industries with “no exposure”.

In addition to the information collection, reporting, and record keeping burden for the next three years, today’s rule contains information collection requirements that will not begin until three years or more from the effective date of today’s rule. These information collection requirements were not included in the information collection request approved by OMB. EPA will submit these burden estimates for OMB approval when it submits ICR 2040–0211 to OMB for renewal in three years. The rule burdens for regulated small MS4s and small construction sites that will be included in the ICR renewal fall into three areas: application for an NPDES permit or submittal of waiver information, record keeping of storm water management activities, and submittal of reports to the permitting authority. There will also be an additional burden for the permitting authority to review this information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA’s regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. EPA is amending the table in 40 CFR Part 9 of currently approved ICR control numbers issued by OMB for various regulations to list the first three years of information requirements contained in this final rule.

*B. Executive Order 12866*

Under Executive Order 12866, [58 FR 51,735 (October 4, 1993)] the Agency must determine whether the regulatory action is “significant” and therefore subject to OMB review and the requirements of the Executive Order. The Order defines “significant

regulatory action” as one that is likely to result in a rule that may:

- (1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is a “significant regulatory action”. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

*C. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with “Federal mandates” that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a

written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted.

EPA has determined that today's rule contains a Federal mandate that may result in expenditures of \$100 million or more in any one year for both State, local, and tribal governments, in the aggregate, and the private sector. Accordingly, EPA has prepared under section 202 of the UMRA a written statement which is summarized below.

#### 1. Summary of UMRA Section 202 Written Statement

EPA promulgates today's storm water regulation pursuant to the specific mandate of Clean Water Act section 402(p)(6), as well as sections 301, 308, 402, and 501. (33 U.S.C. sections 1342(p)(6), 1311, 1318, 1342, 1361.) Section 402(p)(6) of the CWA requires that EPA designate sources to be regulated to protect water quality and establish a comprehensive program to regulate those sources.

In the *Economic Analysis of the Final Phase II Rule* (EA), EPA describes the qualitative and monetized benefits associated with today's rule and then compares the monetized benefits with the estimated costs for the rule. EPA developed detailed estimates of the costs and benefits of complying with each of the incremental requirements imposed by the rule. These estimates, including descriptions of the methodology and assumptions used, are described in detail in the EA. The Agency used two approaches, a national water quality model and national water quality assessment, to estimate the potential benefits of the rule. Both approaches show that the benefits are likely to exceed costs. Exhibit 3 in section III of this preamble summarizes the costs and benefits associated with the basic elements of today's rule.

There are additional benefits to storm water control that cannot be quantified or monetized. Thus, the current estimate of monetized benefits may understate the true value of storm water controls because it omits many ways by which society is likely to benefit from reduced storm water pollution, such as improved

aesthetic quality of waters, benefits to wildlife and to threatened and endangered species, cultural values, and biodiversity benefits.

Several commenters asserted that today's rule is an unfunded mandate and that, without funding, the monitoring of the already existing pollution control programs would suffer. In section II.D.3 of the preamble, EPA lists some of the programs that EPA anticipates may provide funds to help develop and, in limited circumstances, implement storm water management programs.

In the EA, EPA reviewed the expected effect of today's rule on the national economy. The Agency determined that the rule will have minimal impacts on the economy or employment. This is because the final rule regulates small MS4s and construction sites under 5 acres, not the typical industrial plants or other non-construction activities that could directly impact production and thus those sectors of the economy.

Discussions with representatives within the construction industry indicate that construction costs will likely be passed on to buyers, thus not seriously affecting the housing industry directly. Flexibility within the rule allows MS4s to tailor the storm water program requirements to their needs and financial position, minimizing impacts. For sedimentation and erosion controls on construction sites, the rule contemplates application of commonly used BMPs to reduce costs for the construction industry. Thus, the rule attempts to use existing practices to prevent pollution, which should minimize impacts on States, Tribes, municipalities and the construction industry.

Thus, EPA concludes that the effect of the rule, if any, on the national economy would be minimal. The benefits of today's rule more than offset any cost impacts on the national economy.

Consistent with the intergovernmental consultation provisions of section 204 of the UMRA and Executive Order 12875, "Enhancing the Intergovernmental Partnership," EPA consulted with the governmental entities affected by this rule.

First, EPA provided States, Tribal and local governments with the opportunity to comment on draft alternative approaches for the proposed rule through publishing a notice requesting information and public comment in the **Federal Register** on September 9, 1992 (57 FR 41344). This notice presented a full range of regulatory alternatives. At that time, EPA received more than 130 comments, including approximately 43 percent from municipalities and 24

percent from State or Federal agencies. These comments were the genesis of many of the provisions in the today's rule, including reliance on the NPDES program framework (including general permits), providing State and local governments flexibility in selecting additional sources requiring regulation, and focusing on high priority polluters. These comments helped to focus on pollution prevention, watershed-based concerns and BMPs. They also led to certain exemptions for facilities that do not pollute national waters.

In early 1993, EPA, in conjunction with the Rensselaerville Institute, held public and expert meetings to assist in developing and analyzing options for identifying unregulated storm water sources and possible controls. These meetings provided participants an additional opportunity to provide input into the CWA section 402(p)(6) program development process. The final rule addresses several of the key concerns identified in these groups, including provisions that provide flexibility to the States to select sources to be controlled and types of permits to be issued, and flexibility to MS4s in selecting BMPs.

EPA also conducted outreach with representatives of small entities, including small government representatives, in conjunction with the convening of a Small Business Advocacy Review Panel under SBREFA which is discussed in section IV.E. of the preamble.

In addition, EPA established the Urban Wet Weather Flows Advisory Committee under the Federal Advisory Committee Act (FACA). The Urban Wet Weather Flows Advisory Committee, in turn established the Storm Water Phase II Subcommittee. Consistent with FACA, the membership of the Committee and the Storm Water Phase II Subcommittee was balanced among EPA's various outside stakeholder interests, including representatives from State governments, municipal governments (both elected officials and appointed officials) and Tribal governments, as well as industrial and commercial sectors, agriculture, environmental and public interest groups.

In general, municipal and Tribal government representatives supported the NPDES approach in today's rule for the following reasons: It will be uniformly applied on a nationwide basis; it provides flexibility to allow incorporation of State and local programs; it resolves the problem of donut holes that cause water quality impacts in urbanized areas; and it allows co-permitting of small regulated

MS4s with those regulated under the existing storm water program.

In contrast, State representatives sought alternative approaches for State implementation of the storm water program for Phase II sources. State representatives asserted that a non-NPDES alternative approach best facilitated watershed management and avoided duplication and overlapping regulations. These representatives pointed out that there are a variety of State programs—not based on the CWA—implementing effective storm water controls, and that EPA should provide incentives for their implementation and improvement in performance. EPA continues to believe that an NPDES approach is the best approach in order to adequately protect water quality. However, EPA has worked with States on an alternative approach that provides flexibility within the NPDES framework. The final rule allows States with a watershed permitting approach to phase in permit coverage for MS4s in jurisdictions with a population less than 10,000 and provides two waivers from coverage for small MS4s. This issue is discussed in section II.C of the preamble, Program Framework: NPDES Approach.

Some municipal governments objected that the rule's minimum measures for small MS4s violate the Tenth Amendment insofar as they require the operators of MS4s to regulate third parties according to the "minimum measures" for municipal storm water management programs. EPA disagrees that today's rule is inconsistent with Tenth Amendment principles. Permits issued under today's rule will not compel political subdivisions of States to regulate in their sovereign capacities, but rather to effectively control discharges out of their storm sewer systems in their owner/operator capacities. For MS4s that do not accept this "default" minimum measures-based approach (to control discharges out of the storm sewer system by exercising local powers to control discharges into the storm sewer system), today's rule allows for alternative permits through individual permit applications. EPA made revisions to the rule to allow regulated small MS4s to opt out of the minimum measures approach and instead apply for an individual permit. This issue is discussed in section II.H.3.c.iii of the preamble, Alternative Permit Option/Tenth Amendment.

## 2. Selection of the Least Costly, Most Cost-Effective or Least Burdensome Alternative That Achieves the Objectives of the Statute

Today's rule evolved over time and incorporated aspects of alternatives that responded to concerns presented by the various stakeholders. A primary characteristic of today's rule is the flexibility it offers both the permitting authority and the regulated sources (small MS4s and small construction sites), by the use of general permits, implementation of BMPs suited to specific locations, and allowing MS4s to develop their own program goals.

In the administrative record supporting the proposed rule, EPA estimated ranges of costs associated with six different options, including a no action option, the proposed option, and four other options that considered various combinations of the following: Covering all the unregulated construction sites below 5 acres, all small MS4s, certain industrial and commercial activities, and all point sources. EPA developed detailed cost estimates for the incremental requirements imposed under the final regulation, and for each of the alternatives, and applied these estimates to the remaining unregulated point sources of storm water. The Agency compared the estimated annual range of costs imposed under today's rule and other major options considered. The range of values for each option included the costs for compliance, including paperwork requirements for the operators of small construction sites, industrial facilities, and MS4s and administrative costs for State and Federal NPDES permitting authorities.

Today's rule reflects the least costly option that achieves the objectives of the statute, thus meeting the requirements of section 205. EPA did not consider "no regulation" to be an "option" because it would not achieve the objectives of CWA section 402(p)(6). A portion of currently unregulated point sources of storm water need to reduce pollutants to protect water quality.

Today's rule is estimated to range in cost from \$847.6 million to \$981.3 million annually, although the cost estimate for the proposed rule was reported as a range of \$138 to \$869 million annually. That range reflected a unit cost range for the municipal minimum measures and a cost range per construction site for soil erosion control. EPA has since revised its cost analysis to allow it to report the current estimate, which is toward the high end of the original cost range. The four other regulatory options considered at

proposal involved higher regulatory costs and, therefore, were not selected. These four options and their estimated costs are as follows:

(1) An option based on the August 7, 1995 direct final rule was estimated to cost between \$2.2 billion and \$78.9 billion per year.

(2) A "Plan B" option was estimated to cost between \$0.6 billion and \$3.2 billion per year.

(3) An option based on the September 30, 1996 draft proposed rule was estimated to cost between \$0.2 billion and \$3.7 billion per year.

(4) An option based on the February 13, 1997 draft proposed rule, was estimated to cost between \$0.2 billion and \$3.5 billion.

There are three reasons why the costs for these four options exceeded the estimated cost range for the proposed rule. The first two options regulated substantially more municipal governments. The first, third, and fourth options required industrial facilities to apply for permits. Finally, the first three options applied permit requirements to construction sites below 1 acre. Consequently, these options would be more costly than today's rule even with the revised analysis methods used to estimate costs.

## 3. Effects on Small Governments

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements. EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Although today's rule expands the NPDES program (with modifications) to certain MS4s serving populations below 100,000 and although many MS4s are owned by small governments, EPA does not believe today's rule significantly or uniquely affects small governments. As explained in section IV.E. of the preamble, EPA today certifies that the rule will not have a significant impact on small governmental jurisdictions. In addition, the rule will not have a unique impact on small governments because the rule will affect small governments in



to the same extent as (or to a lesser extent than) larger governments that are already covered by the existing storm water rules. Thus, today's rule is not subject to the requirements of section 203 of UMRA.

Notwithstanding this finding, in developing today's rule, EPA provided notice of the requirements to potentially affected small governments; enabled officials of affected small governments to provide meaningful and timely input in the development of regulatory proposals; and informed, educated and advised small governments on compliance with the requirements.

Concerning notice, EPA provided States, local, and Tribal governments with the opportunity to comment on alternative approaches for an early draft of the proposed rule by publishing a notice requesting information and public comment in the **Federal Register** on September 9, 1992 (57 FR 41344). This notice presented a full range of regulatory alternatives. At that time, EPA received more than 130 comments, including approximately 43 percent from municipalities and 24 percent from State or Federal agencies.

The Agency also provided, through the SBREFA panel process and the FACA process, the opportunity for elected officials of small governments (and their representatives) to meaningfully participate in the development of the rule. Through such participation and exchange, EPA not only notified potentially affected small governments of requirements of the developing rule, but also allowed officials of affected small governments to have meaningful and timely input into the development of regulatory proposals.

In addition to involving municipalities in the development of the rule, EPA also continues to inform, educate, and advise small governments on compliance with the requirements of today's rule. For example, EPA supported 10 workshops, presented by the American Public Works Association from September 1998 through May 1999, designed to educate local governments on the implementation of the rule. The workshop curriculum included information on a variety of key issues such as anticipated regulatory requirements, agency reporting, best management practices, construction site controls, post construction management for new and redeveloped sites, public education and public involvement strategies, detection and control of illicit discharges, and good housekeeping practices. Moreover, EPA has prepared a series of fact sheets, available on the

EPA website at [www.epa.gov/owm/sw/toolbox](http://www.epa.gov/owm/sw/toolbox), that explains the rule in detail.

Finally, to assist small governments in implementing the Phase II program, EPA is committed to the following: (1) developing a tool box of implementation strategies; (2) providing written technical assistance, including guidance on developing BMPs and measurable goals; and (3) compiling a comprehensive evaluation of the NPDES municipal storm water Phase II program over the next 13 years.

#### *D. Executive Order 13132*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

If EPA complies by consulting, Executive Order 13132 requires EPA to provide to the Office of Management and Budget (OMB), in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS must include a description of the extent of EPA's prior consultation with State and local officials, a summary of the nature of their concerns and the agency's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. For final rules subject to Executive Order 13132, EPA also must submit to OMB a statement from the agency's Federalism Official certifying that EPA has fulfilled the Executive Order's requirements.

EPA has concluded that this final rule may have federalism implications. As discussed above in section IV.C., the rule contains a Federal mandate that may result in the expenditure by State, local and tribal governments, in the aggregate, of \$100 million or more in any one year. Accordingly, the rule may have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Moreover, the rule will impose substantial direct compliance costs on State or local governments. Accordingly, EPA provides the following FSIS under section 6(b) of Executive Order 13132.

#### 1. Description of the Extent of the Agency's Prior Consultation with State and Local Governments

Although this rule was proposed long before the November 2, 1999 effective date of Executive Order 13132, EPA consulted extensively with affected State and local governments pursuant to the intergovernmental consultation provisions of Executive Order 12875, "Enhancing the Intergovernmental Partnership" (now revoked by Executive Order 13132) and section 204 of UMRA.

First, EPA provided State and local governments the opportunity to comment on draft alternative approaches for the proposed rule through publishing a notice requesting information and public comment in the **Federal Register** on September 9, 1992 (57 FR 41344). This notice presented a full range of regulatory alternatives. At that time, EPA received more than 130 comments, including approximately 43 percent from municipalities and 24 percent from State or Federal agencies. These comments were the genesis of many of the provisions in the today's rule, including reliance on the NPDES program framework (including general permits), providing State and local governments flexibility in selecting additional sources requiring regulation, and focusing on high priority polluters. These comments helped to focus on pollution prevention, watershed-based concerns and BMPs. They also led to certain exemptions for facilities that do not pollute national waters.

In early 1993, EPA, in conjunction with the Rensselaerville Institute, held public and expert meetings to assist in developing and analyzing options for identifying unregulated storm water sources and possible controls. These meetings provided participants an additional opportunity to provide input into the CWA section 402(p)(6) program

development process. The final rule addresses several of the key concerns identified in these groups, including provisions that provide flexibility to the States to select sources to be controlled and types of permits to be issued, and flexibility to MS4s in selecting BMPs.

EPA also conducted outreach with representatives of small entities, including small governments, in conjunction with the convening of a Small Business Advocacy Review Panel under SBREFA which is discussed in section III.F. of the preamble.

In addition, EPA established the Urban Wet Weather Flows Advisory Committee (FACA), which in turn established the Storm Water Phase II Subcommittee. Consistent with the Federal Advisory Committee Act, the membership of the Committee and the Storm Water Phase II Subcommittee was balanced among EPA's various outside stakeholder interests, including representatives from State governments, municipal governments (both elected officials and appointed officials) and Tribal governments, as well as industrial and commercial sectors, agriculture, environmental and public interest groups.

## 2. Summary of Nature of State and Local Government Concerns, and Statement of the Extent to Which Those Concerns Have Been Met

In general, municipal government representatives supported the NPDES approach in today's rule for the following reasons: it will be uniformly applied on a nationwide basis; it provides flexibility to allow incorporation of State and local programs; it resolves the problem of donut holes that cause water quality impacts in urbanized areas; and it allows co-permitting of small regulated MS4s with those regulated under the existing storm water program.

In contrast, State representatives sought alternative approaches for State implementation of the storm water program for Phase II sources. State representatives asserted that a non-NPDES alternative approach best facilitated watershed management and avoided duplication and overlapping regulations. These representatives pointed out that there are a variety of State programs—not based on the CWA—implementing effective storm water controls, and that EPA should provide incentives for their implementation and improvement in performance. EPA continues to believe that an NPDES approach is the best approach in order to adequately protect water quality. However, EPA has worked with States on an alternative

approach that provides flexibility within the NPDES framework. The final rule allows States with a watershed permitting approach to phase in permit coverage for MS4s in jurisdictions with a population less than 10,000 and provides two waivers from coverage for small MS4s. This issue is discussed in section II.C of the preamble, Program Framework: NPDES Approach.

Some municipal governments objected that the rule's minimum measures for small MS4s violate the Tenth Amendment insofar as they require the operators of MS4s to regulate third parties according to the "minimum measures" for municipal storm water management programs. EPA disagrees that today's rule is inconsistent with Tenth Amendment principles. Permits issued under today's rule will not compel political subdivisions of States to regulate in their sovereign capacities, but rather to effectively control discharges out of their storm sewer systems in their owner/operator capacities. For MS4s that do not accept this "default" minimum measures-based approach (to control discharges out of the storm sewer system by exercising local powers to control discharges into the storm sewer system), today's rule allows for alternative permits through individual permit applications. EPA made revisions to the rule to allow regulated small MS4s to opt out of the minimum measures approach and instead apply for an individual permit. This issue is discussed in section II.H.3.c.iii of the preamble, Alternative Permit Option/Tenth Amendment.

## 3. Summary of the Agency's Position Supporting the Need To Issue the Regulation

As discussed more fully in section I.B. above, today's rule is needed because uncontrolled storm water discharges from areas of urban development and construction activity have been shown to have negative impacts on receiving waters by changing the physical, biological, and chemical composition of the water, resulting in an unhealthy environment for aquatic organisms, wildlife, and people. As discussed in section II.C., the NPDES approach in today's rule is needed to ensure uniform application on a nationwide basis, to provide flexibility to allow incorporation of State and local programs, to resolve the problem of donut holes that cause water quality impacts in urbanized areas, and to allow co-permitting of small regulated MS4s with those regulated under the existing storm water program.

The draft final rule was transmitted to OMB on July 6, 1999. Because transmittal occurred before the November 2, 1999 effective date of Executive Order 13132, certification under section 8 of the Executive Order is not required.

*E. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.*

The RFA generally requires an Agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impact of today's rule on small entities, small entity is defined as: (1) a building contractor (SIC 15) with up to \$17.0 million in annual revenue; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities.

For purposes of evaluating the economic impact of this rule on small governmental jurisdictions, EPA compared annual compliance costs with annual government revenues obtained from the 1992 Census of Governments, using state-specific estimates of annual revenue per capita for municipalities in three population size categories (fewer than 10,000, 10,000–25,000, and 25,000–50,000).

In order to estimate the annual compliance cost for small governmental jurisdictions, EPA used the mean variable municipal cost of \$8.93 per household as calculated in a 1998 study of 121 municipalities conducted by the national Association of Flood and Stormwater Management Agencies (NAFSMA). In addition, EPA used the estimated fixed administrative costs of \$1,545 per municipality for reporting,

recordkeeping, and application requirements for today's rule.

In evaluating the economic impact of this rule on small governmental jurisdictions, EPA determined that compliance costs represent more than 1 percent of estimated revenues for only 10 percent of small governments and more than 3 percent of the revenue for 0.7 percent of these entities. In both absolute and relative terms, EPA does not consider this a significant economic impact on a substantial number of small entities.

EPA normally uses the "sales test" for determining the economic impact on small businesses. Under a sales test, annual compliance costs are compared with the small business's total annual sales. However, the direct application of the sales test is not suitable in this case, because of the uncertainty associated with estimating the number of units an "average" developer/contractor develops or builds in a typical year. For this rule, EPA has approximated the sales test by estimating compliance costs for three sizes of construction sites and comparing them with a representative sale price for three building categories. Although EPA's analysis is not exactly a "sales test," it is similar to the sales test, producing comparable results.

For small building contractors, EPA estimated administrative compliance costs of \$870 per site for applying for coverage, reporting, record keeping, monitoring and preparing a storm water pollution prevention plan. EPA estimated compliance costs for installing soil and erosion controls as ranging from \$1,206 to \$8,709 per site. EPA compliance cost estimates are based on 27 theoretical model construction sites designed to mimic the mostly likely used best management practices around the country.

In evaluating the economic impact on small building contractors, EPA divided the revised compliance costs per construction start by the appropriate homes-to-site ratio for each of the three sizes of construction sites. The average compliance cost per home ranges from approximately \$450 to \$650. EPA concluded that compliance costs are roughly 0.22 to 0.43 percent of both the mean, \$181,300, and median, \$151,000, sale price of a home.

The absence of data to specifically assess annual compliance costs for building contractors as a percentage of annual sales (i.e., a very direct estimate of the impact on potentially affected small businesses) led EPA to perform additional market analysis to examine the ability of potentially affected firms to pass along regulatory costs to buyers

for single-family homes constructed subject to today's rule. If the small building contractors covered by the rule are able to pass on the costs of compliance, either completely or partially, to their purchasers, then the rule's impact on these small business entities is significantly reduced. The market analysis shows that demand for homes is not overly sensitive to small changes in price, therefore builders should be able to pass on at least a significant fraction of the compliance costs to buyers.

EPA also assessed the effect of the building contractors' costs on average monthly mortgage rates and on the demand for new homes. Based on that screening analysis, EPA concludes that the costs to building contractors, and the potential changes in housing prices and monthly mortgage payments for single-family home buyers, are not expected to have a significant impact on the market for single-family houses. In both absolute and relative terms, EPA does not consider this a significant economic impact on a substantial number of small entities.

EPA also certified this rule at proposal. Even though the Agency was not required to, we convened a Small Business Advocacy Review Panel ("Panel") in June 1997. A number of small entity representatives had already been actively involved with EPA through the FACA process, and were, therefore, broadly knowledgeable about the development of the proposed and final rules. Prior to convening the Panel, EPA consulted with the Small Business Administration to identify a group of small entity representatives to advise the Panel. The Agency distributed a briefing package describing its preliminary analysis under the RFA to the small entity representatives (as well as to representatives from OMB and SBA) and conducted two telephone conference calls and an all-day meeting at EPA Headquarters in May of 1997 with small entity representatives. With this preliminary work complete, in June 1997, EPA formally convened the SBREFA Panel, comprising representatives from OMB, SBA, EPA's Office of Water and EPA's Small Business Advocacy Chair. The Panel received written comments from small entity representatives based on their involvement in the earlier meetings, and invited additional comments.

Consistent with requirements of the RFA, the Panel evaluated the assembled materials and small-entity comments on issues related to: (1) a description and the number of small entities that would be regulated; (2) a description of the projected record keeping, reporting and

other compliance requirements applicable to small entities; (3) identification of other Federal rules that may duplicate, overlap, or conflict with the proposal to the final rule; and (4) regulatory alternatives that would minimize any significant economic impact of the rule on small entities while accomplishing the stated objectives of the CWA section 402(p)(6).

On August 7, 1997, the Panel provided a Final Report (hereinafter, "Report") to the EPA Administrator. A copy of the Report is included in the docket for the rule. The Panel acknowledged and commended EPA's efforts to work with stakeholders, including small entities, through the FACA process. The SBREFA Panel stated that, because of EPA's extensive outreach and responsiveness in addressing stakeholder concerns, commenters during the SBREFA process raised fewer concerns than might otherwise have been expected. Based on the advice and recommendations of the Panel, today's rule includes a number of provisions designed to minimize any significant impact on small entities. (See Appendix 5).

#### *F. National Technology Transfer And Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standard bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not mandate the use of any particular technical standards, although in designing appropriate BMPs regulated small MS4s and small construction sites are encouraged to use any voluntary consensus standards that may be applicable and appropriate. Because no specific technical standards are included in the rule, section 12(d) of the NTTAA is not applicable.

#### *G. Executive Order 13045*

Executive Order 13045: "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically

significant” as defined under E.O. 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to E.O. 13045 because it does not concern an environmental health or safety risk that may have a disproportionate effect on children. The rule expands the scope of the existing NPDES permitting program to require small municipalities and small construction sites to regulate their storm water discharges. The rule does not itself, however, establish standards or criteria that would be included in permits for those sources. Such standards or criteria will be developed through other actions, for example, in the establishment of water quality standards or subsequently in the issuance of permits themselves. As such, today’s action does not concern an environmental health or safety risk that may have a disproportionate effect on children. To the extent it does address a risk that may have a disproportionate effect on children, expanding the scope of the permitting program will have a corresponding disproportionate benefit to children to protect them from such risk.

*H. Executive Order 13084*

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the Tribal

governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA’s prior consultation with representatives of affected Tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian Tribal governments “to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.”

Today’s rule does not significantly or uniquely affect the communities of Indian Tribal governments. Even though the Agency is not required to address Tribes under the Regulatory Flexibility Act, EPA used the same revenue test that was used for municipalities to assess the impact of the rule on communities of Tribal governments and determine that they will not be significantly affected. In addition, the rule will not have a unique impact on the communities of Tribal governments because small municipal governments are also covered by this rule and larger municipal governments are already covered by the existing storm water rules. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

*I. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress

and the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective on February 7, 2000.

**List of Subjects**

*40 CFR Part 9*

Environmental protection, Reporting and recordkeeping requirements.

*40 CFR Part 122*

Administrative practice and procedure, Confidential business information, Environmental protection, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements, Sewage disposal, Waste treatment and disposal, Water pollution control.

*40 CFR Part 123*

Administrative practice and procedure, Confidential business information, Hazardous materials, Indians—lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Sewage disposal, Waste treatment and disposal, Water pollution control, Penalties.

*40 CFR Part 124*

Administrative practice and procedure, Air pollution control, Hazardous waste, Indians—lands, Reporting and recordkeeping requirements, Water pollution control, Water supply.

Dated: October 29, 1999.

**Carol M. Browner,**  
*Administrator.*

**Appendices to the Preamble**

APPENDIX 1 TO PREAMBLE—FEDERALLY-RECOGNIZED AMERICAN INDIAN AREAS LOCATED FULLY OR PARTIALLY IN BUREAU OF THE CENSUS URBANIZED AREAS  
[Based on 1990 Census data]

State	American Indian Area	Urbanized Area
AZ .....	Pascua Yacqui Reservation (pt.): Pascua Yacqui Tribe of Arizona .....	Tucson, AZ (Phase I).
AZ .....	Salt River Reservation (pt.): Salt River Pima-Maricopa Indian Community of the Salt River Reservation, California.	Phoenix, AZ (Phase I).
AZ .....	San Xavier Reservation (pt.): Tohono O’odham Nation of Arizona (formerly known as the Papago Tribe of the Sells, Gila Bend & San Xavier Reservation).	Tucson, AZ (Phase I).
CA .....	Augustine Reservation: Augustine Band of Cahuilla Mission of Indians of the Augustine Reservation, CA.	Indio-Coachella, CA (Phase I).
CA .....	Cabazon Reservation: Cabazon Band of Cahuilla Mission Indians of the Cabazon Reservation, CA.	Indio-Coachella, CA (Phase I).

APPENDIX 1 TO PREAMBLE—FEDERALLY-RECOGNIZED AMERICAN INDIAN AREAS LOCATED FULLY OR PARTIALLY IN BUREAU OF THE CENSUS URBANIZED AREAS—Continued

[Based on 1990 Census data]

State	American Indian Area	Urbanized Area
CA .....	Fort Yuma (Quechan) (pt.): Quechan Tribe of the Fort Yuma Indian Reservation, California & Arizona.	Yuma, AZ—CA.
CA .....	Redding Rancheria: Redding Rancheria of California .....	Redding, CA.
FL .....	Hollywood Reservation: Seminole Tribe .....	Fort Lauderdale, FL (Phase I).
FL .....	Seminole Trust Lands: Seminole Tribe of Florida, Dania, Big Cypress & Brighton Reservations.	Fort Lauderdale, FL (Phase I).
ID .....	Fort Hall Reservation and Trust Lands: Shosone-Bannock Tribes of the Fort Hall Reservation of Idaho.	Pocatello, ID.
ME .....	Penobscot Reservation and Trust Lands (pt.): Penobscot Tribe of Maine .....	Bangor, ME.
MN .....	Shakopee Community: Shakopee Mdewakanton Sioux Community of Minnesota (Prior Lake).	Minneapolis-St. Paul, MN (Phase I).
NM .....	Sandia Pueblo (pt.): Pueblo of Sandia, New Mexico .....	Albuquerque, NM (Phase I).
NV .....	Las Vegas Colony: Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony, Nevada.	Las Vegas, NV (Phase I).
NV .....	Reno-Sparks Colony: Reno-Sparks Indian Colony, Nevada .....	Reno, NV (Phase I).
OK .....	Osage Reservation (pt.): Osage Nation of Oklahoma .....	Tulsa, OK (Phase I).
OK .....	Absentee Shawnee-Citizens Band of Potawatomi TJSAs (pt.): Absentee-Shawnee Tribe of Indians of Oklahoma; Citizen Potawatomi Nation, Oklahoma.	Oklahoma City, OK (Phase I).
OK .....	Cherokee TJSAs 9 (pt.): Cherokee Nation of Oklahoma; United Keetoowah Band of Cherokee Indians of Oklahoma.	Ft. Smith, AR—OK; Tulsa, OK (Phase I).
OK .....	Cheyenne-Arapaho TJSAs (pt.): Cheyenne-Arapaho Tribes of Oklahoma .....	Oklahoma City, OK (Phase I).
OK .....	Choctaw TJSAs (pt.): Choctaw Nation of Oklahoma .....	Ft. Smith, AR—OK (Phase I).
OK .....	Creek TJSAs (pt.): Alabama-Quassarte Tribal Town of the Creek Nation of Oklahoma; Kialegee Tribal Town of the Creek Indian Nation of Oklahoma; Muscogee (Creek) Nation of Oklahoma; Thlopthlocco Tribal Town of the Creek Nation of Oklahoma.	Tulsa, OK (Phase I).
OK .....	Kiowa-Comanche-Apache-Ft. Sill Apache: Apache Tribe of Oklahoma; Comanche Indian Tribe, Oklahoma; Fort Sill Apache Tribe of Oklahoma; Kiowa Indian Tribe of Oklahoma.	Lawton, OK.
TX .....	Ysleta del Sur Reservation: Ysleta Del Sur Pueblo of Texas .....	El Paso, TX—NM (Phase I).
WA .....	Muckleshoot Reservation and Trust Lands (pt.): Muckleshoot Indian Tribe of the Muckleshoot Reservation.	Seattle, WA (Phase I).
WA .....	Puyallup Reservation and Trust Lands (pt.): Puyallup Tribe of the Puyallup Reservation, WA.	Tacoma, WA (Phase I).
WA .....	Yakima Reservation (pt.): Confederated Tribes and Bands of the Yakama Indian Nation of the Yakama Reservation, WA.	Yakima, WA.
WI .....	Oneida (West) (pt.): Oneida Tribe of Wisconsin .....	Green Bay, WI.

Please Note

“(pt.)” indicates that the American Indian Area (AIA) listed is only partially located within the referenced urbanized area.

The first line under “American Indian Area” is the name of the federally-recognized reservation/colony/rancheria or trust land as it appears in the Bureau of the Census data. After this first line, the names of the tribes included in the AIA are listed as they appear in the Bureau of Indian Affairs’ list of Federally Recognized Indian Tribes. [Federal

Register: Nov. 13, 1996, Vol. 66, No. 220, pgs. 58211–58216]

“TJSAs” are Tribal Jurisdiction Statistical Areas in Oklahoma that are defined in conjunction with the federally-recognized tribes in Oklahoma who have definite land areas under their jurisdiction, but do not have reservation status.

“(Phase I)” indicates that the referenced urbanized area includes a medium or large MS4 currently regulated under the existing NPDES storm water program (i.e., Phase I). Any Tribally operated MS4 within these such

urban areas would not automatically have been covered under Phase I, however.

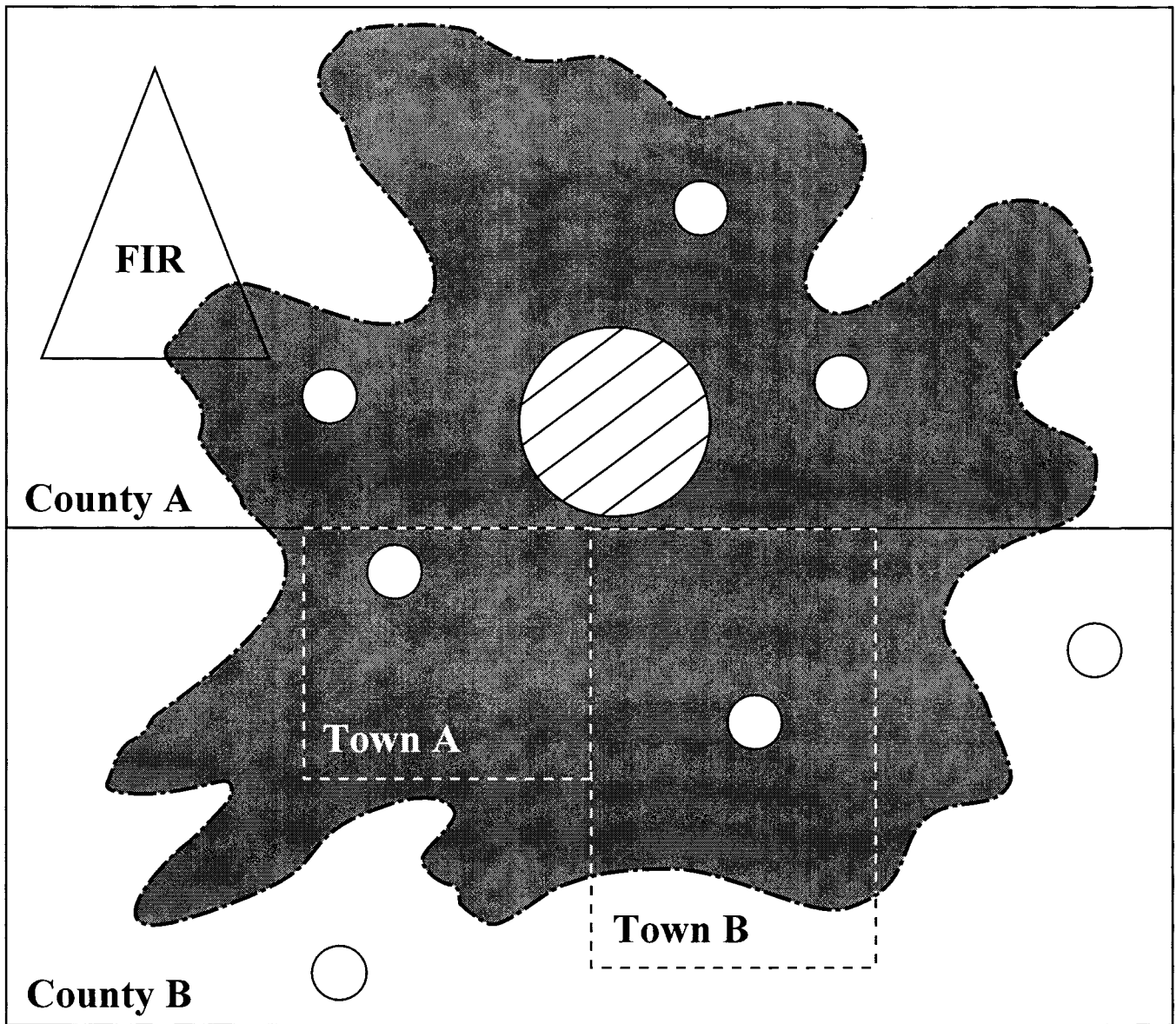
Sources

Michael Ratcliffe, Geographic Concepts Division, Bureau of the Census, U.S. Department of Commerce.








1990 Census of Population and Housing, Summary Population and Housing Characteristics, United States. Tables 9 & 10. [1990 CPH-1-1]. Bureau of the Census, U.S. Department of Commerce.

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APPENDIX 2 TO PREAMBLE—URBANIZED AREA ILLUSTRATION



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- |   |                                  |   |  |
|---|----------------------------------|---|--|
|  | Central Place                    |  | Unincorporated "Urbanized Area" Portion of a Town (MCD) or County  |
|  | Incorporated Place               |  | Urbanized Area   |
|  | Federal Indian Reservation (FIR) |  | Town or Township as a functioning Minor Civil Division (MCD). An MCD is the primary subdivision of a County. |
|   |                                  |  | County   |

**Appendix 3 to the Preamble—  
Urbanized Areas of the United States  
and Puerto Rico**

(Source: 1990 Census of Population and Housing, U.S. Bureau of the Census—  
This list is subject to change with the  
Decennial Census)

**Alabama**

Anniston  
Auburn-Opelika  
Birmingham  
Columbus, GA-AL  
Decatur  
Dothan  
Florence  
Gadsden  
Huntsville  
Mobile  
Montgomery  
Tuscaloosa

**Alaska**

Anchorage

**Arizona**

Phoenix  
Tucson  
Yuma, AZ-CA

**Arkansas**

Fayetteville-Springdale  
Fort Smith, AR-OK  
Little Rock-North Little Rock  
Memphis, TN-AR-MS  
Pine Bluff  
Texarkana, AR-TX

**California**

Antioch-Pittsburgh  
Bakersfield  
Chico  
Davis  
Fairfield  
Fresno  
Hemet-San Jacinto  
Hesperia-Apple Valley-Victorville  
Indio-Coachella  
Lancaster-Palmdale  
Lodi  
Lompoc  
Los Angeles  
Merced  
Modesto  
Napa  
Oxnard-Ventura  
Palm Springs  
Redding  
Riverside-San Bernardino  
Sacramento  
Salinas  
San Diego  
San Francisco-Oakland  
San Jose  
San Luis Obispo  
Santa Barbara  
Santa Cruz  
Santa Maria  
Santa Rosa  
Seaside-Monterey  
Simi Valley  
Stockton  
Vacaville  
Visalia  
Watsonville

Yuba City  
Yuma

**Colorado**

Boulder  
Colorado Springs  
Denver  
Fort Collins  
Grand Junction  
Greeley  
Longmont  
Pueblo

**Connecticut**

Bridgeport-Milford  
Bristol  
Danbury, CT-NY  
Hartford-Middletown  
New Britain  
New Haven-Meriden  
New London-Norwich  
Norwalk  
Springfield, MA-CT  
Stamford, CT-NY  
Waterbury  
Worcester, MA-CT

**Delaware**

Dover  
Wilmington, DE-NJ-MD-PA

**District of Columbia**

Washington, DC-MD-VA

**Florida**

Daytona Beach  
Deltona  
Fort Lauderdale-Hollywood-Pompano Beach  
Fort Myers-Cape Coral  
Fort Pierce  
Fort Walton Beach  
Gainesville  
Jacksonville  
Kissimmee  
Lakeland  
Melbourne-Palm Bay  
Miami-Hialeah  
Naples  
Ocala  
Orlando  
Panama City  
Pensacola  
Punta Gorda  
Sarasota-Bradenton  
Spring Hill  
Stuart  
Tallahassee  
Tampa-St. Petersburg-Clearwater  
Titusville  
Vero Beach  
West Palm Beach-Boca Raton-Delray Beach  
Winter Haven

**Georgia**

Albany  
Athens  
Atlanta  
Augusta  
Brunswick  
Chattanooga  
Columbus  
Macon  
Rome  
Savannah  
Warner Robins

**Hawaii**

Honolulu

Kailua

**Idaho**

Boise City  
Idaho Falls  
Pocatello

**Illinois**

Alton  
Aurora  
Beloit, WI-IL  
Bloomington-Normal  
Champaign-Urbana  
Chicago, IL-Northwestern IN  
Crystal Lake  
Davenport-Rock Island-Moline, IA-IL  
Decatur  
Dubuque  
Elgin  
Joliet  
Kankakee  
Peoria  
Rockford  
Round Lake Beach-McHenry, IL-WI  
St. Louis, MO-IL  
Springfield

**Indiana**

Anderson  
Bloomington  
Chicago, IL-Northwestern IN  
Elkhart-Goshen  
Evansville, IN-KY  
Fort Wayne  
Indianapolis  
Kokomo  
Lafayette-West Lafayette  
Louisville, KY-IN  
Muncie  
South Bend-Mishawaka, IN-MI  
Terre Haute

**Iowa**

Cedar Rapids  
Davenport-Rock Island-Moline, IA-IL  
Des Moines  
Dubuque, IA-IL-WI  
Iowa City  
Omaha, NE-IA  
Sioux City, IA-NE-SD  
Waterloo-Cedar Falls

**Kansas**

Kansas City, MO-KS  
Lawrence  
St. Joseph, MO-KS  
Topeka  
Wichita

**Kentucky**

Cincinnati, OH-KY  
Clarksville, TN-KY  
Evansville, IN-KY  
Huntington-Ashland, WV-KY-OH  
Lexington-Fayette  
Louisville, KY-IN  
Owensboro

**Louisiana**

Alexandria  
Baton Rouge  
Houma  
Lafayette  
Lake Charles  
Monroe  
New Orleans  
Shreveport



Slidell

**Maine**Bangor  
Lewiston-Auburn  
Portland  
Portsmouth-Dover-Rochester, NH-ME**Maryland**Annapolis  
Baltimore  
Cumberland  
Frederick  
Hagerstown, MD-PA-WV  
Washington, DC-MD-VA  
Wilmington, DE-NJ-MD-PA**Massachusetts**Boston  
Brockton  
Fall River, MA-RI  
Fitchburg-Leominster  
Hyannis  
Lawrence-Haverhill, MA-NH  
Lowell, MA-NH  
New Bedford  
Pittsfield  
Providence-Pawtucket, RI-MA  
Springfield, MA-CT  
Taunton  
Worcester, MA-CT**Michigan**Ann Arbor  
Battle Creek  
Bay City  
Benton Harbor  
Detroit  
Flint  
Grand Rapids  
Holland  
Jackson  
Kalamazoo  
Lansing-East Lansing  
Muskegon  
Port Huron  
Saginaw  
South Bend-Mishawaka, IN-MI  
Toledo, OH-MI**Minnesota**Duluth, MN-WI  
Fargo-Moorhead, ND-MN  
Grand Forks, ND-MN  
La Crosse, WI-MN  
Minneapolis-St. Paul  
Rochester  
St. Cloud**Mississippi**Biloxi-Gulfport  
Hattiesburg  
Jackson  
Memphis, TN-AR-MS  
Pascagoula**Missouri**Columbia  
Joplin  
Kansas City, MO-KS  
St. Joseph, MO-KS  
St. Louis, MO-IL  
Springfield**Montana**Billings  
Great Falls

Missoula

**Nebraska**Lincoln  
Omaha, NE-IA  
Sioux City, IA-NE-SD**Nevada**Las Vegas  
Reno**New Hampshire**Lawrence-Haverhill, MA-NH  
Lowell, MA-NH  
Manchester  
Nashua  
Portsmouth-Dover-Rochester, NH-ME**New Jersey**Allentown-Bethlehem-Easton, PA-NJ  
Atlantic City  
New York, NY-Northeastern NJ  
Philadelphia, PA-NJ  
Trenton, NJ-PA  
Vineland-Millville  
Wilmington, DE-NJ-MD-PA**New Mexico**Albuquerque  
El Paso  
Las Cruces  
Santa Fe**New York**Albany-Schenectady-Troy  
Binghamton  
Buffalo-Niagara Falls  
Danbury, CT-NY  
Elmira  
Glens Falls  
Ithaca  
Newburgh  
New York, NY-Northeastern NJ  
Poughkeepsie  
Rochester  
Stamford, CT-NY  
Syracuse  
Utica-Rome**North Carolina**Asheville  
Burlington  
Charlotte  
Durham  
Fayetteville  
Gastonia  
Greensboro  
Greenville  
Hickory  
High Point  
Jacksonville  
Kannapolis  
Raleigh  
Rocky Mount  
Wilmington  
Winston-Salem**North Dakota**Bismark  
Fargo-Moorhead, ND-MN  
Grand Forks, ND-MN**Ohio**Akron  
Canton  
Cincinnati, OH-KY

Cleveland

Columbus  
Dayton  
Hamilton  
Huntington-Ashland, WV-KY-OH  
Lima  
Lorain-Elyria  
Mansfield  
Middletown  
Newark  
Parkersburg, WV-OH  
Sharon, PA-OH  
Springfield  
Steubenville-Weirton, OH-WV-PA  
Toledo, OH-MI  
Wheeling, WV-OH  
Youngstown-Warren**Oklahoma**Fort Smith, AR-OK  
Lawton  
Oklahoma City  
Tulsa**Oregon**Eugene-Springfield  
Longview  
Medford  
Portland-Vancouver, OR-WA  
Salem**Pennsylvania**Allentown-Bethlehem-Easton, PA-NJ  
Altoona  
Erie  
Hagerstown, MD-PA-WV  
Harrisburg  
Johnstown  
Lancaster  
Monessen  
Philadelphia, PA-NJ  
Pittsburgh  
Pottstown  
Reading  
Scranton-Wilkes-Barre  
Sharon, PA-OH  
State College  
Steubenville-Weirton, OH-WV-PA  
Trenton, NJ-PA  
Williamsport  
Wilmington, DE-NJ-MD-PA  
York**Rhode Island**Fall River, MA-RI  
Newport  
Providence-Pawtucket, RI-MA**South Carolina**Anderson  
Augusta, GA-SC  
Charleston  
Columbia  
Florence  
Greenville  
Myrtle Beach  
Rock Hill  
Spartanburg  
Sumter**South Dakota**Rapid City  
Sioux City, IA-NE-SD  
Sioux Falls**Tennessee**

Bristol, TN-Bristol, VA

Chattanooga, TN-GA  
Clarksville, TN-KY  
Jackson  
Johnson City  
Kingsport, TN-VA  
Knoxville  
Memphis, TN-AR-MS  
Nashville

**Texas**

Abilene  
Amarillo  
Austin  
Beaumont  
Brownsville  
Bryan-College Station  
Corpus Christi  
Dallas-Fort Worth  
Denton  
El Paso, TX-NM  
Galveston  
Harlingen  
Houston  
Killeen  
Laredo  
Lewisville  
Longview  
Lubbock  
McAllen-Edinburg-Mission  
Midland  
Odessa  
Port Arthur  
San Angelo  
San Antonio  
Sherman-Denison  
Temple  
Texarkana, TX-Texarkana, AR  
Texas City  
Tyler  
Victoria

Waco  
Wichita Falls

**Utah**

Logan  
Ogden  
Provo-Orem  
Salt Lake City

**Vermont**

Burlington

**Virginia**

Bristol, TN-Bristol, VA  
Charlottesville  
Danville  
Fredericksburg  
Kingsport, TN-VA  
Lynchburg  
Norfolk-Virginia Beach-Newport News  
Petersburg  
Richmond  
Roanoke  
Washington, DC-MD-VA

**Washington**

Bellingham  
Bremerton  
Longview, WA-OR  
Olympia  
Portland-Vancouver, OR-WA  
Richland-Kennewick-Pasco  
Seattle  
Spokane  
Tacoma  
Yakima

**West Virginia**

Charleston  
Cumberland, MD-WV

Hagerstown, MD-PA-WV  
Huntington-Ashland, WV-KY-OH  
Parkersburg, WV-OH  
Steubenville-Weirton, OH-WV-PA  
Wheeling, WV-OH

**Wisconsin**

Appleton-Neenah  
Beloit, WI-IL  
Duluth, MN-WI  
Eau Claire  
Green Bay  
Janesville  
Kenosha  
La Crosse, WI-MN  
Madison  
Milwaukee  
Oshkosh  
Racine  
Round Lake Beach-McHenry, IL-WI  
Sheboygan  
Wausau

**Wyoming**


Casper  
Cheyenne

**Puerto Rico**

Aquadilla  
Arecibo  
Caguas  
Cayey  
Humacao  
Mayaguez  
Ponce  
San Juan  
Vega Baja-Manati

**BILLING CODE 6560-50-P**

Appendix 4 to the Preamble—No Exposure Certification Form

<p><b>NPDES FORM 3510-11</b></p>		<p>United States Environmental Protection Agency Washington, DC 20460</p> <p><b>NO EXPOSURE CERTIFICATION for Exclusion from NPDES Storm Water Permitting</b></p>	<p>Form Approved OMB No. 2040-0211</p>
<p>Submission of this No Exposure Certification constitutes notice that the entity identified in Section A does not require permit authorization for its storm water discharges associated with industrial activity in the State identified in Section B under EPA's Storm Water Multi-Sector General Permit due to the existence of a condition of no exposure.</p> <p>A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:</p> <ul style="list-style-type: none"> <li>- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;</li> <li>- adequately maintained vehicles used in material handling; and</li> <li>- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).</li> </ul> <p>A No Exposure Certification must be provided for each facility qualifying for the no exposure exclusion. In addition, the exclusion from NPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the no exposure exclusion.</p> <p>By signing and submitting this No Exposure Certification form, the entity in Section A is certifying that a condition of no exposure exists at its facility or site, and is obligated to comply with the terms and conditions of 40 CFR 122.26(g).</p> <p><b>ALL INFORMATION MUST BE PROVIDED ON THIS FORM.</b></p> <p><b>Detailed instructions for completing this form and obtaining the no exposure exclusion are provided on pages 3 and 4.</b></p>			
<p><b>A. Facility Operator Information</b></p> <p>1. Name: _____ 2. Phone: _____</p> <p>3. Mailing Address: a. Street: _____</p> <p>b. City: _____ c. State: _____ d. Zip Code: _____</p>			
<p><b>B. Facility/Site Location Information</b></p> <p>1. Facility Name: _____</p> <p>2. a. Street Address: _____</p> <p>b. City: _____ c. County: _____</p> <p>d. State: _____ e. Zip Code: _____</p> <p>3. Is the facility located on Indian Lands? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>4. Is this a Federal facility? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>5. a. Latitude: _____° _____' _____" b. Longitude: _____° _____' _____"</p> <p>6. a. Was the facility or site previously covered under an NPDES storm water permit? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>b. If yes, enter NPDES permit number: _____</p> <p>7. SIC/Activity Codes: Primary: _____ Secondary (if applicable): _____</p> <p>8. Total size of site associated with industrial activity: _____ acres</p> <p>9. a. Have you paved or roofed over a formerly exposed, pervious area in order to qualify for the no exposure exclusion? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>b. If yes, please indicate approximately how much area was paved or roofed over. Completing this question does not disqualify you for the no exposure exclusion. However, your permitting authority may use this information in considering whether storm water discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.</p> <p style="text-align: center;">Less than one acre <input type="checkbox"/> One to five acres <input type="checkbox"/> More than five acres <input type="checkbox"/></p>			

NPDES  
FORM  
3510-11



**NO EXPOSURE CERTIFICATION for Exclusion from  
NPDES Storm Water Permitting**

Form Approved  
OMB No. 2040-0211

**C. Exposure Checklist**

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future?  
(Please check either "Yes" or "No" in the appropriate box.) **If you answer "Yes" to any of these questions (1) through (11), you are not eligible for the no exposure exclusion.**

	Yes	No
1. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water	<input type="checkbox"/>	<input type="checkbox"/>
2. Materials or residuals on the ground or in storm water inlets from spills/leaks	<input type="checkbox"/>	<input type="checkbox"/>
3. Materials or products from past industrial activity	<input type="checkbox"/>	<input type="checkbox"/>
4. Material handling equipment (except adequately maintained vehicles)	<input type="checkbox"/>	<input type="checkbox"/>
5. Materials or products during loading/unloading or transporting activities	<input type="checkbox"/>	<input type="checkbox"/>
6. Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to storm water does not result in the discharge of pollutants)	<input type="checkbox"/>	<input type="checkbox"/>
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	<input type="checkbox"/>	<input type="checkbox"/>
8. Materials or products handled/stored on roads or railways owned or maintained by the discharger	<input type="checkbox"/>	<input type="checkbox"/>
9. Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	<input type="checkbox"/>	<input type="checkbox"/>
10. Application or disposal of process wastewater (unless otherwise permitted)	<input type="checkbox"/>	<input type="checkbox"/>
11. Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the storm water outflow	<input type="checkbox"/>	<input type="checkbox"/>

**D. Certification Statement**

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES storm water permitting.

I certify under penalty of law that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 40 CFR 122.26(g)(2)).

I understand that I am obligated to submit a no exposure certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local municipal separate storm sewer system (MS4) into which the facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility.

Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

NPDES  
FORM  
3510-11

## Instructions for the NO EXPOSURE CERTIFICATION for Exclusion from NPDES Storm Water Permitting

Form Approved  
OMB No. 2040-0211

### Who May File a No Exposure Certification

Federal law at 40 CFR Part 122.26 prohibits point source discharges of storm water associated with industrial activity to waters of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is not required for discharges of storm water associated with industrial activities identified at 40 CFR 122.26(b)(14)(i)-(ix) and (xi) if the discharger can certify that a condition of "no exposure" exists at the industrial facility or site.

Storm water discharges from construction activities identified in 40 CFR 122.26(b)(14)(x) and (b)(15) are not eligible for the no exposure exclusion.

### Obtaining and Maintaining the No Exposure Exclusion

This form is used to certify that a condition of no exposure exists at the industrial facility or site described herein. This certification is only applicable in jurisdictions where EPA is the NPDES permitting authority and must be re-submitted at least once every five years.

The industrial facility operator must maintain a condition of no exposure at its facility or site in order for the no exposure exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to storm water, the facility operator must obtain coverage under an NPDES storm water permit immediately.

### Where to File the No Exposure Certification Form

Mail the completed no exposure certification form to:

Storm Water No Exposure Certification (4203)  
USEPA  
401 M Street, SW  
Washington, D.C. 20460

### Completing the Form

You must type or print, using uppercase letters, in appropriate areas only. Enter only one character per space (i.e., between the marks). Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words. One form must be completed for each facility or site for which you are seeking to certify a condition of no exposure. Additional guidance on completing this form can be accessed through EPA's web site at [www.epa.gov/owm/sw](http://www.epa.gov/owm/sw). Please make sure you have addressed all applicable questions and have made a photocopy for your records before sending the completed form to the above address.

### Section A. Facility Operator Information

1. Provide the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this certification. The name of the operator may or may not be the same as the name of the facility. The operator is the legal entity that controls the facility's operation, rather than the plant or site manager.
2. Provide the telephone number of the facility operator.
3. Provide the mailing address of the operator (P.O. Box numbers may be used). Include the city, state, and zip code. All correspondence will be sent to this address.

### Section B. Facility/Site Location Information

1. Enter the official or legal name of the facility or site.
2. Enter the complete street address (if no street address exists, provide a geographic description [e.g., Intersection of Routes 9 and 55]), city, county, state, and zip code. Do not use a P.O. Box number.
3. Indicate whether the facility is located on Indian Lands.
4. Indicate whether the industrial facility is operated by a department or agency of the Federal Government (see also Section 313 of the Clean Water Act).
5. Enter the latitude and longitude of the approximate center of the facility or site in degrees/minutes/seconds. Latitude and longitude can be obtained from United States Geological Survey (USGS) quadrangle or topographic maps, by calling 1-(888) ASK-USGS, or by accessing EPA's web site at <http://www.epa.gov/owm/sw/industry/index.htm> and selecting Latitude and Longitude Finders under the Resources/Permit section.

Latitude and longitude for a facility in decimal form must be converted to degrees (°), minutes ('), and seconds (") for proper entry on the certification form. To convert decimal latitude or longitude to degrees/minutes/seconds, follow the steps in the following example.

Example: Convert decimal latitude 45.1234567 to degrees (°), minutes ('), and seconds (").

- a) The numbers to the left of the decimal point are the degrees: 45°.
  - b) To obtain minutes, multiply the first four numbers to the right of the decimal point by 0.006:  $1234 \times 0.006 = 7.404$ .
  - c) The numbers to the left of the decimal point in the result obtained in (b) are the minutes: 7'.
  - d) To obtain seconds, multiply the remaining three numbers to the right of the decimal from the result obtained in (b) by 0.06:  $404 \times 0.06 = 24.24$ . Since the numbers to the right of the decimal point are not used, the result is 24".
  - e) The conversion for 45.1234567 = 45° 7' 24".
6. Indicate whether the facility was previously covered under an NPDES storm water permit. If so, include the permit number.
  7. Enter the 4-digit SIC code which identifies the facility's primary activity, and second 4-digit SIC code identifying the facility's secondary activity, if applicable. SIC codes can be obtained from the Standard Industrial Classification Manual, 1987.

8. Enter the total size of the site associated with industrial activity in acres. Acreage may be determined by dividing square footage by 43,560, as demonstrated in the following example.

Example: Convert 54,450 ft<sup>2</sup> to acres

Divide 54,450 ft<sup>2</sup> by 43,560 square feet per acre:  
 $54,450 \text{ ft}^2 \div 43,560 \text{ ft}^2/\text{acre} = 1.25 \text{ acres}$ .

9. Check "Yes" or "No" as appropriate to indicate whether you have paved or roofed over a formerly exposed, pervious area (i.e., lawn, meadow, dirt or gravel road/parking lot) in order to qualify for no exposure. If yes, also indicate approximately how much area was paved or roofed over and is now impervious area.

NPDES  
FORM  
3510-11**Instructions for the NO EXPOSURE CERTIFICATION for  
Exclusion from NPDES Storm Water Permitting**Form Approved  
OMB No. 2040-0211**Section C. Exposure Checklist**

Check "Yes" or "No" as appropriate to describe the exposure conditions at your facility. If you answer "Yes" to **ANY** of the questions (1) through (11) in this section, a potential for exposure exists at your site and you cannot certify to a condition of no exposure. You must obtain (or already have) coverage under an NPDES storm water permit. After obtaining permit coverage, you can institute modifications to eliminate the potential for a discharge of storm water exposed to industrial activity, and then certify to a condition of no exposure.

authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures:

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipal, State, Federal, or other public facility: by either a principal executive or ranking elected official.

**Section D. Certification Statement**

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means:

- (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
- (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where

**Paperwork Reduction Act Notice**

Public reporting burden for this certification is estimated to average 1.0 hour per certification, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose to provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Director, OPPE Regulatory Information Division (2137), USEPA, 401 M Street, SW, Washington, D.C. 20460. Include the OMB control number of this form on any correspondence. Do not send the completed No Exposure Certification form to this address.

EPA Form 3510-11 (10-99)

Page 4 of 4

**BILLING CODE 6560-50-C****Appendix 5 to Preamble—Regulatory Flexibility for Small Entities****A. Regulatory Flexibility for Small Municipal Storm Sewer Systems (MS4s)***Different Compliance, Reporting, or Timetables That Are Responsive to Resources of Small Entities*

NPDES permitting authorities can issue general permits instead of requiring individual permits. This flexibility avoids the high application costs and administrative burden associated with individual permits.

NPDES permitting authorities can specify a time period of up to five years for small MS4s to fully develop and implement their program

Analytic monitoring is not required.

After the first permit term and subsequent permit terms, submittal of a summary report is only required in years two and four (Phase I municipalities are currently required to submit a detailed report each year).

A brief reporting format is encouraged to facilitate compiling and analyzing data from submitted reports. EPA intends to develop a model form for this purpose.

NPDES Permitting Authorities can phase in permit coverage for small MS4s serving jurisdictions with a population under 10,000

on a schedule consistent with a State watershed permitting approach.

*Clarifying, Consolidating, or Simplifying Compliance and Reporting Requirements*

The rule avoids duplication in permit requirements by allowing NPDES permitting authorities to include permit conditions that direct an MS4 to follow the requirements of a qualifying local program rather than the requirements of a minimum measure. Compliance with these programs is considered compliance with the NPDES general permit.

The rule allows NPDES permitting authorities to recognize existing responsibilities among different municipal entities to satisfy obligations for the minimum control measures.

A further alternative allows a small MS4 to satisfy its NPDES permit obligations if another governmental entity is already implementing a minimum control measure in the jurisdiction of the small MS4. The following conditions must be met:

1. The other entity is implementing the control measure,
2. The particular control measure (or component thereof) is at least as stringent as the corresponding NPDES permit requirement, and
3. The other entity agrees to implement the control measure on your behalf.

The rule allows a covered small MS4 to "piggy-back" on to the storm water management program of an adjoining Phase I MS4. A small MS4 is waived from the application requirements of § 122.26(d)(1)(iii), (iv) and (d)(2)(iii) [discharge characterization] and may satisfy the requirements of § 122.26(d)(1)(v) and (d)(2)(iv) [identifying a management plan] by referencing the adjoining Phase I MS4's storm water management plan.

The rule accommodates the use of the watershed approach through NPDES general permits that could be issued on a watershed basis. The small MS4 can develop measures that are tailored to meet their watershed requirements. The small MS4's storm water management program can tie into watershed-wide plans.

*Performance Rather Than Design Standards for Small Entities*

Small governmental jurisdictions whose MS4s are covered by this rule are allowed to choose the best management practices (BMPs) to be implemented and the measurable goals for each of the minimum control measures:

1. Public education and outreach on storm water impacts
2. Public Involvement/Participation
3. Illicit discharge detection and elimination

- 4. Construction site storm water runoff control
- 5. Post-construction storm water management in new development and redevelopment
- 6. Pollution prevention/good housekeeping for municipal operations

EPA will provide guidance and recommend, but not mandate, certain BMPs for some of the minimum control measures listed above. States can provide guidance to supplement or supplant EPA guidance. Small MS4s can identify the measurable goals for each of the minimum control measures listed above. In their reports to the NPDES permitting authority, the small MS4s must evaluate their progress towards achievement of their identified measurable goals.

*Waivers for Small Entities From Coverage*

The rule allows permitting authorities to waive from coverage MS4s operated by small governmental jurisdictions located within an urbanized area and serving a population less than 1,000 people where the permitting authority has determined the MS4 is not contributing substantially to the pollutant loadings of an interconnected MS4 and, if the MS4 discharges pollutants that have been identified as a cause of impairment in the receiving water of the MS4 then the permitting authority has determined that storm water controls are not needed based on a TMDL that addresses the pollutants of concern.

The rule allows the permitting authority to waive from coverage MS4s serving a population under 10,000 where the permitting authority has evaluated all waters that receive a discharge from the MS4 and the permitting authority has determined that storm water controls are not needed based on a TMDL that addresses the pollutants of concern and future discharges do not have the potential to result in exceedances of water quality standards.

**B. Regulatory Flexibility for Small Construction Activities**

*Different Compliance, Reporting, or Timetables That Are Responsive to Resources of Small Entities*

The rule gives NPDES permitting authorities discretion not to require the submittal of a notice of intent (NOI) for coverage under a NPDES general permit, thereby reducing administrative and financial burden. All construction sites disturbing greater than 5 acres must submit an NOI.

*Clarifying, Consolidating, or Simplifying Compliance and Reporting Requirements*

The rule avoids duplication by allowing the NPDES permitting authority to incorporate by reference State, Tribal, or local programs under a NPDES general permit. Compliance with these programs is considered compliance with the NPDES general permit.

*Performance Rather Than Design Standards for Small Entities*

The operator of a covered construction activity selects and implement the BMPs

most appropriate for the construction site based on the operator's storm water pollution prevention plan.

*Waivers for Small Entities From Coverage*

Waivers could be granted based on the use of a rainfall erosivity factor or a comprehensive analysis of water quality impacts.

(A) *Low rainfall waiver:* When the rainfall erosivity factor ("R" from Revised Universal Soil Loss Equation) is less than 5 during the period of construction activity, a permit is not required.

(B) *Determination based on Water Quality Analysis:* The NPDES permitting authority can waive from coverage construction activities disturbing from 1 acre up to 5 acres of land where storm water controls are not needed based on:

- 1. A TMDL approved or established by EPA that addresses the pollutants of concern, or
- 2. For non-impaired waters, an equivalent analysis that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety.

**C. Regulatory Flexibility for Industrial/Commercial Facilities**

*Waivers for Small Entities From Coverage*

The rule provides a "no-exposure" waiver provision for Phase I industrial/commercial facilities. Qualifying facilities seeking this provision simply need to complete a self-certification form indicating that no industrial materials or activities are exposed to rain, snow, snow melt and/or runoff.

**Appendix 6 of Preamble—Governmental Entities Located Fully or Partially Within an Urbanized Area**

(This is a reference list only, *not* a list of all operators of small MS4s subject to §§ 122.32–122.36. For example, a listed governmental entity is only regulated if it operates a small MS4 within an "urbanized area" boundary as determined by the Bureau of the Census. Furthermore, entities such as military bases, large hospitals, prison complexes, universities, sewer districts, and highway departments that operate a small MS4 within an urbanized area are also subject to the permitting regulations but are not individually listed here. See § 122.26(b)(16) for the definition of a small MS4 and § 122.32(a) for the definition of a regulated small MS4.)

(Source: 1990 Census of Population and Housing, U.S. Bureau of the Census. This list is subject to change with the Decennial Census)

- AL Anniston city
- AL Attalla city
- AL Auburn city
- AL Autauga County
- AL Blue Mountain town
- AL Calhoun County
- AL Colbert County
- AL Dale County
- AL Decatur city
- AL Dothan city

- AL Elmore County
- AL Etowah County
- AL Flint City town
- AL Florence city
- AL Gadsden city
- AL Glencoe city
- AL Grimes town
- AL Hartselle city
- AL Hobson City town
- AL Hokes Bluff city
- AL Houston County
- AL Kinsey town
- AL Lauderdale County
- AL Lee County
- AL Limestone County
- AL Madison County
- AL Midland City town
- AL Montgomery County
- AL Morgan County
- AL Muscle Shoals city
- AL Napier Field town
- AL Northport city
- AL Opelika city
- AL Oxford city
- AL Phenix City city
- AL Prattville city
- AL Priceville town
- AL Rainbow City city
- AL Russell County
- AL Sheffield city
- AL Southside city
- AL Sylvan Springs town
- AL Talladega County
- AL Tuscaloosa city
- AL Tuscaloosa County
- AL Tuscumbia city
- AL Weaver city
- AR Alexander town
- AR Barling city
- AR Benton County
- AR Cammack Village city
- AR Crawford County
- AR Crittenden County
- AR Farmington city
- AR Fayetteville city
- AR Fort Smith city
- AR Greenland town
- AR Jacksonville city
- AR Jefferson County
- AR Johnson city
- AR Marion city
- AR Miller County
- AR North Little Rock city
- AR Pine Bluff city
- AR Pulaski County
- AR Saline County
- AR Sebastian County
- AR Shannon Hills city
- AR Sherwood city
- AR Springdale city
- AR Sunset town
- AR Texarkana city
- AR Van Buren city
- AR Washington County
- AR West Memphis city
- AR White Hall city
- AZ Apache Junction city
- AZ Chandler city
- AZ El Mirage town
- AZ Gilbert town
- AZ Guadalupe town
- AZ Maricopa County
- AZ Oro Valley town
- AZ Paradise Valley town
- AZ Peoria city
- AZ Pinal County



AZ	South Tucson city	CA	Victorville city	CT	Farmington town
AZ	Surprise town	CA	Villa Park city	CT	Franklin town
AZ	Tolleson city	CA	Visalia city	CT	Glastonbury town
AZ	Youngtown town	CA	Watsonville city	CT	Greenwich town
AZ	Yuma city	CA	West Sacramento city	CT	Groton city
AZ	Yuma County	CA	Yolo County	CT	Groton town
CA	Apple Valley town	CA	Yuba City city	CT	Guilford town
CA	Belvedere city	CA	Yuba County	CT	Hamden town
CA	Benicia city	CO	Adams County	CT	Hartford city
CA	Brentwood city	CO	Arvada city	CT	Hartford County
CA	Butte County	CO	Boulder city	CT	Ledyard town
CA	Capitola city	CO	Boulder County	CT	Lisbon town
CA	Carmel-by-the-Sea city	CO	Bow Mar town	CT	Litchfield County
CA	Carpinteria city	CO	Broomfield city	CT	Manchester town
CA	Ceres city	CO	Cherry Hills Village city	CT	Meriden city
CA	Chico city	CO	Columbine Valley town	CT	Middlebury town
CA	Compton city	CO	Commerce City city	CT	Middlefield town
CA	Corte Madera town	CO	Douglas County	CT	Middlesex County
CA	Cotati city	CO	Edgewater city	CT	Middletown city
CA	Davis city	CO	El Paso County	CT	Milford city (remainder)
CA	Del Rey Oaks city	CO	Englewood city	CT	Monroe town
CA	Fairfax town	CO	Evans city	CT	Montville town
CA	Hesperia city	CO	Federal Heights city	CT	Naugatuck borough
CA	Imperial County	CO	Fort Collins city	CT	New Britain city
CA	Lakewood city	CO	Fountain city	CT	New Canaan town
CA	Lancaster city	CO	Garden City town	CT	New Fairfield town
CA	Larkspur city	CO	Glendale city	CT	New Haven city
CA	Lodi city	CO	Golden city	CT	New Haven County
CA	Lompoc city	CO	Grand Junction city	CT	New London city
CA	Marin County	CO	Greeley city	CT	New London County
CA	Marina city	CO	Greenwood Village city	CT	New Milford town
CA	Marysville city	CO	Jefferson County	CT	Newington town
CA	Merced city	CO	La Salle town	CT	Newtown town
CA	Merced County	CO	Lakeside town	CT	North Branford town
CA	Mill Valley city	CO	Larimer County	CT	North Haven town
CA	Monterey city	CO	Littleton city	CT	Norwalk city
CA	Monterey County	CO	Longmont city	CT	Norwich city
CA	Morgan Hill city	CO	Manitou Springs city	CT	Orange town
CA	Napa city	CO	Mesa County	CT	Oxford town
CA	Napa County	CO	Mountain View town	CT	Plainville town
CA	Novato city	CO	Northglenn city	CT	Plymouth town
CA	Pacific Grove city	CO	Pueblo city	CT	Portland town
CA	Palm Desert city	CO	Pueblo County	CT	Preston town
CA	Palmdale city	CO	Sheridan city	CT	Prospect town
CA	Piedmont city	CO	Thornton city	CT	Rocky Hill town
CA	Placer County	CO	Weld County	CT	Seymour town
CA	Redding city	CO	Westminster city	CT	Shelton city
CA	Rocklin city	CO	Wheat Ridge city	CT	Sherman town
CA	Rohnert Park city	CT	Ansonia city	CT	Somers town
CA	Roseville city	CT	Avon town	CT	South Windsor town
CA	Ross town	CT	Beacon Falls town	CT	Southington town
CA	San Anselmo town	CT	Berlin town	CT	Sprague town
CA	San Buenaventura (Ventura) city	CT	Bethel town	CT	Stonington town
CA	San Francisco city	CT	Bloomfield town	CT	Stratford town
CA	San Joaquin County	CT	Bozrah town	CT	Suffield town
CA	San Luis Obispo city	CT	Branford town	CT	Thomaston town
CA	San Luis Obispo County	CT	Bridgeport city	CT	Thompson town
CA	San Rafael city	CT	Bristol city	CT	Tolland County
CA	Sand City city	CT	Brookfield town	CT	Tolland town
CA	Santa Barbara city	CT	Burlington town	CT	Trumbull town
CA	Santa Barbara County	CT	Cheshire town	CT	Vernon town
CA	Santa Cruz city	CT	Cromwell town	CT	Wallingford town
CA	Santa Cruz County	CT	Danbury city	CT	Waterbury city
CA	Santa Maria city	CT	Darien town	CT	Waterford town
CA	Sausalito city	CT	Derby city	CT	Watertown town
CA	Scotts Valley city	CT	Durham town	CT	West Hartford town
CA	Seaside city	CT	East Granby town	CT	West Haven city
CA	Shasta County	CT	East Hartford town	CT	Weston town
CA	Solano County	CT	East Haven town	CT	Westport town
CA	Sonoma County	CT	East Lyme town	CT	Wethersfield town
CA	Stanislaus County	CT	East Windsor town	CT	Wilton town
CA	Suisun City city	CT	Easton town	CT	Windham County
CA	Sutter County	CT	Ellington town	CT	Windsor Locks town
CA	Tiburon town	CT	Enfield town	CT	Windsor town
CA	Tulare County	CT	Fairfield County	CT	Wolcott town
CA	Vacaville city	CT	Fairfield town	CT	Woodbridge town

CT Woodmont borough	FL Sweetwater city	IA Riverdale city
DE Camden town	FL Titusville city	IA Robins city
DE Dover city	FL Valparaiso city	IA Scott County
DE Kent County	FL Vero Beach city	IA Sergeant Bluff city
DE Newark city	FL Virginia Gardens village	IA Sioux City city
DE Wyoming town	FL Volusia County	IA University Heights city
FL Alachua County	FL Walton County	IA Urbandale city
FL Baldwin town	FL Weeki Wachee city	IA Warren County
FL Bay County	FL West Melbourne city	IA Waterloo city
FL Belleair Shore town	FL Windermere town	IA West Des Moines city
FL Biscayne Park village	GA Albany city	IA Windsor Heights city
FL Brevard County	GA Athens city	IA Woodbury County
FL Callaway city	GA Bartow County	ID Ada County
FL Cape Canaveral city	GA Brunswick city	ID Ammon city
FL Cedar Grove town	GA Catoosa County	ID Bannock County
FL Charlotte County	GA Centerville city	ID Bonneville County
FL Cinco Bayou town	GA Chattahoochee County	ID Chubbuck city
FL Clay County	GA Cherokee County	ID Idaho Falls city
FL Cocoa Beach city	GA Chickamauga city	ID Iona city
FL Cocoa city	GA Clarke County	ID Pocatello city
FL Collier County	GA Columbia County	ID Power County
FL Daytona Beach city	GA Conyers city	IL Addison township
FL Daytona Beach Shores city	GA Dade County	IL Addison village
FL Destin city	GA Dougherty County	IL Algonquin township
FL Edgewater city	GA Douglas County	IL Algonquin village
FL El Portal village	GA Douglasville city	IL Alorton village
FL Florida City city	GA Fayette County	IL Alsip village
FL Fort Pierce city	GA Floyd County	IL Alton city
FL Fort Walton Beach city	GA Fort Oglethorpe city	IL Antioch township
FL Gainesville city	GA Glynn County	IL Antioch village
FL Gulf Breeze city	GA Grovetown city	IL Arlington Heights village
FL Hernando County	GA Henry County	IL Aroma Park village
FL Hillsboro Beach town	GA Houston County	IL Aroma township
FL Holly Hill city	GA Jones County	IL Aurora city
FL Indialantic town	GA Lee County	IL Aurora township
FL Indian Harbour Beach city	GA Lookout Mountain city	IL Avon township
FL Indian River County	GA Mountain Park city	IL Ball township
FL Indian River Shores town	GA Oconee County	IL Bannockburn village
FL Indian Shores town	GA Payne city	IL Barrington township
FL Kissimmee city	GA Rockdale County	IL Barrington village
FL Lazy Lake village	GA Rome city	IL Bartlett village
FL Lynn Haven city	GA Rossville city	IL Bartonville village
FL Malabar town	GA Stockbridge city	IL Batavia city
FL Marion County	GA Vernonburg town	IL Batavia township
FL Martin County	GA Walker County	IL Beach Park village
FL Mary Esther city	GA Warner Robins city	IL Bedford Park village
FL Melbourne Beach town	GA Winterville city	IL Belleville city
FL Melbourne city	GA Woodstock city	IL Bellevue village
FL Melbourne Village town	IA Altoona city	IL Bellwood village
FL Naples city	IA Asbury city	IL Bensenville village
FL New Smyrna Beach city	IA Bettendorf city	IL Benton township
FL Niceville city	IA Black Hawk County	IL Berkeley village
FL Ocala city	IA Buffalo city	IL Berwyn city
FL Ocean Breeze Park town	IA Carter Lake city	IL Bethalto village
FL Okaloosa County	IA Cedar Falls city	IL Blackhawk township
FL Orange Park town	IA Clive city	IL Bloom township
FL Ormond Beach city	IA Coralville city	IL Bloomingdale township
FL Osceola County	IA Council Bluffs city	IL Bloomingdale village
FL Palm Bay city	IA Dallas County	IL Bloomington city
FL Panama City city	IA Dubuque city	IL Bloomington township
FL Parker city	IA Dubuque County	IL Blue Island city
FL Ponce Inlet town	IA Elk Run Heights city	IL Bolingbrook village
FL Port Orange city	IA Evansdale city	IL Bourbonnais township
FL Port St. Lucie city	IA Hiawatha city	IL Bourbonnais village
FL Punta Gorda city	IA Iowa City city	IL Bowling township
FL Rockledge city	IA Johnson County	IL Bradley village
FL Santa Rosa County	IA Johnston city	IL Bremen township
FL Satellite Beach city	IA Le Claire city	IL Bridgeview village
FL Sewall's Point town	IA Linn County	IL Bristol township
FL Shalimar town	IA Marion city	IL Broadview village
FL South Daytona city	IA Norwalk city	IL Brookfield village
FL Springfield city	IA Panorama Park city	IL Brooklyn village
FL St. Johns County	IA Pleasant Hill city	IL Buffalo Grove village
FL St. Lucie County	IA Polk County	IL Burbank city
FL St. Lucie village	IA Pottawattamie County	IL Burnham village
FL Stuart city	IA Raymond city	IL Burr Ridge village

IL Burritt township	IL Elk Grove Village village	IL Jerome village
IL Burton township	IL Elm Grove township	IL Jo Daviess County
IL Cahokia village	IL Elmhurst city	IL Joliet city
IL Calumet City city	IL Elmwood Park village	IL Joliet township
IL Calumet Park village	IL Evanston city	IL Justice village
IL Calumet township	IL Evergreen Park village	IL Kane County
IL Canteen township	IL Fairmont City village	IL Kankakee city
IL Capital township	IL Fairview Heights city	IL Kankakee County
IL Carbon Cliff village	IL Flossmoor village	IL Kankakee township
IL Carol Stream village	IL Fondulac township	IL Kendall County
IL Carpentersville Village	IL Ford Heights village	IL Kenilworth village
IL Cary village	IL Forest Park village	IL Kickapoo township
IL Caseyville township	IL Forest View village	IL Kildeer village
IL Caseyville village	IL Forsyth village	IL La Grange Park village
IL Centreville city	IL Fort Russell township	IL La Grange village
IL Centreville township	IL Foster township	IL Lake Barrington village
IL Champaign city	IL Fox Lake village	IL Lake Bluff village
IL Champaign County	IL Fox River Grove village	IL Lake Forest city
IL Champaign township	IL Frankfort township	IL Lake in the Hills village
IL Channahon township	IL Frankfort village	IL Lake Villa township
IL Cherry Valley township	IL Franklin Park village	IL Lake Villa village
IL Cherry Valley village	IL Fremont township	IL Lake Zurich village
IL Chicago city	IL Gardner township	IL Lakemoor village
IL Chicago Heights city	IL Geneva city	IL Lakewood village
IL Chicago Ridge village	IL Geneva township	IL Lansing village
IL Chouteau township	IL Gilberts village	IL Leland Grove city
IL Cicero town	IL Glen Carbon village	IL Lemont township
IL Cincinnati township	IL Glen Ellyn village	IL Leyden township
IL Clarendon Hills village	IL Glencoe village	IL Libertyville township
IL Coal Valley township	IL Glendale Heights village	IL Libertyville village
IL Coal Valley village	IL Glenview village	IL Limestone township
IL Collinsville city	IL Glenwood village	IL Lincolnshire village
IL Collinsville township	IL Godfrey township	IL Lincolnwood village
IL Colona township	IL Golf village	IL Lindenhurst village
IL Colona village	IL Grafton township	IL Lisle township
IL Columbia city	IL Grandview village	IL Lisle village
IL Country Club Hills city	IL Granite City city	IL Lockport city
IL Countryside city	IL Grant township	IL Lockport township
IL Crest Hill city	IL Grayslake village	IL Lombard village
IL Crestwood village	IL Green Oaks village	IL Long Creek township
IL Crete township	IL Green Rock city	IL Long Grove village
IL Crete village	IL Groveland township	IL Loves Park city
IL Creve Coeur village	IL Gurnee village	IL Lynwood village
IL Crystal Lake city	IL Hainesville village	IL Lyons township
IL Cuba township	IL Hampton township	IL Lyons village
IL Curran township	IL Hanna township	IL Machesney Park village
IL Darien city	IL Hanover Park village	IL Macon County
IL Decatur city	IL Hanover township	IL Madison city
IL Decatur township	IL Harlem township	IL Madison County
IL Deer Park village	IL Harristown township	IL Maine township
IL Deerfield township	IL Harristown village	IL Markham city
IL Deerfield village	IL Hartford village	IL Marquette Heights city
IL Des Plaines city	IL Harvey city	IL Maryville village
IL Dixmoor village	IL Harwood Heights village	IL Matteson village
IL Dolton village	IL Hawthorn Woods village	IL Maywood village
IL Dorr township	IL Hazel Crest village	IL McCook village
IL Downers Grove township	IL Henry County	IL McCullom Lake village
IL Downers Grove village	IL Hensley township	IL McHenry city
IL Dry Grove township	IL Hickory Hills city	IL McHenry County
IL Du Page township	IL Hickory Point township	IL McHenry township
IL Dundee township	IL Highland Park city	IL McLean County
IL Dunleith township	IL Highwood city	IL Medina township
IL Dupo village	IL Hillside village	IL Melrose Park village
IL East Alton village	IL Hinsdale village	IL Merrionette Park village
IL East Dubuque city	IL Hodgkins village	IL Midlothian village
IL East Dundee village	IL Hoffman Estates village	IL Milan village
IL East Hazel Crest village	IL Hollis township	IL Milton township
IL East Moline city	IL Homer township	IL Moline city
IL East Peoria city	IL Hometown city	IL Moline township
IL Edwardsville city	IL Homewood village	IL Monee township
IL Edwardsville township	IL Indian Creek village	IL Monroe County
IL Ela township	IL Indian Head Park village	IL Montgomery village
IL Elgin city	IL Inverness village	IL Moro township
IL Elgin township	IL Itasca village	IL Morton Grove village
IL Elk Grove township	IL Jarvis township	IL Morton township
		IL Morton village

IL Mount Prospect village	IL Riverdale village	IL Troy city
IL Mount Zion township	IL Riverside township	IL Troy township
IL Mount Zion village	IL Riverside village	IL University Park village
IL Mundelein village	IL Riverwoods village	IL Urbana city
IL Nameoki township	IL Robbins village	IL Urbana township
IL Naperville city	IL Rochester township	IL Venice city
IL Naperville township	IL Rock Island city	IL Venice township
IL National City village	IL Rock Island County	IL Vernon Hills village
IL New Lenox township	IL Rock Island township	IL Vernon township
IL New Lenox village	IL Rockdale village	IL Villa Park village
IL New Millford village	IL Rockford township	IL Warren township
IL New Trier township	IL Rockton township	IL Warrenville city
IL Newport township	IL Rockton village	IL Washington city
IL Niles township	IL Rolling Meadows city	IL Washington Park village
IL Niles village	IL Romeoville village	IL Washington township
IL Normal town	IL Roscoe township	IL Wauconda township
IL Normal township	IL Roscoe village	IL Waukegan city
IL Norridge village	IL Roselle village	IL Waukegan township
IL North Aurora village	IL Rosemont village	IL Wayne township
IL North Barrington village	IL Round Lake Beach village	IL West Chicago city
IL North Chicago city	IL Round Lake Heights village	IL West Deerfield township
IL North Pekin village	IL Round Lake Park village	IL West Dundee village
IL North Riverside village	IL Round Lake village	IL West Peoria township
IL Northbrook village	IL Roxana village	IL Westchester village
IL Northfield township	IL Rutland township	IL Western Springs village
IL Northfield village	IL Sangamon County	IL Westmont village
IL Northlake city	IL Sauget village	IL Wheatland township
IL Norwood Park township	IL Sauk Village village	IL Wheaton city
IL Norwood village	IL Savoy village	IL Wheeling township
IL Nunda township	IL Schaumburg township	IL Wheeling village
IL Oak Brook village	IL Schaumburg village	IL Whitmore township
IL Oak Forest city	IL Schiller Park village	IL Will County
IL Oak Grove village	IL Shields township	IL Willow Springs village
IL Oak Lawn village	IL Shiloh Valley township	IL Willowbrook village
IL Oak Park village	IL Shiloh village	IL Wilmette village
IL Oakbrook Terrace city	IL Shorewood village	IL Winfield township
IL Oakley township	IL Silvis city	IL Winfield village
IL Oakwood Hills village	IL Skokie village	IL Winnebago County
IL O'Fallon city	IL Sleepy Hollow village	IL Winnetka village
IL O'Fallon township	IL Somer township	IL Winthrop Harbor village
IL Olympia Fields village	IL South Beloit city	IL Wood Dale city
IL Orland Hills village	IL South Chicago Heights village	IL Wood River city
IL Orland Park village	IL South Elgin village	IL Wood River township
IL Orland township	IL South Holland village	IL Woodford County
IL Oswego township	IL South Moline township	IL Woodridge village
IL Oswego village	IL South Rock Island township	IL Woodside township
IL Otto township	IL South Roxana village	IL Worth township
IL Owen township	IL South Wheatland township	IL Worth village
IL Palatine township	IL Southern View village	IL York township
IL Palatine village	IL Spring Bay township	IL Zion city
IL Palos Heights city	IL Springfield city	IN Aboite township
IL Palos Park village	IL Springfield township	IN Adams township
IL Palos township	IL St. Charles city	IN Allen County
IL Park City city	IL St. Charles township	IN Anderson city
IL Park Forest village	IL St. Clair County	IN Anderson township
IL Park Ridge city	IL St. Clair township	IN Baugo township
IL Pekin city	IL Steger village	IN Beech Grove city
IL Pekin township	IL Stickney township	IN Bloomington city
IL Peoria city	IL Stickney village	IN Bloomington township
IL Peoria County	IL Stites township	IN Boone County
IL Peoria Heights village	IL Stone Park village	IN Buck Creek township
IL Phoenix village	IL Stookey township	IN Calumet township
IL Pin Oak township	IL Streamwood village	IN Carmel city
IL Plainfield township	IL Sugar Grove township	IN Castleton town
IL Plainfield village	IL Sugar Loaf township	IN Cedar Creek township
IL Pontoon Beach village	IL Summit village	IN Center township
IL Posen village	IL Sunnyside village	IN Centre township
IL Precinct 10		IN Chesterfield town
IL Prospect Heights city	IL Swansea village	IN Chesterton town
IL Proviso township	IL Tazewell County	IN Clark County
IL Rich township	IL Thornton township	IN Clarksville town
IL Richton Park village	IL Thornton village	IN Clay township
IL Richwoods township	IL Tinley Park village	IN Clermont town
IL River Forest village	IL Tolono township	IN Cleveland township
IL River Grove village	IL Tower Lakes village	IN Concord township
	IL Tremont township	IN Country Club Heights town

IN	Crown Point city	IN	Osolo township	KS	Leawood city
IN	Crows Nest town	IN	Otter Creek township	KS	Lenexa city
IN	Cumberland town	IN	Penn township	KS	Merriam city
IN	Daleville town	IN	Perry township	KS	Minneha township
IN	Delaware County	IN	Pigeon township	KS	Mission city
IN	Delaware township	IN	Pike township	KS	Mission Hills city
IN	Dyer town	IN	Pleasant township	KS	Mission township
IN	Eagle township	IN	Portage city	KS	Mission Woods city
IN	East Chicago city	IN	Portage township	KS	Monticello township
IN	Edgewood town	IN	Porter County	KS	Ohio township
IN	Elkhart city	IN	Porter town	KS	Olathe city
IN	Elkhart County	IN	Richland township	KS	Olathe township
IN	Elkhart township	IN	Riley township	KS	Park City city
IN	Evansville city	IN	River Forest town	KS	Park township
IN	Fairfield township	IN	Rocky Ripple town	KS	Prairie Village city
IN	Fall Creek township	IN	Roseland town	KS	Riverside township
IN	Fishers town	IN	Ross township	KS	Roeland Park city
IN	Floyd County	IN	Salem township	KS	Salem township
IN	Fort Wayne city	IN	Schererville town	KS	Sedgwick County
IN	Franklin township	IN	Seelyville town	KS	Shawnee city
IN	Gary city	IN	Sellersburg town	KS	Shawnee County
IN	German township	IN	Selma town	KS	Shawnee township
IN	Goshen city	IN	Silver Creek township	KS	Soldier township
IN	Greenwood city	IN	South Bend city	KS	Tecumseh township
IN	Griffith town	IN	Southport city	KS	Topeka township
IN	Hamilton County	IN	Speedway town	KS	Waco township
IN	Hamilton township	IN	Spring Hill town	KS	Wakarusa township
IN	Hammond city	IN	St. John town	KS	Washington township
IN	Hancock County	IN	St. John township	KS	Westwood city
IN	Hanover township	IN	St. Joseph County	KS	Westwood Hills city
IN	Harris township	IN	St. Joseph township	KS	Williamsport township
IN	Harrison township	IN	Sugar Creek township	KS	Wyandotte County
IN	Hendricks County	IN	Taylor township	KY	Alexandria city
IN	Highland town	IN	Terre Haute city	KY	Ashland city
IN	Hobart city	IN	Tippecanoe County	KY	Bellefonte city
IN	Hobart township	IN	Tippecanoe township	KY	Bellevue city
IN	Homecroft town	IN	Union township	KY	Boone County
IN	Honey Creek township	IN	Utica township	KY	Boyd County
IN	Howard County	IN	Van Buren township	KY	Bromley city
IN	Howard township	IN	Vanderburgh County	KY	Bullitt County
IN	Indian Village town	IN	Vigo County	KY	Campbell County
IN	Jackson township	IN	Wabash township	KY	Catlettsburg city
IN	Jefferson township	IN	Warren Park town	KY	Christian County
IN	Jeffersonville city	IN	Warren township	KY	Covington city
IN	Jeffersonville township	IN	Warrick County	KY	Crescent Park city
IN	Johnson County	IN	Washington township	KY	Crescent Springs city
IN	Knight township	IN	Wayne township	KY	Crestview city
IN	Kokomo city	IN	Wea township	KY	Crestview Hills city
IN	Lafayette city	IN	West Lafayette city	KY	Daviess County
IN	Lafayette township	IN	West Terre Haute town	KY	Dayton city
IN	Lake County	IN	Westchester township	KY	Edgewood city
IN	Lake Station city	IN	Westfield town	KY	Elsmere city
IN	Lawrence city	IN	White River township	KY	Erlanger city
IN	Lawrence township	IN	Whiteland town	KY	Fairview city
IN	Liberty township	IN	Whiting city	KY	Flatwoods city
IN	Lincoln township	IN	Williams Creek town	KY	Florence city
IN	Lost Creek township	IN	Woodlawn Heights town	KY	Forest Hills city
IN	Madison County	IN	Wynnedale town	KY	Fort Mitchell city
IN	Meridian Hills town	IN	Yorktown town	KY	Fort Thomas city
IN	Merrillville town	IN	Zionsville town	KY	Fort Wright city
IN	Mishawaka city	KS	Attica township	KY	Fox Chase city
IN	Monroe County	KS	Bel Aire city	KY	Greenup County
IN	Mount Pleasant township	KS	Countryside city	KY	Hebron Estates city
IN	Muncie city	KS	Delano township	KY	Henderson city
IN	Munster town	KS	Doniphan County	KY	Henderson County
IN	New Albany city	KS	Douglas County	KY	Highland Heights city
IN	New Albany township	KS	Eastborough city	KY	Hillview city
IN	New Chicago town	KS	Elwood city	KY	Hunters Hollow city
IN	New Haven city	KS	Fairway city	KY	Independence city
IN	New Whiteland town	KS	Gypsum township	KY	Jessamine County
IN	Newburgh town	KS	Haysville city	KY	Kenton County
IN	North Crows Nest town	KS	Johnson County	KY	Kenton Vale city
IN	North township	KS	Kechi city	KY	Lakeside Park city
IN	Ogden Dunes town	KS	Kechi township	KY	Latonia Lakes city
IN	Ohio township	KS	Lake Quivira city	KY	Ludlow city
IN	Osceola town	KS	Lawrence city	KY	Melbourne city

KY	Newport city	MA	Cambridge city	MA	Medway town
KY	Oak Grove city	MA	Canton town	MA	Melrose city
KY	Owensboro city	MA	Charlton town	MA	Merrimac town
KY	Park Hills city	MA	Chelmsford town	MA	Methuen town
KY	Pioneer Village city	MA	Chelsea city	MA	Middlesex County
KY	Raceland city	MA	Chicopee city	MA	Middleton town
KY	Russell city	MA	Cohasset town	MA	Millbury town
KY	Silver Grove city	MA	Concord town	MA	Millis town
KY	Southgate city	MA	Dalton town	MA	Millville town
KY	Taylor Mill city	MA	Danvers town	MA	Milton town
KY	Villa Hills city	MA	Dartmouth town	MA	Nahant town
KY	Wilder city	MA	Dedham town	MA	Natick town
KY	Woodlawn city	MA	Dennis town	MA	Needham town
KY	Wurtland city	MA	Dighton town	MA	New Bedford city
LA	Alexandria city	MA	Dover town	MA	Newton city
LA	Baker city	MA	Dracut town	MA	Norfolk town
LA	Ball town	MA	Dudley town	MA	North Andover town
LA	Bossier City city	MA	East Bridgewater town	MA	North Attleborough town
LA	Bossier Parish	MA	East Longmeadow town	MA	North Reading town
LA	Broussard town	MA	Easthampton town	MA	Northampton city
LA	Caddo Parish	MA	Easton town	MA	Northborough town
LA	Calcasieu Parish	MA	Essex County	MA	Northbridge town
LA	Carencro city	MA	Essex town	MA	Norton town
LA	Denham Springs city	MA	Everett city	MA	Norwell town
LA	Houma city	MA	Fairhaven town	MA	Norwood town
LA	Lafayette city	MA	Fall River city	MA	Oxford town
LA	Lafayette Parish	MA	Fitchburg city	MA	Paxton town
LA	Lafourche Parish	MA	Foxborough town	MA	Peabody city
LA	Lake Charles city	MA	Framingham town	MA	Pembroke town
LA	Livingston Parish	MA	Franklin town	MA	Pittsfield city
LA	Monroe city	MA	Freetown town	MA	Plainville town
LA	Ouachita Parish	MA	Georgetown town	MA	Plymouth County
LA	Pineville city	MA	Gloucester city	MA	Quincy city
LA	Plaquemines Parish	MA	Grafton town	MA	Randolph town
LA	Port Allen city	MA	Granby town	MA	Raynham town
LA	Rapides Parish	MA	Groton town	MA	Reading town
LA	Richwood town	MA	Groveland town	MA	Rehoboth town
LA	Scott town	MA	Hadley town	MA	Revere city
LA	Slidell city	MA	Halifax town	MA	Rockland town
LA	St. Bernard Parish	MA	Hamilton town	MA	Rockport town
LA	St. Charles Parish	MA	Hampden County	MA	Salem city
LA	St. Tammany Parish	MA	Hampden town	MA	Sandwich town
LA	Sulphur city	MA	Hampshire County	MA	Saugus town
LA	Terrebonne Parish	MA	Hanover town	MA	Scituate town
LA	West Baton Rouge Parish	MA	Hanson town	MA	Seekonk town
LA	West Monroe city	MA	Haverhill city	MA	Sharon town
LA	Westlake city	MA	Hingham town	MA	Shrewsbury town
LA	Zachary city	MA	Hinsdale town	MA	Somerset town
MA	Abington town	MA	Holbrook town	MA	Somerville city
MA	Acton town	MA	Holden town	MA	South Hadley town
MA	Acushnet town	MA	Holliston town	MA	Southampton town
MA	Agawam town	MA	Holyoke city	MA	Southborough town
MA	Amesbury town	MA	Hudson town	MA	Southwick town
MA	Andover town	MA	Hull town	MA	Springfield city
MA	Arlington town	MA	Lanesborough town	MA	Stoneham town
MA	Ashland town	MA	Lawrence city	MA	Stoughton town
MA	Attleboro city	MA	Leicester town	MA	Stow town
MA	Auburn town	MA	Leominster city	MA	Sudbury town
MA	Avon town	MA	Lexington town	MA	Sutton town
MA	Barnstable County	MA	Lincoln town	MA	Swampscott town
MA	Barnstable town	MA	Littleton town	MA	Swansea town
MA	Bedford town	MA	Longmeadow town	MA	Taunton city
MA	Bellingham town	MA	Lowell city	MA	Tewksbury town
MA	Belmont town	MA	Ludlow town	MA	Tyngsborough town
MA	Berkshire County	MA	Lunenburg town	MA	Uxbridge town
MA	Beverly city	MA	Lynn city	MA	Wakefield town
MA	Billerica town	MA	Lynnfield town	MA	Walpole town
MA	Blackstone town	MA	Malden city	MA	Waltham city
MA	Boxborough town	MA	Manchester town	MA	Watertown town
MA	Boylston town	MA	Mansfield town	MA	Wayland town
MA	Braintree town	MA	Marblehead town	MA	Webster town
MA	Bridgewater town	MA	Marlborough city	MA	Wellesley town
MA	Bristol County	MA	Mashpee town	MA	Wenham town
MA	Brockton city	MA	Maynard town	MA	West Boylston town
MA	Brookline town	MA	Medfield town	MA	West Bridgewater town
MA	Burlington town	MA	Medford city	MA	West Springfield town

MA Westborough town	ME Cape Elizabeth town	MI Delta township
MA Westfield city	ME Cumberland County	MI Detroit city
MA Westford town	ME Eliot town	MI East China township
MA Westminster town	ME Falmouth town	MI East Detroit city
MA Weston town	ME Gorham town	MI East Grand Rapids city
MA Westport town	ME Kittery town	MI East Lansing city
MA Westwood town	ME Lebanon town	MI Eaton County
MA Weymouth town	ME Lewiston city	MI Ecorse city
MA Whitman town	ME Lisbon town	MI Emmett township
MA Wilbraham town	ME Old Town city	MI Erie township
MA Williamsburg town	ME Orono town	MI Essexville city
MA Wilmington town	ME Penobscot County	MI Farmington city
MA Winchester town	ME Penobscot Indian Island Reservation	MI Farmington Hills city
MA Winthrop town	ME Portland city	MI Ferndale city
MA Woburn city	ME Sabattus town	MI Fillmore township
MA Worcester County	ME Scarborough town	MI Flat Rock city
MA Wrentham town	ME South Berwick town	MI Flint township
MA Yarmouth town	ME South Portland city	MI Flushing city
MD Allegany County	ME Veazie town	MI Flushing township
MD Annapolis city	ME Westbrook city	MI Fort Gratiot township
MD Bel Air town	ME York County	MI Frankenlust township
MD Berwyn Heights town	MI Ada township	MI Franklin village
MD Bladensburg town	MI Allegan County	MI Fraser city
MD Bowie city	MI Allen Park city	MI Fruitport township
MD Brentwood town	MI Alpine township	MI Gaines township
MD Brookeville town	MI Ann Arbor township	MI Garden City city
MD Capitol Heights town	MI Auburn Hills city	MI Genesee County
MD Cecil County	MI Bangor township	MI Genesee township
MD Cheverly town	MI Bath township	MI Georgetown township
MD Chevy Chase Section Five village	MI Battle Creek city	MI Gibraltar city
MD Chevy Chase Section Three village	MI Bay City city	MI Grand Blanc city
MD Chevy Chase town	MI Bay County	MI Grand Blanc township
MD Chevy Chase Village town	MI Bedford township	MI Grand Rapids Charter township
MD College Park city	MI Belleville city	MI Grandville city
MD Colmar Manor town	MI Benton Charter township	MI Grosse Ile township
MD Cottage City town	MI Benton Harbor city	MI Grosse Pointe city
MD Cumberland city	MI Berkley city	MI Grosse Pointe Farms city
MD District Heights city	MI Berlin township	MI Grosse Pointe Park city
MD Edmonston town	MI Berrien County	MI Grosse Pointe Shores village
MD Elkton town	MI Beverly Hills village	MI Grosse Pointe Woods city
MD Fairmount Heights town	MI Bingham Farms village	MI Hampton township
MD Forest Heights town	MI Birmingham city	MI Hamtramck city
MD Frederick city	MI Blackman township	MI Harper Woods city
MD Frostburg city	MI Bloomfield Hills city	MI Harrison township
MD Funkstown town	MI Bloomfield township	MI Hazel Park city
MD Gaithersburg city	MI Bridgeport township	MI Highland Park city
MD Garrett Park town	MI Brownstown township	MI Highland township
MD Glen Echo town	MI Buena Vista Charter township	MI Holland city
MD Glenarden town	MI Burtchville township	MI Holland township
MD Greenbelt city	MI Burton city	MI Howard township
MD Hagerstown city	MI Byron township	MI Hudsonville city
MD Highland Beach town	MI Calhoun County	MI Huntington Woods city
MD Hyattsville city	MI Canton township	MI Huron township
MD Kensington town	MI Carrollton township	MI Independence township
MD Landover Hills town	MI Cascade township	MI Ingham County
MD Laurel city	MI Cass County	MI Inkster city
MD Martin's Additions village	MI Center Line city	MI Ira township
MD Morningside town	MI Chesterfield township	MI Jackson city
MD Mount Rainier city	MI Clarkston village	MI Jackson County
MD New Carrollton city	MI Clawson city	MI James township
MD North Brentwood town	MI Clay township	MI Kalamazoo city
MD Riverdale town	MI Clayton township	MI Kalamazoo County
MD Rockville city	MI Clinton County	MI Kalamazoo township
MD Seat Pleasant city	MI Clinton township	MI Keego Harbor city
MD Smithsburg town	MI Clio city	MI Kent County
MD Somerset town	MI Clyde township	MI Kentwood city
MD Takoma Park city	MI Commerce township	MI Kimball township
MD University Park town	MI Comstock township	MI Kochville township
MD Walkersville town	MI Cooper township	MI Lake Angelus city
MD Washington Grove town	MI Dalton township	MI Laketon township
MD Williamsport town	MI Davison city	MI Laketown township
ME Androscoggin County	MI Davison township	MI Lansing city
ME Auburn city	MI De Witt township	MI Lansing township
ME Bangor city	MI Dearborn city	MI Lathrup Village city
ME Berwick town	MI Dearborn Heights city	MI Leoni township
ME Brewer city	MI Delhi Charter township	MI Lincoln Park city



MI Lincoln township	MI Spring Arbor township	MN Falcon Heights city
MI Livonia city	MI Springfield city	MN Farmington city
MI Macomb County	MI Springfield township	MN Fort Snelling unorg.
MI Macomb township	MI St. Clair city	MN Fridley city
MI Madison Heights city	MI St. Clair County	MN Gem Lake city
MI Marysville city	MI St. Clair Shores city	MN Golden Valley city
MI Melvindale city	MI St. Clair township	MN Grant township
MI Meridian township	MI St. Joseph Charter township	MN Greenwood city
MI Milford township	MI St. Joseph city	MN Ham Lake city
MI Milton township	MI Stevensville village	MN Haven township
MI Monitor township	MI Sullivan township	MN Hennepin County
MI Monroe County	MI Summit township	MN Hermantown city
MI Mount Clemens city	MI Sumpter township	MN Hilltop city
MI Mount Morris city	MI Superior township	MN Hopkins city
MI Mount Morris township	MI Swartz Creek city	MN Houston County
MI Mundy township	MI Sylvan Lake city	MN Inver Grove Heights city
MI Muskegon city	MI Taylor city	MN La Crescent city
MI Muskegon County	MI Texas township	MN La Crescent township
MI Muskegon Heights city	MI Thetford township	MN Lake Elmo city
MI Muskegon township	MI Thomas township	MN Lakeville city
MI New Baltimore city	MI Trenton city	MN Landfall city
MI Niles city	MI Troy city	MN Lauderdale city
MI Niles township	MI Utica city	MN Le Sauk township
MI North Muskegon city	MI Van Buren township	MN Lexington city
MI Northville city	MI Vienna township	MN Lilydale city
MI Northville township	MI Walker city	MN Lino Lakes city
MI Norton Shores city	MI Walled Lake city	MN Little Canada city
MI Novi city	MI Washington township	MN Long Lake city
MI Novi township	MI Washtenaw County	MN Loretto city
MI Oak Park city	MI Waterford township	MN Mahtomedi city
MI Oakland Charter township	MI Wayne city	MN Maple Grove city
MI Oakland County	MI West Bloomfield township	MN Maple Plain city
MI Orchard Lake Village city	MI Westland city	MN Maplewood city
MI Orion township	MI White Lake township	MN Marion township
MI Oshtemo township	MI Whiteford township	MN Medicine Lake city
MI Ottawa County	MI Williamstown township	MN Medina city
MI Parchment city	MI Wixom city	MN Mendota city
MI Park township	MI Wolverine Lake village	MN Mendota Heights city
MI Pavilion township	MI Woodhaven city	MN Midway township
MI Pennfield township	MI Wyandotte city	MN Minden township
MI Pittsfield township	MI Wyoming city	MN Minnetonka Beach city
MI Plainfield township	MI Ypsilanti city	MN Minnetonka city
MI Pleasant Ridge city	MI Ypsilanti township	MN Minnetrista city
MI Plymouth city	MI Zeeland city	MN Moorhead city
MI Plymouth township	MI Zilwaukee city	MN Moorhead township
MI Pontiac city	MN Andover city	MN Mound city
MI Port Huron city	MN Anoka city	MN Mounds View city
MI Port Huron township	MN Anoka County	MN New Brighton city
MI Portage city	MN Apple Valley city	MN New Hope city
MI Portsmouth township	MN Arden Hills city	MN Newport city
MI Redford township	MN Benton County	MN North Oaks city
MI Richfield township	MN Birchwood Village city	MN North St. Paul city
MI River Rouge city	MN Blaine city	MN Oakdale city
MI Riverview city	MN Bloomington city	MN Oakport township
MI Rochester city	MN Brooklyn Center city	MN Olmsted County
MI Rochester Hills city	MN Brooklyn Park city	MN Orono city
MI Rockwood city	MN Burnsville city	MN Osseo city
MI Romulus city	MN Carver County	MN Plymouth city
MI Roosevelt Park city	MN Cascade township	MN Polk County
MI Roseville city	MN Champlin city	MN Prior Lake city
MI Ross township	MN Chanhassen city	MN Proctor city
MI Royal Oak city	MN Circle Pines city	MN Ramsey city
MI Royal Oak township	MN Clay County	MN Robbinsdale city
MI Saginaw city	MN Coon Rapids city	MN Rochester city
MI Saginaw County	MN Cottage Grove city	MN Rochester township
MI Saginaw Township	MN Credit River township	MN Rosemount city
MI Schoolcraft township	MN Crystal city	MN Roseville city
MI Scio township	MN Dakota County	MN Sartell city
MI Shelby township	MN Dayton city	MN Sauk Rapids city
MI Shoreham village	MN Deephaven city	MN Sauk Rapids township
MI Sodus township	MN Dilworth city	MN Savage city
MI South Rockwood village	MN Duluth city	MN Scott County
MI Southfield city	MN Eagan city	MN Sherburne County
MI Southfield township	MN East Grand Forks city	MN Shoreview city
MI Southgate city	MN Eden Prairie city	MN Shorewood city
MI Spaulding township	MN Excelsior city	MN South St. Paul city

MN	Spring Lake Park city	MO	Cottleville township	MO	Missouri River township
MN	Spring Park city	MO	Country Club Hills city	MO	Missouri township
MN	St. Anthony city	MO	Country Club village	MO	Moline Acres city
MN	St. Cloud city	MO	Country Life Acres village	MO	Mount Pleasant township
MN	St. Cloud township	MO	Crestwood city	MO	Newton County
MN	St. Louis County	MO	Creve Coeur city	MO	Normandy city
MN	St. Paul Park city	MO	Creve Coeur township	MO	Normandy township
MN	Stearns County	MO	Crystal Lake Park city	MO	North Campbell No. 1 township
MN	Sunfish Lake city	MO	Dardenne township	MO	North Campbell No. 2 township
MN	Tonka Bay city	MO	Dellwood city	MO	North Campbell No. 3 township
MN	Vadnais Heights city	MO	Dennis Acres village	MO	North Kansas City city
MN	Victoria city	MO	Des Peres city	MO	North View township
MN	Waite Park city	MO	Duquesne village	MO	Northmoor city
MN	Washington County	MO	Edmundson village	MO	Northwest township
MN	Wayzata city	MO	Ellisville city	MO	Northwoods city
MN	West St. Paul city	MO	Fenton city	MO	Norwood Court town
MN	White Bear Lake city	MO	Ferguson city	MO	Oakland city
MN	White Bear township	MO	Ferguson township	MO	Oakland Park village
MN	Willernie city	MO	Flordell Hills city	MO	Oaks village
MN	Woodbury city	MO	Florissant city	MO	Oakview village
MN	Woodland city	MO	Florissant township	MO	Oakwood Park village
MN	Wright County	MO	Fox township	MO	Oakwood village
MO	Airport Drive village	MO	Friedens township	MO	O'Fallon city
MO	Airport township	MO	Frontenac city	MO	O'Fallon township
MO	Andrew County	MO	Galena township	MO	Olivette city
MO	Arnold city	MO	Gallatin township	MO	Overland city
MO	Avondale city	MO	Gladstone city	MO	Pagedale city
MO	Ballwin city	MO	Glen Echo Park village	MO	Parkdale town
MO	Battlefield town	MO	Glenaire village	MO	Parkville city
MO	Bella Villa city	MO	Glendale city	MO	Pasadena Hills city
MO	Bellefontaine Neighbors city	MO	Grandview city	MO	Pasadena Park village
MO	Bellerive village	MO	Grantwood Village town	MO	Pettis township
MO	Bel-Nor village	MO	Gravois township	MO	Pine Lawn city
MO	Bel-Ridge village	MO	Greendale city	MO	Platte County
MO	Belton city	MO	Greene County	MO	Platte township
MO	Berkeley city	MO	Hadley township	MO	Platte Woods city
MO	Beverly Hills city	MO	Hanley Hills village	MO	Pleasant Valley city
MO	Big Creek township	MO	Harvester township	MO	Prairie township
MO	Birmingham village	MO	Hazelwood city	MO	Queeney township
MO	Black Jack city	MO	High Ridge township	MO	Randolph village
MO	Blanchette township	MO	Hillsdale village	MO	Raymore city
MO	Blue Springs city	MO	Houston Lake city	MO	Raymore township
MO	Blue township	MO	Huntleigh city	MO	Raytown city
MO	Bonhomme township	MO	Imperial township	MO	Redings Mill village
MO	Boone County	MO	Iron Gates village	MO	Richmond Heights city
MO	Boone township	MO	Jackson County	MO	Rivers township
MO	Breckenridge Hills village	MO	Jasper County	MO	Riverside city
MO	Brentwood city	MO	Jefferson County	MO	Riverview village
MO	Bridgeton city	MO	Jefferson township	MO	Rock Hill city
MO	Brooking township	MO	Jennings city	MO	Rock township
MO	Buchanan County	MO	Joplin city	MO	Rocky Fork township
MO	Calverton Park village	MO	Joplin township	MO	Saginaw village
MO	Campbell No. 1 township	MO	Kickapoo township	MO	Shoal Creek Drive village
MO	Campbell No. 2 township	MO	Kimmswick city	MO	Shoal Creek township
MO	Carl Junction city	MO	Kinloch city	MO	Shrewsbury city
MO	Carroll township	MO	Kirkwood city	MO	Silver Creek village
MO	Cartersville city	MO	Ladue city	MO	Sioux township
MO	Cass County	MO	Lake St. Louis city	MO	Sni-A-Bar township
MO	Cedar township	MO	Lake Tapawingo city	MO	Spanish Lake township
MO	Center township	MO	Lake Waukomis city	MO	Spencer Creek township
MO	Charlack city	MO	Lakeshire city	MO	St. Ann city
MO	Chesterfield city	MO	Leawood village	MO	St. Charles city
MO	Chouteau township	MO	Lee's Summit city	MO	St. Ferdinand township
MO	Christian County	MO	Lemay township	MO	St. George city
MO	Clarkson Valley city	MO	Lewis and Clark township	MO	St. John city
MO	Clay County	MO	Liberty city	MO	St. Joseph city
MO	Clay township	MO	Liberty township	MO	St. Louis city
MO	Claycomd village	MO	Mac Kenzie village	MO	St. Peters city
MO	Clayton city	MO	Manchester city	MO	St. Peters township
MO	Clayton township	MO	Maplewood city	MO	Sugar Creek city
MO	Cliff Village village	MO	Marlborough village	MO	Sunset Hills city
MO	Columbia city	MO	Maryland Heights city	MO	Sycamore Hills village
MO	Columbia township	MO	May township	MO	Town and Country city
MO	Concord township	MO	Meramec township	MO	Twin Groves township
MO	Cool Valley city	MO	Midland township	MO	Twin Oaks village
MO	Cottleville town	MO	Mineral township	MO	Unity Village village

MO	University City city	NC	Catawba County	ND	Grand Forks County
MO	Uplands Park village	NC	Chapel Hill town	ND	Grand Forks township
MO	Valley Park city	NC	China Grove town	ND	Hay Creek township
MO	Velda Village city	NC	Clemmons village	ND	Lincoln city
MO	Velda Village Hills village	NC	Concord city	ND	Mandan city
MO	Vinita Park city	NC	Conover city	ND	Mandan unorg.
MO	Vinita Terrace village	NC	Cramerton town	ND	Morton County
MO	Warson Woods city	NC	Dallas town	ND	Reed township
MO	Washington township	NC	Davidson County	ND	West Fargo city
MO	Wayne township	NC	Durham County	NE	Bellevue city
MO	Weatherby Lake city	NC	Edgecombe County	NE	Bellevue No. 2 precinct
MO	Webb City city	NC	Elon College town	NE	Benson precinct
MO	Webster Groves city	NC	Fletcher town	NE	Boys Town village
MO	Wellston city	NC	Forsyth County	NE	Chicago precinct
MO	Wentzville township	NC	Garner town	NE	Covington precinct
MO	Westwood village	NC	Gaston County	NE	Dakota County
MO	Wilbur Park village	NC	Gastonia city	NE	Douglas County
MO	Wilson township	NC	Gibsonville town	NE	Douglas precinct
MO	Winchester city	NC	Goldsboro city	NE	Florence precinct
MO	Windsor township	NC	Graham city	NE	Garfield precinct
MO	Woodson Terrace city	NC	Greenville city	NE	Gilmore No. 1 precinct
MO	Zumbahl township	NC	Guilford County	NE	Gilmore No. 2 precinct
MS	Bay St. Louis city	NC	Harnett County	NE	Gilmore No. 3 precinct
MS	Biloxi city	NC	Haw River town	NE	Grant precinct
MS	Brandon city	NC	Henderson County	NE	Highland No. 1 precinct
MS	Clinton city	NC	Hickory city	NE	Highland No. 2 precinct
MS	DeSoto County	NC	High Point city	NE	Jefferson precinct
MS	D'Iberville city	NC	Hildebran town	NE	La Platte precinct
MS	Flowood town	NC	Hope Mills town	NE	La Vista city
MS	Forrest County	NC	Indian Trail town	NE	Lancaster County
MS	Gautier city	NC	Jacksonville city	NE	Lancaster precinct
MS	Gulfport city	NC	Jamestown town	NE	McArdle precinct
MS	Hancock County	NC	Kannapolis city	NE	Millard precinct
MS	Harrison County	NC	Landis town	NE	Papillion city
MS	Hattiesburg city	NC	Leland town	NE	Papillion No. 2 precinct
MS	Hinds County	NC	Long View town	NE	Pawnee precinct
MS	Horn Lake city	NC	Lowell city	NE	Ralston city
MS	Jackson County	NC	Matthews town	NE	Richland No. 1 precinct
MS	Lamar County	NC	McAdenville town	NE	Richland No. 2 precinct
MS	Long Beach city	NC	Mebane city	NE	Richland No. 3 precinct
MS	Madison city	NC	Mecklenburg County	NE	Sarpy County
MS	Madison County	NC	Mint Hill town	NE	South Sioux City city
MS	Moss Point city	NC	Montreat town	NE	Union precinct
MS	Ocean Springs city	NC	Mount Holly city	NE	Yankee Hill precinct
MS	Pascagoula city	NC	Nash County	NH	Amherst town
MS	Pass Christian city	NC	New Hanover County	NH	Auburn town
MS	Pearl city	NC	Newton city	NH	Bedford town
MS	Petal city	NC	Onslow County	NH	Dover city
MS	Rankin County	NC	Orange County	NH	Durham town
MS	Richland city	NC	Pineville town	NH	Goffstown town
MS	Ridgeland city	NC	Pitt County	NH	Hillsborough County
MS	Southaven city	NC	Randolph County	NH	Hollis town
MS	Waveland city	NC	Ranlo town	NH	Hooksett town
MT	Billings city	NC	Rocky Mount city	NH	Hudson town
MT	Cascade County	NC	Rowan County	NH	Litchfield town
MT	Great Falls city	NC	Rural Hall town	NH	Londonderry town
MT	Missoula city	NC	Spring Lake town	NH	Madbury town
MT	Missoula County	NC	Stallings town	NH	Manchester city
MT	Yellowstone County	NC	Thomasville city	NH	Merrimack County
NC	Alamance County	NC	Union County	NH	Merrimack town
NC	Apex town	NC	Wake County	NH	Nashua city
NC	Archdale city	NC	Walkertown town	NH	New Castle town
NC	Asheville city	NC	Wayne County	NH	Newington town
NC	Belmont city	NC	Weaverville town	NH	Pelham town
NC	Belville town	NC	Wilmington city	NH	Plaistow town
NC	Bessemer City city	NC	Winterville town	NH	Portsmouth city
NC	Biltmore Forest town	NC	Woodfin town	NH	Rochester city
NC	Black Mountain town	NC	Wrightsville Beach town	NH	Rockingham County
NC	Brookford town	ND	Barnes township	NH	Rollinsford town
NC	Brunswick County	ND	Bismarck city	NH	Rye town
NC	Buncombe County	ND	Bismarck unorg.	NH	Salem town
NC	Burke County	ND	Burleigh County	NH	Somersworth city
NC	Burlington city	ND	Captain's Landing township	NH	Strafford County
NC	Cabarrus County	ND	Cass County	NH	Windham town
NC	Carrboro town	ND	Fargo city	NJ	Aberdeen township
NC	Cary town	ND	Grand Forks city	NJ	Absecon city

NJ Allendale borough	NJ Deal borough	NJ Hillsborough township
NJ Allenhurst borough	NJ Delanco township	NJ Hillsdale borough
NJ Alpha borough	NJ Delran township	NJ Hillside township
NJ Alpine borough	NJ Demarest borough	NJ Hi-Nella borough
NJ Asbury Park city	NJ Denville township	NJ Hoboken city
NJ Atlantic City city	NJ Deptford township	NJ Ho-Ho-Kus borough
NJ Atlantic County	NJ Dover town	NJ Holmdel township
NJ Atlantic Highlands borough	NJ Dover township	NJ Hopatcong borough
NJ Audubon borough	NJ Dumont borough	NJ Hopewell township
NJ Audubon Park borough	NJ Dunellen borough	NJ Howell township
NJ Avon-by-the-Sea borough	NJ East Brunswick township	NJ Hunterdon County
NJ Barrington borough	NJ East Greenwich township	NJ Interlaken borough
NJ Bay Head borough	NJ East Hanover township	NJ Irvington township
NJ Bayonne city	NJ East Newark borough	NJ Island Heights borough
NJ Beachwood borough	NJ East Orange city	NJ Jackson township
NJ Bedminster township	NJ East Rutherford borough	NJ Jamesburg borough
NJ Belleville township	NJ Eastampton township	NJ Jefferson township
NJ Bellmawr borough	NJ Eatontown borough	NJ Jersey City city
NJ Belmar borough	NJ Edgewater borough	NJ Keansburg borough
NJ Bergenfield borough	NJ Edgewater Park township	NJ Kearny town
NJ Berkeley Heights township	NJ Edison township	NJ Kenilworth borough
NJ Berkeley township	NJ Egg Harbor township	NJ Keyport borough
NJ Berlin borough	NJ Elizabeth city	NJ Kinnelon borough
NJ Berlin township	NJ Elk township	NJ Lakehurst borough
NJ Bernards township	NJ Elmwood Park borough	NJ Lakewood township
NJ Bernardsville borough	NJ Emerson borough	NJ Laurel Springs borough
NJ Beverly city	NJ Englewood city	NJ Lavallette borough
NJ Bloomfield township	NJ Englewood Cliffs borough	NJ Lawnside borough
NJ Bloomingdale borough	NJ Englishtown borough	NJ Lawrence township
NJ Bogota borough	NJ Essex Fells township	NJ Leonia borough
NJ Boonton town	NJ Evesham township	NJ Lincoln Park borough
NJ Boonton township	NJ Ewing township	NJ Linden city
NJ Bordentown city	NJ Fair Haven borough	NJ Lindenwold borough
NJ Bordentown township	NJ Fair Lawn borough	NJ Linwood city
NJ Bound Brook borough	NJ Fairfield township	NJ Little Falls township
NJ Bradley Beach borough	NJ Fairview borough	NJ Little Ferry borough
NJ Branchburg township	NJ Fanwood borough	NJ Little Silver borough
NJ Brick township	NJ Fieldsboro borough	NJ Livingston township
NJ Bridgewater township	NJ Florence township	NJ Loch Arbour village
NJ Brielle borough	NJ Florham Park borough	NJ Lodi borough
NJ Brigantine city	NJ Fort Lee borough	NJ Long Branch city
NJ Brooklawn borough	NJ Franklin Lakes borough	NJ Longport borough
NJ Buena borough	NJ Franklin township	NJ Lopatcong township
NJ Buena Vista township	NJ Freehold borough	NJ Lumberton township
NJ Burlington city	NJ Freehold township	NJ Lyndhurst township
NJ Burlington County	NJ Galloway township	NJ Madison borough
NJ Burlington township	NJ Garfield city	NJ Magnolia borough
NJ Butler borough	NJ Garwood borough	NJ Mahwah township
NJ Byram township	NJ Gibbsboro borough	NJ Manalapan township
NJ Caldwell Borough township	NJ Glassboro borough	NJ Manasquan borough
NJ Camden city	NJ Glen Ridge Borough township	NJ Manchester township
NJ Cape May County	NJ Glen Rock borough	NJ Mantoloking borough
NJ Carlstadt borough	NJ Gloucester City city	NJ Mantua township
NJ Carneys Point township	NJ Gloucester County	NJ Manville borough
NJ Carteret borough	NJ Gloucester township	NJ Maple Shade township
NJ Cedar Grove township	NJ Green Brook township	NJ Maplewood township
NJ Chatham borough	NJ Greenwich township	NJ Margate City city
NJ Chatham township	NJ Guttenberg town	NJ Marlboro township
NJ Cherry Hill township	NJ Hackensack city	NJ Matawan borough
NJ Chesilhurst borough	NJ Haddon Heights borough	NJ Maywood borough
NJ Chester township	NJ Haddon township	NJ Medford Lakes borough
NJ Chesterfield township	NJ Haddonfield borough	NJ Medford township
NJ Cinnaminson township	NJ Hainesport township	NJ Mendham borough
NJ City of Orange township	NJ Haledon borough	NJ Mendham township
NJ Clark township	NJ Hamilton township	NJ Mercer County
NJ Clayton borough	NJ Hanover township	NJ Merchantville borough
NJ Clementon borough	NJ Harding township	NJ Metuchen borough
NJ Cliffside Park borough	NJ Harrington Park borough	NJ Middlesex borough
NJ Clifton city	NJ Harrison town	NJ Middlesex County
NJ Closter borough	NJ Hasbrouck Heights borough	NJ Middletown township
NJ Collingswood borough	NJ Hawthorth borough	NJ Midland Park borough
NJ Colts Neck township	NJ Hawthorne borough	NJ Millburn township
NJ Commercial township	NJ Hazlet township	NJ Millstone borough
NJ Cranford township	NJ Helmetta borough	NJ Milltown borough
NJ Cresskill borough	NJ Highland Park borough	NJ Millville city
NJ Cumberland County	NJ Highlands borough	NJ Mine Hill township

NJ Monmouth Beach borough	NJ Pompton Lakes borough	NJ Verona township
NJ Monmouth County	NJ Prospect Park borough	NJ Victory Gardens borough
NJ Monroe township	NJ Rahway city	NJ Vineland city
NJ Montclair township	NJ Ramsey borough	NJ Voorhees township
NJ Montvale borough	NJ Randolph township	NJ Waldwick borough
NJ Montville township	NJ Raritan borough	NJ Wall township
NJ Moonachie borough	NJ Readington township	NJ Wallington borough
NJ Moorestown township	NJ Red Bank borough	NJ Wanaque borough
NJ Morris County	NJ Ridgefield borough	NJ Warren County
NJ Morris Plains borough	NJ Ridgefield Park village	NJ Warren township
NJ Morris township	NJ Ridgewood village	NJ Washington township
NJ Morristown town	NJ Ringwood borough	NJ Watchung borough
NJ Mount Arlington borough	NJ River Edge borough	NJ Waterford township
NJ Mount Ephraim borough	NJ River Vale township	NJ Wayne township
NJ Mount Holly township	NJ Riverdale borough	NJ Weehawken township
NJ Mount Laurel township	NJ Riverside township	NJ Wenonah borough
NJ Mount Olive township	NJ Riverton borough	NJ West Caldwell township
NJ Mountain Lakes borough	NJ Rochelle Park township	NJ West Deptford township
NJ Mountainside borough	NJ Rockaway borough	NJ West Long Branch borough
NJ National Park borough	NJ Rockaway township	NJ West New York town
NJ Neptune City borough	NJ Rockleigh borough	NJ West Orange township
NJ Neptune township	NJ Roseland borough	NJ West Paterson borough
NJ Netcong borough	NJ Roselle borough	NJ Westampton township
NJ New Brunswick city	NJ Roselle Park borough	NJ Westfield town
NJ New Milford borough	NJ Roxbury township	NJ Westville borough
NJ New Providence borough	NJ Rumson borough	NJ Westwood borough
NJ Newark city	NJ Runnemede borough	NJ Wharton borough
NJ Newfield borough	NJ Rutherford borough	NJ Willingboro township
NJ North Arlington borough	NJ Saddle Brook township	NJ Winfield township
NJ North Bergen township	NJ Saddle River borough	NJ Winslow township
NJ North Brunswick township	NJ Salem County	NJ Woodbridge township
NJ North Caldwell township	NJ Sayreville borough	NJ Woodbury city
NJ North Haledon borough	NJ Scotch Plains township	NJ Woodbury Heights borough
NJ North Plainfield borough	NJ Sea Bright borough	NJ Woodcliff Lake borough
NJ Northfield city	NJ Sea Girt borough	NJ Woodlynne borough
NJ Northvale borough	NJ Seaside Heights borough	NJ Wood-Ridge borough
NJ Norwood borough	NJ Seaside Park borough	NJ Wyckoff township
NJ Nutley township	NJ Secaucus town	NM Bernalillo County
NJ Oakland borough	NJ Shamong township	NM Corrales village
NJ Oaklyn borough	NJ Shrewsbury borough	NM Dona Ana County
NJ Ocean City city	NJ Shrewsbury township	NM Las Cruces city
NJ Ocean County	NJ Somerdale borough	NM Los Ranchos de Albuquerque village
NJ Ocean Gate borough	NJ Somers Point city	NM Mesilla town
NJ Ocean township	NJ Somerset County	NM Rio Rancho city
NJ Oceanport borough	NJ Somerville borough	NM Sandoval County
NJ Old Bridge township	NJ South Amboy city	NM Santa Fe city
NJ Old Tappan borough	NJ South Belmar borough	NM Santa Fe County
NJ Oradell borough	NJ South Bound Brook borough	NM Sunland Park city
NJ Palisades Park borough	NJ South Brunswick township	NY Albany city
NJ Palmyra borough	NJ South Hackensack township	NY Albany County
NJ Paramus borough	NJ South Orange Village township	NY Amherst town
NJ Park Ridge borough	NJ South Plainfield borough	NY Amityville village
NJ Parsippany-Troy Hills township	NJ South River borough	NY Ardsley village
NJ Passaic city	NJ South Toms River borough	NY Ashland town
NJ Passaic County	NJ Spotswood borough	NY Atlantic Beach village
NJ Passaic township	NJ Spring Lake borough	NY Babylon town
NJ Paterson city	NJ Spring Lake Heights borough	NY Babylon village
NJ Paulsboro borough	NJ Springfield township	NY Baldwinsville village
NJ Pennington borough	NJ Stanhope borough	NY Ballston town
NJ Penns Grove borough	NJ Stratford borough	NY Barker town
NJ Pennsauken township	NJ Summit city	NY Baxter Estates village
NJ Pennsville township	NJ Sussex County	NY Bayville village
NJ Pequannock township	NJ Tabernacle township	NY Beacon city
NJ Perth Amboy city	NJ Tavistock borough	NY Bedford town
NJ Phillipsburg town	NJ Teaneck township	NY Belle Terre village
NJ Pine Beach borough	NJ Tenaflly borough	NY Bellerose village
NJ Pine Hill borough	NJ Teterboro borough	NY Bellport village
NJ Pine Valley borough	NJ Tinton Falls borough	NY Bethlehem town
NJ Piscataway township	NJ Totowa borough	NY Big Flats town
NJ Pitman borough	NJ Trenton city	NY Binghamton city
NJ Pittsgrove township	NJ Union Beach borough	NY Binghamton town
NJ Plainfield city	NJ Union City city	NY Blasdell village
NJ Pleasantville city	NJ Union township	NY Boston town
NJ Pohatcong township	NJ Upper Saddle River borough	NY Briarcliff Manor village
NJ Point Pleasant Beach borough	NJ Upper township	NY Brighton town
NJ Point Pleasant borough	NJ Ventnor City city	NY Brightwaters village

NY Bronxville village	NY Grand View-on-Hudson village	NY Menands village
NY Brookhaven town	NY Great Neck Estates village	NY Mill Neck village
NY Brookville village	NY Great Neck Plaza village	NY Mineola village
NY Broome County	NY Great Neck village	NY Minoa village
NY Brunswick town	NY Greece town	NY Monroe County
NY Buchanan village	NY Green Island village	NY Montebello village
NY Buffalo city	NY Greenburgh town	NY Montgomery town
NY Camillus town	NY Guilderland town	NY Moreau town
NY Camillus village	NY Halfmoon town	NY Mount Kisco village
NY Carmel town	NY Hamburg town	NY Mount Pleasant town
NY Cayuga Heights village	NY Hamburg village	NY Mount Vernon city
NY Cedarhurst village	NY Harrison village	NY Munsey Park village
NY Charlton town	NY Hastings-on-Hudson village	NY Muttontown village
NY Cheektowaga town	NY Haverstraw town	NY New Castle town
NY Chemung County	NY Haverstraw village	NY New Hartford town
NY Chenango town	NY Hempstead town	NY New Hartford village
NY Chestnut Ridge village	NY Hempstead village	NY New Hempstead village
NY Chili town	NY Henrietta town	NY New Hyde Park village
NY Cicero town	NY Herkimer County	NY New Rochelle city
NY Clarence town	NY Hewlett Bay Park village	NY New Square village
NY Clarkstown town	NY Hewlett Harbor village	NY New Windsor town
NY Clay town	NY Hewlett Neck village	NY New York Mills village
NY Clayville village	NY Hillburn village	NY Newburgh city
NY Clifton Park town	NY Horseheads town	NY Newburgh town
NY Clinton village	NY Horseheads village	NY Niagara County
NY Cohoes city	NY Hudson Falls village	NY Niagara Falls city
NY Colonie town	NY Huntington Bay village	NY Niagara town
NY Colonie village	NY Huntington town	NY Niskayuna town
NY Conklin town	NY Hyde Park town	NY North Castle town
NY Cornwall on Hudson village	NY Irondequoit town	NY North Greenbush town
NY Cornwall town	NY Irvington village	NY North Hempstead town
NY Cortlandt town	NY Island Park village	NY North Hills village
NY Croton-on-Hudson village	NY Islandia village	NY North Syracuse village
NY De Witt town	NY Islip town	NY North Tarrytown village
NY Deerfield town	NY Ithaca city	NY North Tonawanda city
NY Depew village	NY Ithaca town	NY Northport village
NY Dickinson town	NY Johnson City village	NY Nyack village
NY Dobbs Ferry village	NY Kenmore village	NY Ogden town
NY Dryden town	NY Kensington village	NY Old Brookville village
NY Dutchess County	NY Kent town	NY Old Westbury village
NY East Fishkill town	NY Kings Point village	NY Oneida County
NY East Greenbush town	NY Kingsbury town	NY Onondaga County
NY East Hills village	NY Kirkland town	NY Onondaga town
NY East Rochester village	NY Kirkwood town	NY Orange County
NY East Rockaway village	NY La Grange town	NY Orangetown town
NY East Syracuse village	NY Lackawanna city	NY Orchard Park town
NY East Williston village	NY LaFayette town	NY Orchard Park village
NY Eastchester town	NY Lake Grove village	NY Oriskany village
NY Elma town	NY Lake Success village	NY Ossining town
NY Elmira city	NY Lancaster town	NY Ossining village
NY Elmira Heights village	NY Lancaster village	NY Oswego County
NY Elmira town	NY Lansing town	NY Owego town
NY Elmsford village	NY Lansing village	NY Oyster Bay town
NY Endicott village	NY Larchmont village	NY Paris town
NY Erie County	NY Lattingtown village	NY Patchogue village
NY Evans town	NY Lawrence village	NY Patterson town
NY Fairport village	NY Lee town	NY Peekskill city
NY Farmingdale village	NY Lewiston town	NY Pelham Manor village
NY Fayetteville village	NY Lewiston village	NY Pelham town
NY Fenton town	NY Lindenhurst village	NY Pelham village
NY Fishkill town	NY Liverpool village	NY Pendleton town
NY Fishkill village	NY Lloyd Harbor village	NY Penfield town
NY Floral Park village	NY Lloyd town	NY Perinton town
NY Flower Hill village	NY Long Beach city	NY Philipstown town
NY Floyd town	NY Lynbrook village	NY Phoenix village
NY Fort Edward town	NY Lysander town	NY Piermont village
NY Fort Edward village	NY Malta town	NY Pittsford town
NY Frankfort town	NY Malverne village	NY Pittsford village
NY Freeport village	NY Mamaroneck town	NY Plandome Heights village
NY Garden City village	NY Mamaroneck village	NY Plandome Manor village
NY Gates town	NY Manlius town	NY Plandome village
NY Geddes town	NY Manlius village	NY Pleasant Valley town
NY Glen Cove city	NY Manorhaven village	NY Pleasantville village
NY Glens Falls city	NY Marcy town	NY Poestenkill town
NY Glenville town	NY Massapequa Park village	NY Pomona village
NY Grand Island town	NY Matinecock village	NY Poospatuck Reservation

NY Poquott village	NY Wappinger town	OH Brown township
NY Port Chester village	NY Wappingers Falls village	OH Brownhelm township
NY Port Dickinson village	NY Warren County	OH Brunswick city
NY Port Jefferson village	NY Washington County	OH Brunswick Hills township
NY Port Washington North village	NY Waterford town	OH Butler County
NY Poughkeepsie city	NY Waterford village	OH Butler township
NY Poughkeepsie town	NY Watervliet city	OH Campbell city
NY Pound Ridge town	NY Webster town	OH Canfield city
NY Putnam County	NY Webster village	OH Canfield township
NY Putnam Valley town	NY Wesley Hills village	OH Canton city
NY Queensbury town	NY West Haverstraw village	OH Canton township
NY Ramapo town	NY West Seneca town	OH Carlisle township
NY Rensselaer city	NY Westbury village	OH Carlisle village
NY Rensselaer County	NY Westchester County	OH Centerville city
NY Riverhead town	NY Western town	OH Chagrin Falls township
NY Rochester city	NY Wheatfield town	OH Chagrin Falls village
NY Rockville Centre village	NY White Plains city	OH Champion township
NY Rome city	NY Whitesboro village	OH Chesapeake village
NY Roslyn Estates village	NY Whitestown town	OH Cheviot city
NY Roslyn Harbor village	NY Williamsville village	OH Chippewa township
NY Roslyn village	NY Williston Park village	OH Cincinnati city
NY Rotterdam town	NY Woodsburgh village	OH Clark County
NY Russell Gardens village	NY Yonkers city	OH Clear Creek township
NY Rye Brook village	NY Yorktown town	OH Clermont County
NY Rye city	NY Yorkville village	OH Cleveland city
NY Rye town	OH Addyston village	OH Cleveland Heights city
NY Saddle Rock village	OH Allen County	OH Cleves village
NY Salina town	OH Allen township	OH Clinton township
NY Sands Point village	OH Amberley village	OH Coal Grove village
NY Saratoga County	OH Amelia village	OH Coitsville township
NY Scarsdale town	OH American township	OH Colerain township
NY Scarsdale village	OH Amherst city	OH Columbia township
NY Schaghticoke town	OH Amherst township	OH Concord township
NY Schenectady city	OH Anderson township	OH Copley township
NY Schenectady County	OH Arlington Heights village	OH Coventry township
NY Schodack town	OH Auglaize County	OH Cridersville village
NY Schroepel town	OH Aurora city	OH Cross Creek township
NY Schuyler town	OH Austintown township	OH Cuyahoga County
NY Scotia village	OH Avon city	OH Cuyahoga Falls city
NY Sea Cliff village	OH Avon Lake city	OH Cuyahoga Heights village
NY Shoreham village	OH Bainbridge township	OH Deer Park city
NY Sloan village	OH Barberton city	OH Deerfield township
NY Sloatsburg village	OH Batavia township	OH Delaware County
NY Smithtown town	OH Bath township	OH Delhi township
NY Solvay village	OH Bay Village city	OH Doylestown village
NY Somers town	OH Beachwood city	OH Dublin city
NY South Floral Park village	OH Beaver township	OH Duchouquet township
NY South Glens Falls village	OH Beaver creek city	OH East Cleveland city
NY South Nyack village	OH Beaver creek township	OH Eastlake city
NY Southampton town	OH Bedford city	OH Eaton township
NY Southport town	OH Bedford Heights city	OH Elmwood Place village
NY Spencerport village	OH Bellaire city	OH Elyria city
NY Spring Valley village	OH Bellbrook city	OH Elyria township
NY Stewart Manor village	OH Belmont County	OH Englewood city
NY Stony Point town	OH Belpre city	OH Erie County
NY Suffern village	OH Belpre township	OH Etna township
NY Suffolk County	OH Bentleyville village	OH Euclid city
NY Syracuse city	OH Berea city	OH Evendale village
NY Tarrytown village	OH Bethel township	OH Fairborn city
NY Thomaston village	OH Bexley city	OH Fairfax village
NY Tioga County	OH Blendon township	OH Fairfield city
NY Tompkins County	OH Blue Ash city	OH Fairfield County
NY Tonawanda city	OH Boardman township	OH Fairfield township
NY Tonawanda town	OH Brady Lake village	OH Fairlawn city
NY Troy city	OH Bratenahl village	OH Fairport Harbor village
NY Tuckahoe village	OH Brecksville city	OH Fairview Park city
NY Ulster County	OH Brice village	OH Fayette township
NY Union town	OH Bridgeport village	OH Forest Park city
NY Upper Brookville village	OH Brilliant village	OH Fort Shawnee village
NY Upper Nyack village	OH Brimfield township	OH Franklin city
NY Utica city	OH Broadview Heights city	OH Franklin County
NY Valley Stream village	OH Brook Park city	OH Franklin township
NY Van Buren town	OH Brookfield township	OH Gahanna city
NY Vestal town	OH Brooklyn city	OH Garfield Heights city
NY Veteran town	OH Brooklyn Heights village	OH Geauga County
NY Village of the Branch village	OH Brookside village	OH Genoa township



OH German township	OH Marble Cliff village	OH Pease township
OH Girard city	OH Mariemont village	OH Pepper Pike city
OH Glendale village	OH Martins Ferry city	OH Perry township
OH Glenwillow village	OH Mason city	OH Perrysburg city
OH Golf Manor village	OH Massillon city	OH Perrysburg city
OH Goshen township	OH Maumee city	OH Perrysburg township
OH Grand River village	OH Mayfield Heights city	OH Pierce township
OH Grandview Heights city	OH Mayfield village	OH Plain township
OH Green township	OH McDonald village	OH Pleasant township
OH Green village	OH Mead township	OH Poland township
OH Greene County	OH Medina County	OH Poland village
OH Greenhills village	OH Mentor city	OH Portage County
OH Grove City city	OH Mentor-on-the-Lake city	OH Powell village
OH Groveport village	OH Meyers Lake village	OH Prairie township
OH Hamilton city	OH Miami County	OH Proctorville village
OH Hamilton County	OH Miami township	OH Pultney township
OH Hamilton township	OH Miamisburg city	OH Randolph township
OH Hanging Rock village	OH Middleburg Heights city	OH Ravenna city
OH Hanover township	OH Middletown city	OH Ravenna township
OH Harbor View village	OH Mifflin township	OH Reading city
OH Harrison township	OH Milford city	OH Reminderville village
OH Hartville village	OH Millbury village	OH Reynoldsburg city
OH Heath city	OH Millville village	OH Richfield township
OH Highland Heights city	OH Minerva Park village	OH Richfield village
OH Hilliard city	OH Mingo Junction city	OH Richland County
OH Hills and Dales village	OH Mogadore village	OH Richmond Heights city
OH Hinckley township	OH Monclova township	OH Riveredge township
OH Holland village	OH Monroe township	OH Riverlea village
OH Howland township	OH Monroe village	OH Riverside village
OH Hubbard city	OH Montgomery city	OH Rocky River city
OH Hubbard township	OH Montgomery County	OH Rome township
OH Huber Heights city	OH Moorefield township	OH Ross township
OH Huber Heights city	OH Moorefield township	OH Rossford city
OH Hudson township	OH Moraine city	OH Russell township
OH Hudson village	OH Moreland Hills village	OH Russia township
OH Independence city	OH Mount Healthy city	OH Sagamore Hills township
OH Ironton city	OH Munroe Falls village	OH Seven Hills city
OH Island Creek township	OH New Miami village	OH Shadyside village
OH Jackson township	OH New Middletown village	OH Shaker Heights city
OH Jefferson County	OH New Rome village	OH Sharon township
OH Jefferson township	OH Newark city	OH Sharonville city
OH Jerome township	OH Newark township	OH Shawnee Hills village
OH Kent city	OH Newburgh Heights village	OH Shawnee township
OH Kettering city	OH Newton township	OH Sheffield Lake city
OH Kirtland city	OH Newtown village	OH Sheffield township
OH Lake County	OH Niles city	OH Sheffield village
OH Lake township	OH Nimishillen township	OH Silver Lake village
OH Lakeline village	OH North Bend village	OH Silverton city
OH Lakemore village	OH North Canton city	OH Solon city
OH Lakewood city	OH North College Hill city	OH South Amherst village
OH Lawrence County	OH North Olmsted city	OH South Euclid city
OH Lawrence township	OH North Randall village	OH South Point village
OH Lemon township	OH North Ridgeville city	OH South Russell village
OH Lexington village	OH North Royalton city	OH Springboro city
OH Liberty township	OH Northfield Center township	OH Springdale city
OH Licking County	OH Northfield village	OH Springfield city
OH Licking township	OH Northwood city	OH Springfield township
OH Lima city	OH Norton city	OH St. Bernard city
OH Lima township	OH Norwich township	OH St. Clair township
OH Lincoln Heights city	OH Norwood city	OH Stark County
OH Linndale village	OH Oakwood city	OH Steubenville city
OH Lockland village	OH Oakwood village	OH Steubenville township
OH Lorain city	OH Obetz village	OH Stow city
OH Lorain County	OH Ohio township	OH Strongsville city
OH Louisville city	OH Olmsted Falls city	OH Struthers city
OH Loveland city	OH Olmsted township	OH Suffield township
OH Lowellville village	OH Ontario village	OH Sugar Bush Knolls village
OH Lucas County	OH Orange township	OH Sugar Creek township
OH Lyndhurst city	OH Orange village	OH Summit County
OH Macedonia city	OH Oregon city	OH Sycamore township
OH Mad River township	OH Ottawa County	OH Sylvania city
OH Madeira city	OH Ottawa Hills village	OH Sylvania township
OH Madison township	OH Painesville city	OH Symmes township
OH Mahoning County	OH Painesville township	OH Tallmadge city
OH Maineville village	OH Palmyra township	OH Terrace Park village
OH Mansfield city	OH Parma city	OH The Village of Indian Hill city
OH Maple Heights city	OH Parma Heights city	

OH Timberlake village	OK Logan County	PA Berks County
OH Trenton city	OK Midwest City city	PA Bern township
OH Trotwood city	OK Moffett town	PA Bethel Park borough
OH Troy township	OK Moore city	PA Bethel township
OH Trumbull County	OK Mustang city	PA Bethlehem city
OH Truro township	OK Nichols Hills city	PA Bethlehem township
OH Turtle Creek township	OK Nicoma Park city	PA Big Beaver borough
OH Tuscarawas township	OK Norman city	PA Birdsboro borough
OH Twinsburg city	OK Oklahoma County	PA Birmingham township
OH Twinsburg township	OK Osage County	PA Blair County
OH Union city	OK Pottawatomie County	PA Blair township
OH Union County	OK Rogers County	PA Blakely borough
OH Union township	OK Sand Springs city	PA Blawnox borough
OH University Heights city	OK Sequoyah County	PA Boyertown borough
OH Upper Arlington city	OK Smith Village town	PA Brackenridge borough
OH Upper township	OK Spencer city	PA Braddock borough
OH Urbancrest village	OK The Village city	PA Braddock Hills borough
OH Valley View village	OK Tulsa County	PA Bradfordwoods borough
OH Valleyview village	OK Valley Brook town	PA Brentwood borough
OH Vandalia city	OK Wagoner County	PA Bridgeport borough
OH Vermilion city	OK Warr Acres city	PA Bridgeville borough
OH Vermilion township	OK Woodlawn Park town	PA Bridgewater borough
OH Violet township	OK Yukon city	PA Brighton township
OH Wadsworth city	OR Central Point city	PA Bristol borough
OH Wadsworth township	OR Columbia County	PA Bristol township
OH Waite Hill village	OR Durham city	PA Brookhaven borough
OH Walbridge village	OR Jackson County	PA Brownstown borough
OH Walton Hills village	OR Keizer city	PA Brownsville borough
OH Warren city	OR King City city	PA Brownsville township
OH Warren County	OR Lane County	PA Bryn Athyn borough
OH Warren township	OR Marion County	PA Buckingham township
OH Warrensville Heights city	OR Maywood Park city	PA Bucks County
OH Warrensville township	OR Medford city	PA California borough
OH Washington County	OR Phoenix city	PA Caln township
OH Washington township	OR Polk County	PA Cambria County
OH Wayne County	OR Rainier city	PA Camp Hill borough
OH Wayne township	OR Springfield city	PA Canonsburg borough
OH Weathersfield township	OR Troutdale city	PA Canton township
OH Wells township	OR Tualatin city	PA Carbondale city
OH West Carrollton City city	OR Wood Village city	PA Carbondale township
OH West Milton village	PA Abington township	PA Carnegie borough
OH Westerville city	PA Adamsburg borough	PA Carroll township
OH Westlake city	PA Alburtis borough	PA Castle Shannon borough
OH Whitehall city	PA Aldan borough	PA Catasauqua borough
OH Whitewater township	PA Aleppo township	PA Cecil township
OH Wickliffe city	PA Aliquippa city	PA Center township
OH Willoughby city	PA Allegheny County	PA Centre County
OH Willoughby Hills city	PA Allegheny township	PA Chalfant borough
OH Willowick city	PA Allen township	PA Chalfant borough
OH Wintersville village	PA Allenport borough	PA Charleroi borough
OH Wood County	PA Alsace township	PA Charlestown township
OH Woodlawn village	PA Altoona city	PA Chartiers township
OH Woodmere village	PA Ambler borough	PA Cheltenham township
OH Worthington city	PA Ambridge borough	PA Chester city
OH Wyoming city	PA Amwell township	PA Chester County
OH Youngstown city	PA Antis township	PA Chester Heights borough
OK Arkoma town	PA Antrim township	PA Chester township
OK Bethany city	PA Archbald borough	PA Cheswick borough
OK Bixby city	PA Arnold city	PA Chippewa township
OK Broken Arrow city	PA Ashley borough	PA Churchill borough
OK Canadian County	PA Aspinwall borough	PA Clairton city
OK Catoosa city	PA Aston township	PA Clarks Green borough
OK Choctaw city	PA Avalon borough	PA Clarks Summit borough
OK Cleveland County	PA Avoca borough	PA Clifton Heights borough
OK Comanche County	PA Baden borough	PA Coal Center borough
OK Creek County	PA Baldwin borough	PA Coatesville city
OK Del City city	PA Baldwin township	PA Colebrookdale township
OK Edmond city	PA Beaver borough	PA College township
OK Forest Park town	PA Beaver County	PA Collegeville borough
OK Hall Park town	PA Beaver Falls city	PA Collier township
OK Harrah town	PA Bell Acres borough	PA Collingdale borough
OK Jenks city	PA Belle Vernon borough	PA Columbia borough
OK Jones town	PA Bellevue borough	PA Colwyn borough
OK Lake Aluma town	PA Ben Avon borough	PA Concord township
OK Lawton city	PA Ben Avon Heights borough	PA Conemaugh township
OK Le Flore County	PA Bensalem township	PA Conestoga township

PA Conewago township	PA Emmaus borough	PA Hummelstown borough
PA Conshohocken borough	PA Emsworth borough	PA Hunker borough
PA Conway borough	PA Erie city	PA Indiana township
PA Coplay borough	PA Erie County	PA Ingram borough
PA Coraopolis borough	PA Etna borough	PA Irwin borough
PA Courtdale borough	PA Exeter borough	PA Ivyland borough
PA Crafton borough	PA Exeter township	PA Jackson township
PA Crescent township	PA Export borough	PA Jacobus borough
PA Cumberland County	PA Fairfield township	PA Jeannette city
PA Cumru township	PA Fairview township	PA Jefferson borough
PA Daisytown borough	PA Fallowfield township	PA Jenkins township
PA Dale borough	PA Falls township	PA Jenkintown borough
PA Dallas borough	PA Fallston borough	PA Jermyn borough
PA Dallas township	PA Farrell city	PA Jessup borough
PA Dallastown borough	PA Fayette City borough	PA Johnstown city
PA Darby borough	PA Fayette County	PA Juniata township
PA Darby township	PA Fell township	PA Kenhorst borough
PA Daugherty township	PA Ferguson township	PA Kennedy township
PA Dauphin County	PA Ferndale borough	PA Kilbuck township
PA Delaware County	PA Findlay township	PA Kingston borough
PA Delmont borough	PA Finleyville borough	PA Kingston township
PA Derry township	PA Folcroft borough	PA Koppel borough
PA Dickson City borough	PA Forest Hills borough	PA Lackawanna County
PA Donora borough	PA Forks township	PA Laflin borough
PA Dormont borough	PA Forty Fort borough	PA Lancaster city
PA Douglass township	PA Forward township	PA Lancaster County
PA Dover borough	PA Fountain Hill borough	PA Lancaster township
PA Dover township	PA Fox Chapel borough	PA Langhorne borough
PA Downingtown borough	PA Franconia township	PA Langhorne Manor borough
PA Doylestown borough	PA Franklin borough	PA Lansdale borough
PA Doylestown township	PA Franklin County	PA Lansdowne borough
PA Dravosburg borough	PA Franklin Park borough	PA Larksville borough
PA Duboistown borough	PA Franklin township	PA Laurel Run borough
PA Duncansville borough	PA Frankstown township	PA Laureldale borough
PA Dunlevy borough	PA Frazer township	PA Lawrence County
PA Dunmore borough	PA Freedom borough	PA Lawrence Park township
PA Dupont borough	PA Freemansburg borough	PA Lebanon County
PA Duquesne city	PA Geistown borough	PA Leesport borough
PA Duryea borough	PA Glassport borough	PA Leet township
PA East Allen township	PA Glendon borough	PA Leetsdale borough
PA East Bradford township	PA Glenfield borough	PA Lehigh County
PA East Brandywine township	PA Glenolden borough	PA Lehman township
PA East Caln township	PA Green Tree borough	PA Lemoyne borough
PA East Conemaugh borough	PA Greensburg city	PA Liberty borough
PA East Coventry township	PA Hallam borough	PA Limerick township
PA East Deer township	PA Hampden township	PA Lincoln borough
PA East Fallowfield township	PA Hampton township	PA Lititz borough
PA East Goshen township	PA Hanover township	PA Logan township
PA East Hempfield township	PA Harborcreek township	PA Loganville borough
PA East Lampeter township	PA Harmar township	PA London Britain township
PA East Lansdowne borough	PA Harmony township	PA Londonderry township
PA East McKeesport borough	PA Harris township	PA Lorain borough
PA East Norriton township	PA Harrisburg city	PA Lower Allen township
PA East Pennsboro township	PA Harrison township	PA Lower Alsace township
PA East Petersburg borough	PA Harveys Lake borough	PA Lower Burrell city
PA East Pikeland township	PA Hatboro borough	PA Lower Chichester township
PA East Pittsburgh borough	PA Hatfield borough	PA Lower Frederick township
PA East Rochester borough	PA Hatfield township	PA Lower Gwynedd township
PA East Taylor township	PA Haverford township	PA Lower Heidelberg township
PA East Vincent township	PA Haysville borough	PA Lower Macungie township
PA East Washington borough	PA Heidelberg borough	PA Lower Makefield township
PA East Whiteland township	PA Hellam township	PA Lower Merion township
PA Easton city	PA Hellertown borough	PA Lower Moreland township
PA Easttown township	PA Hempfield township	PA Lower Nazareth township
PA Eastvale borough	PA Hepburn township	PA Lower Paxton township
PA Economy borough	PA Hermitage city	PA Lower Pottsgrove township
PA Eddystone borough	PA Highspire borough	PA Lower Providence township
PA Edgewood borough	PA Hilltown township	PA Lower Salford township
PA Edgeworth borough	PA Hollidaysburg borough	PA Lower Saucon township
PA Edgmont township	PA Homestead borough	PA Lower Southampton township
PA Edwardsville borough	PA Homewood borough	PA Lower Swatara township
PA Elco borough	PA Hopewell township	PA Lower Yoder township
PA Elizabeth borough	PA Horsham township	PA Loyalsock township
PA Elizabeth township	PA Houston borough	PA Luzerne borough
PA Ellport borough	PA Hughestown borough	PA Luzerne County
PA Ellwood City borough	PA Hulmeville borough	PA Luzerne township

PA Lycoming County  
PA Lycoming township  
PA Macungie borough  
PA Madison borough  
PA Maiden creek township  
PA Malvern borough  
PA Manchester township  
PA Manheim township  
PA Manor borough  
PA Manor township  
PA Marcus Hook borough  
PA Marple township  
PA Marshall township  
PA Marysville borough  
PA Mayfield borough  
PA McCandless township  
PA McKean township  
PA McKees Rocks borough  
PA McKeesport city  
PA Mechanicsburg borough  
PA Media borough  
PA Mercer County  
PA Middle Taylor township  
PA Middletown borough  
PA Middletown township  
PA Millbourne borough  
PA Millcreek township  
PA Millersville borough  
PA Millvale borough  
PA Modena borough  
PA Mohnton borough  
PA Monaca borough  
PA Monessen city  
PA Monongahela city  
PA Monroe township  
PA Montgomery County  
PA Montgomery township  
PA Montoursville borough  
PA Moon township  
PA Moosic borough  
PA Morrisville borough  
PA Morton borough  
PA Mount Lebanon township  
PA Mount Oliver borough  
PA Mount Penn borough  
PA Mountville borough  
PA Muhlenberg township  
PA Munhall borough  
PA Municipality of Monroeville borough  
PA Municipality of Murrysville borough  
PA Nanticoke city  
PA Narberth borough  
PA Nether Providence township  
PA Neville township  
PA New Brighton borough  
PA New Britain borough  
PA New Britain township  
PA New Cumberland borough  
PA New Eagle borough  
PA New Galilee borough  
PA New Garden township  
PA New Hanover township  
PA New Kensington city  
PA New Sewickley township  
PA New Stanton borough  
PA Newell borough  
PA Newport township  
PA Newton township  
PA Newtown borough  
PA Newtown township  
PA Norristown borough  
PA North Belle Vernon borough  
PA North Braddock borough  
PA North Catasauqua borough  
PA North Charleroi borough  
PA North Coventry township  
PA North Franklin township  
PA North Huntingdon township  
PA North Irwin borough  
PA North Londonderry township  
PA North Sewickley township  
PA North Strabane township  
PA North Versailles township  
PA North Wales borough  
PA North Whitehall township  
PA North York borough  
PA Northampton borough  
PA Northampton County  
PA Northampton township  
PA Norwood borough  
PA Oakmont borough  
PA O'Hara township  
PA Ohio township  
PA Old Forge borough  
PA Old Lycoming township  
PA Olyphant borough  
PA Ontelaunee township  
PA Osborne borough  
PA Paint borough  
PA Paint township  
PA Palmer township  
PA Palmyra borough  
PA Parkside borough  
PA Patterson Heights borough  
PA Patterson township  
PA Patton township  
PA Paxtang borough  
PA Penbrook borough  
PA Penn borough  
PA Penn Hills township  
PA Penn township  
PA Penndel borough  
PA Pennsbury Village borough  
PA Pequea township  
PA Perkiomen township  
PA Perry County  
PA Perry township  
PA Peters township  
PA Phoenixville borough  
PA Pine township  
PA Pitcairn borough  
PA Pittsburgh city  
PA Pittston city  
PA Pittston township  
PA Plains township  
PA Pleasant Hills borough  
PA Plum borough  
PA Plymouth borough  
PA Plymouth township  
PA Port Vue borough  
PA Potter township  
PA Pottstown borough  
PA Pringle borough  
PA Prospect Park borough  
PA Pulaski township  
PA Radnor township  
PA Rankin borough  
PA Ransom township  
PA Reading city  
PA Red Lion borough  
PA Reserve township  
PA Richland township  
PA Ridley Park borough  
PA Ridley township  
PA Robinson township  
PA Rochester borough  
PA Rochester township  
PA Rockledge borough  
PA Roscoe borough  
PA Rose Valley borough  
PA Ross township  
PA Rosslyn Farms borough  
PA Rostraver township  
PA Royalton borough  
PA Royersford borough  
PA Rutledge borough  
PA Salem township  
PA Salisbury township  
PA Scalp Level borough  
PA Schuylkill township  
PA Schwenksville borough  
PA Scott township  
PA Scranton city  
PA Sewickley borough  
PA Sewickley Heights borough  
PA Sewickley Hills borough  
PA Sewickley township  
PA Shaler township  
PA Sharon city  
PA Sharon Hill borough  
PA Sharpsburg borough  
PA Sharpsville borough  
PA Shenango township  
PA Shillington borough  
PA Shiremanstown borough  
PA Silver Spring township  
PA Sinking Spring borough  
PA Skippack township  
PA Somerset County  
PA Souderton borough  
PA South Abington township  
PA South Coatesville borough  
PA South Fayette township  
PA South Greensburg borough  
PA South Hanover township  
PA South Heidelberg township  
PA South Heights borough  
PA South Huntingdon township  
PA South Park township  
PA South Pymatuning township  
PA South Strabane township  
PA South Whitehall township  
PA South Williamsport borough  
PA Southmont borough  
PA Southwest Greensburg borough  
PA Speers borough  
PA Spring City borough  
PA Spring Garden township  
PA Spring township  
PA Springdale borough  
PA Springdale township  
PA Springettsbury township  
PA Springfield township  
PA St. Lawrence borough  
PA State College borough  
PA Steelton borough  
PA Stockdale borough  
PA Stonycreek township  
PA Stowe township  
PA Sugar Notch borough  
PA Summit township  
PA Susquehanna township  
PA Sutersville borough  
PA Swarthmore borough  
PA Swatara township  
PA Swissvale borough  
PA Swoyersville borough  
PA Tarentum borough  
PA Taylor borough  
PA Telford borough  
PA Temple borough  
PA Thornburg borough  
PA Thornbury township  
PA Throop borough  
PA Tinicum township  
PA Towamencin township  
PA Trafford borough  
PA Trainer borough

PA Trappe borough	PA Whitehall township	RI East Providence city
PA Tredyffrin township	PA Whitemarsh township	RI Gloucester town
PA Tullytown borough	PA Whitpain township	RI Jamestown town
PA Turtle Creek borough	PA Wilkes-Barre city	RI Johnston town
PA Union township	PA Wilkes-Barre township	RI Lincoln town
PA Upland borough	PA Wilkins township	RI Middletown town
PA Upper Allen township	PA Wilkinsburg borough	RI Newport city
PA Upper Chichester township	PA Williams township	RI Newport County
PA Upper Darby township	PA Williamsport city	RI North Kingstown town
PA Upper Dublin township	PA Willistown township	RI North Providence town
PA Upper Gwynedd township	PA Wilmerding borough	RI North Smithfield town
PA Upper Leacock township	PA Wilson borough	RI Pawtucket city
PA Upper Macungie township	PA Windber borough	RI Portsmouth town
PA Upper Makefield township	PA Windsor borough	RI Providence city
PA Upper Merion township	PA Windsor township	RI Providence County
PA Upper Milford township	PA Worcester township	RI Scituate town
PA Upper Moreland township	PA Wormleysburg borough	RI Smithfield town
PA Upper Pottsgrove township	PA Wrightsville borough	RI Tiverton town
PA Upper Providence township	PA Wyoming borough	RI Warren town
PA Upper Saucon township	PA Wyomissing borough	RI Warwick city
PA Upper Southampton township	PA Wyomissing Hills borough	RI Washington County
PA Upper St. Clair township	PA Yardley borough	RI West Greenwich town
PA Upper Yoder township	PA Yatesville borough	RI West Warwick town
PA Uwchlan township	PA Yeadon borough	RI Woonsocket city
PA Valley township	PA Yoe borough	SC Aiken city
PA Vanport township	PA York city	SC Aiken County
PA Verona borough	PA York County	SC Anderson city
PA Versailles borough	PA York township	SC Anderson County
PA Wall borough	PA Youngwood borough	SC Arcadia Lakes town
PA Warminster township	PR Aibonita	SC Berkeley County
PA Warrington township	PR Anasco	SC Burnetown town
PA Warrior Run borough	PR Aquada	SC Cayce city
PA Warwick township	PR Aquadilla	SC Charleston city
PA Washington city	PR Aquas Buenas	SC Charleston County
PA Washington County	PR Arecibo	SC City View town
PA Washington township	PR Bayamon	SC Columbia city
PA Wayne township	PR Cabo Rojo	SC Cowpens town
PA Wernersville borough	PR Caguas	SC Darlington County
PA Wesleyville borough	PR Camuy	SC Dorchester County
PA West Bradford township	PR Canovanas	SC Edgefield County
PA West Brownsville borough	PR Catano	SC Florence city
PA West Chester borough	PR Cayey	SC Florence County
PA West Conshohocken borough	PR Cidra	SC Folly Beach city
PA West Deer township	PR Dorado	SC Forest Acres city
PA West Earl township	PR Guaynabo	SC Fort Mill town
PA West Easton borough	PR Gurabo	SC Georgetown County
PA West Elizabeth borough	PR Hatillo	SC Goose Creek city
PA West Fairview borough	PR Hormigueros	SC Hanahan city
PA West Goshen township	PR Humacao	SC Horry County
PA West Hanover township	PR Juncos	SC Irmo town
PA West Hempfield township	PR Las Piedras	SC Isle of Palms city
PA West Homestead borough	PR Loiza	SC Lexington County
PA West Lampeter township	PR Manati	SC Lincolnville town
PA West Lawn borough	PR Mayaguez	SC Mount Pleasant town
PA West Manchester township	PR Moca	SC Myrtle Beach city
PA West Mayfield borough	PR Naguabo	SC North Augusta city
PA West Middlesex borough	PR Naranjito	SC North Charleston city
PA West Mifflin borough	PR Penuelas	SC Pickens County
PA West Newton borough	PR Ponce	SC Pineridge town
PA West Norriton township	PR Rio Grande	SC Quinby town
PA West Pikeland township	PR San German	SC Rock Hill city
PA West Pittston borough	PR San Lorenzo	SC South Congaree town
PA West Pottsgrove township	PR Toa Alta	SC Spartanburg city
PA West Reading borough	PR Toa Baja	SC Spartanburg County
PA West Taylor township	PR Trujillo Alto	SC Springdale town
PA West View borough	PR Vega Alta	SC Sullivan's Island town
PA West Whiteland township	PR Vega Baja	SC Summerville town
PA West Wyoming borough	PR Yabucabo	SC Sumter city
PA West York borough	RI Barrington town	SC Sumter County
PA Westmont borough	RI Bristol town	SC Surfside Beach town
PA Westmoreland County	RI Burrillville town	SC West Columbia city
PA Westtown township	RI Central Falls city	SC York County
PA Wheatland borough	RI Coventry town	SD Big Sioux township
PA Whitaker borough	RI Cranston city	SD Central Pennington unorg.
PA White Oak borough	RI Cumberland town	SD Lincoln County
PA White township	RI East Greenwich town	SD Mapleton township

SD Minnehaha County	TX Brazos County	TX Hunters Creek Village city
SD North Sioux City city	TX Brookside Village city	TX Hurst city
SD Pennington County	TX Brownsville city	TX Hutchins city
SD Rapid City city	TX Bryan city	TX Impact town
SD Split Rock township	TX Buckingham town	TX Jacinto City city
SD Union County	TX Bunker Hill Village city	TX Jefferson County
SD Wayne township	TX Cameron County	TX Jersey Village city
TN Alcoa city	TX Carrollton city	TX Johnson County
TN Anderson County	TX Castle Hills city	TX Jones County
TN Bartlett town	TX Cedar Hill city	TX Katy city
TN Belle Meade city	TX Cedar Park city	TX Kaufman County
TN Berry Hill city	TX Chambers County	TX Keller city
TN Blount County	TX Cibolo city	TX Kemah city
TN Brentwood city	TX Clear Lake Shores city	TX Kennedale city
TN Bristol city	TX Clint town	TX Killeen city
TN Carter County	TX Cockrell Hill city	TX Kirby city
TN Church Hill town	TX College Station city	TX Kleberg County
TN Clarksville city	TX Colleyville city	TX La Marque city
TN Collegedale city	TX Collin County	TX La Porte city
TN Davidson County	TX Comal County	TX Lacy-Lakeview city
TN East Ridge city	TX Combes town	TX Lake Dallas city
TN Elizabethton city	TX Converse city	TX Lake Worth city
TN Farragut town	TX Copperas Cove city	TX Lakeside City town
TN Forest Hills city	TX Corinth town	TX Lakeside town
TN Germantown city	TX Coryell County	TX Lampasas County
TN Goodlettsville city	TX Crowley city	TX Lancaster city
TN Hamilton County	TX Dallas County	TX League City city
TN Hawkins County	TX Dalworthington Gardens city	TX Leander city
TN Hendersonville city	TX Deer Park city	TX Leon Valley city
TN Jackson city	TX Denison city	TX Lewisville city
TN Johnson City city	TX Denton city	TX Live Oak city
TN Jonesborough town	TX Denton County	TX Longview city
TN Kingsport city	TX DeSoto city	TX Lubbock County
TN Knox County	TX Dickinson city	TX Lumberton city
TN Lakesite city	TX Donna city	TX Martin County
TN Lakewood city	TX Double Oak town	TX McAllen city
TN Lookout Mountain town	TX Duncanville city	TX McLennan County
TN Loudon County	TX Ector County	TX Meadows city
TN Madison County	TX Edgecliff village	TX Midland city
TN Maryville city	TX Edinburg city	TX Midland County
TN Montgomery County	TX El Lago city	TX Mission city
TN Mount Carmel town	TX El Paso County	TX Missouri City city
TN Mount Juliet city	TX Ellis County	TX Montgomery County
TN Oak Hill city	TX Eules city	TX Morgan's Point city
TN Red Bank city	TX Everman city	TX Nash city
TN Ridgeside city	TX Farmers Branch city	TX Nassau Bay city
TN Rockford city	TX Flower Mound town	TX Nederland city
TN Shelby County	TX Forest Hill city	TX Nolanville city
TN Signal Mountain town	TX Fort Bend County	TX North Richland Hills city
TN Soddy-Daisy city	TX Friendswood city	TX Northcrest town
TN Sullivan County	TX Galena Park city	TX Nueces County
TN Sumner County	TX Galveston city	TX Odessa city
TN Washington County	TX Galveston County	TX Olmos Park city
TN Williamson County	TX Grand Prairie city	TX Palm Valley town
TN Wilson County	TX Grapevine city	TX Palmview city
TX Addison city	TX Grayson County	TX Pantego town
TX Alamo city	TX Gregg County	TX Parker County
TX Alamo Heights city	TX Groves city	TX Pearland city
TX Allen city	TX Guadalupe County	TX Pflugerville city
TX Archer County	TX Haltom City city	TX Pharr city
TX Azle city	TX Hardin County	TX Piney Point Village city
TX Balch Springs city	TX Harker Heights city	TX Port Arthur city
TX Balcones Heights city	TX Harlingen city	TX Port Neches city
TX Bayou Vista village	TX Harrison County	TX Portland city
TX Baytown city	TX Hedwig Village city	TX Potter County
TX Bedford city	TX Hewitt city	TX Primera town
TX Bell County	TX Hickory Creek town	TX Randall County
TX Bellaire city	TX Hidalgo County	TX Richardson city
TX Bellmead city	TX Highland Park town	TX Richland Hills city
TX Belton city	TX Highland Village city	TX River Oaks city
TX Benbrook city	TX Hill Country Village city	TX Robinson city
TX Beverly Hills city	TX Hilshire Village city	TX Rockwall city
TX Bexar County	TX Hitchcock city	TX Rockwall County
TX Blue Mound city	TX Hollywood Park town	TX Rollingwood city
TX Bowie County	TX Howe town	TX Rose Hill Acres city
TX Brazoria County	TX Humble city	TX Rowlett city

TX	Sachse city	UT	Logan city	VA	Weber City town
TX	Saginaw city	UT	Mapleton city	VA	Williamsburg city
TX	San Angelo city	UT	Midvale city	VA	York County
TX	San Benito city	UT	Millville city	VT	Burlington city
TX	San Juan city	UT	Murray city	VT	Chittenden County
TX	San Patricio County	UT	North Logan city	VT	Colchester town
TX	Sansom Park city	UT	North Ogden city	VT	Essex Junction village
TX	Santa Fe city	UT	North Salt Lake city	VT	Essex town
TX	Schertz city	UT	Ogden city	VT	Shelburne town
TX	Seabrook city	UT	Orem city	VT	South Burlington city
TX	Seagoville city	UT	Pleasant Grove city	VT	Williston town
TX	Selma city	UT	Pleasant View city	VT	Winooski city
TX	Shavano Park city	UT	Providence city	WA	Algona city
TX	Sherman city	UT	Provo city	WA	Auburn city
TX	Shoreacres city	UT	River Heights city	WA	Beaux Arts Village town
TX	Smith County	UT	Riverdale city	WA	Bellevue city
TX	Socorro town	UT	Riverton city	WA	Bellingham city
TX	South Houston city	UT	Roy city	WA	Benton County
TX	Southside Place city	UT	Sandy city	WA	Bonney Lake city
TX	Spring Valley city	UT	Smithfield city	WA	Bothell city
TX	Stafford town	UT	South Jordan city	WA	Bremerton city
TX	Sugar Land city	UT	South Ogden city	WA	Brier city
TX	Sunset Valley city	UT	South Salt Lake city	WA	Clyde Hill town
TX	Tarrant County	UT	South Weber city	WA	Cowlitz County
TX	Taylor County	UT	Springville city	WA	Des Moines city
TX	Taylor Lake Village city	UT	Sunset city	WA	DuPont city
TX	Temple city	UT	Syracuse city	WA	Edmonds city
TX	Terrell Hills city	UT	Uintah town	WA	Everett city
TX	Texarkana city	UT	Utah County	WA	Fife city
TX	Texas City city	UT	Washington Terrace city	WA	Fircrest town
TX	Tom Green County	UT	Weber County	WA	Franklin County
TX	Travis County	UT	West Bountiful city	WA	Gig Harbor city
TX	Tye town	UT	West Jordan city	WA	Hunts Point town
TX	Tyler city	UT	West Point city	WA	Issaquah city
TX	Universal City city	UT	West Valley City city	WA	Kelso city
TX	University Park city	UT	Woods Cross city	WA	Kennewick city
TX	Victoria city	VA	Albemarle County	WA	Kent city
TX	Victoria County	VA	Alexandria city	WA	Kirkland city
TX	Wake Village city	VA	Amherst County	WA	Kitsap County
TX	Waller County	VA	Bedford County	WA	Lacey city
TX	Watauga city	VA	Botetourt County	WA	Lake Forest Park city
TX	Webb County	VA	Bristol city	WA	Longview city
TX	Webster city	VA	Campbell County	WA	Lynnwood city
TX	Weslaco city	VA	Charlottesville city	WA	Marysville city
TX	West Lake Hills city	VA	Colonial Heights city	WA	Medina city
TX	West University Place city	VA	Danville city	WA	Mercer Island city
TX	Westover Hills town	VA	Dinwiddie County	WA	Mill Creek city
TX	Westworth village	VA	Fairfax city	WA	Millwood town
TX	White Oak city	VA	Falls Church city	WA	Milton city
TX	White Settlement city	VA	Fredericksburg city	WA	Mountlake Terrace city
TX	Wichita County	VA	Gate City town	WA	Mukilteo city
TX	Wichita Falls city	VA	Gloucester County	WA	Normandy Park city
TX	Williamson County	VA	Hanover County	WA	Olympia city
TX	Wilmer city	VA	Herndon town	WA	Pacific city
TX	Windcrest city	VA	Hopewell city	WA	Pasco city
TX	Woodway city	VA	James City County	WA	Port Orchard city
UT	American Fork city	VA	Loudoun County	WA	Puyallup city
UT	Bluffdale city	VA	Lynchburg city	WA	Redmond city
UT	Bountiful city	VA	Manassas city	WA	Renton city
UT	Cache County	VA	Manassas Park city	WA	Richland city
UT	Cedar Hills town	VA	Occoquan town	WA	Ruston town
UT	Centerville city	VA	Petersburg city	WA	Selah city
UT	Clearfield city	VA	Pittsylvania County	WA	Steilacoom town
UT	Clinton city	VA	Poquoson city	WA	Sumner city
UT	Davis County	VA	Prince George County	WA	Thurston County
UT	Draper city	VA	Richmond city	WA	Tukwila city
UT	Farmington city	VA	Roanoke city	WA	Tumwater city
UT	Farr West city	VA	Roanoke County	WA	Union Gap city
UT	Fruit Heights city	VA	Salem city	WA	Vancouver city
UT	Harrisville city	VA	Scott County	WA	West Richland city
UT	Highland city	VA	Spotsylvania County	WA	Whatcom County
UT	Hyde Park city	VA	Stafford County	WA	Woodway city
UT	Kaysville city	VA	Suffolk city	WA	Yakima city
UT	Layton city	VA	Vienna town	WA	Yakima County
UT	Lehi city	VA	Vinton town	WA	Yarrow Point town
UT	Lindon city	VA	Washington County	WI	Algoma town



WI Allouez village	WI La Crosse County	WI Vernon town
WI Altoona city	WI La Prairie town	WI Washington County
WI Appleton city	WI Lafayette town	WI Washington town
WI Ashwaubenon village	WI Lannon village	WI Waukesha city
WI Bayside village	WI Lima town	WI Waukesha County
WI Bellevue town	WI Lisbon town	WI Waukesha town
WI Beloit city	WI Little Chute village	WI Wausau city
WI Beloit town	WI Madison town	WI Wauwatosa city
WI Big Bend village	WI Maple Bluff village	WI West Allis city
WI Black Wolf town	WI Marathon County	WI West Milwaukee village
WI Blooming Grove town	WI McFarland village	WI Weston town
WI Brookfield city	WI Medary town	WI Westport town
WI Brookfield town	WI Menasha city	WI Wheaton town
WI Brown County	WI Menasha town	WI Whitefish Bay village
WI Brown Deer village	WI Menomonee Falls village	WI Wilson town
WI Brunswick town	WI Mequon city	WI Wind Point village
WI Buchanan town	WI Middleton city	WI Winnebago County
WI Burke town	WI Middleton town	WV Bancroft town
WI Butler village	WI Monona city	WV Barboursville village
WI Caledonia town	WI Mount Pleasant town	WV Belle town
WI Calumet County	WI Muskego city	WV Benwood city
WI Campbell town	WI Neenah city	WV Berkeley County
WI Cedarburg city	WI Neenah town	WV Bethlehem village
WI Cedarburg town	WI Nekimi town	WV Brooke County
WI Chippewa County	WI New Berlin city	WV Cabell County
WI Chippewa Falls city	WI North Bay village	WV Cedar Grove town
WI Clayton town	WI Norway town	WV Ceredo city
WI Combined Locks village	WI Oak Creek city	WV Charleston city
WI Cudahy city	WI Onalaska city	WV Chesapeake town
WI Dane County	WI Onalaska town	WV Clearview village
WI De Pere city	WI Oshkosh city	WV Dunbar city
WI De Pere town	WI Oshkosh town	WV East Bank town
WI Delafield town	WI Outagamie County	WV Follansbee city
WI Douglas County	WI Ozaukee County	WV Glasgow town
WI Dunn town	WI Pewaukee town	WV Glen Dale city
WI Eagle Point town	WI Pewaukee village	WV Hancock County
WI Eau Claire city	WI Pleasant Prairie town	WV Huntington city
WI Eau Claire County	WI Pleasant Prairie village	WV Hurricane city
WI Elm Grove village	WI Racine city	WV Kanawha County
WI Elmwood Park village	WI Racine County	WV Kenova city
WI Fitchburg city	WI Rib Mountain town	WV Marmet city
WI Fox Point village	WI River Hills village	WV Marshall County
WI Franklin city	WI Rock County	WV McMechen city
WI Germantown town	WI Rock town	WV Mineral County
WI Germantown village	WI Rothschild village	WV Moundsville city
WI Glendale city	WI Salem town	WV Nitro city
WI Grafton town	WI Schofield city	WV North Hills town
WI Grafton village	WI Scott town	WV Ohio County
WI Grand Chute town	WI Sheboygan city	WV Parkersburg city
WI Green Bay city	WI Sheboygan County	WV Poca town
WI Greendale village	WI Sheboygan Falls city	WV Putnam County
WI Greenfield city	WI Sheboygan Falls town	WV Ridgeley town
WI Greenville town	WI Sheboygan town	WV South Charleston city
WI Hales Corners village	WI Shelby town	WV St. Albans city
WI Hallie town	WI Shorewood Hills village	WV Triadelphia town
WI Harmony town	WI Shorewood village	WV Vienna city
WI Harrison town	WI Somers town	WV Wayne County
WI Hobart town	WI South Milwaukee city	WV Weirton city
WI Holmen village	WI St. Francis city	WV Wheeling city
WI Howard village	WI Stettin town	WV Wood County
WI Janesville city	WI Sturtevant village	WY Casper city
WI Janesville town	WI Superior city	WY Cheyenne city
WI Kaukauna city	WI Superior village	WY Evansville town
WI Kenosha city	WI Sussex village	WY Laramie County
WI Kenosha County	WI Thiensville village	WY Mills town
WI Kimberly village	WI Turtle town	WY Natrona County
WI Kohler village	WI Union town	
WI La Crosse city	WI Vandenbroek town	

**Appendix 7 of Preamble—  
Governmental Entities (Located Outside  
of an Urbanized Area) That Must Be  
Examined By the NPDES Permitting  
Authority for Potential Designation  
Under § 123.35(b)(2)**

(All listed entities have a population of at least 10,000 and a population density of at least 1,000. A listed entity would only be potentially designated if it operates a small MS4. See § 122.26(b)(16) for the definition of a small MS4.)

(This list does not include all operators of small MS4s that may be designated by the NPDES permitting authority. Operators of small MS4s in areas with populations below 10,000 and densities below 1,000 may also be designated but examination of them is not required. Also, entities such as military bases, large hospitals, prison complexes, universities, sewer districts, and highway departments that operate a small MS4 in an area listed here, or in an area otherwise designated by the NPDES permitting authority, may be designated and become subject to permitting regulations.) (Source: 1990 Census of Population and Housing, U.S. Bureau of the Census. This list is subject to change with the Decennial Census)

AL Daphne city	CA Ridgecrest city	IL Jacksonville city
AL Jacksonville city	CA Sanger city	IL Macomb city
AL Selma city	CA Santa Paula city	IL Mattoon city
AR Arkadelphia city	CA Selma city	IL Mount Vernon city
AR Benton city	CA South Lake Tahoe city	IL Ottawa city
AR Blytheville city	CA Temecula city	IL Pontiac city
AR Conway city	CA Tracy city	IL Quincy city
AR El Dorado city	CA Tulare city	IL Rantoul village
AR Hot Springs city	CA Turlock city	IL Sterling city
AR Magnolia city	CA Ukiah city	IL Streator city
AR Rogers city	CA Wasco city	IL Taylorville city
AR Searcy city	CA Woodland city	IL Woodstock city
AR Stuttgart city	CO Canon City city	IN Bedford city
AZ Douglas city	CO Durango city	IN Columbus city
CA Arcata city	CO Lafayette city	IN Crawfordsville city
CA Arroyo Grande city	CO Louisville city	IN Frankfort city
CA Atwater city	CO Loveland city	IN Franklin city
CA Auburn city	CO Sterling city	IN Greenfield city
CA Banning city	FL Bartow city	IN Huntington city
CA Brawley city	FL Belle Glade city	IN Jasper city
CA Calexico city	FL De Land city	IN La Porte city
CA Clearlake city	FL Eustis city	IN Lebanon city
CA Corcoran city	FL Haines City city	IN Logansport city
CA Delano city	FL Key West city	IN Madison city
CA Desert Hot Springs city	FL Leesburg city	IN Marion city
CA Dinuba city	FL Palatka city	IN Martinsville city
CA Dixon city	FL Plant City city	IN Michigan City city
CA El Centro city	FL St. Augustine city	IN New Castle city
CA El Paso de Robles (Paso Robles) city	FL St. Cloud city	IN Noblesville city
CA Eureka city	GA Americus city	IN Peru city
CA Fillmore city	GA Carrollton city	IN Plainfield town
CA Gilroy city	GA Cordele city	IN Richmond city
CA Grover City city	GA Dalton city	IN Seymour city
CA Hanford city	GA Dublin city	IN Shelbyville city
CA Hollister city	GA Griffin city	IN Valparaiso city
CA Lemoore city	GA Hinesville city	IN Vincennes city
CA Los Banos city	GA Moultrie city	IN Wabash city
CA Madera city	GA Newnan city	IN Warsaw city
CA Manteca city	GA Statesboro city	IN Washington city
CA Oakdale city	GA Thomasville city	KS Arkansas City city
CA Oroville city	GA Tifton city	KS Atchison city
CA Paradise town	GA Valdosta city	KS Coffeyville city
CA Petaluma city	GA Waycross city	KS Derby city
CA Porterville city	IA Ames city	KS Dodge City city
CA Red Bluff city	IA Ankeny city	KS El Dorado city
CA Reedley city	IA Boone city	KS Emporia city
	IA Burlington city	KS Garden City city
	IA Fort Dodge city	KS Great Bend city
	IA Fort Madison city	KS Hays city
	IA Indianola city	KS Hutchinson city
	IA Keokuk city	KS Junction City city
	IA Marshalltown city	KS Leavenworth city
	IA Mason City city	KS Liberal city
	IA Muscatine city	KS Manhattan city
	IA Newton city	KS McPherson city
	IA Oskaloosa city	KS Newton city
	IA Ottumwa city	KS Ottawa city
	IA Spencer city	KS Parsons city
	ID Caldwell city	KS Pittsburg city
	ID Coeur d'Alene city	KS Salina city
	ID Lewiston city	KS Winfield city
	ID Moscow city	KY Bowling Green city
	ID Nampa city	KY Danville city
	ID Rexburg city	KY Frankfort city
	ID Twin Falls city	KY Georgetown city
	IL Belvidere city	KY Glasgow city
	IL Canton city	KY Hopkinsville city
	IL Carbondale city	KY Madisonville city
	IL Centralia city	KY Middlesborough city
	IL Charleston city	KY Murray city
	IL Danville city	KY Nicholasville city
	IL De Kalb city	KY Paducah city
	IL Dixon city	KY Radcliff city
	IL Effingham city	KY Richmond city
	IL Freeport city	KY Somerset city
	IL Galesburg city	KY Winchester city

LA Abbeville city	MS Indianola city	NY Kingston city
LA Bastrop city	MS Laurel city	NY Lockport city
LA Bogalusa city	MS McComb city	NY Massena village
LA Crowley city	MS Meridian city	NY Middletown city
LA Eunice city	MS Natchez city	NY Ogdensburg city
LA Hammond city	MS Starkville city	NY Olean city
LA Jennings city	MS Vicksburg city	NY Oneonta city
LA Minden city	MS Yazoo City city	NY Oswego city
LA Morgan City city	MT Bozeman city	NY Plattsburgh city
LA Natchitoches city	MT Havre city	NY Potsdam village
LA New Iberia city	MT Helena city	NY Watertown city
LA Opelousas city	MT Kalispell city	OH Alliance city
LA Ruston city	NC Albemarle city	OH Ashland city
LA Thibodaux city	NC Asheboro city	OH Ashtabula city
MA Amherst town	NC Boone town	OH Athens city
MA Clinton town	NC Eden city	OH Bellefontaine city
MA Milford town	NC Elizabeth City city	OH Bowling Green city
MA Newburyport city	NC Havelock city	OH Bucyrus city
MD Aberdeen town	NC Henderson city	OH Cambridge city
MD Cambridge city	NC Kernersville town	OH Chillicothe city
MD Salisbury city	NC Kinston city	OH Circleville city
MD Westminster city	NC Laurinburg city	OH Coshocton city
ME Waterville city	NC Lenoir city	OH Defiance city
MI Adrian city	NC Lexington city	OH Delaware city
MI Albion city	NC Lumberton city	OH Dover city
MI Alpena city	NC Monroe city	OH East Liverpool city
MI Big Rapids city	NC New Bern city	OH Findlay city
MI Cadillac city	NC Reidsville city	OH Fostoria city
MI Escanaba city	NC Roanoke Rapids city	OH Fremont city
MI Grand Haven city	NC Salisbury city	OH Galion city
MI Marquette city	NC Sanford city	OH Greenville city
MI Midland city	NC Shelby city	OH Lancaster city
MI Monroe city	NC Statesville city	OH Lebanon city
MI Mount Pleasant city	NC Tarboro town	OH Marietta city
MI Owosso city	NC Wilson city	OH Marion city
MI Sturgis city	ND Dickinson city	OH Medina city
MI Traverse City city	ND Jamestown city	OH Mount Vernon city
MN Albert Lea city	ND Minot city	OH New Philadelphia city
MN Austin city	ND Williston city	OH Norwalk city
MN Bemidji city	NE Beatrice city	OH Oxford city
MN Brainerd city	NE Columbus city	OH Piqua city
MN Faribault city	NE Fremont city	OH Portsmouth city
MN Fergus Falls city	NE Grand Island city	OH Salem city
MN Hastings city	NE Hastings city	OH Sandusky city
MN Hutchinson city	NE Kearney city	OH Sidney city
MN Mankato city	NE Norfolk city	OH Tiffin city
MN Marshall city	NE North Platte city	OH Troy city
MN New Ulm city	NE Scottsbluff city	OH Urbana city
MN North Mankato city	NJ East Windsor township	OH Washington city
MN Northfield city	NJ Plainsboro township	OH Wilmington city
MN Owatonna city	NJ Bridgeton city	OH Wooster city
MN Stillwater city	NJ Princeton borough	OH Xenia city
MN Willmar city	NM Alamogordo city	OH Zanesville city
MN Winona city	NM Artesia city	OK Ada city
MO Cape Girardeau city	NM Clovis city	OK Altus city
MO Farmington city	NM Deming city	OK Bartlesville city
MO Hannibal city	NM Farmington city	OK Chickasha city
MO Jefferson City city	NM Gallup city	OK Claremore city
MO Kennett city	NM Hobbs city	OK McAlester city
MO Kirksville city	NM Las Vegas city	OK Miami city
MO Marshall city	NM Portales city	OK Muskogee city
MO Maryville city	NM Roswell city	OK Okmulgee city
MO Poplar Bluff city	NM Silver City town	OK Owasso city
MO Rolla city	NV Elko city	OK Ponca City city
MO Sedalia city	NY Amsterdam city	OK Stillwater city
MO Sikeston city	NY Auburn city	OK Tahlequah city
MO Warrensburg city	NY Batavia city	OK Weatherford city
MO Washington city	NY Canandaigua city	OR Albany city
MS Brookhaven city	NY Corning city	OR Ashland city
MS Canton city	NY Cortland city	OR Astoria city
MS Clarksdale city	NY Dunkirk city	OR Bend city
MS Cleveland city	NY Fredonia village	OR City of the Dalles city
MS Columbus city	NY Fulton city	OR Coos Bay city
MS Greenville city	NY Geneva city	OR Corvallis city
MS Greenwood city	NY Gloversville city	OR Grants Pass city
MS Grenada city	NY Jamestown city	OR Hermiston city

OR	Klamath Falls city	TX	Cleburne city	WA	Oak Harbor city
OR	La Grande city	TX	Conroe city	WA	Port Angeles city
OR	Lebanon city	TX	Coppell city	WA	Pullman city
OR	McMinnville city	TX	Corsicana city	WA	Sunnyside city
OR	Newberg city	TX	Del Rio city	WA	Walla Walla city
OR	Pendleton city	TX	Dumas city	WA	Wenatchee city
OR	Roseburg city	TX	Eagle Pass city	WI	Beaver Dam city
OR	Woodburn city	TX	El Campo city	WI	Fond du Lac city
PA	Berwick borough	TX	Gainesville city	WI	Fort Atkinson city
PA	Bloomsburg town	TX	Gatesville city	WI	Manitowoc city
PA	Butler city	TX	Georgetown city	WI	Marinette city
PA	Carlisle borough	TX	Henderson city	WI	Marshfield city
PA	Chambersburg borough	TX	Hereford city	WI	Menomonie city
PA	Ephrata borough	TX	Huntsville city	WI	Monroe city
PA	Hanover borough	TX	Jacksonville city	WI	Oconomowoc city
PA	Hazleton city	TX	Kerrville city	WI	Stevens Point city
PA	Indiana borough	TX	Kingsville city	WI	Sun Prairie city
PA	Lebanon city	TX	Lake Jackson city	WI	Two Rivers city
PA	Meadville city	TX	Lamesa city	WI	Watertown city
PA	New Castle city	TX	Levelland city	WI	West Bend city
PA	Oil City city	TX	Lufkin city	WI	Whitewater city
PA	Pottsville city	TX	Mercedes city	WI	Wisconsin Rapids city
PA	Sunbury city	TX	Mineral Wells city	WV	Beckley city
PA	Uniontown city	TX	Mount Pleasant city	WV	Bluefield city
PA	Warren city	TX	Nacogdoches city	WV	Clarksburg city
RI	Narragansett town	TX	New Braunfels city	WV	Fairmont city
SC	Clemson city	TX	Palestine city	WV	Martinsburg city
SC	Easley city	TX	Pampa city	WV	Morgantown city
SC	Gaffney city	TX	Pecos city	WY	Evanston city
SC	Greenwood city	TX	Plainview city	WY	Gillette city
SC	Newberry town	TX	Port Lavaca city	WY	Green River city
SC	Orangeburg city	TX	Robstown city	WY	Laramie city
SD	Aberdeen city	TX	Rosenberg city	WY	Rock Springs city
SD	Brookings city	TX	Round Rock city	WY	Sheridan city
SD	Huron city	TX	San Marcos city		
SD	Mitchell city	TX	Seguin city		
SD	Vermillion city	TX	Snyder city		
SD	Watertown city	TX	Stephenville city		
SD	Yankton city	TX	Sweetwater city		
TN	Brownsville city	TX	Taylor city		
TN	Cleveland city	TX	The Colony city		
TN	Collierville town	TX	Uvalde city		
TN	Cookeville city	TX	Vernon city		
TN	Dyersburg city	TX	Vidor city		
TN	Greeneville town	UT	Brigham City city		
TN	Lawrenceburg city	UT	Cedar City city		
TN	McMinnville city	UT	Spanish Fork city		
TN	Millington city	UT	Tooele city		
TN	Morristown city	VA	Blacksburg town		
TN	Murfreesboro city	VA	Christiansburg town		
TN	Shelbyville city	VA	Front Royal town		
TN	Springfield city	VA	Harrisonburg city		
TN	Union City city	VA	Leesburg town		
TX	Alice city	VA	Martinsville city		
TX	Alvin city	VA	Radford city		
TX	Andrews city	VA	Staunton city		
TX	Angleton city	VA	Waynesboro city		
TX	Bay City city	VA	Winchester city		
TX	Beeville city	VT	Rutland city		
TX	Big Spring city	WA	Aberdeen city		
TX	Borger city	WA	Anacortes city		
TX	Brenham city	WA	Centralia city		
TX	Brownwood city	WA	Ellensburg city		
TX	Burkburnett city	WA	Moses Lake city		
TX	Canyon city	WA	Mount Vernon city		

For the reasons set forth in the preamble, chapter I of title 40 of the Code of Federal Regulations is amended as follows:

**PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT**

1. The authority citation for part 9 continues to read as follows:

**Authority:** 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. In § 9.1 the table is amended by adding entries in numerical order under the indicated heading to read as follows:

**§ 9.1 OMB approvals under the Paperwork Reduction Act.**

\* \* \* \* \*

	40 CFR citation	OMB control No.
*	*	*
<b>EPA Administered Permit Programs: The National Pollutant Discharge Elimination System</b>		
122.26(g) .....		2040-0211
*	*	*
<b>State Permit Requirements</b>		
123.35(b) .....		2040-0211
*	*	*

**PART 122—EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

1. The authority citation for part 122 continues to read as follows:

**Authority:** The Clean Water Act, 33 U.S.C. 1251 *et seq.*

2. Revise § 122.21(c)(1) to read as follows:

**§ 122.21 Application for a permit (applicable to State programs, see § 123.25).**

\* \* \* \* \*

(c) *Time to apply.* (1) Any person proposing a new discharge, shall submit an application at least 180 days before the date on which the discharge is to commence, unless permission for a later date has been granted by the Director. Facilities proposing a new discharge of storm water associated with industrial activity shall submit an application 180 days before that facility commences industrial activity which may result in a discharge of storm water associated with that industrial activity. Facilities described under § 122.26(b)(14)(x) or (b)(15)(i) shall submit applications at least 90 days before the date on which construction is to commence. Different submittal dates may be required under the terms of applicable general permits. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 90 or 180 day requirements to avoid delay. See also paragraph (k) of this section and § 122.26(c)(1)(i)(G) and (c)(1)(ii).

\* \* \* \* \*

3. Amend § 122.26 as follows:

a. Revise paragraphs (a)(9), (b)(4)(i), (b)(7)(i), (b)(14) introductory text, (b)(14)(x), (b)(14)(xi);

b. Redesignate paragraph (b)(15) as paragraph (b)(20) and add new paragraphs (b)(15) through (b)(19);

c. Revise the heading for paragraph (c), the first sentence of paragraph (c)(1) introductory text, the first sentence of paragraph (c)(1)(ii) introductory text, paragraphs (e) heading and introductory text, (e)(1), (e)(5) introductory text, and (e)(5)(i);

d. Add paragraphs (e)(8) and (e)(9); and

e. Revise paragraphs (f)(4), (f)(5), and (g).

The additions and revisions read as follows:

**§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).**

(a) \* \* \*

(9)(i) On and after October 1, 1994, for discharges composed entirely of storm water, that are not required by paragraph (a)(1) of this section to obtain a permit, operators shall be required to obtain a NPDES permit only if:

(A) The discharge is from a small MS4 required to be regulated pursuant to § 122.32;

(B) The discharge is a storm water discharge associated with small construction activity pursuant to paragraph (b)(15) of this section;

(C) The Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, determines that storm water controls are needed for the discharge based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern; or

(D) The Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, determines that the discharge, or category of discharges

within a geographic area, contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(ii) Operators of small MS4s designated pursuant to paragraphs (a)(9)(i)(A), (a)(9)(i)(C), and (a)(9)(i)(D) of this section shall seek coverage under an NPDES permit in accordance with §§ 122.33 through 122.35. Operators of non-municipal sources designated pursuant to paragraphs (a)(9)(i)(B), (a)(9)(i)(C), and (a)(9)(i)(D) of this section shall seek coverage under an NPDES permit in accordance with paragraph (c)(1) of this section.

(iii) Operators of storm water discharges designated pursuant to paragraphs (a)(9)(i)(C) and (a)(9)(i)(D) of this section shall apply to the Director for a permit within 180 days of receipt of notice, unless permission for a later date is granted by the Director (see § 124.52(c) of this chapter).

(b) \* \* \*

(4) \* \* \*

(i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix F of this part); or

\* \* \* \* \*

(7) \* \* \*

(i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix G of this part); or

\* \* \* \* \*

(14) *Storm water discharge associated with industrial activity* means the discharge from any conveyance that is used for collecting and conveying storm

water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this part 122. For the categories of industries identified in this section, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs (b)(14)(i) through (xi) of this section) include those facilities designated under the provisions of paragraph (a)(1)(v) of this section. The following categories of facilities are considered to be engaging in "industrial activity" for purposes of paragraph (b)(14):

\* \* \* \* \*

(x) Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;

(xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25;

(15) *Storm water discharge associated with small construction activity* means the discharge of storm water from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. The Director may waive the otherwise applicable requirements in a general permit for a storm water discharge from construction activities that disturb less than five acres where:

(A) The value of the rainfall erosivity factor ("R" in the Revised Universal Soil Loss Equation) is less than five during the period of construction activity. The rainfall erosivity factor is determined in accordance with Chapter 2 of *Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, pages 21-64, dated January 1997. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C 552(a) and 1 CFR part 51. Copies may be obtained

from EPA's Water Resource Center, Mail Code RC4100, 401 M St. S.W., Washington, DC 20460. A copy is also available for inspection at the U.S. EPA Water Docket, 401 M Street S.W., Washington, DC, 20460, or the Office of the Federal Register, 800 N. Capitol Street N.W. Suite 700, Washington, DC. An operator must certify to the Director that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five; or

(B) Storm water controls are not needed based on a "total maximum daily load" (TMDL) approved or established by EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. For the purpose of this paragraph, the pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the Director that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis.

(ii) Any other construction activity designated by the Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States.

EXHIBIT 1 TO § 122.26(b)(15).—SUMMARY OF COVERAGE OF "STORM WATER DISCHARGES ASSOCIATED WITH SMALL CONSTRUCTION ACTIVITY" UNDER THE NPDES STORM WATER PROGRAM

Automatic Designation: Required Nationwide Coverage.

Potential Designation: Optional Evaluation and Designation by the NPDES Permitting Authority or EPA Regional Administrator..

- Construction activities that result in a land disturbance of equal to or greater than one acre and less than five acres.
- Construction activities disturbing less than one acre if part of a larger common plan of development or sale with a planned disturbance of equal to or greater than one acre and less than five acres. (see § 122.26(b)(15)(i).)
- Construction activities that result in a land disturbance of less than one acre based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants. (see § 122.26(b)(15)(ii).)

EXHIBIT 1 TO § 122.26(B)(15).—SUMMARY OF COVERAGE OF “STORM WATER DISCHARGES ASSOCIATED WITH SMALL CONSTRUCTION ACTIVITY” UNDER THE NPDES STORM WATER PROGRAM—Continued

Potential Waiver: Waiver from Requirements as Determined by the NPDES Permitting Authority..	Any automatically designated construction activity where the operator certifies: (1) A rainfall erosivity factor of less than five, or (2) That the activity will occur within an area where controls are not needed based on a TMDL or, for non-impaired waters that do not require a TMDL, an equivalent analysis for the pollutant(s) of concern. (see § 122.26(b)(15)(i).)
--	--

(16) *Small municipal separate storm sewer system* means all separate storm sewers that are:

(i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.

(ii) Not defined as “large” or “medium” municipal separate storm sewer systems pursuant to paragraphs (b)(4) and (b)(7) of this section, or designated under paragraph (a)(1)(v) of this section.

(iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

(17) *Small MS4* means a small municipal separate storm sewer system.

(18) *Municipal separate storm sewer system* means all separate storm sewers that are defined as “large” or “medium” or “small” municipal separate storm sewer systems pursuant to paragraphs (b)(4), (b)(7), and (b)(16) of this section, or designated under paragraph (a)(1)(v) of this section.

(19) *MS4* means a municipal separate storm sewer system.

(c) *Application requirements for storm water discharges associated with industrial activity and storm water discharges associated with small construction activity*—(1) *Individual application*. Dischargers of storm water associated with industrial activity and with small construction activity are required to apply for an individual permit or seek coverage under a promulgated storm water general permit. \* \* \*

(ii) An operator of an existing or new storm water discharge that is associated with industrial activity solely under paragraph (b)(14)(x) of this section or is associated with small construction activity solely under paragraph (b)(15) of this section, is exempt from the requirements of § 122.21(g) and paragraph (c)(1)(i) of this section. \* \* \*

(e) *Application deadlines*. Any operator of a point source required to obtain a permit under this section that does not have an effective NPDES permit authorizing discharges from its storm water outfalls shall submit an application in accordance with the following deadlines:

(1) *Storm water discharges associated with industrial activity*. (i) Except as provided in paragraph (e)(1)(ii) of this section, for any storm water discharge associated with industrial activity identified in paragraphs (b)(14)(i) through (xi) of this section, that is not part of a group application as described in paragraph (c)(2) of this section or that is not authorized by a storm water general permit, a permit application made pursuant to paragraph (c) of this section must be submitted to the Director by October 1, 1992;

(ii) For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 that is not authorized by a general or individual permit, other than an airport, powerplant, or uncontrolled sanitary landfill, the permit application must be submitted to the Director by March 10, 2003.

(5) A permit application shall be submitted to the Director within 180 days of notice, unless permission for a later date is granted by the Director (see § 124.52(c) of this chapter), for:

(i) A storm water discharge that the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines that the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States (see paragraphs (a)(1)(v) and (b)(15)(ii) of this section);

(8) For any storm water discharge associated with small construction activity identified in paragraph (b)(15)(i) of this section, see § 122.21(c)(1). Discharges from these sources require permit authorization by March 10, 2003, unless designated for coverage before then.

(9) For any discharge from a regulated small MS4, the permit application made under § 122.33 must be submitted to the Director by:

(i) March 10, 2003 if designated under § 122.32(a)(1) unless your MS4 serves a jurisdiction with a population under 10,000 and the NPDES permitting authority has established a phasing schedule under § 123.35(d)(3) (see § 122.33(c)(1)); or

(ii) Within 180 days of notice, unless the NPDES permitting authority grants a later date, if designated under § 122.32(a)(2) (see § 122.33(c)(2)).

(f) \* \* \*

(4) Any person may petition the Director for the designation of a large, medium, or small municipal separate storm sewer system as defined by paragraph (b)(4)(iv), (b)(7)(iv), or (b)(16) of this section.

(5) The Director shall make a final determination on any petition received under this section within 90 days after receiving the petition with the exception of petitions to designate a small MS4 in which case the Director shall make a final determination on the petition within 180 days after its receipt.

(g) *Conditional exclusion for “no exposure” of industrial activities and materials to storm water*. Discharges composed entirely of storm water are not storm water discharges associated with industrial activity if there is “no exposure” of industrial materials and activities to rain, snow, snowmelt and/or runoff, and the discharger satisfies the conditions in paragraphs (g)(1) through (g)(4) of this section. “No exposure” means that all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste



products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product.

(1) *Qualification.* To qualify for this exclusion, the operator of the discharge must:

(i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff;

(ii) Complete and sign (according to § 122.22) a certification that there are no discharges of storm water contaminated by exposure to industrial materials and activities from the entire facility, except as provided in paragraph (g)(2) of this section;

(iii) Submit the signed certification to the NPDES permitting authority once every five years;

(iv) Allow the Director to inspect the facility to determine compliance with the "no exposure" conditions;

(v) Allow the Director to make any "no exposure" inspection reports available to the public upon request; and

(vi) For facilities that discharge through an MS4, upon request, submit a copy of the certification of "no exposure" to the MS4 operator, as well as allow inspection and public reporting by the MS4 operator.

(2) *Industrial materials and activities not requiring storm resistant shelter.* To qualify for this exclusion, storm resistant shelter is not required for:

(i) Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak ("Sealed" means banded or otherwise secured and without operational taps or valves);

(ii) Adequately maintained vehicles used in material handling; and

(iii) Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt).

(3) *Limitations.* (i) Storm water discharges from construction activities identified in paragraphs (b)(14)(x) and (b)(15) are not eligible for this conditional exclusion.

(ii) This conditional exclusion from the requirement for an NPDES permit is available on a facility-wide basis only, not for individual outfalls. If a facility has some discharges of storm water that would otherwise be "no exposure" discharges, individual permit requirements should be adjusted accordingly.

(iii) If circumstances change and industrial materials or activities become exposed to rain, snow, snow melt, and/or runoff, the conditions for this

exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances should apply for and obtain permit authorization prior to the change of circumstances.

(iv) Notwithstanding the provisions of this paragraph, the NPDES permitting authority retains the authority to require permit authorization (and deny this exclusion) upon making a determination that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

(4) *Certification.* The no exposure certification must require the submission of the following information, at a minimum, to aid the NPDES permitting authority in determining if the facility qualifies for the no exposure exclusion:

(i) The legal name, address and phone number of the discharger (see § 122.21(b));

(ii) The facility name and address, the county name and the latitude and longitude where the facility is located;

(iii) The certification must indicate that none of the following materials or activities are, or will be in the foreseeable future, exposed to precipitation:

(A) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water;

(B) Materials or residuals on the ground or in storm water inlets from spills/leaks;

(C) Materials or products from past industrial activity;

(D) Material handling equipment (except adequately maintained vehicles);

(E) Materials or products during loading/unloading or transporting activities;

(F) Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);

(G) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

(H) Materials or products handled/stored on roads or railways owned or maintained by the discharger;

(I) Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);

(J) Application or disposal of process wastewater (unless otherwise permitted); and

(K) Particulate matter or visible deposits of residuals from roof stacks/vents not otherwise regulated, i.e., under an air quality control permit, and evident in the storm water outflow;

(iv) All "no exposure" certifications must include the following certification statement, and be signed in accordance with the signatory requirements of § 122.22: "I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under paragraph (g)(2)) of this section. I understand that I am obligated to submit a no exposure certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

4. Revise § 122.28(b)(2)(v) to read as follows:

**§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(v) Discharges other than discharges from publicly owned treatment works, combined sewer overflows, municipal

separate storm sewer systems, primary industrial facilities, and storm water discharges associated with industrial activity, may, at the discretion of the Director, be authorized to discharge under a general permit without submitting a notice of intent where the Director finds that a notice of intent requirement would be inappropriate. In making such a finding, the Director shall consider: the type of discharge; the expected nature of the discharge; the potential for toxic and conventional pollutants in the discharges; the expected volume of the discharges; other means of identifying discharges covered by the permit; and the estimated number of discharges to be covered by the permit. The Director shall provide in the public notice of the general permit the reasons for not requiring a notice of intent.

\* \* \* \* \*

5. Add §§ 122.30 through 122.37 to subpart B to read as follows:

**§ 122.30 What are the objectives of the storm water regulations for small MS4s?**

(a) Sections 122.30 through 122.37 are written in a "readable regulation" format that includes both rule requirements and EPA guidance that is not legally binding. EPA has clearly distinguished its recommended guidance from the rule requirements by putting the guidance in a separate paragraph headed by the word "guidance".

(b) Under the statutory mandate in section 402(p)(6) of the Clean Water Act, the purpose of this portion of the storm water program is to designate additional sources that need to be regulated to protect water quality and to establish a comprehensive storm water program to regulate these sources. (Because the storm water program is part of the National Pollutant Discharge Elimination System (NPDES) Program, you should also refer to § 122.1 which addresses the broader purpose of the NPDES program.)

(c) Storm water runoff continues to harm the nation's waters. Runoff from lands modified by human activities can harm surface water resources in several ways including by changing natural hydrologic patterns and by elevating pollutant concentrations and loadings. Storm water runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients, heavy metals, pathogens, toxins, oxygen-demanding substances, and floatables.

(d) EPA strongly encourages partnerships and the watershed approach as the management framework for efficiently, effectively, and

consistently protecting and restoring aquatic ecosystems and protecting public health.

**§ 122.31 As a Tribe, what is my role under the NPDES storm water program?**

As a Tribe you may:

(a) Be authorized to operate the NPDES program including the storm water program, after EPA determines that you are eligible for treatment in the same manner as a State under §§ 123.31 through 123.34 of this chapter. (If you do not have an authorized NPDES program, EPA implements the program for discharges on your reservation as well as other Indian country, generally.);

(b) Be classified as an owner of a regulated small MS4, as defined in § 122.32. (Designation of your Tribe as an owner of a small MS4 for purposes of this part is an approach that is consistent with EPA's 1984 Indian Policy of operating on a government-to-government basis with EPA looking to Tribes as the lead governmental authorities to address environmental issues on their reservations as appropriate. If you operate a separate storm sewer system that meets the definition of a regulated small MS4, you are subject to the requirements under §§ 122.33 through 122.35. If you are not designated as a regulated small MS4, you may ask EPA to designate you as such for the purposes of this part.); or

(c) Be a discharger of storm water associated with industrial activity or small construction activity under §§ 122.26(b)(14) or (b)(15), in which case you must meet the applicable requirements. Within Indian country, the NPDES permitting authority is generally EPA, unless you are authorized to administer the NPDES program.

**§ 122.32 As an operator of a small MS4, am I regulated under the NPDES storm water program?**

(a) Unless you qualify for a waiver under paragraph (c) of this section, you are regulated if you operate a small MS4, including but not limited to systems operated by federal, State, Tribal, and local governments, including State departments of transportation; and:

(1) Your small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census. (If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated); or

(2) You are designated by the NPDES permitting authority, including where the designation is pursuant to §§ 123.35(b)(3) and (b)(4) of this chapter,

or is based upon a petition under § 122.26(f).

(b) You may be the subject of a petition to the NPDES permitting authority to require an NPDES permit for your discharge of storm water. If the NPDES permitting authority determines that you need a permit, you are required to comply with §§ 122.33 through 122.35.

(c) The NPDES permitting authority may waive the requirements otherwise applicable to you if you meet the criteria of paragraph (d) or (e) of this section. If you receive a waiver under this section, you may subsequently be required to seek coverage under an NPDES permit in accordance with § 122.33(a) if circumstances change. (See also § 123.35(b) of this chapter.)

(d) The NPDES permitting authority may waive permit coverage if your MS4 serves a population of less than 1,000 within the urbanized area and you meet the following criteria:

(1) Your system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES storm water program (see § 123.35(b)(4) of this chapter); and

(2) If you discharge any pollutant(s) that have been identified as a cause of impairment of any water body to which you discharge, storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established "total maximum daily load" (TMDL) that addresses the pollutant(s) of concern.

(e) The NPDES permitting authority may waive permit coverage if your MS4 serves a population under 10,000 and you meet the following criteria:

(1) The permitting authority has evaluated all waters of the U.S., including small streams, tributaries, lakes, and ponds, that receive a discharge from your MS4;

(2) For all such waters, the permitting authority has determined that storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern;

(3) For the purpose of this paragraph (e), the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from your MS4; and

(4) The permitting authority has determined that future discharges from your MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

**§ 122.33 If I am an operator of a regulated small MS4, how do I apply for an NPDES permit and when do I have to apply?**

(a) If you operate a regulated small MS4 under § 122.32, you must seek coverage under a NPDES permit issued by your NPDES permitting authority. If you are located in an NPDES authorized State, Tribe, or Territory, then that State, Tribe, or Territory is your NPDES permitting authority. Otherwise, your NPDES permitting authority is the EPA Regional Office.

(b) You must seek authorization to discharge under a general or individual NPDES permit, as follows:

(1) If your NPDES permitting authority has issued a general permit applicable to your discharge and you are seeking coverage under the general permit, you must submit a Notice of Intent (NOI) that includes the information on your best management practices and measurable goals required by § 122.34(d). You may file your own NOI, or you and other municipalities or governmental entities may jointly submit an NOI. If you want to share responsibilities for meeting the minimum measures with other municipalities or governmental entities, you must submit an NOI that describes which minimum measures you will implement and identify the entities that will implement the other minimum measures within the area served by your MS4. The general permit will explain any other steps necessary to obtain permit authorization.

(2)(i) If you are seeking authorization to discharge under an individual permit and wish to implement a program under § 122.34, you must submit an application to your NPDES permitting authority that includes the information required under §§ 122.21(f) and 122.34(d), an estimate of square mileage served by your small MS4, and any additional information that your NPDES permitting authority requests. A storm sewer map that satisfies the requirement of § 122.34(b)(3)(i) will satisfy the map requirement in § 122.21(f)(7).

(ii) If you are seeking authorization to discharge under an individual permit and wish to implement a program that is different from the program under § 122.34, you will need to comply with the permit application requirements of § 122.26(d). You must submit both Parts

of the application requirements in §§ 122.26(d)(1) and (2) by March 10, 2003. You do not need to submit the information required by §§ 122.26(d)(1)(ii) and (d)(2) regarding your legal authority, unless you intend for the permit writer to take such information into account when developing your other permit conditions.

(iii) If allowed by your NPDES permitting authority, you and another regulated entity may jointly apply under either paragraph (b)(2)(i) or (b)(2)(ii) of this section to be co-permittees under an individual permit.

(3) If your small MS4 is in the same urbanized area as a medium or large MS4 with an NPDES storm water permit and that other MS4 is willing to have you participate in its storm water program, you and the other MS4 may jointly seek a modification of the other MS4 permit to include you as a limited co-permittee. As a limited co-permittee, you will be responsible for compliance with the permit's conditions applicable to your jurisdiction. If you choose this option you will need to comply with the permit application requirements of § 122.26, rather than the requirements of § 122.34. You do not need to comply with the specific application requirements of § 122.26(d)(1)(iii) and (iv) and (d)(2)(iii) (discharge characterization). You may satisfy the requirements in § 122.26 (d)(1)(v) and (d)(2)(iv) (identification of a management program) by referring to the other MS4's storm water management program.

(4) Guidance: In referencing an MS4's storm water management program, you should briefly describe how the existing plan will address discharges from your small MS4 or would need to be supplemented in order to adequately address your discharges. You should also explain your role in coordinating storm water pollutant control activities in your MS4, and detail the resources available to you to accomplish the plan.

(c) If you operate a regulated small MS4:

(1) Designated under § 122.32(a)(1), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES permit under paragraph (b)(3) of this section by March 10, 2003, unless your MS4 serves a jurisdiction with a population under 10,000 and the NPDES permitting authority has established a phasing schedule under § 123.35(d)(3) of this chapter.

(2) Designated under § 122.32(a)(2), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES

permit under paragraph (b)(3) of this section, within 180 days of notice, unless the NPDES permitting authority grants a later date.

**§ 122.34 As an operator of a regulated small MS4, what will my NPDES MS4 storm water permit require?**

(a) Your NPDES MS4 permit will require at a minimum that you develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. Your storm water management program must include the minimum control measures described in paragraph (b) of this section unless you apply for a permit under § 122.26(d). For purposes of this section, narrative effluent limitations requiring implementation of best management practices (BMPs) are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section and the provisions of the permit required pursuant to § 122.33 constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable." Your NPDES permitting authority will specify a time period of up to 5 years from the date of permit issuance for you to develop and implement your program.

(b) *Minimum control measures*—(1) *Public education and outreach on storm water impacts.* (i) You must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(ii) Guidance: You may use storm water educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The public education program should inform individuals and households about the steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or

household hazardous wastes. EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. You are encouraged to tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

(2) *Public involvement/participation.*

(i) You must, at a minimum, comply with State, Tribal and local public notice requirements when implementing a public involvement/participation program.

(ii) Guidance: EPA recommends that the public be included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

(3) *Illicit discharge detection and elimination.* (i) You must develop, implement and enforce a program to detect and eliminate illicit discharges

(as defined at § 122.26(b)(2)) into your small MS4.

(ii) You must:

(A) Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;

(B) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;

(C) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system; and

(D) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

(iii) You need address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if you identify them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the United States).

(iv) Guidance: EPA recommends that the plan to detect and address illicit discharges include the following four components: procedures for locating priority areas likely to have illicit discharges; procedures for tracing the source of an illicit discharge; procedures for removing the source of the discharge; and procedures for program evaluation and assessment. EPA recommends visually screening outfalls during dry weather and conducting field tests of selected pollutants as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit

connections or discharges, and distribution of outreach materials.

(4) *Construction site storm water runoff control.* (i) You must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with § 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

(ii) Your program must include the development and implementation of, at a minimum:

(A) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;

(B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(C) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(D) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(E) Procedures for receipt and consideration of information submitted by the public, and

(F) Procedures for site inspection and enforcement of control measures.

(iii) Guidance: Examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance. EPA recommends that procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving

water quality. You are encouraged to provide appropriate educational and training measures for construction site operators. You may wish to require a storm water pollution prevention plan for construction sites within your jurisdiction that discharge into your system. See § 122.44(s) (NPDES permitting authorities' option to incorporate qualifying State, Tribal and local erosion and sediment control programs into NPDES permits for storm water discharges from construction sites). Also see § 122.35(b) (The NPDES permitting authority may recognize that another government entity, including the permitting authority, may be responsible for implementing one or more of the minimum measures on your behalf.)

(5) *Post-construction storm water management in new development and redevelopment.*

(i) You must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

(ii) You must:

(A) Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;

(B) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law; and

(C) Ensure adequate long-term operation and maintenance of BMPs.

(iii) Guidance: If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. EPA recommends that the BMPs chosen: be appropriate for the local community; minimize water quality impacts; and attempt to maintain pre-development runoff conditions. In choosing appropriate BMPs, EPA encourages you to participate in locally-based watershed planning efforts which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, EPA recommends that you adopt a planning

process that identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures. In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality. In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program. Non-structural BMPs are preventative actions that involve management and source controls such as: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure; education programs for developers and the public about project designs that minimize water quality impacts; and measures such as minimization of percent impervious area after development and minimization of directly connected impervious areas. Structural BMPs include: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches. EPA recommends that you ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with design, construction or operation and maintenance. Storm water technologies are constantly being improved, and EPA recommends that your requirements be responsive to these changes, developments or improvements in control technologies.

(6) *Pollution prevention/good housekeeping for municipal operations.*

(i) You must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, your State, Tribe, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

(ii) Guidance: EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from your separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices. Operation and maintenance should be an integral component of all storm water management programs. This measure is intended to improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

(c) If an existing qualifying local program requires you to implement one or more of the minimum control measures of paragraph (b) of this section, the NPDES permitting authority may include conditions in your NPDES permit that direct you to follow that qualifying program's requirements rather than the requirements of paragraph (b) of this section. A qualifying local program is a local, State or Tribal municipal storm water management program that imposes, at a minimum, the relevant requirements of paragraph (b) of this section.

(d)(1) In your permit application (either a notice of intent for coverage

under a general permit or an individual permit application), you must identify and submit to your NPDES permitting authority the following information:

(i) The best management practices (BMPs) that you or another entity will implement for each of the storm water minimum control measures at paragraphs (b)(1) through (b)(6) of this section;

(ii) The measurable goals for each of the BMPs including, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action; and

(iii) The person or persons responsible for implementing or coordinating your storm water management program.

(2) If you obtain coverage under a general permit, you are not required to meet any measurable goal(s) identified in your notice of intent in order to demonstrate compliance with the minimum control measures in paragraphs (b)(3) through (b)(6) of this section unless, prior to submitting your NOI, EPA or your State or Tribe has provided or issued a menu of BMPs that addresses each such minimum measure. Even if no regulatory authority issues the menu of BMPs, however, you still must comply with other requirements of the general permit, including good faith implementation of BMPs designed to comply with the minimum measures.

(3) Guidance: Either EPA or your State or Tribal permitting authority will provide a menu of BMPs. You may choose BMPs from the menu or select others that satisfy the minimum control measures.

(e)(1) You must comply with any more stringent effluent limitations in your permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis. The permitting authority may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality.

(2) Guidance: EPA strongly recommends that until the evaluation of the storm water program in § 122.37, no additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL or equivalent analysis provides adequate information to develop more specific measures to protect water quality.

(f) You must comply with other applicable NPDES permit requirements, standards and conditions established in the individual or general permit, developed consistent with the provisions of §§ 122.41 through 122.49, as appropriate.

(g) *Evaluation and assessment*—(1) *Evaluation.* You must evaluate program compliance, the appropriateness of your identified best management practices, and progress towards achieving your identified measurable goals.

**Note to Paragraph (g)(1):** The NPDES permitting authority may determine monitoring requirements for you in accordance with State/Tribal monitoring plans appropriate to your watershed. Participation in a group monitoring program is encouraged.

(2) *Recordkeeping.* You must keep records required by the NPDES permit for at least 3 years. You must submit your records to the NPDES permitting authority only when specifically asked to do so. You must make your records, including a description of your storm water management program, available to the public at reasonable times during regular business hours (see § 122.7 for confidentiality provision). (You may assess a reasonable charge for copying. You may require a member of the public to provide advance notice.)

(3) *Reporting.* Unless you are relying on another entity to satisfy your NPDES permit obligations under § 122.35(a), you must submit annual reports to the NPDES permitting authority for your first permit term. For subsequent permit terms, you must submit reports in year two and four unless the NPDES permitting authority requires more frequent reports. Your report must include:

(i) The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving your identified measurable goals for each of the minimum control measures;

(ii) Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

(iii) A summary of the storm water activities you plan to undertake during the next reporting cycle;

(iv) A change in any identified best management practices or measurable goals for any of the minimum control measures; and

(v) Notice that you are relying on another governmental entity to satisfy some of your permit obligations (if applicable).

**§ 122.35 As an operator of a regulated small MS4, may I share the responsibility to implement the minimum control measures with other entities?**

(a) You may rely on another entity to satisfy your NPDES permit obligations to implement a minimum control measure if:

(1) The other entity, in fact, implements the control measure;

(2) The particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and

(3) The other entity agrees to implement the control measure on your behalf. In the reports you must submit under § 122.34(g)(3), you must also specify that you rely on another entity to satisfy some of your permit obligations. If you are relying on another governmental entity regulated under section 122 to satisfy all of your permit obligations, including your obligation to file periodic reports required by § 122.34(g)(3), you must note that fact in your NOI, but you are not required to file the periodic reports. You remain responsible for compliance with your permit obligations if the other entity fails to implement the control measure (or component thereof). Therefore, EPA encourages you to enter into a legally binding agreement with that entity if you want to minimize any uncertainty about compliance with your permit.

(b) In some cases, the NPDES permitting authority may recognize, either in your individual NPDES permit or in an NPDES general permit, that another governmental entity is responsible under an NPDES permit for implementing one or more of the minimum control measures for your small MS4 or that the permitting authority itself is responsible. Where the permitting authority does so, you are not required to include such minimum control measure(s) in your storm water management program. (For example, if a State or Tribe is subject to an NPDES permit that requires it to administer a program to control construction site runoff at the State or Tribal level and that program satisfies all of the requirements of § 122.34(b)(4), you could avoid responsibility for the construction measure, but would be responsible for the remaining minimum control measures.) Your permit may be reopened and modified to include the requirement to implement a minimum control measure if the entity fails to implement it.

**§ 122.36 As an operator of a regulated small MS4, what happens if I don't comply with the application or permit requirements in §§ 122.33 through 122.35?**

NPDES permits are federally enforceable. Violators may be subject to the enforcement actions and penalties described in Clean Water Act sections 309 (b), (c), and (g) and 505, or under applicable State, Tribal, or local law. Compliance with a permit issued pursuant to section 402 of the Clean Water Act is deemed compliance, for purposes of sections 309 and 505, with sections 301, 302, 306, 307, and 403, except any standard imposed under section 307 for toxic pollutants injurious to human health. If you are covered as a co-permittee under an individual permit or under a general permit by means of a joint Notice of Intent you remain subject to the enforcement actions and penalties for the failure to comply with the terms of the permit in your jurisdiction except as set forth in § 122.35(b).

**§ 122.37 Will the small MS4 storm water program regulations at §§ 122.32 through 122.36 and § 123.35 of this chapter change in the future?**

EPA will evaluate the small MS4 regulations at §§ 122.32 through 122.36 and § 123.35 of this chapter after December 10, 2012 and make any necessary revisions. (EPA intends to conduct an enhanced research effort and compile a comprehensive evaluation of the NPDES MS4 storm water program. EPA will re-evaluate the regulations based on data from the NPDES MS4 storm water program, from research on receiving water impacts from storm water, and the effectiveness of best management practices (BMPs), as well as other relevant information sources.)

6. In § 122.44, redesignate paragraphs (k)(2) and (k)(3) as paragraphs (k)(3) and (k)(4), remove the comma at the end of newly redesignated paragraph (k)(3) and add a semicolon in its place, and add new paragraphs (k)(2) and (s) to read as follows:

**§ 122.44 Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs, see § 123.25).**

\* \* \* \* \*

(k) \* \* \*

(2) Authorized under section 402(p) of CWA for the control of storm water discharges;

\* \* \* \* \*

(s) *Qualifying State, Tribal, or local programs.* (1) For storm water discharges associated with small construction activity identified in § 122.26(b)(15), the Director may include permit conditions that

incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. Where a qualifying State, Tribal, or local program does not include one or more of the elements in this paragraph (s)(1), then the Director must include those elements as conditions in the permit. A qualifying State, Tribal, or local erosion and sediment control program is one that includes:

(i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(ii) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(iii) Requirements for construction site operators to develop and implement a storm water pollution prevention plan. (A storm water pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges); and

(iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

(2) For storm water discharges from construction activity identified in § 122.26(b)(14)(x), the Director may include permit conditions that incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. A qualifying State, Tribal or local erosion and sediment control program is one that includes the elements listed in paragraph (s)(1) of this section and any additional requirements necessary to achieve the applicable technology-based standards of "best available technology" and "best conventional technology" based on the best professional judgment of the permit writer.

7. Add § 122.62(a)(14) to read as follows:

**§ 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see § 123.25).**

\* \* \* \* \*

(a) \* \* \*

(14) For a small MS4, to include an effluent limitation requiring implementation of a minimum control measure or measures as specified in § 122.34(b) when:

(i) The permit does not include such measure(s) based upon the

determination that another entity was responsible for implementation of the requirement(s); and

(ii) The other entity fails to implement measure(s) that satisfy the requirement(s).

\* \* \* \* \*

8. Revise Appendices F, G, H, and I to Part 122 to read as follows:

**APPENDIX F TO PART 122.—INCORPORATED PLACES WITH POPULATIONS GREATER THAN 250,000 ACCORDING TO THE 1990 DECEN-NIAL CENSUS BY THE BUREAU OF THE CENSUS**

State	Incorporated Place
Alabama .....	Birmingham.
Arizona .....	Phoenix. Tucson.
California .....	Long Beach. Los Angeles. Oakland. Sacramento. San Diego. San Francisco. San Jose. Denver.
Colorado .....	
District of Columbia	
Florida	Jacksonville. Miami. Tampa. Atlanta. Chicago. Indianapolis. Wichita. Louisville. New Orleans. Baltimore. Boston. Detroit. Minneapolis. St. Paul. Kansas City. St. Louis. Omaha. Newark. Albuquerque. Buffalo. Bronx Borough. Brooklyn Borough. Manhattan Borough. Queens Borough. Staten Island Bor- ough.
Georgia .....	
Illinois .....	
Indiana .....	
Kansas .....	
Kentucky .....	
Louisiana .....	
Maryland .....	
Massachusetts .....	
Michigan .....	
Minnesota .....	
Missouri .....	
Nebraska .....	
New Jersey .....	
New Mexico .....	
New York .....	
North Carolina .....	Charlotte.
Ohio .....	Cincinnati. Cleveland. Columbus. Toledo. Oklahoma City. Tulsa.
Oklahoma .....	
Oregon .....	Portland.
Pennsylvania .....	Philadelphia. Pittsburgh. Memphis. Nashville/Davidson.
Tennessee .....	Austin. Dallas. El Paso. Fort Worth. Houston.
Texas .....	



APPENDIX F TO PART 122.—INCORPORATED PLACES WITH POPULATIONS GREATER THAN 250,000 ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS—Continued

State	Incorporated Place
Virginia .....	San Antonio. Norfolk. Virginia Beach.
Washington .....	Seattle.
Wisconsin .....	Milwaukee.

APPENDIX G TO PART 122.—INCORPORATED PLACES WITH POPULATIONS GREATER THAN 100,000 BUT LESS THAN 250,000 ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS

State	Incorporated place
Alabama .....	Huntsville. Mobile. Montgomery.
Alaska .....	Anchorage.
Arizona .....	Mesa. Tempe.
Arkansas .....	Little Rock.
California .....	Anaheim. Bakersfield. Berkeley. Chula Vista. Concord. El Monte. Escondido. Fremont. Fresno. Fullerton. Garden Grove. Glendale. Hayward. Huntington Beach. Inglewood. Irvine. Modesto. Moreno Valley. Oceanside. Ontario. Orange. Aurora.
Colorado .....	

APPENDIX G TO PART 122.—INCORPORATED PLACES WITH POPULATIONS GREATER THAN 100,000 BUT LESS THAN 250,000 ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS—Continued

State	Incorporated place
Connecticut .....	Bridgeport. Hartford. New Haven. Stamford. Waterbury.
Florida .....	Fort Lauderdale. Hialeah. Hollywood. Orlando. St. Petersburg. Tallahassee.
Georgia .....	Columbus. Macon. Savannah.
Idaho .....	Boise City.
Illinois .....	Peoria. Rockford.
Indiana .....	Evansville. Fort Wayne. Gary. South Bend.
Iowa .....	Cedar Rapids. Davenport. Des Moines.
Kansas .....	Kansas City. Topeka.
Kentucky .....	Lexington-Fayette.
Louisiana .....	Baton Rouge. Shreveport.
Massachusetts .....	Springfield. Worcester.
Michigan .....	Ann Arbor. Flint. Grand Rapids. Lansing. Livonia. Sterling Heights. Warren.
Mississippi .....	Jackson.
Missouri .....	Independence. Springfield.
Nebraska .....	Lincoln.
Nevada .....	Las Vegas. Reno.

APPENDIX G TO PART 122.—INCORPORATED PLACES WITH POPULATIONS GREATER THAN 100,000 BUT LESS THAN 250,000 ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS—Continued

State	Incorporated place
New Jersey .....	Elizabeth. Jersey City. Paterson.
New York .....	Albany. Rochester. Syracuse. Yonkers.
North Carolina .....	Durham. Greensboro. Raleigh. Winston-Salem.
Ohio .....	Akron. Dayton. Youngstown.
Oregon .....	Eugene.
Pennsylvania .....	Allentown. Erie. Providence.
Rhode Island .....	Columbia.
South Carolina .....	Chattanooga. Knoxville.
Texas .....	Abilene. Amarillo. Arlington. Beaumont. Corpus Christi. Garland. Irving. Laredo. Lubbock. Mesquite. Pasadena. Plano. Waco.
Utah .....	Salt Lake City.
Virginia .....	Alexandria. Chesapeake. Hampton. Newport News. Portsmouth. Richmond. Roanoke.
Washington .....	Spokane.
Wisconsin .....	Tacoma. Madison.

APPENDIX H TO PART 122.—COUNTIES WITH UNINCORPORATED URBANIZED AREAS WITH A POPULATION OF 250,000 OR MORE ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS

State	County	Unincorporated urbanized population
California .....	Los Angeles .....	886,780
	Sacramento .....	594,889
	San Diego .....	250,414
Delaware .....	New Castle .....	296,996
Florida .....	Dade .....	1,014,504
Georgia .....	DeKalb .....	448,686
Hawaii .....	Honolulu <sup>1</sup> .....	114,506
Maryland .....	Anne Arundel .....	344,654
	Baltimore .....	627,593
	Montgomery .....	599,028



APPENDIX H TO PART 122.—COUNTIES WITH UNINCORPORATED URBANIZED AREAS WITH A POPULATION OF 250,000 OR MORE ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS—Continued

State	County	Unincorporated urbanized population
Texas	Prince George's	494,369
	Harris	729,206
Utah	Salt Lake	270,989
Virginia	Fairfax	760,730
Washington	King	520,468

<sup>1</sup> County was previously listed in this appendix; however, population dropped to below 250,000 in the 1990 Census.

APPENDIX I TO PART 122.—COUNTIES WITH UNINCORPORATED URBANIZED AREAS GREATER THAN 100,000 BUT LESS THAN 250,000 ACCORDING TO THE 1990 DECENNIAL CENSUS BY THE BUREAU OF THE CENSUS

State	County	Unincorporated urbanized population
Alabama	Jefferson	78,608
Arizona	Pima	162,202
California	Alameda	115,082
	Contra Costa	131,082
	Kern	128,503
	Orange	223,081
	Riverside	166,509
	San Bernardino	162,202
Colorado	Arapahoe	103,248
Florida	Broward	142,329
	Escambia	167,463
	Hillsborough	398,593
	Lee	102,337
	Manatee	123,828
	Orange	378,611
	Palm Beach	360,553
	Pasco	148,907
	Pinellas	255,772
	Polk	121,528
	Sarasota	172,600
	Seminole	127,873
Georgia	Clayton	133,237
	Cobb	322,595
	Fulton	127,776
	Gwinnett	237,305
	Richmond	126,476
Kentucky	Jefferson	239,430
Louisiana	East Baton Rouge	102,539
	Parish	331,307
	Jefferson Parish	
Maryland	Howard	157,972
North Carolina	Cumberland	146,827
Nevada	Clark	327,618
Oregon	Multnomah <sup>1</sup>	52,923
	Washington	116,687
South Carolina	Greenville	147,464
	Richland	130,589
Virginia	Arlington	170,936
	Chesterfield	174,488
	Henrico	201,367
	Prince William	157,131
Washington	Pierce	258,530
	Snohomish	157,218

<sup>1</sup> County was previously listed in this appendix; however, population dropped to below 100,000 in the 1990 Census.

**PART 123—STATE PROGRAM REQUIREMENTS**

1. The authority citation for part 123 continues to read as follows:

**Authority:** The Clean Water Act, 33 U.S.C. 1251 *et seq.*

2. Amend § 123.25 by removing the word “and” at the end of paragraph (a)(37), by removing the period at the end of paragraph (a)(38) and adding a

semicolon in its place, and by adding paragraphs (a)(39) through (a)(45) to read as follows:

**§ 123.25 Requirements for permitting.**

(a) \* \* \*

(39) § 122.30 (What are the objectives of the storm water regulations for small MS4s?);

(40) § 122.31 (For Indian Tribes only) (As a Tribe, what is my role under the NPDES storm water program?);

(41) § 122.32 (As an operator of a small MS4, am I regulated under the NPDES storm water program?);

(42) § 122.33 (If I am an operator of a regulated small MS4, how do I apply for an NPDES permit? When do I have to apply?);

(43) § 122.34 (As an operator of a regulated small MS4, what will my NPDES MS4 storm water permit require?);

(44) § 122.35 (As an operator of a regulated small MS4, may I share the responsibility to implement the minimum control measures with other entities?); and

(45) § 122.36 (As an operator of a regulated small MS4, what happens if I don't comply with the application or permit requirements in §§ 122.33 through 122.35?).

\* \* \* \* \*

3. Add § 123.35 to subpart B to read as follows:

**§ 123.35 As the NPDES Permitting Authority for regulated small MS4s, what is my role?**

(a) You must comply with the requirements for all NPDES permitting authorities under Parts 122, 123, 124, and 125 of this chapter. (This section is meant only to supplement those requirements and discuss specific issues related to the small MS4 storm water program.)

(b) You must develop a process, as well as criteria, to designate small MS4s other than those described in § 122.32(a)(1) of this chapter, as regulated small MS4s to be covered under the NPDES storm water discharge control program. This process must include the authority to designate a small MS4 waived under paragraph (d) of this section if circumstances change. EPA may make designations under this section if a State or Tribe fails to comply with the requirements listed in this paragraph. In making designations of small MS4s, you must:

(1)(i) Develop criteria to evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

(ii) Guidance: For determining other significant water quality impacts, EPA recommends a balanced consideration of the following designation criteria on

a watershed or other local basis: discharge to sensitive waters, high growth or growth potential, high population density, contiguity to an urbanized area, significant contributor of pollutants to waters of the United States, and ineffective protection of water quality by other programs;

(2) Apply such criteria, at a minimum, to any small MS4 located outside of an urbanized area serving a jurisdiction with a population density of at least 1,000 people per square mile and a population of at least 10,000;

(3) Designate any small MS4 that meets your criteria by December 9, 2002. You may wait until December 8, 2004 to apply the designation criteria on a watershed basis if you have developed a comprehensive watershed plan. You may apply these criteria to make additional designations at any time, as appropriate; and

(4) Designate any small MS4 that contributes substantially to the pollutant loadings of a physically interconnected municipal separate storm sewer that is regulated by the NPDES storm water program.

(c) You must make a final determination within 180 days from receipt of a petition under § 122.26(f) of this chapter (or analogous State or Tribal law). If you do not do so within that time period, EPA may make a determination on the petition.

(d) You must issue permits consistent with §§ 122.32 through 122.35 of this chapter to all regulated small MS4s. You may waive or phase in the requirements otherwise applicable to regulated small MS4s, as defined in § 122.32(a)(1) of this chapter, under the following circumstances:

(1) You may waive permit coverage for each small MS4s in jurisdictions with a population under 1,000 within the urbanized area where all of the following criteria have been met:

(i) Its discharges are not contributing substantially to the pollutant loadings of a physically interconnected regulated MS4 (see paragraph (b)(4) of this section); and

(ii) If the small MS4 discharges any pollutant(s) that have been identified as a cause of impairment of any water body to which it discharges, storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established "total maximum daily load" (TMDL) that address the pollutant(s) of concern.

(2) You may waive permit coverage for each small MS4 in jurisdictions with a population under 10,000 where all of the following criteria have been met:

(i) You have evaluated all waters of the U.S., including small streams,

tributaries, lakes, and ponds, that receive a discharge from the MS4 eligible for such a waiver.

(ii) For all such waters, you have determined that storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern.

(iii) For the purpose of paragraph (d)(2)(ii) of this section, the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the MS4.

(iv) You have determined that current and future discharges from the MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

(v) Guidance: To help determine other significant water quality impacts, EPA recommends a balanced consideration of the following criteria on a watershed or other local basis: discharge to sensitive waters, high growth or growth potential, high population or commercial density, significant contributor of pollutants to waters of the United States, and ineffective protection of water quality by other programs.

(3) You may phase in permit coverage for small MS4s serving jurisdictions with a population under 10,000 on a schedule consistent with a State watershed permitting approach. Under this approach, you must develop and implement a schedule to phase in permit coverage for approximately 20 percent annually of all small MS4s that qualify for such phased-in coverage. Under this option, all regulated small MS4s are required to have coverage under an NPDES permit by no later than March 8, 2007. Your schedule for phasing in permit coverage for small MS4s must be approved by the Regional Administrator no later than December 10, 2001.

(4) If you choose to phase in permit coverage for small MS4s in jurisdictions with a population under 10,000, in accordance with paragraph (d)(3) of this section, you may also provide waivers in accordance with paragraphs (d)(1) and (d)(2) of this section pursuant to your approved schedule.

(5) If you do not have an approved schedule for phasing in permit coverage, you must make a determination whether to issue an NPDES permit or allow a waiver in accordance with paragraph (d)(1) or (d)(2) of this section, for each eligible MS4 by December 9, 2002.

(6) You must periodically review any waivers granted in accordance with paragraph (d)(2) of this section to determine whether any of the information required for granting the waiver has changed. At a minimum, you must conduct such a review once every five years. In addition, you must consider any petition to review any waiver when the petitioner provides evidence that the information required for granting the waiver has substantially changed.

(e) You must specify a time period of up to 5 years from the date of permit issuance for operators of regulated small MS4s to fully develop and implement their storm water program.

(f) You must include the requirements in §§ 122.33 through 122.35 of this chapter in any permit issued for regulated small MS4s or develop permit limits based on a permit application submitted by a regulated small MS4. (You may include conditions in a regulated small MS4 NPDES permit that direct the MS4 to follow an existing qualifying local program's requirements, as a way of complying with some or all of the requirements in § 122.34(b) of this chapter. See § 122.34(c) of this chapter. Qualifying local, State or Tribal program requirements must impose, at a minimum, the relevant requirements of § 122.34(b) of this chapter.)

(g) If you issue a general permit to authorize storm water discharges from small MS4s, you must make available a menu of BMPs to assist regulated small MS4s in the design and implementation of municipal storm water management programs to implement the minimum

measures specified in § 122.34(b) of this chapter. EPA plans to develop a menu of BMPs that will apply in each State or Tribe that has not developed its own menu. Regardless of whether a menu of BMPs has been developed by EPA, EPA encourages State and Tribal permitting authorities to develop a menu of BMPs that is appropriate for local conditions. EPA also intends to provide guidance on developing BMPs and measurable goals and modify, update, and supplement such guidance based on the assessments of the NPDES MS4 storm water program and research to be conducted over the next thirteen years.

(h)(1) You must incorporate any additional measures necessary to ensure effective implementation of your State or Tribal storm water program for regulated small MS4s.

(2) Guidance: EPA recommends consideration of the following:

(i) You are encouraged to use a general permit for regulated small MS4s;

(ii) To the extent that your State or Tribe administers a dedicated funding source, you should play an active role in providing financial assistance to operators of regulated small MS4s;

(iii) You should support local programs by providing technical and programmatic assistance, conducting research projects, performing watershed monitoring, and providing adequate legal authority at the local level;

(iv) You are encouraged to coordinate and utilize the data collected under several programs including water quality management programs, TMDL programs, and water quality monitoring programs;

(v) Where appropriate, you may recognize existing responsibilities among governmental entities for the control measures in an NPDES small MS4 permit (see § 122.35(b) of this chapter); and

(vi) You are encouraged to provide a brief (e.g., two page) reporting format to facilitate compiling and analyzing data from submitted reports under § 122.34(g)(3) of this chapter. EPA intends to develop a model form for this purpose.

## PART 124—PROCEDURES FOR DECISIONMAKING

1. The authority citation for part 124 continues to read as follows:

**Authority:** Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*; Safe Drinking Water Act, 42 U.S.C. 300(f) *et seq.*; Clean Water Act, 33 U.S.C. 1251 *et seq.*; Clean Air Act, 42 U.S.C. 7401 *et seq.*

2. Revise § 124.52(c) to read as follows:

### § 124.52 Permits required on a case-by-case basis.

\* \* \* \* \*

(c) Prior to a case-by-case determination that an individual permit is required for a storm water discharge under this section (see § 122.26(a)(1)(v), (c)(1)(v), and (a)(9)(iii) of this chapter), the Regional Administrator may require the discharger to submit a permit application or other information regarding the discharge under section 308 of the CWA. In requiring such information, the Regional Administrator shall notify the discharger in writing and shall send an application form with the notice. The discharger must apply for a permit within 180 days of notice, unless permission for a later date is granted by the Regional Administrator. The question whether the initial designation was proper will remain open for consideration during the public comment period under § 124.11 or § 124.118 and in any subsequent hearing.

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