PHASE II
STORM WATER MANAGEMENT PLAN

For

MARINE CORPS AIR STATION
YUMA, ARIZONA

CONTRACT N68711-99-D-6509, DELIVERY ORDER 0052

Prepared for

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
Naval Facilities Engineering Command
Desert Area Focus Team
1220 Pacific Highway
San Diego, California 92132-5181

Prepared by

A Division of Law Engineering and Environmental Services, Inc.

MARCH 2003

LAW Project No. 70311-2-0050

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TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION 1-1

1.1 MCAS YUMA DESCRIPTION 1-1
1.2 STORM WATER REGULATIONS 1-2
1.2.1 Federal Regulations 1-3
1.2.2 Arizona Regulations 1-5
1.2.3 Phase II General Permit Provisions 1-6
1.3 MARINE CORPS STORM WATER PROGRAM 1-10

2.0 PHASE II COMPLIANCE ACTIONS 2-1

2.1 NOTICE OF INTENT 2-1
2.2 STORM WATER MANAGEMENT PLAN 2-1
2.3 POLLUTANT DISCHARGE REDUCTION 2-1
2.4 REPORTING AND RECORDKEEPING 2-2

3.0 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS 3-1

3.1 INTRODUCTION 3-1
3.2 PLAN FOR PUBLIC EDUCATION AND OUTREACH 3-1
3.2.1 Brochures 3-1
3.2.2 Classroom Presentation Materials 3-2
3.2.3 Other Education and Outreach Initiatives 3-3
3.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS 3-4

4.0 PUBLIC INVOLVEMENT/PARTICIPATION 4-1

4.1 INTRODUCTION 4-1
4.2 PLAN FOR PUBLIC INVOLVEMENT/PARTICIPATION 4-1
4.2.1 Public Notification 4-1
4.2.2 Best Management Practices 4-1
4.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS 4-2

TABLE OF CONTENTS (continued)

PAGE

5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL..... 5-1

5.1 INTRODUCTION..... 5-1
5.2 MARINE CORPS CONSTRUCTION RUNOFF CONTROL PROGRAM..... 5-2
5.2.1 Policy for Erosion and Sediment Control..... 5-2
5.2.2 Requirements for Erosion, Sediment, and Waste Control..... 5-2
5.2.3 Plan Review..... 5-3
5.2.4 Site Inspection and Enforcement..... 5-3
5.2.5 Best Management Practices..... 5-4
5.2.6 Public Input..... 5-9
5.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS..... 5-9

6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT..... 6-1

6.1 INTRODUCTION..... 6-1
6.2 MARINE CORPS POST-CONSTRUCTION RUNOFF CONTROL PROGRAM..... 6-1
6.2.1 Policy for Post-Construction Runoff Control..... 6-1
6.2.2 Plan Development and Review..... 6-2
6.2.3 Best Management Practices..... 6-2
6.2.4 Long-Term Operation and Maintenance..... 6-8
6.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS..... 6-8

7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS..... 7-1

7.1 INTRODUCTION..... 7-1
7.2 PLAN FOR GENERAL POLLUTION PREVENTION/GOOD HOUSEKEEPING... 7-1
7.2.1 Station-Wide Best Management Practices..... 7-1
7.2.2 General Source/Waste Minimization..... 7-2
7.2.3 Landscaping and Grounds Maintenance..... 7-4
7.2.4 Vehicle Maintenance, Repair, Washing, and Fueling..... 7-11
7.2.5 Construction and Land Disturbances..... 7-14
7.2.6 Building Maintenance..... 7-15
7.2.7 Flood Management and Storm Water Conveyance System Maintenance..... 7-18
7.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS..... 7-20

TABLE OF CONTENTS (continued)

PAGE

8.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION 8-1

8.1 INTRODUCTION 8-1
8.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM 8-2
8.2.1 Marine Corps Policy for Illicit Discharge Detection and Elimination 8-2
8.2.2 Storm Drain System Map 8-2
8.2.3 Non-Storm Water Discharge Elimination and Prevention 8-3
8.2.4 Public Education 8-3
8.3 COMPLIANCE SCHEDULE AND MEASURABLE GOALS 8-4

9.0 REPORTING AND RECORDKEEPING 9-1

9.1 REPORTING 9-1
9.2 RECORDKEEPING 9-1

10.0 REFERENCES 10-1

TABLES

3-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS 3-5

4-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC INVOLVEMENT/PARTICIPATION 4-2

5-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR CONSTRUCTION SITE STORM WATER RUNOFF CONTROL 5-10

5-2 CONSTRUCTION RAINFALL EROSIVITY WAIVER 5-13

6-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPEMENT 6-8

7-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS 7-21

7-2 MCAS YUMA BEST MANAGEMENT PRACTICES 7-24

8-1 COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION 8-4

TABLE OF CONTENTS (continued)

FIGURES

1 REGIONAL MAP

2 STORM WATER MANAGEMENT PLAN SITE MAP

APPENDICES

APPENDIX A – ACRONYMS AND ABBREVIATIONS

APPENDIX B – FACT SHEET AND PHASE II REGULATIONS PUBLISHED IN THE FEDERAL REGISTER ON DECEMBER 8, 1999

APPENDIX C – FACT SHEET AND DRAFT GENERAL PERMIT NO. AZG2002-002, ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS TO WATERS OF THE UNITED STATES

APPENDIX D – NOTICE OF INTENT

APPENDIX E – PUBLIC EDUCATION AND OUTREACH MATERIALS

APPENDIX F – AZPDES CONSTRUCTION SWPPP REFERENCES

1.0 INTRODUCTION

This Phase II Storm Water Management Plan (SWMP) was developed to comply with federal and Arizona Phase II storm water regulations as they apply to Marine Corps Air Station, Yuma, Arizona (hereafter referred to as MCAS Yuma or the Station). The United States Environmental Protection Agency (USEPA) finalized these Phase II regulations on December 8, 1999. In Arizona, the Arizona Department of Environmental Quality (ADEQ) is in the process of developing a Phase II General Permit to comply with the federal regulations; however, the ADEQ has not published final Phase II regulations as of the date of this SWMP. Therefore, this SWMP and the level of effort described herein are based on the *Draft* Arizona Phase II regulations. If the *Final* Arizona regulations differ significantly from those of the *Draft* Arizona Phase II regulations, the Phase II compliance plan described in this SWMP should be amended accordingly.

This SWMP is a vital component in initiating compliance with Phase II of the federal/Arizona storm water program. The SWMP is part of an ongoing program of storm water compliance, which includes a Storm Water Discharge Management Plan (SWDMP) for industrial operations at MCAS Yuma. Portions of the industrial SWDMP are incorporated by reference into this document.

1.1 MCAS YUMA DESCRIPTION

MCAS Yuma is located in Arizona in the Sonora Desert near both the California border and the international border with Mexico. MCAS Yuma is located approximately five miles south of the Colorado River. The land surrounding MCAS Yuma is primarily desert terrain with scattered areas of agricultural activities that receive irrigation water from the Colorado River through a series of canals. The airfield at the Station is located on land within the City of Yuma at the southeastern limits of the city. The airfield at the Station is a joint-use facility that includes military, commercial, general aviation, and aircraft manufacturer facilities. Figure 1 shows the location of MCAS Yuma and surface water locations.

The topography of MCAS Yuma is relatively flat. Most of the land surface has a gradient of 0.5 to 1.0 percent. The highest elevation of 204.5 feet occurs at a bedrock outcrop near the center of MCAS Yuma. The lowest elevation of 182.5 feet occurs at the only confirmed discharge location from MCAS Yuma, Storm Drain Outfall 1, a natural drainage channel near the southwest end of the runway.

The MCAS Yuma site map (Figure 2) shows the following:

- MCAS Yuma boundary
- Storm water conveyance structures
- Storm water discharge points (outfalls)
- Buildings

Other information, such as impervious areas, areas of soil erosion, and areas of industrial operations, may be found in the MCAS Yuma SWDMP (not included with this SWMP).

The primary mission of MCAS Yuma is to support aerial weapons training for the Atlantic and Pacific Fleet Marine Forces and Navy, and to serve as a base of operations for Marine Aviation Weapons and Tactics Squadron 1, and Third MAW units, to include Marine Aircraft Group-13.

As the scheduling authority for the Yuma Training Range Complex, MCAS Yuma provides fleet squadrons access to 10,000 square miles of special-use airspace designated for military aviation training and almost 2,000 square miles of underlying land reserved as aerial bombing and gunnery ranges. Collectively, this complex is the largest tactical aviation training range utilized by the Marine Corps.

In addition, MCAS Yuma is the only joint-use air station in the Marine Corps. Through the agreement between the Marine Corps and Yuma County, MCAS Yuma provides all air traffic control, crash crew services, security, and maintains the runways and taxiways for both MCAS Yuma and the Yuma International Airport.

MCAS Yuma contains industrial operations and non-industrial operations. The non-industrial operations covered by this SWMP include landscaping and grounds maintenance; building maintenance; vehicle fueling, maintenance, and washing; food and beverage service; storage; and recreational areas. The industrial facilities are described in detail in the MCAS Yuma SWDMP (not attached to this report).

1.2 STORM WATER REGULATIONS

Storm water discharges are regulated by the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), through the National Pollution Discharge Elimination System (NPDES) permitting system. CWA regulations allow for authorized states to issue permits for the regulation of

storm water discharges. On December 5, 2002, USEPA Region 9 approved the ADEQ Arizona Pollutant Discharge Elimination System (AZPDES) application for primacy over the NPDES program in the State of Arizona. The ADEQ is in the process of addressing the federal Phase II storm water regulations in the form of a new small MS4 General Permit. The following sections describe federal and Arizona storm water permitting regulations.

1.2.1 Federal Regulations

In 1972, the CWA was amended to state that the discharge of pollutants to waters of the United States from any point source is effectively prohibited, unless the discharge complies with an NPDES permit. The 1987 amendments to the CWA added Section 402(p), which established a framework for regulating municipal and industrial storm water discharges under NPDES permits. These amendments established a two-phase implementation for the storm water program.

1.2.1.1 Phase I

The USEPA published Phase I of the storm water regulations on November 16, 1990. The regulations require NPDES permits for storm water discharges from a large number of priority sources. These sources include large- and medium-size MS4s (generally serving populations of 100,000 or more) and several categories of industrial activity, including construction sites (category x) that disturb five or more acres of land. The regulations are contained in the Code of Federal Regulations (CFR), Title 40, Parts 122, 123 and 124.

According to these regulations, permits for discharges of storm water must meet all applicable provisions of CWA Sections 301 and 402. These provisions require reducing pollutants in storm water discharges using the Best Available Technology (BAT) economically achievable, Best Conventional Pollutant Control Technology (BCT), and any more stringent controls necessary to meet water quality standards. USEPA regulations in 40 CFR Subchapter N established numeric effluent limitations for storm water discharges from certain designated industrial categories. For these industrial facilities, compliance with the effluent limitations constitutes compliance with BAT and BCT for specified pollutants.

Other industrial activities not among the industrial categories designated in 40 CFR Subchapter N are not required to meet numeric effluent limitations. For these activities to be in compliance, dischargers must develop and implement a site-specific storm water pollution prevention plan (SWPPP) that

includes best management practices (BMPs) to reduce or prevent pollution in storm water discharges and authorized non-storm water discharges associated with industrial activities. Incorporation of BMPs, which may include control of storm water discharges along with the reduction of pollutants at the source, constitutes BAT and BCT, and thereby achieves compliance.

At the federal level, two kinds of permits are issued under the NPDES storm water program for industrial activities. One is the "general permit," which provides coverage to a large number of activities. The other is the "individual permit," which is tailored to fit the specific requirements of a particular facility. General permits are intended to cover most activities throughout a given state or region. With a general permit, covered storm water dischargers are subject to the same basic permit conditions, although the permit could impose additional requirements for certain industries.

The federal regulations allow authorized states to issue general permits or individual permits to regulate storm water discharges within their jurisdictions. Under the CWA, a state's NPDES programs must be as stringent as the USEPA's programs.

1.2.1.2 Phase II

On December 8, 1999, USEPA published additional storm water regulations, known as Phase II. The Phase II regulations published in the Federal Register and USEPA Fact Sheets for these regulations are in Appendix B. The regulations require NPDES permits for storm water discharges from small MS4s serving less than 100,000 persons and from construction sites disturbing between one and five acres of land. For these regulated activities, the Phase II program includes the following elements:

<u>Small MS4s</u>

- Develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from the MS4s to the "maximum extent practicable" to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The rule assumes the use of narrative, rather than numeric, effluent limitations requiring the implementation of BMPs.
- Adopt six minimum control measures: public education and outreach, public involvement/participation, construction site storm water runoff control, post-construction storm water runoff control, pollution prevention/good housekeeping and illicit discharge detection and elimination.
- Identify BMPs and measurable goals for each minimum control measure. The evaluation and assessment of the BMPs and measurable goals must be included in periodic reports to the NPDES permitting authority.

Small Construction Activity

- The Phase II storm water regulations require construction sites greater than 1-acre to submit an NOI for coverage under the General Permit for Storm Water Discharges from Construction Activities. The Phase I requirements only required construction sites greater than 5 acres to submit an NOI.
- The specific requirements for storm water controls on small construction activity should be addressed in the NPDES General Permit for Storm Water Discharges from Construction Activities, when amended.
- A construction SWPPP is required to be developed prior to submittal of the NOI requesting coverage under the Construction General Permit.

Note that unlike the Phase I program, federal Phase II regulations for small MS4s include federal and state facilities in their scope of authority. However, in guidance for the federal program, USEPA authorities recognize that the small MS4 program was essentially designed for municipally operated small MS4s and not MS4s operated by federal or state entities. Therefore, because federal and state operations have characteristics different from municipal operations, Phase II Final Rule guidance requires only that federal and state permittees tailor their storm water management plans and BMPs to fit their particular characteristics and needs, and the area served by their MS4s.

1.2.2 Arizona Regulations

On December 5, 2002, USEPA Region 9 approved the ADEQ AZPDES application for primacy over the NPDES program in the State of Arizona. The ADEQ is in the process of addressing the federal Phase II storm water regulations in the form of a new small MS4 General Permit. Arizona may also issue general permits for categories of dischargers. Upon approval of the proposed Phase II AZPDES General Permit, the ADEQ will be responsible for administering the NPDES program in Arizona.

1.2.2.1 Phase I

General Permit

Prior to the approval of the AZPDES permit by the USEPA on December 5, 2002, the Phase I program in Arizona was administered by USEPA Region 9. Pursuant to the federal Phase I storm water regulations, the USEPA has issued permits that apply to regulated industrial, construction, and municipal storm water discharges. The USEPA has issued two "General Permits," one that regulates storm water discharges from industrial activities and one that regulates storm water discharges from

construction activities. These permits are referred to as the Multi-Sector General Permit for Industrial Activities and the Construction Activities General Permit. The ADEQ has indicated their intention to develop an industrial activities permit substantially similar to the USEPA Multi-Sector General Permit. ADEQ published a draft AZPDES General Permit for Discharges from Construction Activities to Waters of the United States. The comment period for the draft AZPDES General Permit for Construction addressed the Phase II requirements and is consistent with the requirements in the EPA Construction Activities General Permit. The comment period for the AZPDES General Permit for Construction closed on February 12, 2003.

1.2.2.2 Phase II

For purposes of the Phase II storm water program, MCAS Yuma will be regulated under a new statewide small MS4 permit (General Permit) that includes federal facilities within its authority. The ADEQ is in the process of drafting this permit to address Phase II storm water provisions. It is expected that the final Phase II General Permit will be approved by March 10, 2003.

1.2.3 Phase II General Permit Provisions

On December 5, 2002, the ADEQ AZPDES application for primacy over the NPDES program in the State of Arizona was approved by USEPA Region 9. The ADEQ is in the process of addressing the federal Phase II storm water regulations in the form of a new small MS4 General Permit. The ADEQ has released a *Draft* version (September 27, 2002) of the new Phase II General Permit. It is entitled *Arizona Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems to Waters of the United States*. Permit approval is expected by March 10, 2003. A copy of the *Draft* Phase II General Permit is in Appendix C.

To comply with the permit, facility operators must complete the following compliance actions:

1.2.3.1 Storm Water Management Plan

- MCAS Yuma shall maintain, implement, and enforce an effective SWMP, and develop adequate legal authority to implement and enforce the SWMP, designed to reduce the discharge of pollutants from the regulate small MS4 to the MEP and to protect water quality. The SWMP shall serve as a framework for identification, assignment, and implementation of control measures/BMPs. MCAS Yuma shall implement the SWMP, and shall subsequently demonstrate its effectiveness and provide for necessary and

appropriate revisions, modifications, and improvements to reduce pollutants in storm water discharges to the MEP.

- The SWMP shall be revised to incorporate any new or modified BMPs or measurable goals developed through MCAS Yuma's annual reporting process. MCAS Yuma shall incorporate changes into applicable annual revisions to the SWMP and adhere to its implementation.
- MCAS Yuma shall maintain, implement, and enforce an effective SWMP designed to reduce the discharge of pollutants from the regulated small MS4 to the MEP and to protect water quality.
- The SWMP must describe the BMPs and associated measurable goals that will fulfill the requirements of the following six minimum control measures.

Public Education and Outreach on Storm Water Impacts – MCAS Yuma 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. For state and federal regulated small MS4s, a facility's employee population may serve as "the public" to target for outreach and involvement.

Public Involvement/Participation – MCAS Yuma must develop and implement a plan to encourage public involvement and participation in the development of the SWMP and a process for public comments.

Construction Site Storm Water Runoff Control – MCAS Yuma must develop, implement, and enforce a program to reduce pollutants in storm water runoff to its 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 the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must, at a minimum, include the development and implementation of:

- An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under Arizona or local law.
- Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
- 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.
- Procedures for site plan review that incorporate consideration of potential water quality impacts.
- Procedures for receipt and consideration of information submitted by the public.
- Procedures for site inspection and enforcement of control measures.

Post Construction Storm Water Management in New Development and Redevelopment – MCAS Yuma must:

- Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb land greater than or equal to 1 acre, including projects less than one acre that are part of a larger common plan of development

or sale, that discharge into the small MS4 by ensuring that controls are in place that prevent or minimize water quality impacts.

- Develop and implement strategies that include a combination of appropriate structural and/or non-structural BMPs.
- Use an ordinance or other regulatory mechanism to address post construction runoff from new development and redevelopment projects to the extent allowable under Arizona or local law.
- Ensure adequate long-term operation and maintenance of BMPs.

Pollution Prevention/Good Housekeeping for Municipal Operations – MCAS Yuma 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 USEPA, the State of Arizona, or other organizations, include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

Illicit Discharge Detection and Elimination – MCAS Yuma must:

- Develop, implement and enforce a program to detect and eliminate illicit discharges [as defined at 40 CFR §122.26(b) (2)] into the regulated small MS4.
- Develop, if not already completed, a storm drain system map, showing the location of all outfalls and the names and locations of all waters of the United States that receive discharges from those outfalls.
- To the extent allowable under Arizona or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions.
- Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate AZDES permit.
- Inform public employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste.
- Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only if MCAS Yuma identifies them as significant contributors of pollutants to the 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
- Street wash water
- Flows from emergency fire fighting

If the ADEQ determines that any individual or class of non-storm water discharge(s) listed above may be a significant source of pollutants to waters of the United States or physically interconnected MS4, or, poses a threat to water quality standards (beneficial uses), the ADEQ may require the regulated small MS4(s) to monitor and submit a report, and to implement BMPs on the discharge.

- The SWMP must identify the measurable goals for each of the BMPs, including, as appropriate, the months and years for scheduled actions, including interim milestones and the frequency of the action.
- The SWMP must identify the person or persons who will implement or coordinate the SWMP, as well as each minimum control measure.
- Termination of Coverage - MCAS Yuma may terminate coverage if a new operator has assumed responsibility for the MS4, MCAS Yuma has ceased operation of the MS4 or MCAS Yuma has eliminated discharges from the MS4. To terminate coverage, MCAS Yuma must submit a written request to the AZPDES.
- Reliance on a Separate Implementing Entity (SIE) - MCAS Yuma may rely on a SIE to satisfy one or more of the permit obligations, if the separate entity can appropriately and adequately address the storm water issues of MCAS Yuma. MCAS Yuma must describe the arrangement in the SWMP. The other entity must agree to implement the control measure(s), or components thereof, to achieve compliance with the General Permit. MCAS Yuma remains responsible for compliance with this General Permit, if the SIE fails to implement the control measure(s).

Governmental regulated small MS4s (campuses, military bases, prison and hospitals) are encouraged to work with other entities in implementing their SWMP.

1.2.3.2 Reporting and Monitoring

- MCAS Yuma must monitor to evaluate storm water controls if MCAS Yuma discharges to a water body for which a TMDL has been established.
- MCAS Yuma must submit annual reports to the ADEQ by June 30 of each year (the first is to be submitted in 2004). The report shall summarize the activities performed throughout the reporting period ending March 10 and must include information presented in Section 2.4.
- MCAS Yuma must keep records required by the Phase II General Permit for at least 3 years or the duration of the General Permit, whichever is longer. The ADEQ may specify a longer time for record retention. MCAS Yuma must submit the records to the ADEQ upon request. MCAS Yuma must make the records, including the permit and SWMP, available to the public if requested in writing.

The permit also requires facility operators to comply with the following prohibitions and limitations.

Discharge Prohibitions

- Discharges of waste that cause or contribute to an exceedance of any applicable water quality standard of the State of Arizona (Arizona Administrative Code, Title 18, Chapter 11).
- Discharges from the MS4s regulated under this permit that cause or threaten to cause nuisance are prohibited.
- Discharges of material other than storm water to waters of the United States or another permitted MS4 are prohibited, except as allowed under provision as authorized non-storm water discharges, or as otherwise authorized by a separate AZPDES permit.

Effluent Limitations

- MCAS Yuma must implement BMPs that reduce pollutants in storm water to the technology-based standard of Maximum Extent Practicable (MEP). In accordance with 40 CFR §122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits.
- Storm water dscharges regulated by this General Permit shall not contain a hazardous substance in amounts equal to or in excess of a reportable quantity listed in 40 CFR Part 117 or 40 CFR Part 302.

1.3 MARINE CORPS STORM WATER PROGRAM

The Headquarters Marine Corps Environmental Compliance and Protection Manual (MCO P5090.2) is the primary guidance for Marine Corps policies and procedures for managing environmental and natural resources programs. Marine Corps policy with respect to storm water management requires all commands to ensure that all activities comply with storm water management and pollution prevention requirements, as stipulated in permits under which the installations are covered.

2.0 PHASE II COMPLIANCE ACTIONS

To comply with the *Draft* Arizona Phase II regulations for small MS4s, operators of regulated small MS4s must perform the following:

- Submit an NOI
- Develop and implement a SWMP
- Implement BMPs to reduce pollutants in storm water discharges to the MEP
- Report SWMP progress annually

These specific requirements of these compliance actions are described below.

2.1 NOTICE OF INTENT

The first step in the Phase II compliance process is to apply for NPDES coverage under the General Permit. This requires that an NOI be prepared and submitted to the ADEQ by March 10, 2003 indicating intent to comply with the terms of this General Permit. The NOI form has been provided with the General Permit issued by the ADEQ.

2.2 STORM WATER MANAGEMENT PLAN

MCAS Yuma must develop and implement a SWMP designed to reduce the discharge of pollutants in storm water runoff to the MEP and protect water quality. The SWMP must describe the BMPs that will be applied to fulfill the requirements of the six minimum control measures. MCAS Yuma has the five-year permit term to fully implement its program, but it is expected that progress be made throughout the permit term. Finally, MCAS Yuma must provide for necessary and appropriate revisions, modifications, and improvements to the SWMP.

The SWMP requirements are described in detail in Section 1.4.3. MCAS Yuma's program to meet these requirements is described in Sections 2.0 through 7.0.

2.3 POLLUTANT DISCHARGE REDUCTION

MCAS Yuma must reduce the discharge of pollutants in storm water runoff to the MEP, which is the technology-based standard established by Congress in CWA §402(p)(3)(B)(iii) that municipal

dischargers of storm water must meet. The MEP is generally a result of emphasizing pollution prevention and source-control BMPs as the first lines of defense in combination with treatment methods, where appropriate, serving as additional lines of defense.

2.4 REPORTING AND RECORDKEEPING

MCAS Yuma is required to submit annual reports to the ADEQ by June 30 of each year (the first is to be submitted in 2004), or as otherwise required by the ADEQ. The report shall summarize the activities performed throughout the reporting period ending March 10 and must include:

- The status of compliance with permit conditions;
- An assessment of the appropriateness and effectiveness of the identified BMPs;
- Status of the identified measurable goals;
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
- A summary of the storm water activities MCAS Yuma plans to undertake during the next reporting cycle; and
- Any proposed change(s) to the SWMP along with a justification of why the change(s) are necessary.

When necessary, the SWMP must be revised to incorporate any new or modified BMPs or measurable goals developed through the annual reporting process. MCAS Yuma will incorporate changes into applicable annual revisions to the SWMP and adhere to its implementation.

3.0 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

3.1 INTRODUCTION

Phase II regulations require the operators of regulated facilities to implement an education program to distribute educational materials to the public 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. The Environmental Protection Specialist (Water) of MCAS Yuma is responsible for the implementation of this minimum control measure.

For the purposes of Phase II compliance at MCAS Yuma, the "public" consists of military personnel, civil service employees, and any residents in MCAS Yuma housing. The public education and outreach program for MCAS Yuma will consist of the following BMPs and measurable goals.

3.2 PLAN FOR PUBLIC EDUCATION AND OUTREACH

The following BMPs will be applied for Public Education and Outreach.

3.2.1 Brochures

Five tri-fold brochures have been developed to inform specifically targeted communities about important storm water issues on which they can have a positive or negative impact. These targeted communities are involved with municipal operations and specific housing areas on the Station. All brochures include the appropriate points of contact to report illegal dumping to storm drains and spillage of oil, chemicals, and sewage. Contact information is also included for household waste recycling and disposal facilities. The individual brochures are further described below.

<u>Bachelor Enlisted Quarters and Bachelor Officer's Quarters</u>

This brochure addresses the enlisted Marines and officers residing in Bachelor Enlisted Quarters and Bachelor Officer's Quarters. It discusses general storm water pollution issues, the management of household wastes, the proper trash disposal, and vehicle washing and maintenance. It also identifies the approved locations for vehicle washing and maintenance. And, it provides contact information for pollution prevention information, spill reporting, recycling, and proper waste disposal.

Family Housing

This brochure addresses residents of the family housing under MCAS Yuma's area of responsibility. It discusses general storm water pollution issues, the management of household wastes, the proper trash disposal, and vehicle washing and maintenance. It also identifies approved locations for vehicle washing and maintenance, and provides contact information for pollution prevention information, spill reporting, recycling, and proper waste disposal.

Housekeeping and Landscaping Maintenance

This brochure addresses personnel engaged in grounds maintenance and general housekeeping activities. It discusses general storm water pollution issues, the management of wastes and household chemicals, the proper application of herbicide/pesticides, and the proper waste disposal. It also provides contact information for household waste disposal facilities.

Utility, Fueling, and Maintenance Operations

This brochure addresses storm water issues related to utility vaults, fuel dispensing areas, and maintenance operations. The fueling and maintenance information applies to auto hobby shops, Marine Corps Exchange (MCX) auto repair and fueling facilities, and government vehicle and equipment maintenance facilities.

Food Establishments

This brochure discusses general storm water pollution issues and the proper procedures for trash, food, and waste disposal; oil/grease management; soaps and degreasers usage; floor and floor-mat cleaning; and mop water disposal.

The Marine Corps will reproduce the brochures and distribute them to the appropriate personnel. Copies of the brochures are in Appendix E.

3.2.2 Classroom Presentation Materials

One classroom presentation package has been created for use by Marine Corps personnel to educate selected communities regarding storm water management for industrial, commercial, and military operations. This deliverable consists of a PowerPoint presentation and speaker's notes. It will combine the information from all five brochures (discussed above) into one comprehensive, yet modular, presentation. In this modular format, MCAS Yuma personnel can easily tailor each presentation they deliver to the target audience.

In addition, MCAS Yuma may choose to use the presentation, completely or in part, in other settings and media to advance the message about proper storm water management. Possible media include the existing MCAS Yuma intranet, website and newspaper. A copy of the presentation is in Appendix E.

3.2.3 Other Education and Outreach Initiatives

Various other programs and initiatives are available to advance the MCAS Yuma Phase II education and outreach program.

Workforce Training

The Marine Corps has an existing environmental and safety training program, which has already integrated storm water training. This training is conducted annually for existing Marine Corps and civilian personnel engaged in industrial operations. This training is also part of the orientation for new personnel. Weekly/monthly safety meetings also include environmental and storm water issues. Each of these training scenarios will be expanded to include the proper information pertaining to Phase II storm water awareness and SWMP implementation. Additionally, MCAS Yuma is developing a storm water module to add to the 40-hour HAZWOPER training that is offered every quarter.

Marine Corps Housing Orientation

The Marine Corps provides basic orientation for personnel and their dependents when they begin residence at MCAS Yuma. Information about relevant storm water issues is included in this program, including household waste management, proper trash disposal, and vehicle washing and maintenance. Future orientations will have the housing brochure as part of the orientation package.

Environmental Stand-Downs

Periodically, an entire installation, unit, or department will suspend operations (stand down) and review environmental practices, including those related to storm water pollution prevention.

Storm-Drain Stenciling

Drains that discharge to the storm drains at MCAS Yuma should be tiled or stenciled with a warning against dumping into the drain. Because these markings are important elements of a successful storm water pollution prevention program, MCAS Yuma will continue to install tiles or stencils, as needed, to maintain the highest possible percentage of currently tiled/stenciled storm drains.

Marine Corps Websites

The Marine Corps and MCAS Yuma maintain a variety of intranets and websites to convey useful information to their personnel, dependents, and civilians working at MCAS Yuma. Some of that information regards environmental issues and programs. Three of these websites are:

Headquarters Marine Corps:	http://www.hqmc.usmc.mil
MCAS Yuma:	http://www.yuma.usmc.mil

These websites have and will continue to be valuable resources for education and outreach for the Marine Corps's environmental initiatives. As part of this minimum control measure, MCAS Yuma will post storm water awareness features and notices on the MCAS Yuma intranet and website.

USEPA and ADEQ Resources

Storm water pollution prevention information and publications are available online from USEPA Region 9 (http://www.epa.gov/region9/water/npdes/arizona.html) and the ADEQ (http://www.adeq.state.az.us/). As part of this minimum control measure, MCAS Yuma will include these websites in educational materials and other MCAS Yuma media.

Other Vehicles for Message Dissemination

- Storm water awareness messages and features/articles will be posted using other MCAS Yuma media. Possible media include the Station's movie theaters, TV broadcasts, intranet and website.
- MCAS Yuma will promote the storm water program. This initiative could include information booths at the MCAS Yuma Air Show and the Annual Safety Fair. Giveaways of novelty items (coloring books and key chains) with a pollution prevention message are items the information booth may use.
- MCAS Yuma will also disseminate storm water awareness information using other advertising vehicles, such as bumper stickers, leaflets and posters. The storm water awareness poster "I Live Downstream" is already in use at MCAS Yuma.

3.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 3-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
May 2003	In preparation for the summer's outdoor activities, storm water awareness posters will be conspicuously hung at the Marine Corps Community Services (MCCS) locations. The posters will be put in permanent frames so they can remain in place and intact indefinitely.	Posters are framed and hung at the MCCS locations.
July 2003	Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	Additional storm drains tiled/stenciled to complete 20% of the system each year with 100% complete in Year 5.
October 2003	Distribute storm water awareness brochures to the five select groups.	Distribution begins and the total number of brochures distributed to date, per group, is tracked.
October 2003	Give storm water awareness presentations to select groups at MCAS Yuma. Refer to storm water information and resources at websites for the USEPA and the ADEQ.	Begin with the first presentation. Track group type addressed and number of attendees.
November 2003	Put storm water awareness information on the MCAS Yuma intranet and website. Include links to the USEPA and the ADEQ information.	A separate link is created for the storm water message and program links. The page is accessed by a link on the MCAS Yuma intranet and website. Track the number of readers who access this page.
December 2003	Include storm water awareness education as part of MCAS Yuma's housing orientation for new residents.	Track the number of these orientations and the number of brochures distributed.
December 2003	Include storm water awareness education as part of the existing environmental and safety-training program.	Track the numbers of new and existing personnel to receive this training in the current year.
December 2003	Post storm water awareness information in the MCAS Yuma newspaper.	Begin with the first posting. Continue in subsequent issues.
Year 2		
January 2004	Follow up with the five select groups to further distribute storm water awareness brochures.	Track the number of brochures distributed per group and overall.
April 2004	Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	Additional storm drains tiled/stenciled to complete 20% of the system each year with 100% complete in Year 5.
October 2004	Give storm water awareness presentations to select groups at MCAS Yuma. Refer to storm water information and resources at websites for the USEPA and the ADEQ.	Presentations completed for two groups to date. Track number of attendees.

TABLE 3-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

Target Date for Completion	Activity or BMP	Measurable Goal
October 2004	Collaborate with the MCAS Yuma Air Show to disseminate storm water awareness information.	Maintain a Storm Water Pollution Awareness information booth at the MCAS Yuma Air Show. Track message exposure by the approximate number of visitors to the booth and/or the number of items given away.
December 2004	Include storm water awareness education as part of MCAS Yuma's housing orientation for new residents.	Track the number of these orientations and the number of brochures distributed.
December 2004	Include storm water awareness education as part of the existing environmental and safety-training program.	Track the numbers of new and existing personnel to receive this training in the current year.
December 2004	Post storm water awareness information in the MCAS Yuma newspaper.	Track the number of MCAS Yuma newspaper issues with the postings.
Year 3		
January 2005	Follow up with the five select groups to further distribute storm water awareness brochures.	Track the number of brochures distributed per group and overall.
April 2005	Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	Additional storm drains tiled/stenciled to complete 20% of the system each year with 100% complete in Year 5.
October 2005	Give storm water awareness presentations to select groups at MCAS Yuma. Refer to storm water information and resources at websites for the USEPA and the ADEQ	Presentations completed for three groups to date. Track number of attendees.
November 2005	Put storm water awareness information on the MCAS Yuma intranet and website. Include links to the USEPA and the ADEQ information.	The storm water information is updated. Continued to track the total number of readers who access this page.
December 2005	Include storm water awareness education as part of MCAS Yuma's housing orientation for new residents.	Track the number of these orientations and the number of brochures distributed.
December 2005	Include storm water awareness education as part of the existing environmental and safety-training program.	Track the numbers of new and existing personnel to receive this training in the current year.
December 2005	Post storm water awareness information in the MCAS Yuma newspaper.	Track the number of MCAS Yuma newspaper issues with the postings.
Year 4		
January 2006	Follow up with the five select groups to further distribute storm water awareness brochures.	Track the number of brochures distributed per group and overall.

TABLE 3-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

Target Date for Completion	Activity or BMP	Measurable Goal
April 2006	Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	Additional storm drains tiled/stenciled to complete 20% of the system each year with 100% complete in Year 5.
October 2006	Give storm water awareness presentations to select groups at MCAS Yuma. Refer to storm water information and resources at websites for the USEPA and the ADEQ.	Presentations completed for four groups to date. Track number of attendees.
December 2006	Include storm water awareness education as part of the MCAS Yuma's housing orientation for new residents.	Track the number of these orientations and the number of brochures distributed.
December 2006	Post storm water awareness information in MCAS Yuma newspaper.	Track the number of MCAS Yuma newspaper issues with the postings.
Year 5		
January 2007	Follow up with the five select groups to further distribute storm water awareness brochures.	Track the number of brochures distributed per group and overall.
April 2007	Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	Additional storm drains tiled/stenciled to complete 20% of the system each year with 100% complete in Year 5.
October 2007	Give storm water awareness presentations to select groups at MCAS Yuma. Refer to storm water information and resources at websites for the USEPA and the ADEQ.	Presentations completed for five groups to date. Track number of attendees.
December 2007	Include storm water awareness education as part of the MCAS Yuma's housing orientation for new residents.	Track the number of these orientations and the number of brochures distributed.
December 2007	Include storm water awareness education as part of the existing environmental and safety-training program.	Track the numbers of new and existing personnel to receive this training in the current year.
December 2007	Post storm water awareness information in MCAS Yuma newspaper.	Track the number of MCAS Yuma newspaper issues with the postings.

4.0 PUBLIC INVOLVEMENT/PARTICIPATION

4.1 INTRODUCTION

Phase II regulations require the operators of regulated facilities to, at a minimum, comply with state and local public notice requirements when implementing a public involvement/participation program. The MCAS Yuma Environmental Protection Specialist (Water) is responsible for the implementation of this minimum control measure.

The "public," for the purposes of this SWMP, consists of military personnel at MCAS Yuma, civil service employees, and residents in MCAS Yuma housing.

4.2 PLAN FOR PUBLIC INVOLVEMENT/PARTICIPATION

4.2.1 Public Notification

MCAS Yuma will properly inform the public (as the public is defined in this document) of the details of the Marine Corps's storm water pollution prevention program, opportunities for public participation in the development of that program, and other opportunities for the public to protect receiving waters from storm water pollution. The MCAS Yuma public notice strategy will make use of various media to deliver clear, accurate, and timely notice of this information. Possible media for this purpose include MCAS Yuma's intranet, website, e-mail, newspaper, and conspicuous postings.

4.2.2 Best Management Practices

The following public involvement/participation practices are intended to (1) inform the public about the MCAS Yuma SWMP and storm water program, and (2) involve the public in program development and storm water pollution control. These BMPs are designed in recognition of the unique nature of the "public" at MCAS Yuma and the manner in which it affects storm water quality.

- To properly notify the public of the Phase II storm water compliance program, MCAS Yuma has copies of the statewide small MS4 permit and SWMP available at MCAS Yuma libraries and posted on the MCAS Yuma intranet and website. The public will be encouraged to review the SWMP and provide comments and suggestions. The availability of these documents and opportunity to participate will be advertised using signs at the libraries and notices in the MCAS Yuma newspaper and on the MCAS Yuma intranet and website.

- MCAS Yuma will encourage public involvement in the storm water program through presentations at information booths at the MCAS Yuma Air Show and Safety Fair.
- MCAS Yuma has phone numbers through which the public can report pollutant discharges. MCAS Yuma has included these hotlines in educational brochures and will further advertise them using other MCAS Yuma media.
- Marines at MCAS Yuma volunteer to perform weekly trash pickup throughout the facility.

4.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 4-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC INVOLVEMENT/PARTICIPATION

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
March 2003	Make copies of the statewide small MS4 permit and SWMP available to the "public."	Copies of the General Permit and SWMP are available at MCAS Yuma libraries and notice of availability is posted in the MCAS Yuma newspaper, intranet and website.
February 2004	Encourage public participation in the Storm Water Program.	Present information at a booth during the MCAS Yuma Air Show to promote involvement in the storm water program
Year 2		
March 2004	Use brochures and other MCAS Yuma media to advertise MCAS Yuma hotlines for reporting illicit dumping and discharges.	By this date, brochures have been distributed with the hotline numbers. Track the number of brochures distributed. Hotline numbers have been put on the MCAS Yuma intranet and website. Ask each hotline caller how the number was obtained to track the effectiveness of MCAS Yuma media.
February 2005	Encourage public participation in the Storm Water Program.	Present information at a booth during the MCAS Yuma Air Show to promote involvement in the storm water program

TABLE 4-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR PUBLIC INVOLVEMENT/PARTICIPATION

Target Date for Completion	Activity or BMP	Measurable Goal
Year 3		
March 2005	Use brochures and other MCAS Yuma media to advertise MCAS Yuma hotlines for reporting illicit dumping and discharges.	Track the number of additional brochures distributed since 2004. Continue to ask each hotline caller how the number was obtained to track the effectiveness of MCAS Yuma media.
February 2006	Encourage public participation in the Storm Water Program.	Present information at a booth during the MCAS Yuma Air Show to promote involvement in the storm water program.
Year 4		
March 2006	Use brochures and other MCAS Yuma media to advertise MCAS Yuma hotlines for reporting illicit dumping and discharges.	Track the number of additional brochures distributed since 2005. Continue to ask each hotline caller how the number was obtained to track the effectiveness of MCAS Yuma media.
February 2007	Encourage public participation in the Storm Water Program.	Present information at a booth during the MCAS Yuma Air Show to promote involvement in the storm water program.
Year 5		
March 2007	Use brochures and other MCAS Yuma media to advertise MCAS Yuma hotlines for reporting illicit dumping and discharges.	Track the number of additional brochures distributed since 2006. Continue to ask each hotline caller how the number was obtained to track the effectiveness of MCAS Yuma media.
February 2008	Encourage public participation in the Storm Water Program.	Present information at a booth during the MCAS Yuma Air Show to promote involvement in the storm water program.

5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

5.1 INTRODUCTION

Phase II regulations require the operators of regulated facilities to develop, implement, and enforce a program to reduce pollutants in storm water runoff to their MS4s from construction activities that result in a land disturbance of greater than or equal to one acre. The program must include:

- 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 of Arizona, or local law.
- Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
- 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.
- Procedures for site plan review that incorporate consideration of potential water quality impacts.
- Procedures for receipt and consideration of information submitted by the public.
- Procedures for site inspection and enforcement of control measures.
- Name(s) of the person or persons who will implement or coordinate this minimum control measure.

The AZPDES General Permit for Discharges from Construction Activities has the following requirements for small construction (between one and five acres):

- Submit an NOI or Erosivity Waiver at least two business days prior to the commencement of construction.
- If runoff from construction can discharge to an MS4 off Station, forward a copy of the NOI to the owner/operator of the MS4.
- Prepare a construction SWPPP that meets the General Permit requirements before submitting the NOI.
- Maintain in effective operating condition BMPs identified in the SWPPP.
- Conduct inspections that comply with the scope and frequency described in the General Permit.
- Sign and retain the SWPPP on-site at the construction site or other easily accessible location.

- Post a sign at the construction site main entrance that lists the AZPDES number, the name and phone number of the contact person, a brief description of the project, and the location of the SWPPP.
- Maintain records for at least three years from the date the permit expires, including inspection reports and records of follow-up actions (retained with the SWPPP.)
- An NOT must be filed with the ADEQ within 30 days after final stabilization or change in operators.

This section describes MCAS Yuma's construction program and the associated plan and procedures for erosion and sediment control, waste control, plan review, site inspection and enforcement, and public input.

5.2 MARINE CORPS CONSTRUCTION RUNOFF CONTROL PROGRAM

The Marine Corps initiates new construction projects at MCAS Yuma through both Southwest Division Naval Facilities Engineering Command (SWDIV) and its Resident Officer in Charge of Construction (ROICC) or through MCAS Yuma and its Facilities Maintenance Department (FMD). SWDIV/ROICC and MCAS Yuma/FMD will be responsible for the implementation of this minimum control measure for construction projects within their scope of authority.

5.2.1 Policy for Erosion and Sediment Control

MCO P5090.2 establishes the program requirements, guidelines, and standards for complying with resource protection laws, and conserving and managing natural resources at Marine Corps facilities. MCO P5090.2 Chapter 11, Natural Resources, and Chapter 20, Water Quality Management, establish the natural resources management program for managing Marine Corps lands and waters.

5.2.2 Requirements for Erosion, Sediment, and Waste Control

The contracts used by both SWDIV and MCAS Yuma require the construction contractor to comply with all federal, Arizona, and local laws and regulations. This requirement currently includes compliance with the USEPA NPDES General Permit for Construction Activities that applies to sites disturbing five acres or more (now being amended to one acre or more) or applicable local regulations. The ADEQ intends to regulate sites disturbing one acre or more with a General Permit for Construction Activities. The ADEQ permit requires the development and implementation of a SWPPP that must include appropriate erosion and sediment control BMPs for visible pollutants and waste control BMPs for non-visible pollutants. The

SWPPP also mandates that construction site operators control wastes that may cause adverse impacts to water quality.

5.2.3 Plan Review

A plan review and approval process for construction projects has been established by MCAS Yuma Station Order 5090, Land Use Control and Implementation. This instruction establishes project approval procedures for all new construction, alterations, equipment installation, structure modifications, and major repairs on land and buildings.

When a construction project is initiated by SWDIV, the project request package is referred to a SWDIV Project Lead for review. The Project Lead evaluates the plans for environmental compliance and provides recommendations for modifications. When a construction project is initiated by MCAS Yuma, the project proponent submits a detailed project request package to the FMD. The FMD then refers the package to MCAS Yuma Environmental for review. During the review by both SWDIV and FMD, environmental issues are critically evaluated before a plan's final approval.

5.2.4 Site Inspection and Enforcement

5.2.4.1 MCAS Yuma Projects

For MCAS Yuma projects, the FMD relies on the MCAS Yuma Environmental personnel who are trained in water quality to inspect sites to ensure environmental compliance. Incidences of non-compliance are reported to the FMD so that the construction contractor can be informed and appropriate action(s) taken.

5.2.4.2 SWDIV Projects

For SWDIV projects, the ROICC ensures construction site environmental compliance by the oversight of a Construction Quality Control (CQC) contractor. The CQC contractor is a private contractor with an in-depth understanding of construction-related environmental issues. SWDIV ensures this level of knowledge by requiring that CQC contractors complete a specialized course in the environmental oversight of construction projects. This training assures SWDIV that the environmental requirements for construction projects are addressed. All incidences of non-compliance identified by the CQC are reported to the ROICC, the construction contractor is then informed, and appropriate action(s) is taken.

Detailed guidance for the CQC program has been developed by the United States Army Corps of Engineers and is presented in the *Guide to Effective Contractor Quality Control* (1990) and the *Quality Assurance Representative's Guide* (1992). These manuals detail the programmatic approach to CQC work and document the inspection requirements, including those for erosion and waste control.

In January 2001, SWDIV issued its initial *Field Office Guidance Documents for Environmental Requirements.* The purpose of the document, and the program it represents, is to improve environmental compliance at construction projects throughout the military construction process. The document provides processes and checklists for the identification and monitoring of environmental requirements during the planning, design, and construction phases.

As part of this program, the ROICC has initiated the ROICC Environmental Advocate (REA) program. Qualified field team personnel are designated to serve as REAs for each construction project. Deputy Environmental Advocates (DREAs) are also assigned to each construction project to oversee environmental compliance. The REAs/DREAs are trained to implement the program established by the *Field Office Guidance Documents for Environmental Requirements*. REAs/DREAs are trained in hazardous materials/waste, pollution prevention, storm water pollution prevention, and health and safety requirements.

To ensure compliance with environmental regulations unannounced construction site inspections are performed by FMD, Health and Safety, and/or SWDIV. The inspections require documentation of any compliance deficiencies and the corrective actions implemented in response. In addition, REAs and DREAs conduct periodic site visits to make sure environmental requirements are addressed and conditions that impact water quality and the environment are mitigated.

5.2.5 Best Management Practices

Construction site inspections require an understanding of the proper selection and use of the many erosion, sediment, and waste control strategies available. The MCAS Yuma Environmental personnel, REAs, DREAs, and CQC contractors have the expertise to perform this function. When performing inspections, these personnel evaluate the proper use of the following practices.

5.2.5.1 Soil Stabilization and Sediment Controls

Storm water pollution control requirements should be implemented in a proactive manner during all seasons while construction is ongoing. Appropriate storm water pollution control requires the implementation of an effective combination of soil stabilization and sediment controls. These controls must be determined based on site-specific conditions, including rainfall level, general soil types, slope inclinations, and slope lengths. This section describes general principles and specific guidance for selecting and implementing BMPs for erosion control through temporary soil stabilization and sediment control.

Scheduling

Construction scheduling must consider the duration and area of disturbed soil exposed to erosion by storm water runoff. Construction scheduling should attempt to minimize the disturbed soil area during the rainy season. A schedule must be prepared that shows the sequencing of construction activities with the installation of soil stabilization and sediment control BMPs.

The AZPDES General Permit for Discharges from Construction Activities allows an exemption from obtaining coverage under the General Permit for small construction projects between one and five acres with a rainfall erosivity (R) factor of less than five. The R factor must be calculated as described the EPA Fact Sheet 3.1, EPA 833-F-00-014. Table 5-2 indicates the maximum duration of construction to achieve a waiver throughout the year (periods when the R factor will be less than 5). If a construction project is scheduled to start and finish (finish is considered final stabilization) during the time specified in Table 5-2 and the project disturbs less than five acres, a Permit Waiver Certification form from the General Permit must be submitted in place of the NOI (see Appendix F). If construction continues outside of these months, a SWPPP must be prepared and an NOI for coverage under the General Permit submitted to the ADEQ.

Preservation of Existing Vegetation

Preserving existing vegetation to the maximum extent possible and for as long as possible on a construction site reduces or eliminates erosion in those areas. To facilitate this practice on a year-round basis, areas where no construction activity is planned should be protected during the clearing and grubbing operations or other soil-disturbing activities.

Storm Water Run-on and Concentrated Flows

The diversion of storm water run-on and the conveyance of concentrated flows must be considered when identifying the appropriate BMPs. BMPs to divert or manage concentrated flows in ways that do not promote erosion may be required on a project-by-project basis to divert off-site drainage through or around the construction site or to manage construction site storm water runoff.

Disturbed Soil Management

Limiting and protecting disturbed soil is a critical component in conducting an effective storm water management program. Disturbed soil areas are areas of exposed, erodible soil that are within the construction limits and that result from construction activities. Disturbed soil guidelines are based on rainfall patterns (timeframes, intensities, and amounts), general soil types, the seasons, slope inclinations, and slope lengths. All of these factors must be considered when developing the appropriate levels of soil stabilization and sediment control, and must be considered by the responsible site managers when directing specific site-by-site actions. Disturbed soil areas must be protected as follows.

- Construction site BMPs (temporary control practices) must be performed on non-active disturbed soil areas within 14 days from the cessation of soil-disturbing activities or one day prior to the onset of precipitation, whichever occurs first.
- Stabilization that requires perennial vegetation is exempt from the 14-day requirement in areas with less than 20-inches of annual rainfall or during seasonally arid conditions. For these conditions, perennial vegetation used for stabilization must be initiated as soon as possible.
- Construction site BMPs for active disturbed soil areas should be initiated prior to the onset of precipitation and throughout each day for which precipitation is forecasted.
- For non-active disturbed soil areas, limit the erosive effects of storm water flow on slopes by implementing BMPs, such as fiber rolls or gravel bag berms, to break up the slope lengths.
- For non-active disturbed soil areas, permanent erosion control shall be applied to areas deemed substantially complete.
- Provide construction site BMPs to convey concentrated flows in ways that do not promote erosion.

Active areas are construction areas where soil-disturbing activities have already occurred and continue to occur or will occur during the ensuing 14 days. Non-active areas are construction areas (formerly active areas) that will be idle for at least 14 days.

Stockpile and Borrow Pit Management

Stockpiles that are exclusive to the permitted construction must be addressed in the SWPPP. Procedures and practices to reduce or eliminate the pollution of storm water from stockpiles include the following:

- Locating stockpiles away from concentrated flows of storm water, drainage courses, and inlets.
- Protecting stockpiles from storm water run-on using temporary perimeter barriers such as berms, dikes, silt fences, or sandbags.
- Managing stockpiles of contaminated soil in accordance with proper training, handling, monitoring, and inspection practices.

Borrow pits associated with permitted construction should be addressed in the construction SWPPP if the pit is not part of a commercial operation serving multiple unrelated projects. The SWPPP must include the following for the borrow pit:

- Location of the borrow area
- Appropriate controls for the borrow pit

5.2.5.2 Waste Control and Materials Handling

Waste management and materials handling BMPs are source control BMPs that prevent pollution by limiting or reducing potential pollutants at their source before they are exposed to storm water. These BMPs involve day-to-day good housekeeping practices and keeping a clean and orderly construction site.

Waste Management BMPs

Waste management consists of implementing procedural and structural BMPs for handling, storing, and disposing of wastes generated by a construction project to prevent the release of waste materials into storm water discharges. Waste management includes the following BMPs:

- Proper storage and management procedures
- Minimization of waste exposure to precipitation and runoff
- Spill prevention, control, and response procedures

Typical construction wastes that require BMPs include solid wastes, hazardous wastes, contaminated soils, concrete wastes, sanitary/septic wastes, and liquid wastes.

Materials Handling BMPs

Materials handling consists of implementing procedural and structural BMPs for handling, storing, and using construction materials to prevent the release of those materials into storm water discharges. The objective is to reduce the opportunity for rainfall to be exposed to these materials. These controls must be implemented for all applicable activities, material usage, and site conditions. Materials handling practices include the following BMPs:

- Material delivery and storage
- Material use
- Stockpile management

5.2.5.3 Other Best Management Practices

Mobile Operations

Mobile operations common to the construction of a project include asphalt recycling, concrete mixing, crushing, and the storage of materials. BMPs must be implemented, as appropriate, to control the individual situations these mobile operations can create.

Tracking Controls

Tracking controls must be implemented as needed to reduce the tracking of sediment and debris from the construction site. At a minimum, entrances and exits must be inspected daily, and controls implemented as needed.

Non-Storm Water, Waste Management, and Materials Pollution Controls

The Construction SWPPP must identify any sources of non-storm water discharges that can commingle with storm water runoff. The SWPPP must contain procedures to identify non-storm water discharges and insure appropriate pollution prevention controls are in place to minimize pollution of storm water runoff. Allowable non-storm water discharges include the following:

- Fire fighting;
- Fire hydrant flushing;
- Vehicle wash water where detergents are not used;
- Dust control water from a potable water source (no wastewater);
- Potable water source including flushing;
- Building wash down water where detergents are not used;
- Pavement wash water where detergents are not used and spill or leaks have not occurred;
- Uncontaminated air conditioning or air compressor condensate;
- Uncontaminated ground water;
- Uncontaminated foundation or footing drains; and
- Water well flushing.

5.2.6 Public Input

For the purposes of this SWMP, the "public" consists of military personnel at MCAS Yuma, civil service employees, contractors, and any residents in MCAS Yuma housing. The ROICC and MCAS Yuma/FMD personnel collect and manage information submitted by the public regarding construction environmental issues. As described above, these personnel work closely with the construction personnel and are well positioned to understand any such issues and respond in the best interests of the public and MCAS Yuma's storm water pollution control program.

5.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 5-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
March 2003	Evaluate existing storm water controls at MCAS Yuma to determine where these controls can be utilized in the construction SWPPP.	MCAS Environmental has **already** performed several hydrology studies to identify discharge locations for storm water runoff. All areas at MCAS Yuma (except the southwest runway drainage basin) discharge to retention areas. The retention of storm water on site is an adequate to cover the BMP requirements of the SWPPP.
March 2003	Establish an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance.	MCO P5090.2 **already** requires erosion prevention and control measures to be included in the specifications for ground disturbing construction projects. Compliance is **already** enforced through construction oversight by the ROICC, REA, DREA, CQC, and MCAS Yuma Environmental. Marine Corps contracts **already** require the contractor to comply with all federal, Arizona, and local laws and regulations, including the General Permit for Construction Activities that requires development/implementation of a SWPPP that includes erosion and sediment control BMPs.
March 2003	Establish requirements for construction site operators to control waste, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, at construction sites that may cause adverse impacts to water quality.	Marine Corps contracts require the contractor to comply with all federal, Arizona, and local laws and regulations, including the General Permit for Construction Activities that requires construction site operators control wastes that may cause adverse impacts to water quality.
March 2003	Establish procedures for site plan review that incorporate consideration of potential water quality impacts.	Station Order 5090 **already** establishes project approval procedures for construction projects. This instruction mandates compliance with environmental regulations. Plan review procedures are **already** established for projects managed by both SWDIV and MCAS Yuma.

TABLE 5-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Target Date for Completion	Activity or BMP	Measurable Goal
March 2003	Establish procedures for site inspection and the enforcement of control measures.	Site inspection and enforcement are **already** provided for SWDIV projects by the ROICC, REA, DREA, and qualified CQC contractors. The ROICC has **already** initiated the ROICC Environmental Advocate Program to oversee the environmental compliance aspects of all construction work. Site inspection and enforcement are **already** provided for MCAS Yuma projects by MCAS Yuma Environmental.
March 2003	Establish procedures for the receipt and consideration of information submitted by the public.	The ROICC and MCAS Yuma/FMD personnel **already** collect and manage information submitted by the public regarding environmental issues for construction. These personnel **already** review all such information and respond accordingly. The **ROICC/FMD will** track the number public input occurrences in 2003 by general category of concern.
December 2003	Establish procedures for site inspection and enforcement of control measures.	The **ROICC/FMD will** track the number of inspections. The **ROICC/FMD will** track the number of violations and related enforcement actions by type.
Year 2		
September 2004	Establish procedures for the receipt and consideration of information submitted by the public.	The **ROICC/FMD will** track the number public input occurrences in 2004 by general category of concern.
December 2004	Establish procedures for site inspection and enforcement of control measures.	The **ROICC/FMD will** track the number of inspections. The **ROICC/FMD will** track the number of violations and related enforcement actions by type.
Year 3		
September 2005	Establish procedures for the receipt and consideration of information submitted by the public.	The **ROICC/FMD will** track the number public input occurrences in 2005 by general category of concern.

TABLE 5-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Target Date for Completion	Activity or BMP	Measurable Goal
December 2005	Establish procedures for site inspection and enforcement of control measures.	The **ROICC/FMD will** track the number of inspections. The **ROICC/FMD will** track the number of violations and related enforcement actions by type.
Year 4		
September 2006	Establish procedures for the receipt and consideration of information submitted by the public.	The **ROICC/FMD will** track the number public input occurrences in 2006 by general category of concern.
December 2006	Establish procedures for site inspection and enforcement of control measures.	The **ROICC/FMD will** track the number of inspections. The **ROICC/FMD will** track the number of violations and related enforcement actions by type.
Year 5		
September 2007	Establish procedures for the receipt and consideration of information submitted by the public.	The **ROICC/FMD will** track the number public input occurrences in 2007 by general category of concern.
December 2007	Evaluate compliance for construction site operators controlling waste at construction sites.	The **ROICC/FMD will** evaluate compliance with a goal of achieving 95% compliance with requirement for waste control, based on inspections for 2007.
December 2007	Evaluate compliance for construction site operators implementation of appropriate erosion and sediment control BMPs.	The **ROICC/FMD will** evaluate compliance with a goal of achieving 95% compliance with requirement for erosion and sediment control BMPs, based on inspections for 2007.
December 2007	Establish procedures for site inspection and enforcement of control measures.	The **ROICC/FMD will** track the number of inspections. The **ROICC/FMD will** track the number of violations and related enforcement actions by type.

TABLE 5-2
CONSTRUCTION RAINFALL EROSIVITY WAIAVER

	Start and End Dates for Construction[1]	%EI[2]	Erosivity Waiver Windows Based on Construction Start Date[3]
Year 1	January 1-15	0	R = 3.5
	January 16-31	2.3	R = 3.27
	February 1-15	4.5	R = 4.99
	February 16-29	7.8	R = 4.66
	March 1-15	10.4	R = 4.4
	March 16-31	12	R = 4.24
	April 1-15	13.3	R = 4.11
	April 16-30	16.3	R = 3.81
	May 1-15	17.7	R = 3.67
	May 16-31	18.1	R = 3.63
	June 1-15	18.2	R = 3.62
	June 16-30	18.3	R = 3.61
	July 1-15	18.4	R = 3.6
	July 16-31	19.9	R = 4.95
	August 1-15	24.5	R = 4.49
	August 16-31	35	R = 4.36
	September 1-15	54.4	R = 4.71
	September 16-31	69.4	R = 4.75
	October 1-15	78.6	R = 4.29
	October 16-31	85.7	R = 4.63
	November 1-15	89.2	R = 4.28
	November 16-31	91.9	R = 4.01
	December 1-15	93.9	R = 3.81
	December 16-31	97	R = 3.5
Year 2	January 1-15	0	
	January 16-31	2.3	
	February 1-15	4.5	
	February 16-29	7.8	
	March 1-15	10.4	
	March 16-31	12	
	April 1-15	13.3	
	April 16-30	16.3	
	May 1-15	17.7	
	May 16-31	18.1	
	June 1-15	18.2	
	June 16-30	18.3	
	July 1-15	18.4	
	July 16-31	19.9	
	August 1-15	24.5	
	August 16-31	35	
	September 1-15	54.4	
	September 16-31	69.4	
	October 1-15	78.6	
	October 16-31	85.7	
	November 1-15	89.2	
	November 16-31	91.9	
	December 1-15	93.9	
	December 16-31	97	

Footnotes:

(1) - Construction starts within 15-day window and final stabilization within the corresponding 15-day window

(2) – %EI (Erosivity Index) values are for Zone 68 - Yuma, Arizona from EPA Fact Sheet 3.1, EPA 833-F-00-014.

(3) - The waiver windows are periods where the R-value is less than five for the duration of the construction activity.

R-value is calculated as follows:

$R = (EI_2 - EI_1) * R_A / 100$

EI_1 - EI at start construction

EI_2 - EI at end of construction

R_A = 10 (Annual R-value for Yuma, AZ)

6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

6.1 INTRODUCTION

Phase II regulations require the operators of regulated facilities to develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts. These operators must:

- Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for the community.
- Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.
- Ensure adequate long-term operation and maintenance of the BMPs.
- Provide name(s) of the person or persons who will implement or coordinate this minimum control measure.

6.2 MARINE CORPS POST-CONSTRUCTION RUNOFF CONTROL PROGRAM

The Marine Corps manages construction projects at MCAS Yuma through either SWDIV/ROICC or through MCAS Yuma/FMD. This oversight includes the design, operation, and maintenance of post-construction storm water runoff controls. SWDIV/ROICC and MCAS Yuma/FMD will be responsible for the implementation of this minimum control measure for construction projects within their scope of authority.

6.2.1 Policy for Post-Construction Runoff Control

MCO P5090.2 establishes the program requirements, guidelines, and standards for complying with resource protection laws, and conserving and managing natural resources. MCO P5090.2 also summarizes the natural resources management program for managing Marine Corps lands, waters, forests, fish and wildlife, and outdoor recreation resources.

MCO P5090.2 Chapter 20, Water Quality Management, Section 20202, Non-point Source Control states "*Storm water from military construction projects that increase impervious surfaces must be managed in accordance with state regulations and engineering practices that manage the quality and quantity of*

storm water runoff." This is consistent with the requirements of the Phase II Post-Construction Runoff Control requirements.

6.2.2 Plan Development and Review

When a construction project is initiated by SWDIV, the project request package is referred to a SWDIV Project Lead for review. During the review, the Project Lead evaluates the plan for environmental issues and provides recommendations and modifications to maintain environmental compliance. When a construction project is initiated by MCAS Yuma, a detailed project request package is submitted to the Station's FMD. The FMD then refers the package to MCAS Yuma Environmental for review. An appropriate plan for post-construction environmental protection is required for final approval during the SWDIV and FMD plan reviews.

6.2.3 Best Management Practices

Marine Corps policy requires project designs to incorporate source control and treatment controls into post-construction runoff BMPs. Depending upon site-specific project requirements and conditions, these BMPs may include any of the following.

6.2.3.1 Site Design BMPs

Site design BMPs are practices that construction site operators can use to reduce the amount of runoff and treat runoff from a site. These BMPs reduce impervious areas that discharge to the storm drain system. Available site design techniques include simple cost-effective measures, such as minimizing unnecessary impervious surfacing, retaining native vegetation outside of the development footprint, and dispersing flow from impervious surfaces onto pervious areas where flow can infiltrate. Examples of site design BMPs are listed below.

<u>Minimizing Impervious Areas</u>

- Concentrate development in least environmentally sensitive areas.
- Incorporate native landscaped areas into development plans.
- Minimize the use of impervious surfaces that are non-essential or purely decorative.

Increase Rainfall Infiltration

- Direct runoff to existing retention ponds.
- Use permeable materials for sidewalks, driveways, parking lots, and interior roadway surfaces (examples: hybrid lots, parking groves, and permeable overflow parking).
- Incorporate landscaped buffer areas between sidewalks and streets.
- Direct street flows to pervious areas:
  - Rural swale system: Street sheet flows directly into gravel swale or shoulder.
  - Urban curb/swale system: Street slopes to curb, periodic swale inlets drain curb flow to gravel swale or retention pond.
- Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas, and avoid routing rooftop runoff to the roadway or the urban runoff conveyance system.
- Use natural drainage systems to the maximum extent possible.
- Install dry wells.

Maximize Rainfall Interception

- Direct runoff to existing retention ponds.
- Maximizing canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.
- Use foundation planting.

Minimize Directly Connected Impervious Areas

- Drain rooftops into adjacent landscaping prior to discharging to the storm drain.
- Drain parking lots into landscape areas.
- Drain roads, sidewalks, and impervious areas into adjacent landscaping.

Slope and Channel Protection

- Use natural drainage systems to the maximum extent practicable.
- Stabilize permanent channel crossings.
- Install gravel or riprap on slopes.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels.

Trash Storage Areas

- Direct runoff to existing retention ponds.
- Divert drainage from adjoining roofs and pavement around trash storage areas.
- Construct a fence or wall around trash storage areas to prevent off-site transport of trash.
- Store trash in covered, watertight trashcans.

- If drainage within the trash storage area is required, design such drainage to the sanitary sewer with appropriate pre-treatment (e.g., grease traps).
- Arrange for trash to be picked up as appropriate to prevent overloading of trash containers.

Outdoor Material Storage Areas

The improper storage of materials outdoors may provide an opportunity for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to enter the storm water conveyance system.

- Direct runoff to existing retention ponds.
- For materials with the potential to contaminate storm water, either (1) place those materials within a building or an enclosure that prevents contact with precipitation or storm water runoff and contains spills, or (2) protect the materials by secondary containment structures such as berms, dikes, or curbs.
- Pave the storage area so that it is sufficiently impervious to contain leaks and spills.
- Design each storage area with a roof or awning to minimize the collection of storm water within the secondary containment area.

Maintenance and Repair Areas

Oil and grease, solvents, car battery acid, coolant, and fuels from maintenance bays can negatively impact storm water if allowed to be exposed to storm water runoff.

- Direct runoff to existing retention ponds.
- Design maintenance and repair areas indoors or in an area that does not discharge storm water.
- Design the drainage system at maintenance and repair areas to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Do not allow direct connections from maintenance and repair areas to the storm drain.

Vehicle and Equipment Wash Areas

Vehicle and equipment washing and steam cleaning have the potential to contribute metals, oil and grease, solvents, phosphates, coolant, fuels and suspended solids to the storm water conveyance system.

- Direct runoff to retention ponds or wash water where detergents are not used.
- Design wash areas to be self-contained or covered with a roof or overhang.
- Install a clarifier or other pretreatment facility.
- Connect the wash area to a sanitary sewer or recycling unit.

Loading Dock Areas

Loading dock areas have the potential for material spills to be quickly transported to the storm drain conveyance system.

- Direct runoff to existing retention ponds.
- Cover loading dock areas or design drainage to minimize storm water run-on or runoff.
- Do not allow direct connections from depressed loading docks to storm drains.

Fueling Areas

Fueling areas have the potential to contribute oil and grease, coolant, heavy metals, and fuels to the storm water conveyance system.

- Direct runoff to existing retention ponds.
- Design roof structure or canopy with an overhang. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area must drain to a BMP prior to discharging to the storm water conveyance system.
- Pave with Portland cement concrete or equivalent smooth impervious surface.
- Asphalt concrete is not recommended in the fueling areas.
- Design an appropriate slope to prevent ponding. Separate the fueling area from the rest of the site by a grade break that prevents storm water run-on.
- At a minimum, the concrete fuel dispensing area must extend 6.5 feet from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus one foot, whichever is less.

Parking Areas

Parking lots may accumulate pollutants, such as oil and grease, coolant, heavy metals, and fuels that are deposited on the parking surface by motor vehicles.

- Direct runoff to existing retention ponds.
- Reduce impervious land coverage of parking areas.
- Infiltrate runoff before it reaches the storm drain system.
- Treat runoff before it reaches the storm drain system. Particular attention should be given to ensure adequate operation and maintenance of treatment systems.

6.2.3.2 Source Control BMPs

Source controls, sometimes called preventive measures, are management techniques that reduce the exposure of materials to storm water. Source controls are cost effective ways to manage storm water runoff and can generally be implemented with moderate effort.

Storm Drain Stenciling and Signage

Storm-drain stencils are placed directly adjacent to storm drain inlets and are a highly visible source control measure. The stencils contain a brief statement that prohibits the dumping of improper materials into the runoff conveyance system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message.

- Stencil or otherwise label (e.g., ceramic tiles) all storm drain inlets and catch basins within the project area with prohibitive language and/or symbols.
- Post signs with prohibitive language and/or symbols at public access points along channels and receiving waters within the project area.
- Maintain the stenciling or signage in a legible condition.

Use Efficient Irrigation Systems and Landscape Design

The timing and application methods for irrigation water should minimize the runoff of excess water containing fertilizers and pesticides into the storm water conveyance system.

- Employ low flow methods of irrigation (e.g., drip irrigation).
- Design irrigation systems to each landscape area's specific water requirements.

6.2.3.3 Treatment Control BMPs

Treatment control or structural BMPs are used to treat the storm water at either the point of generation or the point of discharge either to the storm drain system or to receiving waters. There is a wide variety of treatment control BMPs in use for storm water management. These include engineered and constructed systems designed to provide for water quantity and/or water quality control of storm water runoff. These BMPs can be grouped into general categories, as follows.

Retention Basins

Retention basins are designed to intercept a volume of storm water runoff and temporarily impound the water for infiltration. Retention basins are designed to drain completely between runoff events, and provide both water quantity and quality control because they prevent discharge of storm water off site.

Additionally, by reducing flow volume, retention basins reduce the peak discharge of storm water limiting downstream flooding and providing channel erosion protection. MCAS Yuma has several existing retention basins that contain most of the storm water runoff from the Station. MCAS Yuma is also in the process of constructing additional retention basins and diverting runoff to existing basins with the intention of eliminating offsite runoff from the Station.

Biofilters

Vegetated systems, such as grass filter strips and vegetated swales, are used for conveying and treating storm water flows. These BMPs are commonly referred to as *biofilters* as the grasses and vegetation "filter" the storm water as it flows. By conveying storm water runoff in vegetated systems, some degree of treatment, storage, and infiltration can be provided prior to discharge to the storm drain system. This can help to reduce the overall volume of storm water runoff that is generated from a particular drainage area. Open channel vegetated systems are alternatives to traditional curb-and-gutter and storm drain conveyance systems and include:

- Grass swales
- Grass strips
- Bioretention

Drainage Inserts

Drainage inserts are small point source treatment systems that treat runoff at an entrance point into the storm drainage system and include catch basin and curb gutter inserts, storm drain inserts (added to the storm drain piping; e.g., a vault), and catch basin screens (e.g., filter fabric).

Treatment control BMPs should be implemented close to pollutant sources to minimize costs and maximize pollutant removal prior to runoff entering receiving waters. Such BMPs may be located on or off site, used independently or in combination, or shared by multiple areas, pursuant to the following requirements.

- All structural treatment control BMPs must be positioned correctly to infiltrate, filter, and/or treat the required runoff volume and area.
- Multiple post-construction structural treatment control BMPs for a single project should collectively be designed to comply with the applicable design standards.
- Shared storm water BMPs must be operational prior to the use of the project. The shared BMPs will only be required to treat the phases of the project that are in use.
- Interim storm water BMPs that provide equivalent or greater treatment than is required by the project design standards may be implemented by a phased project until each shared BMP is

operational. If interim BMPs are selected, the BMPs will remain in use until permanent BMPs are operational.

6.2.4 Long-Term Operation and Maintenance

MCAS Yuma Environmental and the FMD share the responsibility for the long-term operation and maintenance of post-construction BMPs. This long-term operation and maintenance will be accomplished by personnel who are properly trained to understand the Marine Corps's pollution control objectives and the operation/maintenance requirements.

6.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 6-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS
FOR POST-CONSTRUCTION STORM WATER MANAGEMENT
IN NEW DEVELOPMENT AND REDEVELOPMENT

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
March 2003	Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects.	MCO P5090.2 **already** requires "*Storm water from military construction projects that increase impervious surfaces must be managed in accordance with state regulations and engineering practices that manage the quality and quantity of storm water runoff.*"
March 2003	Develop, implement and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts.	MCAS Yuma **already** enforces the post construction storm water management program through the plan review and inspection process performed by the ROICC, FMD, REA, DREA, CQC and MCAS Yuma Environmental.
March 2003	Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for the community.	The development of appropriate post-construction strategies for runoff control is **already** ensured by the SWDIV Remedial Project Manager and MCAS Yuma/FMD during plan review.

TABLE 6-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Target Date for Completion	Activity or BMP	Measurable Goal
		The implementation of proper BMPs is **already** ensured by CQC contractors and MCAS Yuma Environmental. These personnel **already** oversee construction site operations and possess the required knowledge to direct and enforce these requirements.
March 2003	Ensure adequate long-term operation and maintenance of the BMPs.	MCAS Yuma Environmental and FMD **already** oversee the long-term operation and maintenance of post-construction BMPs.
Year 2		
February 2004	Ensure adequate long-term operation and maintenance of the BMPs.	**FMD will develop** a mechanism for the long-term maintenance of treatment control BMPs. **FMD will create** an up-to-date inventory of all treatment control BMPs in place at MCAS Yuma.
September 2004	Establish a design review policy that all new and existing storm drains within 500 feet of new construction must be permanently stenciled or tiled as part of that construction project.	**MCAS Environmental will develop** a policy adopted and incorporated into the SWDIV and MCAS Yuma design review process.
December 2004	Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts.	All construction sites at MCAS Yuma **should be inspected by FMD** in 2004 according to the established program. **FMD will track** the number of inspections. **FMD will track** the number of violations and related enforcement actions by type.
Year 3		
February 2005	Ensure adequate long-term operation and maintenance of the BMPs.	**FMD will develop** a specific mechanism for the long-term maintenance of treatment control BMPs and develop an electronic system to integrate the location of these controls with schedules for regular inspection and maintenance.

TABLE 6-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Target Date for Completion	Activity or BMP	Measurable Goal
September 2005	Establish a design review policy that all new and existing storm drains within 500 feet of new construction must be permanently stenciled or tiled as part of that construction project.	**FMD will document** that all storm drains within 500 feet of construction projects completed this year are permanently stenciled or tiled.
December 2005	Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts.	All construction sites at MCAS Yuma **should be inspected by FMD** in 2005 according to the established program. **FMD will track** the number of inspections. **FMD will track** the number of violations and related enforcement actions by type.
Year 4		
September 2006	Establish a design review policy that all new and existing storm drains within 500 feet of new construction must be permanently stenciled or tiled as part of that construction project.	**FMD will document** that all storm drains within 500 feet of construction projects completed this year are permanently stenciled or tiled.
December 2006	Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts.	All construction sites at MCAS Yuma **should be inspected by FMD** in 2006 according to the established program. **FMD will track** the number of inspections. **FMD will track** the number of violations and related enforcement actions by type.
December 2006	Ensure adequate long-term operation and maintenance of the BMPs.	**FMD will perform four quarterly inspections** of the controls this year.
Year 5		
September 2007	Establish a design review policy that all new and existing storm drains within 500 feet of new construction must be permanently stenciled or tiled as part of that construction project.	**FMD will document** that all storm drains within 500 feet of construction projects completed this year are permanently stenciled or tiled.

TABLE 6-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Target Date for Completion	Activity or BMP	Measurable Goal
December 2007	Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre by ensuring that controls are in place to prevent or minimize water quality impacts.	All construction sites at MCAS Yuma **should be inspected by FMD** in 2007 according to the established program. **FMD will track** the number of inspections. **FMD will track** the number of violations and related enforcement actions by type.
December 2007	Ensure adequate long-term operation and maintenance of the BMPs.	**FMD will perform four quarterly inspections** of the controls this year.

7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

7.1 INTRODUCTION

Phase II regulations require the operators of regulated facilities to:

- Develop and implement an operations and maintenance program that includes a training component as a minimum control measure. The program's ultimate goal is preventing or reducing pollutants in storm water runoff from municipal operations.
- Conduct training to educate employees on how to prevent and reduce storm water pollution.
- Provide name(s) of the person or people who will implement or coordinate this operations and maintenance program.

The USEPA has acknowledged that significant differences may exist between operations at federal/state facilities and the normal municipal operations for which these requirements were intended. Along with that acknowledgement, the USEPA recognized that flexible planning is appropriate to allow for those differences. Therefore, the following MCAS Yuma program has been developed to address storm water runoff from non-industrial areas. The MCAS Yuma Environmental Protection Specialist (Water) is responsible for the implementation of this minimum control measure. Storm water runoff from industrial areas is addressed by the Industrial SWDMP associated with the Industrial Storm Water Program.

7.2 PLAN FOR GENERAL POLLUTION PREVENTION/GOOD HOUSEKEEPING

This minimum control measure requires educating employees on how to prevent and reduce storm water pollution from municipal activities such as:

- Landscape maintenance;
- Building maintenance;
- Construction and land disturbance; and
- Storm water conveyance system maintenance.

BMPs that should be included in the employee education program for these municipal activities are listed in the following sections.

7.2.1 Station-Wide Best Management Practices

Station-wide BMPs are practices applicable to all facilities at MCAS Yuma. Station-wide BMPs currently being implemented at MCAS Yuma are presented in Table 7-2. A detailed description of each

BMP is presented in Appendix J of the Industrial SWDMP for MCAS Yuma (not included in this SWMP).

7.2.2 General Source/Waste Minimization

The Marine Corps Hazardous Material Consolidation Program (HMCP) defines policy, guidance, and requirements for the life cycle control and management of hazardous materials acquired and used by the Marine Corps. This program also directs that controls be established to reduce the amount of hazardous materials used and the amount of hazardous waste generated. The Marine Corps' Pollution Prevention Planning Guide outlines practices to identify hazardous materials used in existing operations; identify and evaluate alternatives to the hazardous materials; work with the other service branches to develop, test, and demonstrate environmentally preferable alternative technologies; and implement alternatives by integrating pollution prevention into all acquisition procurement. The overall approach is to ensure that the materials and processes used to manufacture, operate, and maintain mission systems reduce both environmental impact and life cycle costs.

Hazardous waste minimization consists of three efforts:

1. Avoiding hazardous waste generation by minimizing and controlling hazardous materials acquisition and use, and by applying best management practices, engineering, and equipment to Marine Corps processes and procedures.
2. Recycling hazardous waste to convert it to a ready-for-use state.
3. Treating hazardous waste to reduce the volume or to convert it to a non-hazardous state.

7.2.2.1 Hazardous Waste Minimization Program

The Hazardous Waste Minimization Program is a Marine Corps life cycle management program based on centralized control and cradle-to-grave management of hazardous materials. Under the program, participating commands must inventory the locations, kinds, and amounts of their hazardous materials and establish a central point (i.e., a Hazardous Material Minimization Center) for procuring, storing, issuing, reissuing, and eventually disposing of hazardous materials as waste. This process has resulted in higher efficiency in maintenance activities and substantial cost savings by:

- Procuring the materials in quantities appropriate for work requirements.
- Reducing procurement costs by reissuing partially used containers, thus using less hazardous material.
- Reducing disposal costs by generating less hazardous waste.

All departments, tenant commands, and work centers are required to order hazardous materials from the local Direct Support Stock Control (DSSC) and return unused portions there when finished. At the DSSC, all transactions are entered into the Hazardous Materials Information System (HMIS) for tracking purposes and for facilitating the centralized hazardous materials management functions. The HMIS is the principle software system used for implementing the Marine Corps's Hazardous Waste Minimization Program. HMIS is a database management system used to track hazardous materials, hazardous wastes, and their chemical constituents from cradle to grave.

The primary objectives of the HMIS system are to ensure reporting accuracy and provide chemical use and process data to facilitate reduced product and process costs. HMIS meets not only the legal reporting requirements mandated by the Emergency Planning and Community Right-to-Know Act (EPCRA), Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements (Executive Order [EO] 12856), and the Pollution Prevention Act (PPA); but also the chemical tracking and reporting requirements of the USEPA. Furthermore, HMIS allows DOD installations to monitor the procurement, use, release, and disposal of all hazardous substances, reduce environmental reporting costs, reduce hazardous materials inventories, prevent pollution, and integrate smart business practices into hazardous material control and management procedures.

Hazardous waste is disposed of through the MCAS Yuma Environmental Department and the Defense Reutilization and Marketing Office (DRMO). The FMD picks up both used and excess hazardous materials, and then ensures that any excess hazardous materials go to the DSSC for reuse and hazardous waste is delivered to the proper Station facility for disposal. DRMO, part of the Defense Logistics Agency, collects and resells excess recyclable materials including ferrous and non-ferrous metals, cardboard, paper, used oil, solvents, and textiles.

The Marine Corps has mandated implementation of Hazardous Waste Minimization and the HMIS. Work centers at MCAS Yuma have been brought under HMIS control at MCAS Yuma's DSSCs. The Hazardous Waste Minimization program has significantly reduced the amount of hazardous material procured, stocked, distributed to work centers, and disposed of as hazardous waste.

7.2.2.2 Pollution Prevention Plan

On August 3, 1993 President Clinton issued EO 12856, which directs federal agencies and their facilities to comply with the provisions of EPCRA. In accordance with EO 12856, every Marine Corps installation was required to develop a Pollution Prevention Plan (P2 Plan) by the end of 1995. The plan must identify

operations specific to the facility that use hazardous materials and identify alternative substances or procedures that minimize hazardous materials use. The plan must address solid waste management, storm water management, and the reduction of ozone depleting substances. The objective of the plan is to achieve a 50 percent reduction in the quantity of hazardous waste generated. Each plan must also address the development of a procurement strategy that fully incorporates pollution prevention. The pollution prevention plan for each installation is to be updated yearly to reflect new needs, goals, and changing regulations.

7.2.2.3 Environmental Compliance Audit

The Marine Corps performs environmental compliance audits at MCAS Yuma periodically to assess compliance with environmental regulations and the management of hazardous materials and waste. As part of the assessment, the audit team tours the DSSC, tenant activities, and other sites.

7.2.2.4 Other Solid Waste

The objectives of the Marine Corps solid waste program is to achieve an overall reduction in the amount of solid waste generated and to increase the amount of waste diverted from disposal in landfills and incinerators. Recycling is an essential part of reducing solid waste disposal.

MCO P5090.2 requires Marine Corps installations to develop and implement solid waste management plans that ensure these installations do the following.

- Plan purchases and practices to avoid generation of solid waste.
- Reuse items whenever possible.
- Recycle to the maximum extent.
- Reduce disposal cost by using landfill and incineration diversion measures such as recycling and composting.
- Comply with Marine Corps, federal, state, and local solid waste laws, regulations and instructions.

7.2.3 Landscaping and Grounds Maintenance

Maintenance practices at parks, recreation facilities, and other landscaped areas generally require fertilizer and pesticide applications, vegetation maintenance and disposal, swimming pool chemical maintenance and draining, trash and debris management, and landscape cleaning. All of these maintenance practices

have the potential to contribute pollutants to the storm drain system. Landscape and recreational facilities include, but are not limited to:

- Parks;
- Swimming pools;
- Riding trails;
- Picnic areas;
- Sports fields; and
- Parking lots and walkways.

The objectives of landscaping and grounds maintenance BMPs are to:

- Eliminate or minimize the discharge of pesticides, herbicides, and fertilizers to the storm drain system and receiving waters.
- Prevent the disposal of landscape waste into the storm drain system.
- Minimize trash, debris, and other pollutants from entering recreational water bodies.
- Discharge swimming pool water in a manner that will not contribute pollutants to receiving waters.

The following BMPs apply to municipal activities at MCAS Yuma.

7.2.3.1 Education

Landscaping and grounds maintenance personnel must be properly educated and qualified to perform their work in a manner that (1) minimizes the impacts of fertilizer, pesticides, and other chemicals on receiving water quality, and (2) makes use of the most environmentally responsible practices. For MCAS Yuma personnel, storm water pollution prevention training has been effectively integrated into the existing environmental and safety training program. That training program will be expanded, as necessary, to include information to ensure that landscaping and grounds maintenance operations do not impact the quality of storm water runoff.

Marine Corps contracts with private firms require that the contractors comply with all federal, state, and local laws when performing their work. For landscaping and grounds maintenance, this requires that contractors educate their personnel in the proper procedures for waste disposal, irrigation, and chemical use. MCAS Yuma has developed an education and outreach program for landscaping and grounds maintenance personnel at MCAS Yuma (Section 3.0). That program consists of the following:

- A brochure has been developed to educate personnel engaged in landscaping and grounds maintenance activities. The brochure discusses general storm water pollution issues; the management of wastes and hazardous chemicals; the proper application of fertilizers, herbicides, and pesticides; and proper waste disposal. The brochure also provides contact information for household waste disposal facilities.
- A classroom presentation has been developed for use by MCAS Yuma personnel to periodically educate landscaping and grounds maintenance personnel about their role in storm water pollution prevention. The objective of the presentation is to expand on the information presented in the brochure and to reinforce the importance of proper grounds maintenance practices in the prevention of storm water pollution.

7.2.3.2 Routine Inspection and Cleaning, Review of Operations

The routine inspection and cleaning program requires facilities to be inspected annually and cleaned as needed. Maintenance operations should be reviewed annually to verify that appropriate storm water BMPs and practices are being used.

7.2.3.3 Native Vegetation

The following procedures should be implemented, when applicable, to retain and plant native vegetation, and to reduce water, fertilizer and pesticide needs.

- Where feasible, retain and/or plant selected native vegetation whose features are determined to be beneficial.
- Consider elements such as their effect on drainage and erosion, hardiness, maintenance requirements, and possible conflicts between preserving vegetation and the resulting maintenance needs.

7.2.3.4 Green Waste Management

Lawn debris such as grass trimmings and leaves requires proper management to reduce storm water impacts. This debris can be carried away by storm water runoff and can find its way into waterways where it rapidly decomposes and releases nutrients. The proper control of green waste is essential to minimize nutrient loadings to receiving waters. The Marine Corps requires landscaping contractors to collect and recycle all green waste.

Other applicable practices for landscape operations at MCAS Yuma include the following.

- Regularly inspecting vegetated areas to remove leaves, braches, dead vegetation, paper, trash, cigarette butts, garbage, rocks, and other debris. The inspection must extend within a 15-foot perimeter beyond the vegetated area and on both sides of fencing on government property. MCAS Yuma has designated Station appearance to be a top priority and has mandated the daily cleaning and maintenance of buildings and grounds to be monitored by appropriate personnel.
- Placing temporarily stockpiled material away from watercourses, and berming or covering stockpiles to prevent material releases to the storm drain system.

7.2.3.5 Irrigation

Marine Corps contracts require that landscaping contractors maintain a qualified and competent Water Irrigation Manager on staff. That person must hold a Bachelor's Degree in landscape architecture or a related field of study or have 5 years of experience in the field. That person must be able to read and interpret irrigation plans and troubleshoot and repair irrigation systems and related components. In addition, the Water Irrigation Manager must have experience in performing and providing irrigation schedules.

The following procedures should also be implemented, when applicable, during irrigation and fertilization applications to eliminate or minimize the discharge of pollutants that can enter the storm drain system.

- Conduct surveys at designated frequencies to identify all irrigation components that are not in proper working condition.
- Avoid over-watering landscaped areas, especially when irrigating after fertilizer/pesticide applications. Adjust watering locations and amounts to minimize non-storm water runoff.

7.2.3.6 Pesticides, Herbicides, and Fertilizers

Marine Corps contracts require that all pesticides be applied by a person licensed by the State of Arizona as a Qualified Applicator. All pesticide applications must be made by a person capable of identifying the pest species to be controlled, who is knowledgeable about control techniques and who is able to apply pesticide active ingredients at prescribed dosages and rates of application as required by the container labels. These qualifications are necessary to achieve the required control under the site conditions without endangering people, pets, or other non-target animals or plants.

Pest control strategies should use a hierarchy of controls, with a preference for mechanical controls (e.g., mowing) and biological controls (e.g., beneficial insects, pheromones) before chemical controls (e.g., pesticides, herbicides). This practice, referred to as Integrated Pest Management, is a pest management

practice that considers the entire ecosystem when determining potential pest control strategies. Integrated Pest Management includes the following practices:

- Mechanical control of vegetation, whenever possible, such as mowing or hand cutting with weed trimmers
- Hand weeding, where practicable
- Beneficial insects to control pests
- Proper plant selection
- Identification and monitoring of pest problems
- Control measures

Marine Corps contracts require that a written Integrated Pest Management Plan (IPMP) be submitted to the Contracting Officer for approval within 15 days of contract award. The plan must list the proposed controls sequence, least toxic to most toxic pesticide, mechanical, cultural, biological, and chemical pesticide application, and the location and size of the area to be treated. The plan must name the anticipated target pest(s); proposed control methods; time of year and/or frequency of application of each pesticide, if required; manufacturer's USEPA and/or state registration numbers; approximate anticipated quantities of product to be used; concentration of active ingredients in the pesticide; manufacturer of each product; the method of application (e.g., powder spray, hand sprayer, granule spreader); and any special precautions that may be needed during use of the pesticide. Each product must be used in compliance with federal, state, and local laws and regulations. Pesticide labels and Material Safety Data Sheets must be submitted with the IPMP. In addition, the contractor must comply with all other record keeping and reporting requirements of the IPMP.

The contracts also require that pesticide applications be inspected by a government-designated Certified Pest Management Coordinator.

The following additional procedures should be implemented, when applicable, to ensure that pesticides, herbicides, and fertilizers are properly applied and handled to eliminate or minimize their exposure to storm water.

- Apply and handle pesticides and keep detailed records in accordance with existing state regulations (Arizona Administrative Code Title 4, Chapter 29, Structural Pest Control Commission). The regulations cover a list of approved chemicals, product and application information, equipment use and maintenance procedures, and record keeping. A list of approved pesticides, herbicides, and fertilizers must be included with the detailed records.
- Store materials in enclosed sheds, buildings, or under cover and on an impervious surface.

- Provide secondary containment around materials if stored outdoors or if material from a spill could flow outdoors.
- Keep only the minimum amount of hazardous materials on site.
- Periodically check areas for spills, leaks, or unsafe storage methods.
- Avoid chemical applications during the wet season to minimize the amount of pollutant runoff in storm water.
- Avoid applying chemicals during storm events.

7.2.3.7 Swimming Pools

MCAS Yuma discharges municipal swimming pool water, filter backwash water and chemically treated swimming pool water to the sanitary sewer.

7.2.3.8 Streets, Parking Areas, and Other Surfaces

Street Cleaning

Street sweeping is performed weekly at MCAS Yuma. In addition to roadways, sweeping is also performed on the flight line. The following practices are also applicable and may be performed as needed.

- Sweeping of dry surfaces with a broom
- Removing litter regularly
- Disposing street sweeping materials at the bio-cell facility within bermed structures
- Cleaning street sweepers at a wash rack with a sump that discharges to the sanitary sewer or to a recycling system
- Ensuring that street sweeping equipment is operated according to manufacturer's recommendations
- Maintaining street sweeping equipment in good condition and obtain replacement equipment as needed

Parking Lot Cleaning

- Inspecting facility parking lots for vehicle fluid leaks or spills. The operator should clean up spills by (1) sweeping up particles and debris, (2) absorbing spills with rags or absorbents, and (3) mopping the area
- Conducting regular pavement sweeping using vacuum street sweepers and brooms to remove debris from parking structures
- Removing litter during regular maintenance
- Placing trash receptacles in strategic locations within the parking areas

Hardscape Maintenance and Repair

Asphalt/Concrete Removal:

- Scheduling asphalt and concrete removal activities for dry weather
- Taking measures to protect any nearby storm drain inlets and adjacent watercourses prior to breaking up asphalt or concrete
- Removing all asphalt and concrete debris to avoid contact with rainfall and storm water runoff
- Recycling as much material as possible and properly disposing of non-recyclable materials
- Minimizing water use during saw-cutting and grinding operations. Block or place berms around nearby storm drain inlets and drainage channels or berm work area. If slurry enters storm drain system, remove material immediately
- Removing saw-cut slurry as soon as possible (e.g., vacuum)

Concrete Installation and Repair:

- Avoid mixing excess amounts of fresh concrete or cement mortar on-site
- Storing dry and wet materials under cover and protected from storm water runoff
- Designating concrete wash out areas that do not discharge to the storm drain system or receiving waters
- Disposing of leftover material in the trash

Patching, Resurfacing and Surface Sealing:

- Scheduling patching, resurfacing, and surface sealing for dry weather
- Stockpiling materials away from streets, gutter areas, storm drain inlets or watercourses. During wet weather, cover stockpiles with plastic tarps and berm the perimeter to prevent transport into runoff
- Pre-heat and transferring or loading hot bituminous material away from drainage systems or watercourses
- Covering and sealing nearby storm rain inlets and manholes before applying seal coat or slurry seal. Leaving covers in place until job is complete and until all water from emulsified oil sealants has drained or evaporated. Cleaning any collected materials from the covered inlets and manholes
- Preventing excess material from entering storm drain inlets. Designate an area for cleanup and proper disposal of excess materials
- Using only as much water as necessary for dust control to avoid runoff
- Sweeping up as much material as possible and disposing of properly. Only washing down streets if runoff is controlled and contained
- Catching drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Disposing of collected material and absorbents properly
- Making sure all shut-off valves on the equipment are working properly

- After the job is complete, removing stockpiles (asphalt materials and sand) as soon as possible
- If it rains unexpectedly, taking appropriate action to prevent pollution of storm water runoff (e.g., divert runoff around work areas)

Signing (Legends) and Striping:

- Following proper spill control and clean up measures
- Containing and cleaning up waste materials and disposing of them properly according to the Material Safety Data Sheet (MSDS)
- Transferring and loading paint and hot thermoplastic away from drainage systems or watercourses
- Sweeping thermoplastic grindings into plastic bags. Yellow thermoplastic grindings may require special handling as they may contain lead

Equipment Cleaning, Maintenance, and Storage:

- Inspecting equipment daily and repairing any leaks
- Requiring contractors to perform major equipment repairs off-site when practical
- If refueling or repairing vehicles and equipment must be done on-site, using a location away from storm drain inlets and receiving waters
- Recycling used motor oil, diesel fuel, and other vehicle fluids and parts whenever possible
- Cleaning equipment including sprayers, sprayer paint supply lines, patching and paving equipment, and mudjacking equipment at the end of each day. Requiring the contractor to conduct cleaning off-site, if possible. Using proper collection methods for the cleaning solution and recycle or dispose of waste materials at an approved hazardous waste facility

7.2.4 Vehicle Maintenance, Repair, Washing, and Fueling

7.2.4.1 Education

Storm water pollution prevention training has effectively been integrated into MCAS Yuma's existing environmental and safety training program. The training program will be expanded, as necessary, to include information to ensure that vehicle maintenance, repair, washing, and fueling operations do not impact the quality of storm water runoff.

In addition, MCAS Yuma has developed an education and outreach program for vehicle maintenance, repair, washing, and fueling operations (Section 3.0). That program consists of the following.

- A brochure has been developed to educate personnel engaged in vehicle maintenance, repair, washing, and fueling operations. It discusses general storm water pollution issues, the

management of hazardous chemicals, and proper waste disposal. The brochure also provides contact information for household waste disposal facilities.

- A classroom presentation has been developed for use by MCAS Yuma personnel to periodically educate vehicle maintenance, repair, washing, and fueling operations personnel about their role in storm water pollution prevention. The objective of the presentation is to expand on the information presented in the brochure and to reinforce the importance of proper practices and procedures.

7.2.4.2 Vehicle Maintenance and Repair

Vehicle maintenance facilities are considered storm-water "hot spots" where significant amounts of hydrocarbons, heavy metals, and other toxic pollutants can be produced and impact the quality of storm water runoff. Some of the wastes generated at vehicle maintenance facilities and at residential maintenance sites include the following:

- Solvents, paints and paint thinners
- Antifreeze
- Brake fluid and brake lining
- Batteries
- Motor oils
- Fuels (gasoline, diesel)
- Lubricating grease
- Heavy metals

MCAS Yuma already maintains properly designed vehicle maintenance facilities for Marine Corps-owned vehicles and for the private vehicles of MCAS Yuma personnel (e.g., the Autopride Servicenter and Auto Hobby Shops). Hazardous materials and wastes at these facilities are managed in accordance with the Hazardous Waste Minimization Program and FMD procedures.

General BMPs for implementation, as necessary, at MCAS Yuma are as follows.

Waste Reduction

- Minimize the number of solvents used to maximize recycling and reduce costs.
- Centralize liquid cleaning areas to ensure that solvents and residues stay at a controlled area.
- Locate drip pans and draining boards to direct solvents back into a solvent sink or holding tank for reuse.

Material Storage

- Evaluate the storage methods of materials and by-products to determine exposure to precipitation. Store materials under a cover or in bermed areas.
- Cover storm drains during material transfer and increase housekeeping in these areas.

- Liquid materials should be stored in sealed containers within secondary containment and solid materials should be placed on pallets and covered during forecasted precipitation. Any leaking containers should be disposed of properly.
- Comply with all Marine Corps and MCAS Yuma requirements for materials use and storage. This includes any applicable Hazardous Waste Minimization procedures.

Using Safer Alternatives

- Use non-hazardous cleaners when possible.
- Replace chlorinated organic solvents with non-chlorinated ones such as kerosene or mineral spirits.
- Purchase recycled products to support recycling (oil, transmission fluid, antifreeze, and hydraulic fluid).

Spill Clean Up

- Minimize water use during clean up of spills, leaks, and drips.
- Use rags to clean-up small spills, dry absorbent material for larger spills, and a mop for general cleanup. Properly dispose of mop water.

Good Housekeeping

- Conduct personnel training and public outreach to reinforce proper disposal practices.
- Conduct maintenance work such as fluid changes indoors or in an area with secondary containment.
- Update facility schematics to accurately reflect all plumbing connections.
- Closely monitor parked vehicles for leaks and place drip pans under any leaks to collect the fluids for proper disposal or recycling.
- Transfer used fluids to recycling drums or hazardous waste containers.
- Do not pour liquid waste down floor drains, sinks, or outdoor storm drain inlets.
- Store cracked batteries in secondary containers.
- If large equipment is maintained on site, ensure the wash water used to clean equipment is not disposed in the storm drain directly or indirectly.
- Provide spill protection for storm drain inlets including mats to cover drains in the event of a spill.

Parts Cleaning

- Use detergent-based or water-based cleaning systems instead of organic solvent degreasers.
- Steam cleaning and pressure washing may be used instead of solvent parts cleaning. The wastewater generated from steam cleaning can be discharged to the on-site oil/water separator.

7.2.4.3 Vehicle Washing

Outdoor vehicle washing can result in a high loads of nutrients, metals, and hydrocarbons, as the detergent-rich water flows down the street and into storm drains. Commercial wash facilities often recycle their wash water or treat it prior to its discharge to the sanitary sewer. Therefore, most storm-water impacts from vehicle washing are from residents and facilities that discharge polluted wash water to the storm drain system.

MCAS Yuma already maintains a properly designed vehicle wash facility. All Station personnel should use this facility for vehicle washing. Other general BMPs for vehicle washing are as follows.

- Wash all vehicles in areas designed to collect and hold the wash and rinse water or effluent generated. Wash water effluent should be recycled, collected, or treated prior to discharge to the sanitary sewer system.
- If wash water containment is not possible, wash vehicles on gravel, grass, or other permeable surfaces.
- Block off the storm drain or use an insert to catch wash water.
- Use hoses with nozzles that automatically turn off when left unattended.
- Use only biodegradable soaps.

7.2.4.4 Vehicle Fueling

MCAS Yuma already maintains properly designed vehicle fueling facilities (e.g., Autopride Servicenter). General fueling-related BMPs are as follows.

- Protect storm drains in areas where fuel dispensing equipment, fueling, or the transfer of any chemical from one vessel to another is conducted near a storm drain. Ensure procedures are in effect to protect all adjacent storm drains in the event of a spill.
- Fuel vehicles in contained areas to prevent any fuel spillage from reaching the storm drain system.
- Provide absorbent booms in uncontained fueling areas.
- Do not top-off the tank when fueling vehicles.
- Lock fuel dispensers when not in use.

7.2.5 Construction and Land Disturbances

BMPs for construction and land disturbances are described in Section 5.0.

7.2.6 Building Maintenance

MCAS Yuma has designated Station appearance to be a top priority and has mandated the daily cleaning and maintenance of buildings and grounds are to be monitored by appropriate personnel. The materials used and the debris generated during building maintenance are potential pollutants for storm water runoff. The following BMPs will be implemented, as needed, to minimize the potential for pollutants from building maintenance to be transported by storm water into the storm drain system.

Maintenance and Repair

- Repair leaky roofs to prevent storm water from contacting materials stored under roofs.
- Prevent concrete, steel, wood, metal parts, tools, or other work materials from entering storm drains.
- Thoroughly clean the job site when the repair and maintenance is completed.

Painting, Dry Wall, Stucco, and Concrete

- Implement controls to prevent discharging into the storm drain system of materials from painting, dry wall, stucco, and concrete work.
- Secure equipment and materials during transfer in vehicles to prevent spills.
- Transport paint and materials to and from job sites in containers with secure lids.
- Do not transfer or load paint near storm drain inlets or watercourses.
- Test and inspect spray equipment prior to starting to paint. Tighten all hoses and connections and do not overfill paint container.
- Educate personnel on proper cleaning and disposal methods (e.g., do not rinse tools off into the storm drain system).
- Where significant risk of a spill reaching storm drains exists, cover nearby storm drain inlets prior to starting painting and remove the cover when the job is completed.
- Clean up spills immediately. Use scoops, rags, absorbents, or vacuuming to clean spills. Do not hose down or bury spilled materials. Collect spilled (non-hazardous) materials for reuse or recycling and properly dispose of non-recyclable wastes and spent absorbents.

Floor Cleaning

- Maintain a regular sweeping and cleaning schedule. Use brooms, shovels, vacuum cleaners, or cleaning machines.
- When possible, use a broom to sweep dry surfaces.
- Advise facility staff on proper disposal of cleaning water, wax, and unused floor stripper.
- Visually inspect drains and sinks to look for signs of improper disposal of waste liquids.
- Advise facility staff that waste wash water from automated floor cleaning equipment should be disposed in the sanitary sewer.

Indoor Equipment Cleaning

- Wastewater from cleaning equipment should be discharged into the sanitary sewer or recycled.

Indoor Residues and Spills

- Educate personnel on proper cleaning and disposal methods for spills and leaks. Proper disposal methods depend on the type of substance. If a hazardous material is spilled, the facility should refer the incident to the MCAS fire department.
- Maintain appropriate absorbent materials in accessible locations and train employees on proper spill response techniques.
- All interior floor drains and sumps should be plumbed to the sanitary sewer.

Facility Catch Basins

- Inspect all catch basins and drop inlets for debris or other foreign material and have facility clean or remove debris regularly.
- Mark all storm drain inlets with stencils or ceramic tiles that state, "No Dumping! Storm Drain."

Refuse Dumpsters

- Have garbage and waste materials collected and disposed of regularly.
- Maintain a sufficient number of trash receptacles that are appropriately distributed.
- Relocate dumpsters and bins away from storm drains.
- Advise facility operators to keep dumpster lids closed when not in use and replace bins without lids.
- Precipitation accumulated in refuse containers must be discharged to the sanitary sewer.
- Repair leaking dumpsters.

Loading Docks

- Inspect all loading dock drains for potential pollutants (from spilled materials or leaking vehicles).
- Debris in catch basins should be removed on a regular basis.
- Catch basin inlets should be protected from accidental spillage by placing absorbent booms or covers over the drains or installing a control valve on the catch basin inlet.
- Advise the fire department of hazardous materials transferred at the loading dock and the potential for spills to enter the storm drain.
- Loading docks should be cleaned regularly using a mop, broom, or vacuum street sweeper.

Roof Vents and Equipment

- Roof vents that contact greasy materials should be inspected and cleaned prior to the wet season.
- If feasible, drip pans or trays should be installed at the base of the vents that discharge materials that may impact storm water runoff.
- Ductwork should be properly sealed and maintained.
- If feasible, protective devices should be installed around roof top storm drain inlets.
- Roofs should be inspected for residual machinery process residues (paper dust, sawdust, steam condensate, and paint). Hazardous materials should be properly handled and disposed.

Washing of Outside Areas

- Sweep and clean outdoor areas as close as possible to a forecasted rainfall event.
- Use brooms or street sweepers.
- If power washing must be used, wastewater should not be discharged to the storm drain system.

HVAC, Chillers, and Refrigerators

- Evaluate the discharge location of air conditioning condensate.
- Prohibit discharges to the storm drain of flushing agents from air conditioning and chiller units. Direct HVAC contractors to by-pass condensate lines during flushing and to properly dispose of all descaling or anti-algae agents. The contractor should provide proof of disposal of liquids and flushing agents.
- Require contractors performing power washing of equipment to contain wash water and discharge the water to the sanitary sewer.
- Properly dispose of waste compressor oil from chillers.

Boilers

- All treated boiler discharge must be discharged to the sanitary sewer or recycled/reused in an approved closed loop system.
- Discharges of boiler chemical additives may meet hazardous waste criteria and should be disposed of accordingly.
- Boiler roof vents can deposit condensate that contains potential storm water pollutants on the roof. Divert flow from boiler roof vents to the sanitary sewer.

Cooling Towers

- All cooling tower discharges must be directed to the sanitary sewer.
- Cooling tower chemicals should not be stored adjacent to any storm drains. Refer chemical storage problems to MCAS Yuma Environmental.
- Properly dispose of cooling tower chemicals.

Reverse Osmosis and Deionization Units

- Reject water from reverse osmosis units should be diverted to the sanitary sewer.
- Backflush water from deionization units should be discharged to the sanitary sewer.

Miscellaneous

- Prevent emergency eyewash and showers from discharging to the storm drain when used for decontamination.
- Water from backflushing or backwashing filter equipment should be discharged to the sanitary sewer. Solids should be collected and disposed of into a refuse container.
- Water from overflow drains from ponds and decorative fountains should be used for irrigation or discharged to the sanitary sewer.

7.2.7 Flood Management and Storm Water Conveyance System Maintenance

The Phase II Permit requires an annual review of the SWMP and annual reporting of the status of the BMPs. The evaluation of the BMPs includes maintenance and/or repair related to the storm water conveyance system.

7.2.7.1 Staff/Contractor Training and Coordination

Storm water pollution prevention training has been integrated into MCAS Yuma's existing environmental and safety training program. That training program will be expanded, as necessary, to include information to ensure that landscaping and grounds maintenance operations do not adversely impact the quality of storm water runoff. In addition, MCAS Yuma has developed a storm water education and outreach program for utility and maintenance personnel at MCAS Yuma (Section 3.0). The program consists of the following:

- A brochure has been developed to educate utility and maintenance personnel. It presents general storm water pollution prevention information and provides contact information for household waste disposal facilities.
- A classroom presentation has been developed for use by MCAS Yuma personnel to periodically educate utility and maintenance personnel about their role in storm water pollution prevention. The objective of the presentation is to expand on the information presented in the brochure and to reinforce the importance of proper practices and procedures.

The following BMPs will be implemented to minimize the potential for pollutants in runoff from activities associated with flood management and storm water conveyance system maintenance.

Routine Inspection and Cleaning

- Flow diversion structures should be inspected annually to evaluate structural conditions and the impacts of erosion and sedimentation on the structure.
- Inspect storm water diversion systems within 24 hours of significant rainfall to remove debris that may impair or damage the system.
- Inspect and clean as needed all inlets/catch basins at least once every other year (at least 50% of the entire storm drain system should be inspected and cleaned each year).
- Inspect and clean all inlets/catch basins in areas of concern at least once per year.
- Inspect and clean as needed all storm drain pipes in areas of concern at least once per year.
- Inspect and clean as needed sumps and debris racks at pump stations, detention basins, drainage ditches, and debris basins throughout the year.
- Cleaning activities may occur on a year round basis; however, areas of concern should be targeted prior to the wet season.
- Inspect and clean as needed all storm drain facilities that have been affected by emergency response activities.
- Additional cleanings should be conducted as necessary during the wet season.
- Storm Drain Flushing
  - Cleaning the storm drain system by flushing is more successful for pipes smaller than 36 inches in diameter.
  - The efficiency of storm drain system flushing decreases when the length of the pipeline being cleaned exceeds 700 feet.
  - Water flushed through the storm drain system must be collected and treated.
  - The water flushed through the storm drain system should be evaluated to determine if disposal to the sanitary sewer is allowable.
- Open Channel Maintenance
  - Debris and material removed from open channels should be disposed of at an approved location. Do not dump material into or near storm drain inlets, ditches, or watercourses.
  - Use temporary erosion control measures, such as sediment basins, silt fences, hay bales, or blankets, if necessary, to protect damaged channel slopes until permanent repairs have been completed.
- When materials are saturated with water, dewatering should be done in an area that does not drain to storm drains or receiving waters.
- Catch basins must be inspected at least annually to determine if they need to be cleaned. Typically, a catch basin should be cleaned if the depth of deposited materials is greater than or equal to one-third the depth of the catch basin. Catch basins observed to exceed the one-third depth standard should be cleaned more frequently. If debris or trash is observed to accumulate in a catch basin, the frequency of inspection and cleaning should increase.
- Catch basins can be cleaned either manually or by specially designed equipment (vacuum trucks).

- Chemical analysis should be performed on materials removed from the storm drainage system to determine disposal options (materials removed may meet criteria for hazardous waste).

Solid Waste Management

- Debris from storm drain maintenance should be contained to prevent discharge to receiving waters.
- Provide containment for the storage of debris removed during cleaning. Containment should be constructed from impermeable materials.
- Dewatering of materials collected from storm drain maintenance should occur at a location that does not drain to the storm drain or receiving waters
- Materials collected from storm drain systems should be identified, quantified, and recorded.

Record Keeping and Evaluation

- Maintain records of cleaning activities. Records should indicate the date, time, location, and activities performed.
- Document any unusual flows observed during inspection (non-storm water discharges).
- Perform an annual review of records to critique the effectiveness of storm drain operation and maintenance activities. Modifications to operation and maintenance policies and procedures should be documented and reported.

7.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 7-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
March 2003	Develop a procedure for the management and disposal of household materials and waste.	MCAS Yuma has **already** developed the Hazardous Waste Management Plan (Station Order 6280.3).
October 2003	Distribute storm water awareness brochures that address vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will begin distribution** and track the total number of brochures distributed.
October 2003	Give storm water awareness presentations to select groups at MCAS Yuma addressing vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will begin** presentations and track group addressed and number of attendees.
December 2003	Monitor storm drain conveyance system for needed repairs and cleaning.	**BSD will inspect** at least 20% of the storm water conveyance system by this date.
Year 2		
January 2004	Distribute additional storm water awareness brochures that address vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will** track the number of brochures distributed per group in the current year and to-date.
July 2004	Perform compliance audits for the Hazardous Waste Minimization program.	**MCAS Environmental will** perform one inspection audit this year.
October 2004	Give storm water awareness presentations to select groups at MCAS Yuma addressing vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will conduct** at least two presentations by this date and track the number of attendees.
December 2004	Review all landscaping contracts to ensure that they include requirements for the IPMP, water irrigation managers, and state-licensed pesticide applicators.	**BSD will review** existing contracts and adjust new contracts to include all requirements.
December 2004	Monitor storm drain conveyance system for needed repairs and cleaning.	**BSD will inspect** at least 40% of the storm water conveyance system by this date.
Year 3		
January 2005	Distribute additional storm water awareness brochures that address vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will** track the number of brochures distributed per group in the current year and to-date.

TABLE 7-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Target Date for Completion	Activity or BMP	Measurable Goal
July 2005	Perform compliance audits for the Hazardous Waste Minimization program.	**MCAS Environmental will** perform one inspection audit this year.
July 2005	Ensure that all vehicle washing is performed in designated areas.	**MCAS Environmental will** identify and inventory all vehicle wash areas.
October 2005	Give storm water awareness presentations to select groups at MCAS Yuma addressing vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will conduct** at least three presentations by this date and track number of attendees.
December 2005	Monitor storm drain conveyance system for needed repairs and cleaning.	**BSD will inspect** at least 60% of the storm water conveyance system by this date.
Year 4		
January 2006	Distribute additional storm water awareness brochures that address vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will** track the number of brochures distributed per group in the current year and to-date.
October 2006	Give storm water awareness presentations to select groups at MCAS Yuma addressing vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will conduct** at least four presentations by this date and track number of attendees.
July 2006	Perform compliance audits for the Hazardous Waste Minimization program.	**MCAS Environmental will** perform one inspection audit this year.
July 2006	Ensure that all vehicle washing is performed in designated areas controlled for runoff.	**MCAS Environmental will** inspect all known wash areas and notify any facilities not performing vehicle washing in designated areas.
December 2006	Monitor storm drain conveyance system for needed repairs and cleaning.	**BSD will inspect** at least 80% of the storm water conveyance system by this date.
Year 5		
January 2007	Distribute additional storm water awareness brochures that address vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will** track the number of brochures distributed per group in the current year and to-date.
July 2007	Ensure that all vehicle washing is performed in designated areas controlled for runoff.	**MCAS Environmental will** perform a second inspection of known vehicle wash areas and track non-compliance.
July 2007	Perform compliance audits for the Hazardous Waste Minimization program.	**MCAS Environmental will** perform one inspection audit this year.

TABLE 7-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Target Date for Completion	Activity or BMP	Measurable Goal
October 2007	Give storm water awareness presentations to select groups at MCAS Yuma addressing vehicle maintenance and washing, landscaping and grounds maintenance, and waste minimization.	**MCAS Environmental will conduct** at least five presentations by this date and track number of attendees.
December 2007	Monitor storm drain conveyance system for needed repairs and cleaning.	**BSD will inspect** the entire storm water conveyance system by this date.

TABLE 7-2
MCAS YUMA BEST MANAGEMENT PRACTICES

BMP No.[1]	BMP Title	Description
001	Label All Drums, Cans, Containers, Tanks, and Valves	Drums, cans, containers, tanks, and valves that contain or transport significant materials are labeled at MCAS Yuma. Hazardous waste manifest sheets accompany hazardous waste containers at hazardous waste accumulation sites. MSDSs accompany materials stored at MCAS Yuma.
002	Restrict Access to Area and Equipment	The entrances to MCAS Yuma are guarded. Access is restricted to personnel with proper identification. Accesses to critical areas (flight lines, the fuel farm, and ordnance storage) have additional security.
003	Perform Regular Cleaning	MCAS Yuma's policy is to maintain good housekeeping practices at all facilities. MCAS Yuma is clean and well maintained. Typical cleaning activities at many facilities include sweeping dry surfaces or damp mopping inside and around the outside areas of the facilities as needed.
004	Do Not Hose Down Site	Outdoor surfaces are not hosed down. Sweeping dry surfaces is performed with a broom or a vacuum street sweeper.
005	Perform Regular Pavement Sweeping	Street sweeping (using a vacuum sweeper) of the main roads, parking lots, and access ways at MCAS Yuma is performed regularly. Street sweeping at facilities is conducted on an as-needed basis.
006	Control Spills	Facilities storing hazardous materials maintain absorbent material to control on-site spills.
007	Place Trash Receptacles at Appropriate Locations	Small trash receptacles are typically placed inside or outside the facilities at MCAS Yuma. Large trash bins are located in common areas throughout MCAS Yuma and service many facilities.
009	Train employees to Properly Dispose Wastes	Personnel are trained on proper waste disposal and recycling measures.
015	Recycle	Recycling is practiced at MCAS Yuma. The Recycling Collection Center collects and separates the recyclable materials for reuse. Recyclable materials, including aluminum, scrap metal, glass, and paper products that are collected and transferred to the Recycling Collection Center. Hazardous waste generated at MCAS Yuma facilities are typically transferred to the Hazardous Waste Storage facility for recycling off Station. Used oil is transferred to the fuel farm for resale.
016	Store Waste and Recycling Materials in Proper Containers	Recycling materials at various facilities at MCAS Yuma are stored in designated recycling bins and include scrap metal, cardboard, and aluminum.
017	Limit Significant Materials Inventory	Marine Corps policy requires limiting significant material quantities and substituting less toxic materials.

TABLE 7-2 (continued)
MCAS YUMA BEST MANAGEMENT PRACTICES

BMP No.(1)	BMP Title	Description
021	Reduce Waste	Waste generation is reduced at MCAS Yuma by recycling used materials and following inventory control procedures. Appropriate facilities have personnel trained in waste reduction procedures.
021A	Repair Leaky Roofs	Leaky roofs covering buildings or storage areas containing significant materials are repaired as required.
026	Routinely Clean Catch Basins	Catch basins and storm drains are regularly inspected and cleaned.
027	Stencil Signs on Storm Drain Inlets	Storm drains throughout MCAS Yuma are labeled.
028	Keep Equipment and Vehicles Clean	Equipment and vehicles are cleaned regularly to reduce the amount of pollutants exposed to rainfall.
029	Maintain Equipment in Good Condition	Equipment at MCAS Yuma is generally maintained in good condition.
030	Implement Qualifying Tests for Equipment and Vehicle Operators	Personnel are trained and tested prior to operating forklifts, cranes, and other heavy equipment.
031	Conduct Refresher Courses in Operating and Safety Procedures	MCAS Yuma personnel receive monthly training on operating and safety procedures.
032	Dispose of Obsolete Equipment, Inoperable Vehicles, and Surplus Materials	Obsolete, inoperable, and surplus materials, equipment, and vehicles are disposed of as needed through the Defense Reutilization and Marketing Organization (DRMO).
033	Check Vehicles/Equipment for Leaks	Delivery vehicles, forklifts, cranes, and other equipment are regularly checked for leaks prior to use.
038	Designate Special Areas for Draining or Replacing Fluids	Motor oil, coolants and other fluids are drained and replaced in designated maintenance facilities at MCAS Yuma to reduce the potential for improper handling and spills to the storm drain system.
042	Discharge Wash Water to a Sanitary Sewer	MCAS Yuma wash racks are plumbed to recycling systems or the sanitary sewer.
048	Reduce the Amount of Liquid Cleaning Agents Used	The use of cleaning agents at MCAS Yuma has been reduced and wash facility drains are plumbed to recycling systems or to the sanitary sewer.
050	Substitute Non-Toxic or Less-Toxic Cleaning Solvents	Where practical, non-toxic or less-toxic cleaning materials have been substituted.
051	Use Solvents Efficiently	Solvents are reused or used sparingly throughout MCAS Yuma to reduce the risk of spill and leaks. Parts washers are used to reduce the volume of solvent used when cleaning parts.
052	Use Outside Contractor for Handling Used Solvents and Other Significant Materials	Private contractors handle the recycling, disposal, and replenishing of solvents, used oil, and other significant materials used in maintenance operations.

TABLE 7-2 (continued)
MCAS YUMA BEST MANAGEMENT PRACTICES

BMP No.(1)	BMP Title	Description
054	Properly Store Containers	Non-hazardous materials and containers stored outdoors are placed on wooden pallets or racks. Hazardous liquid wastes and materials are stored in drums or containers on containment pallets or in bermed areas away from vehicle traffic. Hazardous liquid wastes are also stored in covered areas.
059	Do Not Allow Open Flames Near Flammable Material	No open flames are permitted within 50 feet of flammable material. Signs are posted indicating flammables and/or no smoking.
061	Employ Proper Handling Procedures to Transport Materials and Waste	Material handling and transporting procedures are employed and described in Station Order P5090.2 and other MCAS Yuma instructions.
064	Monitor Major Fueling Operations	Fuel transfer operations at aboveground and underground storage tanks are observed during all high-volume transfers to reduce the risk of over filling.
066	Eliminate Topping Off Tanks	Tanker trucks are prohibited from "topping off" tanks.
069	Restrict Access to Tanks	Tanks are generally located in fenced areas or compounds at MCAS Yuma. Additionally, the entrances to MCAS Yuma are guarded. Access is restricted to personnel with proper identification.
071	Keep Tanks, Piping, and Valves in Good Condition	Tanks, piping, and valves are inspected and maintained by individual facilities and kept in good condition.
094	Establish Integrated Pest Control	Pest control operations for MCAS Yuma are conducted by the FMD to consolidate applications, eliminate excessive pesticide use, and insure proper application procedures are used.
095	Conduct Pesticide Operations Under the Supervision of Licensed Applicator	Pesticide coordination is conducted through the FMD personnel. The FMD is certified for pesticide operations for MCAS Yuma.
111	Regularly Inspect and Test Equipment	Instructions in testing procedures are provided to facility personnel who use heavy equipment including forklifts, cranes, and painting equipment.
112	Prepare Appropriate Spill Prevention and Response Plans	MCAS Yuma has developed the following plans associated with spill prevention: SPCC, SWPPP, Oil/Hazardous Substance Spill Contingency Plan (Station Order 6280.6), and the Hazardous Waste Management Plan (Station Order 6280.3).
113	Conduct Personnel Training Regarding the SWPPP	Indoctrination training for all new employees and monthly training for environmental coordinators are conducted regarding the goals and components of the SWPPP.
117	Do Not Pour or Deposit Waste into Storm Drains	Waste is not poured or deposited into storm drains or storm drain connections.
118	Routinely Report Any Observed Non-Storm Water Discharges	Reporting procedures have been developed and made available to personnel who may observe either an act of illegal dumping or an unexplained non-storm water discharge.

Notes:

Refer to Appendix J of the MCAS Yuma Industrial SWDMP for BMP descriptions and additional implementation information.

8.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

8.1 INTRODUCTION

Federal regulations (40 CFR §122.26[b][2]) define an illicit discharge as "...any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities." Illicit discharges are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-storm water discharges.

Illicit discharges enter the storm drain system through either direct connections (e.g., wastewater piping mistakenly connected to storm drains) or indirect connections (e.g., infiltration from cracked sanitary sewer systems or spills collected by storm drain outlets). Illicit discharges often result in untreated discharges that contribute pollutants to receiving water bodies.

To satisfy the requirement of illicit discharge detection and elimination as a minimum control measure, facility operators must:

- Develop, implement, and enforce a program to detect and eliminate illicit discharges into the regulated small MS4, as defined at 40 CFR §122.26(b)(2).
- Develop, if not already completed, a storm drain system map, showing the location of all outfalls and the names and locations of all waters of the United States that receive discharges from those outfalls.
- To the extent allowable under state or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges into the small MS4 and implement appropriate enforcement procedures and actions.
- Develop and implement a plan to detect and address non-storm water discharges that are not authorized by a separate NPDES permit (including illegal dumping).
- Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste.
- Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only if they can be identified as significant contributors of pollutants to the small MS4.
  - Water line flushing
  - Landscape irrigation
  - Rising ground waters
  - Uncontaminated ground water infiltration
  - Uncontaminated pumped ground water
  - Discharges from potable water sources

- Foundation drains
- Air-conditioning condensation
- Irrigation water
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Dechlorinated swimming pool discharges
- Discharges or flows from fire fighting

The MCAS Yuma Environmental Protection Specialist (Water) is responsible for the implementation of this minimum control measure.

8.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Marine Corps's program for illicit discharge detection and elimination consists of the following elements.

8.2.1 Marine Corps Policy for Illicit Discharge Detection and Elimination

MCO P5090.2 Chapter 20, Water Quality Management, requires all non-storm water discharges to be permitted or eliminated. Compliance with both the Phase I and Phase II permits for MCAS Yuma requires a program for illicit connection and non-storm water discharge detection and elimination.

8.2.2 Storm Drain System Map

MCAS Yuma has a limited underground storm drain system. Most of the Station's storm drain system consists of open channel flow in unlined earthen channels. The majority of these unlined channels discharge to retention basins located within the perimeter fence line of MCAS Yuma. The retention basins located within the perimeter fence line of MCAS Yuma do not discharge off-site to a small MS4 and therefore, are not regulated by the Phase II requirements. To comply with the Phase II requirements, MCAS Yuma has identified the locations of outfalls along the perimeter fence line that have the potential to discharge offsite to a small MS4 (see Figure 2). Man made storm drainage associated with these outfalls have been identified on the Station map, but natural drainage channels are not identified. MCAS Yuma is located approximately 5 miles from the Colorado River, which is the eventual receiving water for storm water runoff from MCAS Yuma (see Figure 1).

8.2.3 Non-Storm Water Discharge Elimination and Prevention

As part of the requirements of the Phase I Industrial Permit, the Marine Corps requires evaluation of non-storm water discharges to identify, eliminate, and prevent unauthorized non-storm water discharges from entering the storm drain system. **MCAS Yuma has inspected areas where discharges from the Station occur. Unauthorized non-storm water discharges have not been observed** During the development of the SWMP, **LawCrandall also visually observed the areas where discharge from the Station occur and no unauthorized non-storm water discharges were detected**.

8.2.4 Public Education

To comply with the requirement of having public education as a minimum control measure, the operator of a regulated small MS4 must inform employees, businesses, and the public about the hazards associated with illegal discharges and the improper disposal of waste. For the purposes of Phase II compliance at MCAS Yuma, the "public" consists of military personnel, civil service employees, and residents in MCAS Yuma housing.

The Marine Corps recognizes that the effective management of storm water pollutants requires that all MCAS Yuma personnel who live in, work at, or otherwise use MCAS Yuma's non-industrial areas be alert to those conditions that may cause pollution. Furthermore, proper day-to-day implementation of storm water BMPs by all personnel is essential to the success of this SWMP. MCAS Yuma has developed various methods by which the "public" is, and will be, informed about the hazards associated with illegal discharges and the improper disposal of waste. Those methods are described below.

Storm water pollution prevention training has been integrated into MCAS Yuma's existing environmental and safety training program. That training program will be expanded, as necessary, to include information about illegal discharges and improper waste disposal.

In addition, MCAS Yuma has developed an education and outreach program to educate the "public" regarding storm water pollution issues, including illegal discharges and improper waste disposal (Section 3.0). The program consists of:

- Brochures have been developed to educate the "public." These brochures discuss general storm water pollution issues, the management of household chemicals, and proper waste

disposal. The brochures also provide contact information for household waste disposal facilities.

- Classroom presentations have been developed for use by MCAS Yuma personnel to periodically educate targeted groups about their role in storm water pollution prevention. The objective of the presentations is to expand on the information presented in the brochures and to reinforce the understanding of these personnel regarding the importance of storm water pollution prevention.
- An active storm drain stenciling/tiling program to mark and maintain markings on storm drains. These markings consist of a symbol or message warning people not to dump materials into the storm drain.

8.3 COMPLIANCE SCHEDULE AND MEASUREABLE GOALS

The following table provides the implementation schedule for BMPs designed to address this minimum control measure. The table also includes measurable goals used to track and document program effectiveness at reducing pollutants to the MEP.

TABLE 8-1
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION

Target Date for Completion	Activity or BMP	Measurable Goal
Year 1		
March 2003	Prohibit non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions.	MCO P5090.2 **already** prohibits non-storm water discharges that are not permitted.
March 2003	Develop, implement and enforce a program to detect and eliminate illicit discharges into the regulated small MS4.	Marine Corps policy **already** requires all non-storm water discharges to be permitted or eliminated.
March 2003	Develop a storm drain system map showing the location of all outfalls and the names and locations of all waters of the United States that receive discharges from those outfalls.	Initial maps for MCAS Yuma have **already** been developed.
March 2003	Develop and implement a plan to detect and address non-storm water discharges to the storm drain system (including illegal dumping) that are not authorized by a separate NPDES permit.	Marine Corps policy **already** requires all non-storm water discharges to be permitted or eliminated.
July 2003	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	**MCAS Environmental will** tile/stencil additional storm drains to complete 20% of the system each year with 100% complete in Year 5.

TABLE 8-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION

Target Date for Completion	Activity or BMP	Measurable Goal
October 2003	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Distribute storm water awareness brochures to the select groups.	**MCAS Environmental will** begin distribution and track the total number of brochures distributed by group.
October 2003	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Give storm water awareness presentations to select groups at MCAS Yuma.	**MCAS Environmental will** begin presentations and track group addressed and number of attendees.
December 2003	Post storm water awareness information in the MCAS Yuma newspaper. Include Hotline numbers for illegal dumping.	**MCAS Environmental will** post awareness information.
Year 2		
January 2004	Follow up with the select groups to further distribute storm water awareness brochures.	**MCAS Environmental will** track the number of brochures distributed per group and overall.
July 2004	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	**MCAS Environmental will** tile/stencil additional storm drains to complete 20% of the system each year with 100% complete in Year 5. 40% of the system will be completed by this date.
October 2004	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Give storm water awareness presentations to select groups at MCAS Yuma.	**MCAS Environmental will** complete presentations for two groups by this date and track number of attendees.
December 2004	Post storm water awareness information in the MCAS Yuma newspaper. Include Hotline numbers for illegal dumping.	**MCAS Environmental will** track the number of MCAS Yuma newspaper issues with the postings.
Year 3		
January 2005	Follow up with the select groups to further distribute storm water awareness brochures.	**MCAS Environmental will** track the number of brochures distributed per group this year and to-date.

TABLE 8-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION

Target Date for Completion	Activity or BMP	Measurable Goal
July 2005	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	**MCAS Environmental will** tile/stencil additional storm drains to complete 20% of the system each year with 100% complete in Year 5. 60% of the system will be completed by this date.
October 2005	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Give storm water awareness presentations to select groups at MCAS Yuma.	**MCAS Environmental will** complete presentations for three groups by this date and track number of attendees.
December 2005	Post storm water awareness information in the MCAS Yuma newspaper. Include Hotline numbers for illegal dumping.	**MCAS Environmental will** track the number of MCAS Yuma newspaper issues with the postings.
Year 4		
January 2006	Follow up with the select groups to further distribute storm water awareness brochures.	**MCAS Environmental will** track the number of brochures distributed per group this year and to-date.
July 2006	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	**MCAS Environmental will** tile/stencil additional storm drains to complete 20% of the system each year with 100% complete in Year 5. 80% of the system will be completed by this date.
October 2006	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Give storm water awareness presentations to select groups at MCAS Yuma.	**MCAS Environmental will** complete presentations for four groups by this date and track number of attendees.
December 2006	Post storm water awareness information in the MCAS Yuma newspaper. Include Hotline numbers for illegal dumping.	**MCAS Environmental will** track the number of MCAS Yuma newspaper issues with the postings.
Year 5		
January 2007	Follow up with the select groups to further distribute storm water awareness brochures.	**MCAS Environmental will** track the number of brochures distributed per group this year and to-date.

TABLE 8-1 (continued)
COMPLIANCE SCHEDULE AND MEASURABLE GOALS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION

Target Date for Completion	Activity or BMP	Measurable Goal
July 2007	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Tile/stencil all MCAS Yuma storm drains with an appropriate pollution prevention message or symbol.	**MCAS Environmental will** tile/stencil additional storm drains to complete 20% of the system each year with 100% complete in Year 5. 100% of the system will be completed by this date.
October 2007	Inform employees, businesses, and the public of the hazards that are generally associated with illegal discharges and improper disposal of waste. Give storm water awareness presentations to select groups at MCAS Yuma.	**MCAS Environmental will** complete presentations for five groups by this date and track number of attendees.
December 2007	Post storm water awareness information in the MCAS Yuma newspaper. Include Hotline numbers for illegal dumping.	**MCAS Environmental will** track the number of MCAS Yuma newspaper issues with the postings.

9.0 REPORTING AND RECORDKEEPING

9.1 REPORTING

MCAS Yuma is required to **submit annual reports to the ADEQ by June 30 of each year** (the first is to be submitted in 2004). The report shall summarize the activities performed throughout the reporting period ending March 10 and must include:

- The status of compliance with permit conditions.
- An assessment of the appropriateness and effectiveness of the identified BMPs.
- Status of the identified measurable goals.
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period.
- A summary of the storm water activities MCAS Yuma plans to undertake during the next reporting cycle.
- Any proposed change(s) to the SWMP along with a justification of why the change(s) are necessary.
- A description of BMPs to be implemented on newly acquired land.
- A description of MCAS Yuma's reliance on other entities to satisfy permit requirements.

When necessary, the SWMP must be revised to incorporate any new or modified BMPs or measurable goals developed through the annual reporting process. MCAS Yuma will incorporate changes into annual revisions to the SWMP and adhere to its implementation.

9.2 RECORDKEEPING

MCAS Yuma must keep records required by this permit for at least three years or the duration of the General Permit, whichever is longer. The ADEQ may specify a longer time for record retention. MCAS Yuma must submit the records to the ADEQ upon request. MCAS Yuma must make the records, including the permit and SWMP, available to the public if requested in writing.

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Marine Corps Air Station Yuma Station Order 6280.6 Oil/Hazardous Substance Spill Contingency Plan

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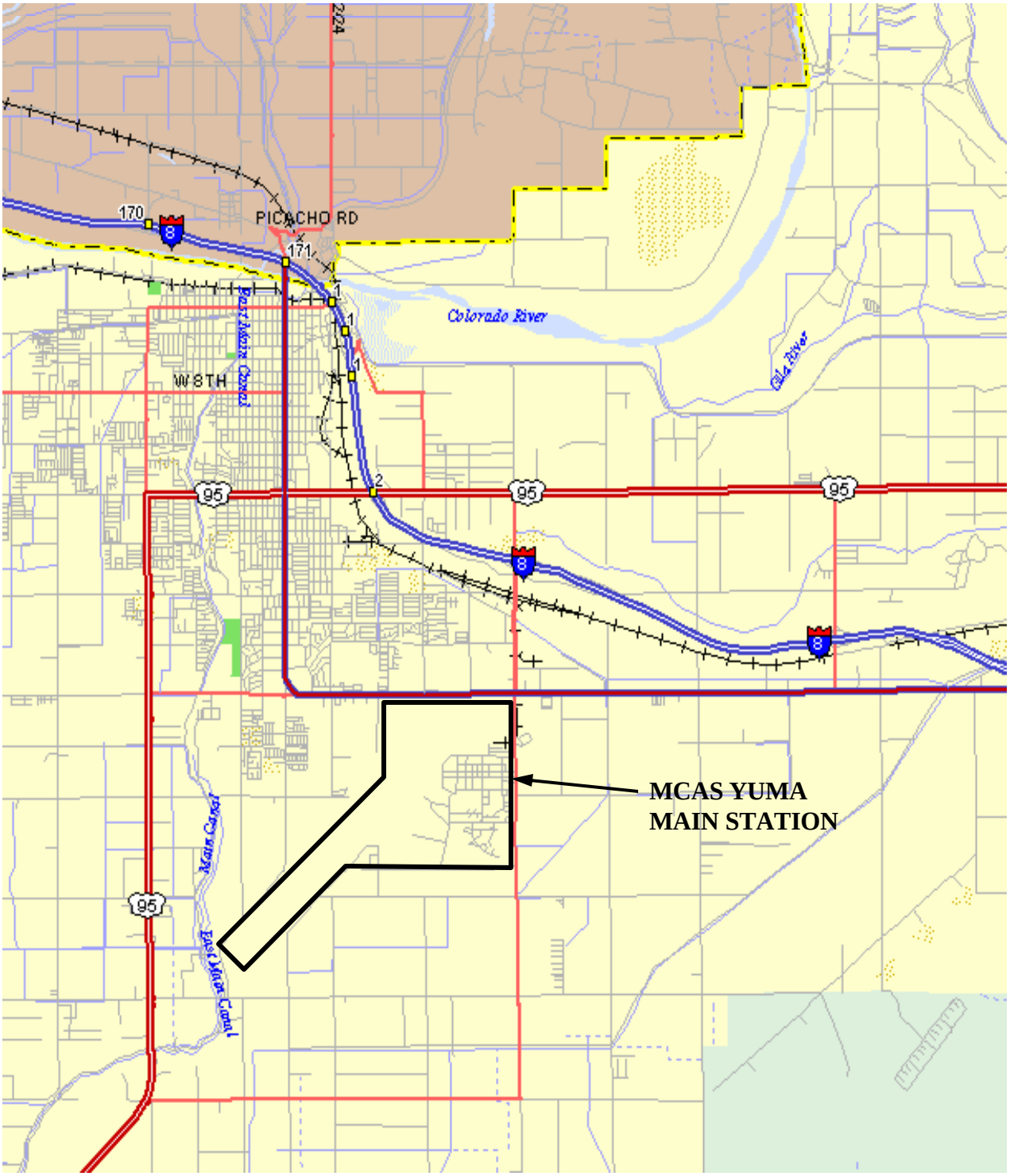

NOT TO SCALE

REFERENCE:

Street Atlas USA by DeLorme v6.0

Prepared By: FAA
Checked By:

MARINE CORPS AIR STATION YUMA, ARIZONA

LAW Crandall
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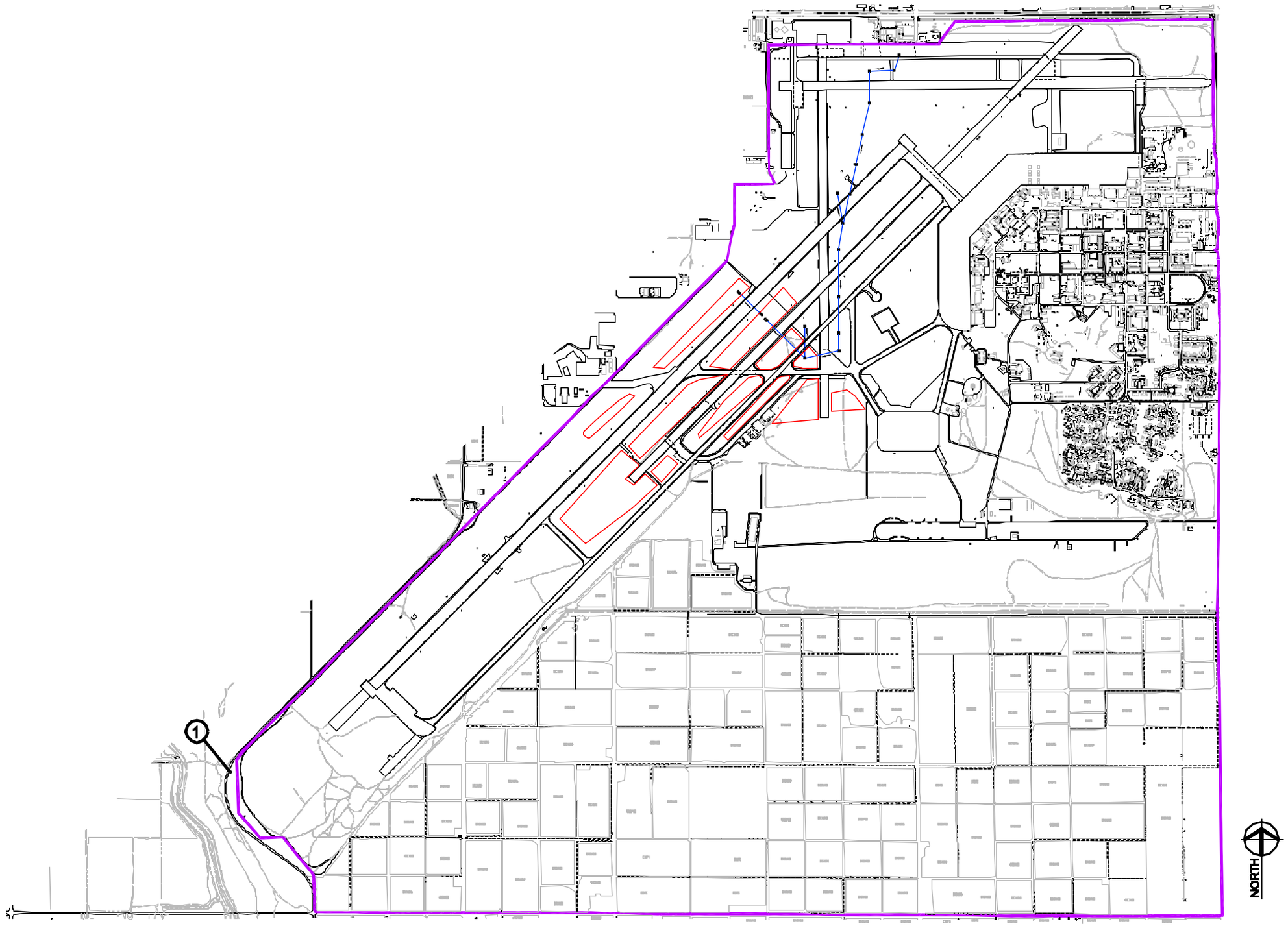
A Division of Law Engineering and Environmental Services, Inc.

REGIONAL MAP

Project: 70311-2-0050

Figure: 1



General Notes/Legend

- 1 OUTFALL
- RETENTION BASINS
- STORM DRAIN PIPES
- CATCH BASINS
- INLET/OUTLET STRUCTURES
- FLOW DIRECTION
- DRAINAGE BASINS (Developed 1954)
- MCAS YUMA BOUNDARY

By:	SKR	01/21/03

No.	Revision/Issue	Date

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Client
MARINE CORPS
AIR STATION
YUMA, ARIZONA

Project Name
STORM WATER
MANAGEMENT PLAN

LAW Project Number
70311-2-0030

Date
01/21/03

Scale
1" = 800'

Figure
2

APPENDIX A

ACRONYMS AND ABBREVIATIONS

APPENDIX A
ACRONYMS AND ABBREVIATIONS

ACSCE	Annual Comprehensive Site Compliance Evaluation
ADEQ	Arizona Department of Environmental Quality
AZPDES	Arizona Pollutant Discharge Elimination System
BAT	Best Available Technology
BCT	Best Conventional Pollutant Control Technology
BEQ	Bachelor Enlisted Quarters
BMP	Best Management Practice
BOQ	Bachelor Officer's Quarters
CFR	Code of Federal Regulations
CQC	Construction Quality Control
CWA	Clean Water Act
DREA	Deputy ROICC Environmental Advocate
DRMO	Defense Reutilization and Marketing Organization
DSSC	Direct Support Stock Control
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
FMD	Facilities Maintenance Department
HCP	Hazardous Material Consolidation Program
HMIS	Hazardous Materials Information System
IPMP	Integrated Pest Management Plan
MCAS Yuma	Marine Corps Air Station Yuma
MCO	Marine Corps Order

MCX	Marine Corps Exchange
MEP	Maximum Extent Practicable
MSDS	Material Safety Data Sheets
MS4	Small Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollution Discharge Elimination System
PPA	Pollution Prevention Act
P2 Plan	Pollution Prevention Plan
REA	ROICC Environmental Advocate
ROICC	Resident Officer in Charge of Construction
RPM	Remedial Project Manager
SIE	Separate Implementing Entity
SWDIV	Southwest Division of Naval Facilities Engineering Command
SWDMP	Industrial Storm Water Discharge Management Plan
SWMP	Phase II Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
USEPA	U.S. Environmental Protection Agency

APPENDIX B

FACT SHEET AND PHASE II REGULATIONS
PUBLISHED IN THE FEDERAL REGISTER ON DECEMBER 8, 1999

federal register

Wednesday
December 8, 1999

Part II

Environmental Protection Agency

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 industrialacilities 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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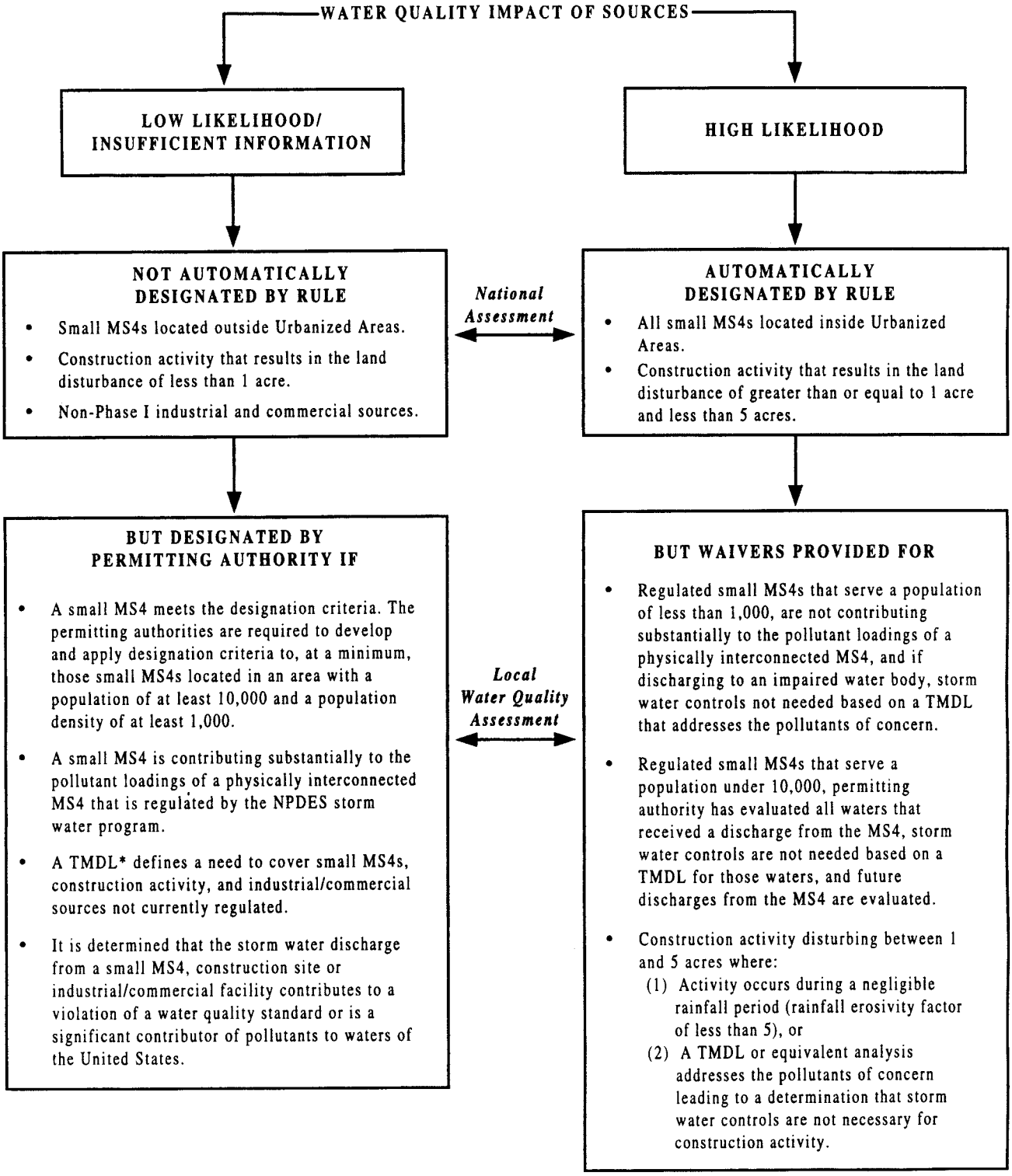
EXHIBIT 1.—PHASE II SOURCE DECISIONS



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

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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 II.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). 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.

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 **Federal Register**.
NPDES-authorized States modify NPDES program if statutory change is required.	2 years from date of publication of today's rule in the **Federal Register**.
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 **Federal Register**.
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 **Federal Register**.
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 **Federal Register**.
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 **Federal Register**
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 **Federal Register** or 5 years from date of publication of today's rule in the **Federal Register** 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 **Federal Register**
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 do to be 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 and 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.,* problems 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 chose 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 nongovernental 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 II.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 II.H.3, Municipal Permit Requirements, Section II.H.3.h, Reevaluation of Rule, and the discussion of the Interim Permitting Policy in Section II.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 for 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 the 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 unhoused 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 difficultly 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 en courage 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 [1]

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
Total Annual Benefits	$1,628.5	$671.5–$1,096.2

Costs	Millions of 1998 dollars [2]
Municipal Minimum Measures	$297.3
Controls/Waivers for Construction Sites	$545.0–$678.7
Federal/State Administrative Costs	$5.3
Total Annual Costs	$847.6–$981.31

[1] National level benefits are not inclusive of all categories of benefits that can be expected to result from the regulation.
[2] 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 ($million/yr)	Non-local benefits [1] ($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

[1] 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
Municipal Minimum Measures [1]	
Fresh Water Use and Passive Use [2]	$121.9–$378.2
Marine Recreational Swimming	$2.1
Human Health (Marine Waters)	$7.0–$29.9
Other Marine Use and Passive Use	(+)
Erosion and Sediment Controls for Construction Sites	
Fresh Water and Marine Use and Passive Use [3]	$540.5–$686
Total Phase II Program	
Total Use & Passive Use (Fresh Water and Marine)	>$671.5–>$1,096.2

+= positive benefits expected but not monetized.

[1] Includes water quality benefit of municipal programs, based on 80% effectiveness of municipal programs.

[2] 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.

[3] 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) [1]	B Burden hours per respondent per year (predicted)	(A)×(B)=C Annual respondent burden hours (projected)	D Respondent labor cost ($/hr) (1998 $)	(C)×(D)=E Annual Cost ($) (projected)
Ind. No Expos. Facilities:[2]					
No Expos. Certification	36,377	1.0	36,377	44.35	1,613,320
Annual Subtotal			36,377		1,613,320
NPDES-Authorized States:[3]					
Designation of Addit. MS4s [4]	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) [1]	B Burden hours per respondent per year (predicted)	(A)×(B)=C Annual respondent burden 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:

[1] Source: U.S. EPA, Office of Wastewater Management. Economic Analysis for the Storm Water Phase II Rule.

[2] 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.

[3] 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.

[4] 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, 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 TJSA (pt.): Absentee-Shawnee Tribe of Indians of Oklahoma; Citizen Potawatomi Nation, Oklahoma.	Oklahoma City, OK (Phase I).
OK	Cherokee TJSA 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 TJSA (pt.): Cheyenne-Arapaho Tribes of Oklahoma	Oklahoma City, OK (Phase I).
OK	Choctaw TJSA (pt.): Choctaw Nation of Oklahoma	Ft. Smith, AR–OK (Phase I).
OK	Creek TJSA (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.

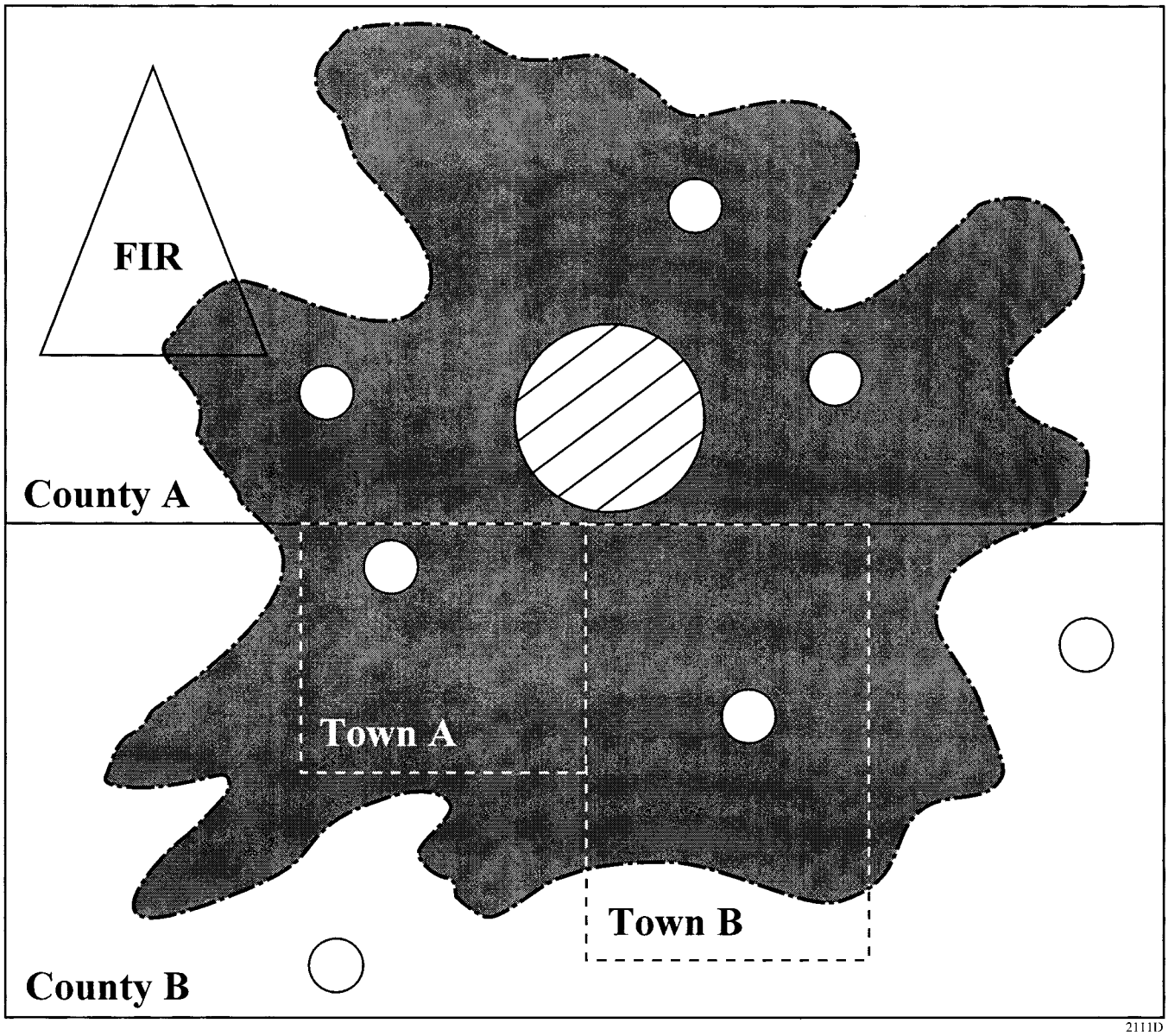
Sources

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.

BILLING CODE 6560–50–P

APPENDIX 2 TO PREAMBLE—URBANIZED AREA ILLUSTRATION



Central Place

Incorporated Place

Federal Indian Reservation (FIR)

Unincorporated "Urbanized Area" Portion of a Town (MCD) or County

Urbanized Area

Town or Township as a functioning Minor Civil Division (MCD). An MCD is the primary subdivision of a County.

County

BILLING CODE 6560–50–C

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
Goldsboro
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

NPDES FORM 3510-11

EPA

United States Environmental Protection Agency
Washington, DC 20460

Form Approved
OMB No. 2040-0211

NO EXPOSURE CERTIFICATION for Exclusion from NPDES Storm Water Permitting

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.

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:

- 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;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

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.

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).

ALL INFORMATION MUST BE PROVIDED ON THIS FORM.

Detailed instructions for completing this form and obtaining the no exposure exclusion are provided on pages 3 and 4.

A. Facility Operator Information

1. Name: _____ 2. Phone: _____

3. Mailing Address: a. Street: _____

b. City: _____ c. State: ____ d. Zip Code: _____-____

B. Facility/Site Location Information

1. Facility Name: _____

2. a. Street Address: _____

b. City: _____ c. County: _____

d. State: ____ e. Zip Code: _____-____

3. Is the facility located on Indian Lands? Yes ☐ No ☐

4. Is this a Federal facility? Yes ☐ No ☐

5. a. Latitude: ___ ° ___ ' ___ " b. Longitude: ___ ° ___ ' ___ "

6. a. Was the facility or site previously covered under an NPDES storm water permit? Yes ☐ No ☐

b. If yes, enter NPDES permit number: _____

7. SIC/Activity Codes: Primary: ____ Secondary (if applicable): ____

8. Total size of site associated with industrial activity: _____ acres

9. a. Have you paved or roofed over a formerly exposed, pervious area in order to qualify for the no exposure exclusion? Yes ☐ No ☐

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.

Less than one acre ☐ One to five acres ☐ More than five acres ☐

NPDES FORM 3510-11

EPA

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	☐	☐
2. Materials or residuals on the ground or in storm water inlets from spills/leaks	☐	☐
3. Materials or products from past industrial activity	☐	☐
4. Material handling equipment (except adequately maintained vehicles)	☐	☐
5. Materials or products during loading/unloading or transporting activities	☐	☐
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)	☐	☐
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	☐	☐
8. Materials or products handled/stored on roads or railways owned or maintained by the discharger	☐	☐
9. Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	☐	☐
10. Application or disposal of process wastewater (unless otherwise permitted)	☐	☐
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	☐	☐

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

EPA

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. 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 x 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 x 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^2 to acres

   Divide 54,450 ft^2 by 43,560 square feet per acre:
   54,450 ft^2 ÷ 43,560 ft^2/acre = 1.25 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

EPA

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.

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 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.

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 corrersponding 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
AZ Surprise town
AZ Tolleson city
AZ Youngtown town
AZ Yuma city
AZ Yuma County
CA Apple Valley town
CA Belvedere city
CA Benicia city
CA Brentwood city
CA Butte County
CA Capitola city
CA Carmel-by-the-Sea city
CA Carpinteria city
CA Ceres city
CA Chico city
CA Compton city
CA Corte Madera town
CA Cotati city
CA Davis city
CA Del Rey Oaks city
CA Fairfax town
CA Hesperia city
CA Imperial County
CA Lakewood city
CA Lancaster city
CA Larkspur city
CA Lodi city
CA Lompoc city
CA Marin County
CA Marina city
CA Marysville city
CA Merced city
CA Merced County
CA Mill Valley city
CA Monterey city
CA Monterey County
CA Morgan Hill city
CA Napa city
CA Napa County
CA Novato city
CA Pacific Grove city
CA Palm Desert city
CA Palmdale city
CA Piedmont city
CA Placer County
CA Redding city
CA Rocklin city
CA Rohnert Park city
CA Roseville city
CA Ross town
CA San Anselmo town
CA San Buenaventura (Ventura) city
CA San Francisco city
CA San Joaquin County
CA San Luis Obispo city
CA San Luis Obispo County
CA San Rafael city
CA Sand City city
CA Santa Barbara city
CA Santa Barbara County
CA Santa Cruz city
CA Santa Cruz County
CA Santa Maria city
CA Sausalito city
CA Scotts Valley city
CA Seaside city
CA Shasta County
CA Solano County
CA Sonoma County
CA Stanislaus County
CA Suisun City city
CA Sutter County
CA Tiburon town
CA Tulare County
CA Vacaville city
CA Victorville city
CA Villa Park city
CA Visalia city
CA Watsonville city
CA West Sacramento city
CA Yolo County
CA Yuba City city
CA Yuba County
CO Adams County
CO Arvada city
CO Boulder city
CO Boulder County
CO Bow Mar town
CO Broomfield city
CO Cherry Hills Village city
CO Columbine Valley town
CO Commerce City city
CO Douglas County
CO Edgewater city
CO El Paso County
CO Englewood city
CO Evans city
CO Federal Heights city
CO Fort Collins city
CO Fountain city
CO Garden City town
CO Glendale city
CO Golden city
CO Grand Junction city
CO Greeley city
CO Greenwood Village city
CO Jefferson County
CO La Salle town
CO Lakeside town
CO Larimer County
CO Littleton city
CO Longmont city
CO Manitou Springs city
CO Mesa County
CO Mountain View town
CO Northglenn city
CO Pueblo city
CO Pueblo County
CO Sheridan city
CO Thornton city
CO Weld County
CO Westminster city
CO Wheat Ridge city
CT Ansonia city
CT Avon town
CT Beacon Falls town
CT Berlin town
CT Bethel town
CT Bloomfield town
CT Bozrah town
CT Branford town
CT Bridgeport city
CT Bristol city
CT Brookfield town
CT Burlington town
CT Cheshire town
CT Cromwell town
CT Danbury city
CT Darien town
CT Derby city
CT Durham town
CT East Granby town
CT East Hartford town
CT East Haven town
CT East Lyme town
CT East Windsor town
CT Easton town
CT Ellington town
CT Enfield town
CT Fairfield County
CT Fairfield town
CT Farmington town
CT Franklin town
CT Glastonbury town
CT Greenwich town
CT Groton city
CT Groton town
CT Guilford town
CT Hamden town
CT Hartford city
CT Hartford County
CT Ledyard town
CT Lisbon town
CT Litchfield County
CT Manchester town
CT Meriden city
CT Middlebury town
CT Middlefield town
CT Middlesex County
CT Middletown city
CT Milford city (remainder)
CT Monroe town
CT Montville town
CT Naugatuck borough
CT New Britain city
CT New Canaan town
CT New Fairfield town
CT New Haven city
CT New Haven County
CT New London city
CT New London County
CT New Milford town
CT Newington town
CT Newtown town
CT North Branford town
CT North Haven town
CT Norwalk city
CT Norwich city
CT Orange town
CT Oxford town
CT Plainville town
CT Plymouth town
CT Portland town
CT Preston town
CT Prospect town
CT Rocky Hill town
CT Seymour town
CT Shelton city
CT Sherman town
CT Somers town
CT South Windsor town
CT Southington town
CT Sprague town
CT Stonington town
CT Stratford town
CT Suffield town
CT Thomaston town
CT Thompson town
CT Tolland County
CT Tolland town
CT Trumbull town
CT Vernon town
CT Wallingford town
CT Waterbury city
CT Waterford town
CT Watertown town
CT West Hartford town
CT West Haven city
CT Weston town
CT Westport town
CT Wethersfield town
CT Wilton town
CT Windham County
CT Windsor Locks town
CT Windsor town
CT Wolcott town
CT Woodbridge town

CT Woodmont borough
DE Camden town
DE Dover city
DE Kent County
DE Newark city
DE Wyoming town
FL Alachua County
FL Baldwin town
FL Bay County
FL Belleair Shore town
FL Biscayne Park village
FL Brevard County
FL Callaway city
FL Cape Canaveral city
FL Cedar Grove town
FL Charlotte County
FL Cinco Bayou town
FL Clay County
FL Cocoa Beach city
FL Cocoa city
FL Collier County
FL Daytona Beach city
FL Daytona Beach Shores city
FL Destin city
FL Edgewater city
FL El Portal village
FL Florida City city
FL Fort Pierce city
FL Fort Walton Beach city
FL Gainesville city
FL Gulf Breeze city
FL Hernando County
FL Hillsboro Beach town
FL Holly Hill city
FL Indialantic town
FL Indian Harbour Beach city
FL Indian River County
FL Indian River Shores town
FL Indian Shores town
FL Kissimmee city
FL Lazy Lake village
FL Lynn Haven city
FL Malabar town
FL Marion County
FL Martin County
FL Mary Esther city
FL Melbourne Beach town
FL Melbourne city
FL Melbourne Village town
FL Naples city
FL New Smyrna Beach city
FL Niceville city
FL Ocala city
FL Ocean Breeze Park town
FL Okaloosa County
FL Orange Park town
FL Ormond Beach city
FL Osceola County
FL Palm Bay city
FL Panama City city
FL Parker city
FL Ponce Inlet town
FL Port Orange city
FL Port St. Lucie city
FL Punta Gorda city
FL Rockledge city
FL Santa Rosa County
FL Satellite Beach city
FL Sewall's Point town
FL Shalimar town
FL South Daytona city
FL Springfield city
FL St. Johns County
FL St. Lucie County
FL St. Lucie village
FL Stuart city
FL Sweetwater city
FL Titusville city
FL Valparaiso city
FL Vero Beach city
FL Virginia Gardens village
FL Volusia County
FL Walton County
FL Weeki Wachee city
FL West Melbourne city
FL Windermere town
GA Albany city
GA Athens city
GA Bartow County
GA Brunswick city
GA Catoosa County
GA Centerville city
GA Chattahoochee County
GA Cherokee County
GA Chickamauga city
GA Clarke County
GA Columbia County
GA Conyers city
GA Dade County
GA Dougherty County
GA Douglas County
GA Douglasville city
GA Fayette County
GA Floyd County
GA Fort Oglethorpe city
GA Glynn County
GA Grovetown city
GA Henry County
GA Houston County
GA Jones County
GA Lee County
GA Lookout Mountain city
GA Mountain Park city
GA Oconee County
GA Payne city
GA Rockdale County
GA Rome city
GA Rossville city
GA Stockbridge city
GA Vernonburg town
GA Walker County
GA Warner Robins city
GA Winterville city
GA Woodstock city
IA Altoona city
IA Asbury city
IA Bettendorf city
IA Black Hawk County
IA Buffalo city
IA Carter Lake city
IA Cedar Falls city
IA Clive city
IA Coralville city
IA Council Bluffs city
IA Dallas County
IA Dubuque city
IA Dubuque County
IA Elk Run Heights city
IA Evansdale city
IA Hiawatha city
IA Iowa City city
IA Johnson County
IA Johnston city
IA Le Claire city
IA Linn County
IA Marion city
IA Norwalk city
IA Panorama Park city
IA Pleasant Hill city
IA Polk County
IA Pottawattamie County
IA Raymond city
IA Riverdale city
IA Robins city
IA Scott County
IA Sergeant Bluff city
IA Sioux City city
IA University Heights city
IA Urbandale city
IA Warren County
IA Waterloo city
IA West Des Moines city
IA Windsor Heights city
IA Woodbury County
ID Ada County
ID Ammon city
ID Bannock County
ID Bonneville County
ID Chubbuck city
ID Idaho Falls city
ID Iona city
ID Pocatello city
ID Power County
IL Addison township
IL Addison village
IL Algonquin township
IL Algonquin village
IL Alorton village
IL Alsip village
IL Alton city
IL Antioch township
IL Antioch village
IL Arlington Heights village
IL Aroma Park village
IL Aroma township
IL Aurora city
IL Aurora township
IL Avon township
IL Ball township
IL Bannockburn village
IL Barrington township
IL Barrington village
IL Bartlett village
IL Bartonville village
IL Batavia city
IL Batavia township
IL Beach Park village
IL Bedford Park village
IL Belleville city
IL Bellevue village
IL Bellwood village
IL Bensenville village
IL Benton township
IL Berkeley village
IL Berwyn city
IL Bethalto village
IL Blackhawk township
IL Bloom township
IL Bloomingdale township
IL Bloomingdale village
IL Bloomington city
IL Bloomington township
IL Blue Island city
IL Bolingbrook village
IL Bourbonnais township
IL Bourbonnais village
IL Bowling township
IL Bradley village
IL Bremen township
IL Bridgeview village
IL Bristol township
IL Broadview village
IL Brookfield village
IL Brooklyn village
IL Buffalo Grove village
IL Burbank city
IL Burnham village
IL Burr Ridge village

IL Burritt township
IL Burton township
IL Cahokia village
IL Calumet City city
IL Calumet Park village
IL Calumet township
IL Canteen township
IL Capital township
IL Carbon Cliff village
IL Carol Stream village
IL Carpentersville Village
IL Cary village
IL Caseyville township
IL Caseyville village
IL Centreville city
IL Centreville township
IL Champaign city
IL Champaign County
IL Champaign township
IL Channahon township
IL Cherry Valley township
IL Cherry Valley village
IL Chicago city
IL Chicago Heights city
IL Chicago Ridge village
IL Chouteau township
IL Cicero town
IL Cincinnati township
IL Clarendon Hills village
IL Coal Valley township
IL Coal Valley village
IL Collinsville city
IL Collinsville township
IL Colona township
IL Colona village
IL Columbia city
IL Country Club Hills city
IL Countryside city
IL Crest Hill city
IL Crestwood village
IL Crete township
IL Crete village
IL Creve Coeur village
IL Crystal Lake city
IL Cuba township
IL Curran township
IL Darien city
IL Decatur city
IL Decatur township
IL Deer Park village
IL Deerfield township
IL Deerfield village
IL Des Plaines city
IL Dixmoor village
IL Dolton village
IL Dorr township
IL Downers Grove township
IL Downers Grove village
IL Dry Grove township
IL Du Page township
IL Dundee township
IL Dunleith township
IL Dupo village
IL East Alton village
IL East Dubuque city
IL East Dundee village
IL East Hazel Crest village
IL East Moline city
IL East Peoria city
IL East St. Louis city
IL Edwardsville city
IL Edwardsville township
IL Ela township
IL Elgin city
IL Elgin township
IL Elk Grove township
IL Elk Grove Village village
IL Elm Grove township
IL Elmhurst city
IL Elmwood Park village
IL Evanston city
IL Evergreen Park village
IL Fairmont City village
IL Fairview Heights city
IL Flossmoor village
IL Fondulac township
IL Ford Heights village
IL Forest Park village
IL Forest View village
IL Forsyth village
IL Fort Russell township
IL Foster township
IL Fox Lake village
IL Fox River Grove village
IL Frankfort township
IL Frankfort village
IL Franklin Park village
IL Fremont township
IL Gardner township
IL Geneva city
IL Geneva township
IL Gilberts village
IL Glen Carbon village
IL Glen Ellyn village
IL Glencoe village
IL Glendale Heights village
IL Glenview village
IL Glenwood village
IL Godfrey township
IL Golf village
IL Grafton township
IL Grandview village
IL Granite City city
IL Grant township
IL Grayslake village
IL Green Oaks village
IL Green Rock city
IL Groveland township
IL Gurnee village
IL Hainesville village
IL Hampton township
IL Hampton village
IL Hanna township
IL Hanover Park village
IL Hanover township
IL Harlem township
IL Harristown township
IL Harristown village
IL Hartford village
IL Harvey city
IL Harwood Heights village
IL Hawthorn Woods village
IL Hazel Crest village
IL Henry County
IL Hensley township
IL Hickory Hills city
IL Hickory Point township
IL Highland Park city
IL Highwood city
IL Hillside village
IL Hinsdale village
IL Hodgkins village
IL Hoffman Estates village
IL Hollis township
IL Homer township
IL Hometown city
IL Homewood village
IL Indian Creek village
IL Indian Head Park village
IL Inverness village
IL Itasca village
IL Jarvis township
IL Jerome village
IL Jo Daviess County
IL Joliet city
IL Joliet township
IL Justice village
IL Kane County
IL Kankakee city
IL Kankakee County
IL Kankakee township
IL Kendall County
IL Kenilworth village
IL Kickapoo township
IL Kildeer village
IL La Grange Park village
IL La Grange village
IL Lake Barrington village
IL Lake Bluff village
IL Lake Forest city
IL Lake in the Hills village
IL Lake Villa township
IL Lake Villa village
IL Lake Zurich village
IL Lakemoor village
IL Lakewood village
IL Lansing village
IL Leland Grove city
IL Lemont township
IL Leyden township
IL Libertyville township
IL Libertyville village
IL Limestone township
IL Lincolnshire village
IL Lincolnwood village
IL Lindenhurst village
IL Lisle township
IL Lisle village
IL Lockport city
IL Lockport township
IL Lombard village
IL Long Creek township
IL Long Grove village
IL Loves Park city
IL Lynwood village
IL Lyons township
IL Lyons village
IL Machesney Park village
IL Macon County
IL Madison city
IL Madison County
IL Maine township
IL Markham city
IL Marquette Heights city
IL Maryville village
IL Matteson village
IL Maywood village
IL McCook village
IL McCullom Lake village
IL McHenry city
IL McHenry County
IL McHenry township
IL McLean County
IL Medina township
IL Melrose Park village
IL Merrionette Park village
IL Midlothian village
IL Milan village
IL Milton township
IL Moline city
IL Moline township
IL Monee township
IL Monroe County
IL Montgomery village
IL Moro township
IL Morton Grove village
IL Morton township
IL Morton village

IL Mount Prospect village
IL Mount Zion township
IL Mount Zion village
IL Mundelein village
IL Nameoki township
IL Naperville city
IL Naperville township
IL National City village
IL New Lenox township
IL New Lenox village
IL New Millford village
IL New Trier township
IL Newport township
IL Niles township
IL Niles village
IL Normal town
IL Normal township
IL Norridge village
IL North Aurora village
IL North Barrington village
IL North Chicago city
IL North Pekin village
IL North Riverside village
IL Northbrook village
IL Northfield township
IL Northfield village
IL Northlake city
IL Norwood Park township
IL Norwood village
IL Nunda township
IL Oak Brook village
IL Oak Forest city
IL Oak Grove village
IL Oak Lawn village
IL Oak Park village
IL Oakbrook Terrace city
IL Oakley township
IL Oakwood Hills village
IL O'Fallon city
IL O'Fallon township
IL Olympia Fields village
IL Orland Hills village
IL Orland Park village
IL Orland township
IL Oswego township
IL Oswego village
IL Otto township
IL Owen township
IL Palatine township
IL Palatine village
IL Palos Heights city
IL Palos Hills city
IL Palos Park village
IL Palos township
IL Park City city
IL Park Forest village
IL Park Ridge city
IL Pekin city
IL Pekin township
IL Peoria city
IL Peoria County
IL Peoria Heights village
IL Phoenix village
IL Pin Oak township
IL Plainfield township
IL Plainfield village
IL Pontoon Beach village
IL Posen village
IL Precinct 10
IL Prospect Heights city
IL Proviso township
IL Rich township
IL Richton Park village
IL Richwoods township
IL River Forest village
IL River Grove village
IL Riverdale village
IL Riverside township
IL Riverside village
IL Riverwoods village
IL Robbins village
IL Rochester township
IL Rock Island city
IL Rock Island County
IL Rock Island township
IL Rockdale village
IL Rockford township
IL Rockton township
IL Rockton village
IL Rolling Meadows city
IL Romeoville village
IL Roscoe township
IL Roscoe village
IL Roselle village
IL Rosemont village
IL Round Lake Beach village
IL Round Lake Heights village
IL Round Lake Park village
IL Round Lake village
IL Roxana village
IL Rutland township
IL Sangamon County
IL Sauget village
IL Sauk Village village
IL Savoy village
IL Schaumburg township
IL Schaumburg village
IL Schiller Park village
IL Shields township
IL Shiloh Valley township
IL Shiloh village
IL Shorewood village
IL Silvis city
IL Skokie village
IL Sleepy Hollow village
IL Somer township
IL South Beloit city
IL South Chicago Heights village
IL South Elgin village
IL South Holland village
IL South Moline township
IL South Rock Island township
IL South Roxana village
IL South Wheatland township
IL Southern View village
IL Spring Bay township
IL Springfield city
IL Springfield township
IL St. Charles city
IL St. Charles township
IL St. Clair County
IL St. Clair township
IL Steger village
IL Stickney township
IL Stickney village
IL Stites township
IL Stone Park village
IL Stookey township
IL Streamwood village
IL Sugar Grove township
IL Sugar Loaf township
IL Summit village
IL Sunnyside village
IL Swansea village
IL Tazewell County
IL Thornton township
IL Thornton village
IL Tinley Park village
IL Tolono township
IL Tower Lakes village
IL Tremont township
IL Troy city
IL Troy township
IL University Park village
IL Urbana city
IL Urbana township
IL Venice city
IL Venice township
IL Vernon Hills village
IL Vernon township
IL Villa Park village
IL Warren township
IL Warrenville city
IL Washington city
IL Washington Park village
IL Washington township
IL Wauconda township
IL Waukegan city
IL Waukegan township
IL Wayne township
IL West Chicago city
IL West Deerfield township
IL West Dundee village
IL West Peoria township
IL Westchester village
IL Western Springs village
IL Westmont village
IL Wheatland township
IL Wheaton city
IL Wheeling township
IL Wheeling village
IL Whitmore township
IL Will County
IL Willow Springs village
IL Willowbrook village
IL Wilmette village
IL Winfield township
IL Winfield village
IL Winnebago County
IL Winnetka village
IL Winthrop Harbor village
IL Wood Dale city
IL Wood River city
IL Wood River township
IL Woodford County
IL Woodridge village
IL Woodside township
IL Worth township
IL Worth village
IL York township
IL Zion city
IN Aboite township
IN Adams township
IN Allen County
IN Anderson city
IN Anderson township
IN Baugo township
IN Beech Grove city
IN Bloomington city
IN Bloomington township
IN Boone County
IN Buck Creek township
IN Calumet township
IN Carmel city
IN Castleton town
IN Cedar Creek township
IN Center township
IN Centre township
IN Chesterfield town
IN Chesterton town
IN Clark County
IN Clarksville town
IN Clay township
IN Clermont town
IN Cleveland township
IN Concord township
IN Country Club Heights town

IN Crown Point city
IN Crows Nest town
IN Cumberland town
IN Daleville town
IN Delaware County
IN Delaware township
IN Dyer town
IN Eagle township
IN East Chicago city
IN Edgewood town
IN Elkhart city
IN Elkhart County
IN Elkhart township
IN Evansville city
IN Fairfield township
IN Fall Creek township
IN Fishers town
IN Floyd County
IN Fort Wayne city
IN Franklin township
IN Gary city
IN German township
IN Goshen city
IN Greenwood city
IN Griffith town
IN Hamilton County
IN Hamilton township
IN Hammond city
IN Hancock County
IN Hanover township
IN Harris township
IN Harrison township
IN Hendricks County
IN Highland town
IN Hobart city
IN Hobart township
IN Homecroft town
IN Honey Creek township
IN Howard County
IN Howard township
IN Indian Village town
IN Jackson township
IN Jefferson township
IN Jeffersonville city
IN Jeffersonville township
IN Johnson County
IN Knight township
IN Kokomo city
IN Lafayette city
IN Lafayette township
IN Lake County
IN Lake Station city
IN Lawrence city
IN Lawrence township
IN Liberty township
IN Lincoln township
IN Lost Creek township
IN Madison County
IN Meridian Hills town
IN Merrillville town
IN Mishawaka city
IN Monroe County
IN Mount Pleasant township
IN Muncie city
IN Munster town
IN New Albany city
IN New Albany township
IN New Chicago town
IN New Haven city
IN New Whiteland town
IN Newburgh town
IN North Crows Nest town
IN North township
IN Ogden Dunes town
IN Ohio township
IN Osceola town
IN Osolo township
IN Otter Creek township
IN Penn township
IN Perry township
IN Pigeon township
IN Pike township
IN Pleasant township
IN Portage city
IN Portage township
IN Porter County
IN Porter town
IN Richland township
IN Riley township
IN River Forest town
IN Rocky Ripple town
IN Roseland town
IN Ross township
IN Salem township
IN Schererville town
IN Seelyville town
IN Sellersburg town
IN Selma town
IN Silver Creek township
IN South Bend city
IN Southport city
IN Speedway town
IN Spring Hill town
IN St. John town
IN St. John township
IN St. Joseph County
IN St. Joseph township
IN Sugar Creek township
IN Taylor township
IN Terre Haute city
IN Tippecanoe County
IN Tippecanoe township
IN Union township
IN Utica township
IN Van Buren township
IN Vanderburgh County
IN Vigo County
IN Wabash township
IN Warren Park town
IN Warren township
IN Warrick County
IN Washington township
IN Wayne township
IN Wea township
IN West Lafayette city
IN West Terre Haute town
IN Westchester township
IN Westfield town
IN White River township
IN Whiteland town
IN Whiting city
IN Williams Creek town
IN Woodlawn Heights town
IN Wynnedale town
IN Yorktown town
IN Zionsville town
KS Attica township
KS Bel Aire city
KS Countryside city
KS Delano township
KS Doniphan County
KS Douglas County
KS Eastborough city
KS Elwood city
KS Fairway city
KS Gypsum township
KS Haysville city
KS Johnson County
KS Kechi city
KS Kechi township
KS Lake Quivira city
KS Lawrence city
KS Leawood city
KS Lenexa city
KS Merriam city
KS Minneha township
KS Mission city
KS Mission Hills city
KS Mission township
KS Mission Woods city
KS Monticello township
KS Ohio township
KS Olathe city
KS Olathe township
KS Park City city
KS Park township
KS Prairie Village city
KS Riverside township
KS Roeland Park city
KS Salem township
KS Sedgwick County
KS Shawnee city
KS Shawnee County
KS Shawnee township
KS Soldier township
KS Tecumseh township
KS Topeka township
KS Waco township
KS Wakarusa township
KS Washington township
KS Westwood city
KS Westwood Hills city
KS Williamsport township
KS Wyandotte County
KY Alexandria city
KY Ashland city
KY Bellefonte city
KY Bellevue city
KY Boone County
KY Boyd County
KY Bromley city
KY Bullitt County
KY Campbell County
KY Catlettsburg city
KY Christian County
KY Covington city
KY Crescent Park city
KY Crescent Springs city
KY Crestview city
KY Crestview Hills city
KY Daviess County
KY Dayton city
KY Edgewood city
KY Elsmere city
KY Erlanger city
KY Fairview city
KY Flatwoods city
KY Florence city
KY Forest Hills city
KY Fort Mitchell city
KY Fort Thomas city
KY Fort Wright city
KY Fox Chase city
KY Greenup County
KY Hebron Estates city
KY Henderson city
KY Henderson County
KY Highland Heights city
KY Hillview city
KY Hunters Hollow city
KY Independence city
KY Jessamine County
KY Kenton County
KY Kenton Vale city
KY Lakeside Park city
KY Latonia Lakes city
KY Ludlow city
KY Melbourne city

KY Newport city
KY Oak Grove city
KY Owensboro city
KY Park Hills city
KY Pioneer Village city
KY Raceland city
KY Russell city
KY Silver Grove city
KY Southgate city
KY Taylor Mill city
KY Villa Hills city
KY Wilder city
KY Woodlawn city
KY Wurtland city
LA Alexandria city
LA Baker city
LA Ball town
LA Bossier City city
LA Bossier Parish
LA Broussard town
LA Caddo Parish
LA Calcasieu Parish
LA Carencro city
LA Denham Springs city
LA Houma city
LA Lafayette city
LA Lafayette Parish
LA Lafourche Parish
LA Lake Charles city
LA Livingston Parish
LA Monroe city
LA Ouachita Parish
LA Pineville city
LA Plaquemines Parish
LA Port Allen city
LA Rapides Parish
LA Richwood town
LA Scott town
LA Slidell city
LA St. Bernard Parish
LA St. Charles Parish
LA St. Tammany Parish
LA Sulphur city
LA Terrebonne Parish
LA West Baton Rouge Parish
LA West Monroe city
LA Westlake city
LA Zachary city
MA Abington town
MA Acton town
MA Acushnet town
MA Agawam town
MA Amesbury town
MA Andover town
MA Arlington town
MA Ashland town
MA Attleboro city
MA Auburn town
MA Avon town
MA Barnstable County
MA Barnstable town
MA Bedford town
MA Bellingham town
MA Belmont town
MA Berkshire County
MA Beverly city
MA Billerica town
MA Blackstone town
MA Boxborough town
MA Boylston town
MA Braintree town
MA Bridgewater town
MA Bristol County
MA Brockton city
MA Brookline town
MA Burlington town
MA Cambridge city
MA Canton town
MA Charlton town
MA Chelmsford town
MA Chelsea city
MA Chicopee city
MA Cohasset town
MA Concord town
MA Dalton town
MA Danvers town
MA Dartmouth town
MA Dedham town
MA Dennis town
MA Dighton town
MA Dover town
MA Dracut town
MA Dudley town
MA East Bridgewater town
MA East Longmeadow town
MA Easthampton town
MA Easton town
MA Essex County
MA Essex town
MA Everett city
MA Fairhaven town
MA Fall River city
MA Fitchburg city
MA Foxborough town
MA Framingham town
MA Franklin town
MA Freetown town
MA Georgetown town
MA Gloucester city
MA Grafton town
MA Granby town
MA Groton town
MA Groveland town
MA Hadley town
MA Halifax town
MA Hamilton town
MA Hampden County
MA Hampden town
MA Hampshire County
MA Hanover town
MA Hanson town
MA Haverhill city
MA Hingham town
MA Hinsdale town
MA Holbrook town
MA Holden town
MA Holliston town
MA Holyoke city
MA Hudson town
MA Hull town
MA Lanesborough town
MA Lawrence city
MA Leicester town
MA Leominster city
MA Lexington town
MA Lincoln town
MA Littleton town
MA Longmeadow town
MA Lowell city
MA Ludlow town
MA Lunenburg town
MA Lynn city
MA Lynnfield town
MA Malden city
MA Manchester town
MA Mansfield town
MA Marblehead town
MA Marlborough city
MA Mashpee town
MA Maynard town
MA Medfield town
MA Medford city
MA Medway town
MA Melrose city
MA Merrimac town
MA Methuen town
MA Middlesex County
MA Middleton town
MA Millbury town
MA Millis town
MA Millville town
MA Milton town
MA Nahant town
MA Natick town
MA Needham town
MA New Bedford city
MA Newton city
MA Norfolk town
MA North Andover town
MA North Attleborough town
MA North Reading town
MA Northampton city
MA Northborough town
MA Northbridge town
MA Norton town
MA Norwell town
MA Norwood town
MA Oxford town
MA Paxton town
MA Peabody city
MA Pembroke town
MA Pittsfield city
MA Plainville town
MA Plymouth County
MA Quincy city
MA Randolph town
MA Raynham town
MA Reading town
MA Rehoboth town
MA Revere city
MA Rockland town
MA Rockport town
MA Salem city
MA Sandwich town
MA Saugus town
MA Scituate town
MA Seekonk town
MA Sharon town
MA Shrewsbury town
MA Somerset town
MA Somerville city
MA South Hadley town
MA Southampton town
MA Southborough town
MA Southwick town
MA Springfield city
MA Stoneham town
MA Stoughton town
MA Stow town
MA Sudbury town
MA Sutton town
MA Swampscott town
MA Swansea town
MA Taunton city
MA Tewksbury town
MA Tyngsborough town
MA Uxbridge town
MA Wakefield town
MA Walpole town
MA Waltham city
MA Watertown town
MA Wayland town
MA Webster town
MA Wellesley town
MA Wenham town
MA West Boylston town
MA West Bridgewater town
MA West Springfield town

MA Westborough town
MA Westfield city
MA Westford town
MA Westminster town
MA Weston town
MA Westport town
MA Westwood town
MA Weymouth town
MA Whitman town
MA Wilbraham town
MA Williamsburg town
MA Wilmington town
MA Winchester town
MA Winthrop town
MA Woburn city
MA Worcester County
MA Wrentham town
MA Yarmouth town
MD Allegany County
MD Annapolis city
MD Bel Air town
MD Berwyn Heights town
MD Bladensburg town
MD Bowie city
MD Brentwood town
MD Brookeville town
MD Capitol Heights town
MD Cecil County
MD Cheverly town
MD Chevy Chase Section Five village
MD Chevy Chase Section Three village
MD Chevy Chase town
MD Chevy Chase Village town
MD College Park city
MD Colmar Manor town
MD Cottage City town
MD Cumberland city
MD District Heights city
MD Edmonston town
MD Elkton town
MD Fairmount Heights town
MD Forest Heights town
MD Frederick city
MD Frostburg city
MD Funkstown town
MD Gaithersburg city
MD Garrett Park town
MD Glen Echo town
MD Glenarden town
MD Greenbelt city
MD Hagerstown city
MD Highland Beach town
MD Hyattsville city
MD Kensington town
MD Landover Hills town
MD Laurel city
MD Martin's Additions village
MD Morningside town
MD Mount Rainier city
MD New Carrollton city
MD North Brentwood town
MD Riverdale town
MD Rockville city
MD Seat Pleasant city
MD Smithsburg town
MD Somerset town
MD Takoma Park city
MD University Park town
MD Walkersville town
MD Washington Grove town
MD Williamsport town
ME Androscoggin County
ME Auburn city
ME Bangor city
ME Berwick town
ME Brewer city
ME Cape Elizabeth town
ME Cumberland County
ME Eliot town
ME Falmouth town
ME Gorham town
ME Kittery town
ME Lebanon town
ME Lewiston city
ME Lisbon town
ME Old Town city
ME Orono town
ME Penobscot County
ME Penobscot Indian Island Reservation
ME Portland city
ME Sabattus town
ME Scarborough town
ME South Berwick town
ME South Portland city
ME Veazie town
ME Westbrook city
ME York County
MI Ada township
MI Allegan County
MI Allen Park city
MI Alpine township
MI Ann Arbor township
MI Auburn Hills city
MI Bangor township
MI Bath township
MI Battle Creek city
MI Bay City city
MI Bay County
MI Bedford township
MI Belleville city
MI Benton Charter township
MI Benton Harbor city
MI Berkley city
MI Berlin township
MI Berrien County
MI Beverly Hills village
MI Bingham Farms village
MI Birmingham city
MI Blackman township
MI Bloomfield Hills city
MI Bloomfield township
MI Bridgeport township
MI Brownstown township
MI Buena Vista Charter township
MI Burtchville township
MI Burton city
MI Byron township
MI Calhoun County
MI Canton township
MI Carrollton township
MI Cascade township
MI Cass County
MI Center Line city
MI Chesterfield township
MI Clarkston village
MI Clawson city
MI Clay township
MI Clayton township
MI Clinton County
MI Clinton township
MI Clio city
MI Clyde township
MI Commerce township
MI Comstock township
MI Cooper township
MI Dalton township
MI Davison city
MI Davison township
MI De Witt township
MI Dearborn city
MI Dearborn Heights city
MI Delhi Charter township
MI Delta township
MI Detroit city
MI East China township
MI East Detroit city
MI East Grand Rapids city
MI East Lansing city
MI Eaton County
MI Ecorse city
MI Emmett township
MI Erie township
MI Essexville city
MI Farmington city
MI Farmington Hills city
MI Ferndale city
MI Fillmore township
MI Flat Rock city
MI Flint township
MI Flushing city
MI Flushing township
MI Fort Gratiot township
MI Frankenlust township
MI Franklin village
MI Fraser city
MI Fruitport township
MI Gaines township
MI Garden City city
MI Genesee County
MI Genesee township
MI Georgetown township
MI Gibraltar city
MI Grand Blanc city
MI Grand Blanc township
MI Grand Rapids Charter township
MI Grandville city
MI Grosse Ile township
MI Grosse Pointe city
MI Grosse Pointe Farms city
MI Grosse Pointe Park city
MI Grosse Pointe Shores village
MI Grosse Pointe Woods city
MI Hampton township
MI Hamtramck city
MI Harper Woods city
MI Harrison township
MI Hazel Park city
MI Highland Park city
MI Highland township
MI Holland city
MI Holland township
MI Howard township
MI Hudsonville city
MI Huntington Woods city
MI Huron township
MI Independence township
MI Ingham County
MI Inkster city
MI Ira township
MI Jackson city
MI Jackson County
MI James township
MI Kalamazoo city
MI Kalamazoo County
MI Kalamazoo township
MI Keego Harbor city
MI Kent County
MI Kentwood city
MI Kimball township
MI Kochville township
MI Lake Angelus city
MI Laketon township
MI Laketown township
MI Lansing city
MI Lansing township
MI Lathrup Village city
MI Leoni township
MI Lincoln Park city

MI Lincoln township
MI Livonia city
MI Macomb County
MI Macomb township
MI Madison Heights city
MI Marysville city
MI Melvindale city
MI Meridian township
MI Milford township
MI Milton township
MI Monitor township
MI Monroe County
MI Mount Clemens city
MI Mount Morris city
MI Mount Morris township
MI Mundy township
MI Muskegon city
MI Muskegon County
MI Muskegon Heights city
MI Muskegon township
MI New Baltimore city
MI Niles city
MI Niles township
MI North Muskegon city
MI Northville city
MI Northville township
MI Norton Shores city
MI Novi city
MI Novi township
MI Oak Park city
MI Oakland Charter township
MI Oakland County
MI Orchard Lake Village city
MI Orion township
MI Oshtemo township
MI Ottawa County
MI Parchment city
MI Park township
MI Pavilion township
MI Pennfield township
MI Pittsfield township
MI Plainfield township
MI Pleasant Ridge city
MI Plymouth city
MI Plymouth township
MI Pontiac city
MI Port Huron city
MI Port Huron township
MI Portage city
MI Portsmouth township
MI Redford township
MI Richfield township
MI River Rouge city
MI Riverview city
MI Rochester city
MI Rochester Hills city
MI Rockwood city
MI Romulus city
MI Roosevelt Park city
MI Roseville city
MI Ross township
MI Royal Oak city
MI Royal Oak township
MI Saginaw city
MI Saginaw County
MI Saginaw township
MI Schoolcraft township
MI Scio township
MI Shelby township
MI Shoreham village
MI Sodus township
MI South Rockwood village
MI Southfield city
MI Southfield township
MI Southgate city
MI Spaulding township
MI Spring Arbor township
MI Springfield city
MI Springfield township
MI St. Clair city
MI St. Clair County
MI St. Clair Shores city
MI St. Clair township
MI St. Joseph Charter township
MI St. Joseph city
MI Stevensville village
MI Sullivan township
MI Summit township
MI Sumpter township
MI Superior township
MI Swartz Creek city
MI Sylvan Lake city
MI Taylor city
MI Texas township
MI Thetford township
MI Thomas township
MI Trenton city
MI Troy city
MI Utica city
MI Van Buren township
MI Vienna township
MI Walker city
MI Walled Lake city
MI Washington township
MI Washtenaw County
MI Waterford township
MI Wayne city
MI West Bloomfield township
MI Westland city
MI White Lake township
MI Whiteford township
MI Williamstown township
MI Wixom city
MI Wolverine Lake village
MI Woodhaven city
MI Wyandotte city
MI Wyoming city
MI Ypsilanti city
MI Ypsilanti township
MI Zeeland city
MI Zilwaukee city
MN Andover city
MN Anoka city
MN Anoka County
MN Apple Valley city
MN Arden Hills city
MN Benton County
MN Birchwood Village city
MN Blaine city
MN Bloomington city
MN Brooklyn Center city
MN Brooklyn Park city
MN Burnsville city
MN Carver County
MN Cascade township
MN Champlin city
MN Chanhassen city
MN Circle Pines city
MN Clay County
MN Coon Rapids city
MN Cottage Grove city
MN Credit River township
MN Crystal city
MN Dakota County
MN Dayton city
MN Deephaven city
MN Dilworth city
MN Duluth city
MN Eagan city
MN East Grand Forks city
MN Eden Prairie city
MN Excelsior city
MN Falcon Heights city
MN Farmington city
MN Fort Snelling unorg.
MN Fridley city
MN Gem Lake city
MN Golden Valley city
MN Grant township
MN Greenwood city
MN Ham Lake city
MN Haven township
MN Hennepin County
MN Hermantown city
MN Hilltop city
MN Hopkins city
MN Houston County
MN Inver Grove Heights city
MN La Crescent city
MN La Crescent township
MN Lake Elmo city
MN Lakeville city
MN Landfall city
MN Lauderdale city
MN Le Sauk township
MN Lexington city
MN Lilydale city
MN Lino Lakes city
MN Little Canada city
MN Long Lake city
MN Loretto city
MN Mahtomedi city
MN Maple Grove city
MN Maple Plain city
MN Maplewood city
MN Marion township
MN Medicine Lake city
MN Medina city
MN Mendota city
MN Mendota Heights city
MN Midway township
MN Minden township
MN Minnetonka Beach city
MN Minnetonka city
MN Minnetrista city
MN Moorhead city
MN Moorhead township
MN Mound city
MN Mounds View city
MN New Brighton city
MN New Hope city
MN Newport city
MN North Oaks city
MN North St. Paul city
MN Oakdale city
MN Oakport township
MN Olmsted County
MN Orono city
MN Osseo city
MN Plymouth city
MN Polk County
MN Prior Lake city
MN Proctor city
MN Ramsey city
MN Robbinsdale city
MN Rochester city
MN Rochester township
MN Rosemount city
MN Roseville city
MN Sartell city
MN Sauk Rapids city
MN Sauk Rapids township
MN Savage city
MN Scott County
MN Sherburne County
MN Shoreview city
MN Shorewood city
MN South St. Paul city

MN Spring Lake Park city
MN Spring Park city
MN St. Anthony city
MN St. Cloud city
MN St. Cloud township
MN St. Louis County
MN St. Paul Park city
MN Stearns County
MN Sunfish Lake city
MN Tonka Bay city
MN Vadnais Heights city
MN Victoria city
MN Waite Park city
MN Washington County
MN Wayzata city
MN West St. Paul city
MN White Bear Lake city
MN White Bear township
MN Willernie city
MN Woodbury city
MN Woodland city
MN Wright County
MO Airport Drive village
MO Airport township
MO Andrew County
MO Arnold city
MO Avondale city
MO Ballwin city
MO Battlefield town
MO Bella Villa city
MO Bellefontaine Neighbors city
MO Bellerive village
MO Bel-Nor village
MO Bel-Ridge village
MO Belton city
MO Berkeley city
MO Beverly Hills city
MO Big Creek township
MO Birmingham village
MO Black Jack city
MO Blanchette township
MO Blue Springs city
MO Blue township
MO Bonhomme township
MO Boone County
MO Boone township
MO Breckenridge Hills village
MO Brentwood city
MO Bridgeton city
MO Brooking township
MO Buchanan County
MO Calverton Park village
MO Campbell No. 1 township
MO Campbell No. 2 township
MO Carl Junction city
MO Carroll township
MO Carterville city
MO Cass County
MO Cedar township
MO Center township
MO Charlack city
MO Chesterfield city
MO Chouteau township
MO Christian County
MO Clarkson Valley city
MO Clay County
MO Clay township
MO Claycomd village
MO Clayton city
MO Clayton township
MO Cliff Village village
MO Columbia city
MO Columbia township
MO Concord township
MO Cool Valley city
MO Cottleville town
MO Cottleville township
MO Country Club Hills city
MO Country Club village
MO Country Life Acres village
MO Crestwood city
MO Creve Coeur city
MO Creve Coeur township
MO Crystal Lake Park city
MO Dardenne township
MO Dellwood city
MO Dennis Acres village
MO Des Peres city
MO Duquesne village
MO Edmundson village
MO Ellisville city
MO Fenton city
MO Ferguson city
MO Ferguson township
MO Flordell Hills city
MO Florissant city
MO Florissant township
MO Fox township
MO Friedens township
MO Frontenac city
MO Galena township
MO Gallatin township
MO Gladstone city
MO Glen Echo Park village
MO Glenaire village
MO Glendale city
MO Grandview city
MO Grantwood Village town
MO Gravois township
MO Greendale city
MO Greene County
MO Hadley township
MO Hanley Hills village
MO Harvester township
MO Hazelwood city
MO High Ridge township
MO Hillsdale village
MO Houston Lake city
MO Huntleigh city
MO Imperial township
MO Iron Gates village
MO Jackson County
MO Jasper County
MO Jefferson County
MO Jefferson township
MO Jennings city
MO Joplin city
MO Joplin township
MO Kickapoo township
MO Kimmswick city
MO Kinloch city
MO Kirkwood city
MO Ladue city
MO Lake St. Louis city
MO Lake Tapawingo city
MO Lake Waukomis city
MO Lakeshire city
MO Leawood village
MO Lee's Summit city
MO Lemay township
MO Lewis and Clark township
MO Liberty city
MO Liberty township
MO Mac Kenzie village
MO Manchester city
MO Maplewood city
MO Marlborough village
MO Maryland Heights city
MO May township
MO Meramec township
MO Midland township
MO Mineral township
MO Missouri River township
MO Missouri township
MO Moline Acres city
MO Mount Pleasant township
MO Newton County
MO Normandy city
MO Normandy township
MO North Campbell No. 1 township
MO North Campbell No. 2 township
MO North Campbell No. 3 township
MO North Kansas City city
MO North View township
MO Northmoor city
MO Northwest township
MO Northwoods city
MO Norwood Court town
MO Oakland city
MO Oakland Park village
MO Oaks village
MO Oakview village
MO Oakwood Park village
MO Oakwood village
MO O'Fallon city
MO O'Fallon township
MO Olivette city
MO Overland city
MO Pagedale city
MO Parkdale town
MO Parkville city
MO Pasadena Hills city
MO Pasadena Park village
MO Pettis township
MO Pine Lawn city
MO Platte County
MO Platte township
MO Platte Woods city
MO Pleasant Valley city
MO Prairie township
MO Queeny township
MO Randolph village
MO Raymore city
MO Raymore township
MO Raytown city
MO Redings Mill village
MO Richmond Heights city
MO Rivers township
MO Riverside city
MO Riverview village
MO Rock Hill city
MO Rock township
MO Rocky Fork township
MO Saginaw village
MO Shoal Creek Drive village
MO Shoal Creek township
MO Shrewsbury city
MO Silver Creek village
MO Sioux township
MO Sni-A-Bar township
MO Spanish Lake township
MO Spencer Creek township
MO St. Ann city
MO St. Charles city
MO St. Ferdinand township
MO St. George city
MO St. John city
MO St. Joseph city
MO St. Louis city
MO St. Peters city
MO St. Peters township
MO Sugar Creek city
MO Sunset Hills city
MO Sycamore Hills village
MO Town and Country city
MO Twin Groves township
MO Twin Oaks village
MO Unity Village village

MO University City city
MO Uplands Park village
MO Valley Park city
MO Velda Village city
MO Velda Village Hills village
MO Vinita Park city
MO Vinita Terrace village
MO Warson Woods city
MO Washington township
MO Wayne township
MO Weatherby Lake city
MO Webb City city
MO Webster Groves city
MO Wellston city
MO Wentzville township
MO Westwood village
MO Wilbur Park village
MO Wilson township
MO Winchester city
MO Windsor township
MO Woodson Terrace city
MO Zumbehl township
MS Bay St. Louis city
MS Biloxi city
MS Brandon city
MS Clinton city
MS DeSoto County
MS D'Iberville city
MS Flowood town
MS Forrest County
MS Gautier city
MS Gulfport city
MS Hancock County
MS Harrison County
MS Hattiesburg city
MS Hinds County
MS Horn Lake city
MS Jackson County
MS Lamar County
MS Long Beach city
MS Madison city
MS Madison County
MS Moss Point city
MS Ocean Springs city
MS Pascagoula city
MS Pass Christian city
MS Pearl city
MS Petal city
MS Rankin County
MS Richland city
MS Ridgeland city
MS Southaven city
MS Waveland city
MT Billings city
MT Cascade County
MT Great Falls city
MT Missoula city
MT Missoula County
MT Yellowstone County
NC Alamance County
NC Apex town
NC Archdale city
NC Asheville city
NC Belmont city
NC Belville town
NC Bessemer City city
NC Biltmore Forest town
NC Black Mountain town
NC Brookford town
NC Brunswick County
NC Buncombe County
NC Burke County
NC Burlington city
NC Cabarrus County
NC Carrboro town
NC Cary town
NC Catawba County
NC Chapel Hill town
NC China Grove town
NC Clemmons village
NC Concord city
NC Conover city
NC Cramerton town
NC Dallas town
NC Davidson County
NC Durham County
NC Edgecombe County
NC Elon College town
NC Fletcher town
NC Forsyth County
NC Garner town
NC Gaston County
NC Gastonia city
NC Gibsonville town
NC Goldsboro city
NC Graham city
NC Greenville city
NC Guilford County
NC Harnett County
NC Haw River town
NC Henderson County
NC Hickory city
NC High Point city
NC Hildebran town
NC Hope Mills town
NC Indian Trail town
NC Jacksonville city
NC Jamestown town
NC Kannapolis city
NC Landis town
NC Leland town
NC Long View town
NC Lowell city
NC Matthews town
NC McAdenville town
NC Mebane city
NC Mecklenburg County
NC Mint Hill town
NC Montreat town
NC Mount Holly city
NC Nash County
NC New Hanover County
NC Newton city
NC Onslow County
NC Orange County
NC Pineville town
NC Pitt County
NC Randolph County
NC Ranlo town
NC Rocky Mount city
NC Rowan County
NC Rural Hall town
NC Spring Lake town
NC Stallings town
NC Thomasville city
NC Union County
NC Wake County
NC Walkertown town
NC Wayne County
NC Weaverville town
NC Wilmington city
NC Winterville town
NC Woodfin town
NC Wrightsville Beach town
ND Barnes township
ND Bismarck city
ND Bismarck unorg.
ND Burleigh County
ND Captain's Landing township
ND Cass County
ND Fargo city
ND Grand Forks city
ND Grand Forks County
ND Grand Forks township
ND Hay Creek township
ND Lincoln city
ND Mandan city
ND Mandan unorg.
ND Morton County
ND Reed township
ND West Fargo city
NE Bellevue city
NE Bellevue No. 2 precinct
NE Benson precinct
NE Boys Town village
NE Chicago precinct
NE Covington precinct
NE Dakota County
NE Douglas County
NE Douglas precinct
NE Florence precinct
NE Garfield precinct
NE Gilmore No. 1 precinct
NE Gilmore No. 2 precinct
NE Gilmore No. 3 precinct
NE Grant precinct
NE Highland No. 1 precinct
NE Highland No. 2 precinct
NE Jefferson precinct
NE La Platte precinct
NE La Vista city
NE Lancaster County
NE Lancaster precinct
NE McArdle precinct
NE Millard precinct
NE Papillion city
NE Papillion No. 2 precinct
NE Pawnee precinct
NE Ralston city
NE Richland No. 1 precinct
NE Richland No. 2 precinct
NE Richland No. 3 precinct
NE Sarpy County
NE South Sioux City city
NE Union precinct
NE Yankee Hill precinct
NH Amherst town
NH Auburn town
NH Bedford town
NH Dover city
NH Durham town
NH Goffstown town
NH Hillsborough County
NH Hollis town
NH Hooksett town
NH Hudson town
NH Litchfield town
NH Londonderry town
NH Madbury town
NH Manchester city
NH Merrimack County
NH Merrimack town
NH Nashua city
NH New Castle town
NH Newington town
NH Pelham town
NH Plaistow town
NH Portsmouth city
NH Rochester city
NH Rockingham County
NH Rollinsford town
NH Rye town
NH Salem town
NH Somersworth city
NH Strafford County
NH Windham town
NJ Aberdeen township
NJ Absecon city

NJ Allendale borough
NJ Allenhurst borough
NJ Alpha borough
NJ Alpine borough
NJ Asbury Park city
NJ Atlantic City city
NJ Atlantic County
NJ Atlantic Highlands borough
NJ Audubon borough
NJ Audubon Park borough
NJ Avon-by-the-Sea borough
NJ Barrington borough
NJ Bay Head borough
NJ Bayonne city
NJ Beachwood borough
NJ Bedminster township
NJ Belleville township
NJ Bellmawr borough
NJ Belmar borough
NJ Bergenfield borough
NJ Berkeley Heights township
NJ Berkeley township
NJ Berlin borough
NJ Berlin township
NJ Bernards township
NJ Bernardsville borough
NJ Beverly city
NJ Bloomfield township
NJ Bloomingdale borough
NJ Bogota borough
NJ Boonton town
NJ Boonton township
NJ Bordentown city
NJ Bordentown township
NJ Bound Brook borough
NJ Bradley Beach borough
NJ Branchburg township
NJ Brick township
NJ Bridgewater township
NJ Brielle borough
NJ Brigantine city
NJ Brooklawn borough
NJ Buena borough
NJ Buena Vista township
NJ Burlington city
NJ Burlington County
NJ Burlington township
NJ Butler borough
NJ Byram township
NJ Caldwell Borough township
NJ Camden city
NJ Cape May County
NJ Carlstadt borough
NJ Carneys Point township
NJ Carteret borough
NJ Cedar Grove township
NJ Chatham borough
NJ Chatham township
NJ Cherry Hill township
NJ Chesilhurst borough
NJ Chester township
NJ Chesterfield township
NJ Cinnaminson township
NJ City of Orange township
NJ Clark township
NJ Clayton borough
NJ Clementon borough
NJ Cliffside Park borough
NJ Clifton city
NJ Closter borough
NJ Collingswood borough
NJ Colts Neck township
NJ Commercial township
NJ Cranford township
NJ Cresskill borough
NJ Cumberland County
NJ Deal borough
NJ Delanco township
NJ Delran township
NJ Demarest borough
NJ Denville township
NJ Deptford township
NJ Dover town
NJ Dover township
NJ Dumont borough
NJ Dunellen borough
NJ East Brunswick township
NJ East Greenwich township
NJ East Hanover township
NJ East Newark borough
NJ East Orange city
NJ East Rutherford borough
NJ Eastampton township
NJ Eatontown borough
NJ Edgewater borough
NJ Edgewater Park township
NJ Edison township
NJ Egg Harbor township
NJ Elizabeth city
NJ Elk township
NJ Elmwood Park borough
NJ Emerson borough
NJ Englewood city
NJ Englewood Cliffs borough
NJ Englishtown borough
NJ Essex Fells township
NJ Evesham township
NJ Ewing township
NJ Fair Haven borough
NJ Fair Lawn borough
NJ Fairfield township
NJ Fairview borough
NJ Fanwood borough
NJ Fieldsboro borough
NJ Florence township
NJ Florham Park borough
NJ Fort Lee borough
NJ Franklin Lakes borough
NJ Franklin township
NJ Freehold borough
NJ Freehold township
NJ Galloway township
NJ Garfield city
NJ Garwood borough
NJ Gibbsboro borough
NJ Glassboro borough
NJ Glen Ridge Borough township
NJ Glen Rock borough
NJ Gloucester City city
NJ Gloucester County
NJ Gloucester township
NJ Green Brook township
NJ Greenwich township
NJ Guttenberg town
NJ Hackensack city
NJ Haddon Heights borough
NJ Haddon township
NJ Haddonfield borough
NJ Hainesport township
NJ Haledon borough
NJ Hamilton township
NJ Hanover township
NJ Harding township
NJ Harrington Park borough
NJ Harrison town
NJ Hasbrouck Heights borough
NJ Haworth borough
NJ Hawthorne borough
NJ Hazlet township
NJ Helmetta borough
NJ Highland Park borough
NJ Highlands borough
NJ Hillsborough township
NJ Hillsdale borough
NJ Hillside township
NJ Hi-Nella borough
NJ Hoboken city
NJ Ho-Ho-Kus borough
NJ Holmdel township
NJ Hopatcong borough
NJ Hopewell township
NJ Howell township
NJ Hunterdon County
NJ Interlaken borough
NJ Irvington township
NJ Island Heights borough
NJ Jackson township
NJ Jamesburg borough
NJ Jefferson township
NJ Jersey City city
NJ Keansburg borough
NJ Kearny town
NJ Kenilworth borough
NJ Keyport borough
NJ Kinnelon borough
NJ Lakehurst borough
NJ Lakewood township
NJ Laurel Springs borough
NJ Lavallette borough
NJ Lawnside borough
NJ Lawrence township
NJ Leonia borough
NJ Lincoln Park borough
NJ Linden city
NJ Lindenwold borough
NJ Linwood city
NJ Little Falls township
NJ Little Ferry borough
NJ Little Silver borough
NJ Livingston township
NJ Loch Arbour village
NJ Lodi borough
NJ Long Branch city
NJ Longport borough
NJ Lopatcong township
NJ Lumberton township
NJ Lyndhurst township
NJ Madison borough
NJ Magnolia borough
NJ Mahwah township
NJ Manalapan township
NJ Manasquan borough
NJ Manchester township
NJ Mantoloking borough
NJ Mantua township
NJ Manville borough
NJ Maple Shade township
NJ Maplewood township
NJ Margate City city
NJ Marlboro township
NJ Matawan borough
NJ Maywood borough
NJ Medford Lakes borough
NJ Medford township
NJ Mendham borough
NJ Mendham township
NJ Mercer County
NJ Merchantville borough
NJ Metuchen borough
NJ Middlesex borough
NJ Middlesex County
NJ Middletown township
NJ Midland Park borough
NJ Millburn township
NJ Millstone borough
NJ Milltown borough
NJ Millville city
NJ Mine Hill township

NJ Monmouth Beach borough
NJ Monmouth County
NJ Monroe township
NJ Montclair township
NJ Montvale borough
NJ Montville township
NJ Moonachie borough
NJ Moorestown township
NJ Morris County
NJ Morris Plains borough
NJ Morris township
NJ Morristown town
NJ Mount Arlington borough
NJ Mount Ephraim borough
NJ Mount Holly township
NJ Mount Laurel township
NJ Mount Olive township
NJ Mountain Lakes borough
NJ Mountainside borough
NJ National Park borough
NJ Neptune City borough
NJ Neptune township
NJ Netcong borough
NJ New Brunswick city
NJ New Milford borough
NJ New Providence borough
NJ Newark city
NJ Newfield borough
NJ North Arlington borough
NJ North Bergen township
NJ North Brunswick township
NJ North Caldwell township
NJ North Haledon borough
NJ North Plainfield borough
NJ Northfield city
NJ Northvale borough
NJ Norwood borough
NJ Nutley township
NJ Oakland borough
NJ Oaklyn borough
NJ Ocean City city
NJ Ocean County
NJ Ocean Gate borough
NJ Ocean township
NJ Oceanport borough
NJ Old Bridge township
NJ Old Tappan borough
NJ Oradell borough
NJ Palisades Park borough
NJ Palmyra borough
NJ Paramus borough
NJ Park Ridge borough
NJ Parsippany-Troy Hills township
NJ Passaic city
NJ Passaic County
NJ Passaic township
NJ Paterson city
NJ Paulsboro borough
NJ Pennington borough
NJ Penns Grove borough
NJ Pennsauken township
NJ Pennsville township
NJ Pequannock township
NJ Perth Amboy city
NJ Phillipsburg town
NJ Pine Beach borough
NJ Pine Hill borough
NJ Pine Valley borough
NJ Piscataway township
NJ Pitman borough
NJ Pittsgrove township
NJ Plainfield city
NJ Pleasantville city
NJ Pohatcong township
NJ Point Pleasant Beach borough
NJ Point Pleasant borough
NJ Pompton Lakes borough
NJ Prospect Park borough
NJ Rahway city
NJ Ramsey borough
NJ Randolph township
NJ Raritan borough
NJ Readington township
NJ Red Bank borough
NJ Ridgefield borough
NJ Ridgefield Park village
NJ Ridgewood village
NJ Ringwood borough
NJ River Edge borough
NJ River Vale township
NJ Riverdale borough
NJ Riverside township
NJ Riverton borough
NJ Rochelle Park township
NJ Rockaway borough
NJ Rockaway township
NJ Rockleigh borough
NJ Roseland borough
NJ Roselle borough
NJ Roselle Park borough
NJ Roxbury township
NJ Rumson borough
NJ Runnemede borough
NJ Rutherford borough
NJ Saddle Brook township
NJ Saddle River borough
NJ Salem County
NJ Sayreville borough
NJ Scotch Plains township
NJ Sea Bright borough
NJ Sea Girt borough
NJ Seaside Heights borough
NJ Seaside Park borough
NJ Secaucus town
NJ Shamong township
NJ Shrewsbury borough
NJ Shrewsbury township
NJ Somerdale borough
NJ Somers Point city
NJ Somerset County
NJ Somerville borough
NJ South Amboy city
NJ South Belmar borough
NJ South Bound Brook borough
NJ South Brunswick township
NJ South Hackensack township
NJ South Orange Village township
NJ South Plainfield borough
NJ South River borough
NJ South Toms River borough
NJ Spotswood borough
NJ Spring Lake borough
NJ Spring Lake Heights borough
NJ Springfield township
NJ Stanhope borough
NJ Stratford borough
NJ Summit city
NJ Sussex County
NJ Tabernacle township
NJ Tavistock borough
NJ Teaneck township
NJ Tenafly borough
NJ Teterboro borough
NJ Tinton Falls borough
NJ Totowa borough
NJ Trenton city
NJ Union Beach borough
NJ Union City city
NJ Union township
NJ Upper Saddle River borough
NJ Upper township
NJ Ventnor City city
NJ Verona township
NJ Victory Gardens borough
NJ Vineland city
NJ Voorhees township
NJ Waldwick borough
NJ Wall township
NJ Wallington borough
NJ Wanaque borough
NJ Warren County
NJ Warren township
NJ Washington township
NJ Watchung borough
NJ Waterford township
NJ Wayne township
NJ Weehawken township
NJ Wenonah borough
NJ West Caldwell township
NJ West Deptford township
NJ West Long Branch borough
NJ West New York town
NJ West Orange township
NJ West Paterson borough
NJ Westampton township
NJ Westfield town
NJ Westville borough
NJ Westwood borough
NJ Wharton borough
NJ Willingboro township
NJ Winfield township
NJ Winslow township
NJ Woodbridge township
NJ Woodbury city
NJ Woodbury Heights borough
NJ Woodcliff Lake borough
NJ Woodlynne borough
NJ Wood-Ridge borough
NJ Wyckoff township
NM Bernalillo County
NM Corrales village
NM Dona Ana County
NM Las Cruces city
NM Los Ranchos de Albuquerque village
NM Mesilla town
NM Rio Rancho city
NM Sandoval County
NM Santa Fe city
NM Santa Fe County
NM Sunland Park city
NY Albany city
NY Albany County
NY Amherst town
NY Amityville village
NY Ardsley village
NY Ashland town
NY Atlantic Beach village
NY Babylon town
NY Babylon village
NY Baldwinsville village
NY Ballston town
NY Barker town
NY Baxter Estates village
NY Bayville village
NY Beacon city
NY Bedford town
NY Belle Terre village
NY Bellerose village
NY Bellport village
NY Bethlehem town
NY Big Flats town
NY Binghamton city
NY Binghamton town
NY Blasdell village
NY Boston town
NY Briarcliff Manor village
NY Brighton town
NY Brightwaters village

NY Bronxville village
NY Brookhaven town
NY Brookville village
NY Broome County
NY Brunswick town
NY Buchanan village
NY Buffalo city
NY Camillus town
NY Camillus village
NY Carmel town
NY Cayuga Heights village
NY Cedarhurst village
NY Charlton town
NY Cheektowaga town
NY Chemung County
NY Chenango town
NY Chestnut Ridge village
NY Chili town
NY Cicero town
NY Clarence town
NY Clarkstown town
NY Clay town
NY Clayville village
NY Clifton Park town
NY Clinton village
NY Cohoes city
NY Colonie town
NY Colonie village
NY Conklin town
NY Cornwall on Hudson village
NY Cornwall town
NY Cortlandt town
NY Croton-on-Hudson village
NY De Witt town
NY Deerfield town
NY Depew village
NY Dickinson town
NY Dobbs Ferry village
NY Dryden town
NY Dutchess County
NY East Fishkill town
NY East Greenbush town
NY East Hills village
NY East Rochester village
NY East Rockaway village
NY East Syracuse village
NY East Williston village
NY Eastchester town
NY Elma town
NY Elmira city
NY Elmira Heights village
NY Elmira town
NY Elmsford village
NY Endicott village
NY Erie County
NY Evans town
NY Fairport village
NY Farmingdale village
NY Fayetteville village
NY Fenton town
NY Fishkill town
NY Fishkill village
NY Floral Park village
NY Flower Hill village
NY Floyd town
NY Fort Edward town
NY Fort Edward village
NY Frankfort town
NY Freeport village
NY Garden City village
NY Gates town
NY Geddes town
NY Glen Cove city
NY Glens Falls city
NY Glenville town
NY Grand Island town
NY Grand View-on-Hudson village
NY Great Neck Estates village
NY Great Neck Plaza village
NY Great Neck village
NY Greece town
NY Green Island village
NY Greenburgh town
NY Guilderland town
NY Halfmoon town
NY Hamburg town
NY Hamburg village
NY Harrison village
NY Hastings-on-Hudson village
NY Haverstraw town
NY Haverstraw village
NY Hempstead town
NY Hempstead village
NY Henrietta town
NY Herkimer County
NY Hewlett Bay Park village
NY Hewlett Harbor village
NY Hewlett Neck village
NY Hillburn village
NY Horseheads town
NY Horseheads village
NY Hudson Falls village
NY Huntington Bay village
NY Huntington town
NY Hyde Park town
NY Irondequoit town
NY Irvington village
NY Island Park village
NY Islandia village
NY Islip town
NY Ithaca city
NY Ithaca town
NY Johnson City village
NY Kenmore village
NY Kensington village
NY Kent town
NY Kings Point village
NY Kingsbury town
NY Kirkland town
NY Kirkwood town
NY La Grange town
NY Lackawanna city
NY LaFayette town
NY Lake Grove village
NY Lake Success village
NY Lancaster town
NY Lancaster village
NY Lansing town
NY Lansing village
NY Larchmont village
NY Lattingtown village
NY Lawrence village
NY Lee town
NY Lewiston town
NY Lewiston village
NY Lindenhurst village
NY Liverpool village
NY Lloyd Harbor village
NY Lloyd town
NY Long Beach city
NY Lynbrook village
NY Lysander town
NY Malta town
NY Malverne village
NY Mamaroneck town
NY Mamaroneck village
NY Manlius town
NY Manlius village
NY Manorhaven village
NY Marcy town
NY Massapequa Park village
NY Matinecock village
NY Menands village
NY Mill Neck village
NY Mineola village
NY Minoa village
NY Monroe County
NY Montebello village
NY Montgomery town
NY Moreau town
NY Mount Kisco village
NY Mount Pleasant town
NY Mount Vernon city
NY Munsey Park village
NY Muttontown village
NY New Castle town
NY New Hartford town
NY New Hartford village
NY New Hempstead village
NY New Hyde Park village
NY New Rochelle city
NY New Square village
NY New Windsor town
NY New York Mills village
NY Newburgh city
NY Newburgh town
NY Niagara County
NY Niagara Falls city
NY Niagara town
NY Niskayuna town
NY North Castle town
NY North Greenbush town
NY North Hempstead town
NY North Hills village
NY North Syracuse village
NY North Tarrytown village
NY North Tonawanda city
NY Northport village
NY Nyack village
NY Ogden town
NY Old Brookville village
NY Old Westbury village
NY Oneida County
NY Onondaga County
NY Onondaga town
NY Orange County
NY Orangetown town
NY Orchard Park town
NY Orchard Park village
NY Oriskany village
NY Ossining town
NY Ossining village
NY Oswego County
NY Owego town
NY Oyster Bay town
NY Paris town
NY Patchogue village
NY Patterson town
NY Peekskill city
NY Pelham Manor village
NY Pelham town
NY Pelham village
NY Pendleton town
NY Penfield town
NY Perinton town
NY Philipstown town
NY Phoenix village
NY Piermont village
NY Pittsford town
NY Pittsford village
NY Plandome Heights village
NY Plandome Manor village
NY Plandome village
NY Pleasant Valley town
NY Pleasantville village
NY Poestenkill town
NY Pomona village
NY Poospatuck Reservation

NY Poquott village
NY Port Chester village
NY Port Dickinson village
NY Port Jefferson village
NY Port Washington North village
NY Poughkeepsie city
NY Poughkeepsie town
NY Pound Ridge town
NY Putnam County
NY Putnam Valley town
NY Queensbury town
NY Ramapo town
NY Rensselaer city
NY Rensselaer County
NY Riverhead town
NY Rochester city
NY Rockville Centre village
NY Rome city
NY Roslyn Estates village
NY Roslyn Harbor village
NY Roslyn village
NY Rotterdam town
NY Russell Gardens village
NY Rye Brook village
NY Rye city
NY Rye town
NY Saddle Rock village
NY Salina town
NY Sands Point village
NY Saratoga County
NY Scarsdale town
NY Scarsdale village
NY Schaghticoke town
NY Schenectady city
NY Schenectady County
NY Schodack town
NY Schroeppel town
NY Schuyler town
NY Scotia village
NY Sea Cliff village
NY Shoreham village
NY Sloan village
NY Sloatsburg village
NY Smithtown town
NY Solvay village
NY Somers town
NY South Floral Park village
NY South Glens Falls village
NY South Nyack village
NY Southampton town
NY Southport town
NY Spencerport village
NY Spring Valley village
NY Stewart Manor village
NY Stony Point town
NY Suffern village
NY Suffolk County
NY Syracuse city
NY Tarrytown village
NY Thomaston village
NY Tioga County
NY Tompkins County
NY Tonawanda city
NY Tonawanda town
NY Troy city
NY Tuckahoe village
NY Ulster County
NY Union town
NY Upper Brookville village
NY Upper Nyack village
NY Utica city
NY Valley Stream village
NY Van Buren town
NY Vestal town
NY Veteran town
NY Village of the Branch village
NY Wappinger town
NY Wappingers Falls village
NY Warren County
NY Washington County
NY Waterford town
NY Waterford village
NY Watervliet city
NY Webster town
NY Webster village
NY Wesley Hills village
NY West Haverstraw village
NY West Seneca town
NY Westbury village
NY Westchester County
NY Western town
NY Wheatfield town
NY White Plains city
NY Whitesboro village
NY Whitestown town
NY Williamsville village
NY Williston Park village
NY Woodsburgh village
NY Yonkers city
NY Yorktown town
NY Yorkville village
OH Addyston village
OH Allen County
OH Allen township
OH Amberley village
OH Amelia village
OH American township
OH Amherst city
OH Amherst township
OH Anderson township
OH Arlington Heights village
OH Auglaize County
OH Aurora city
OH Austintown township
OH Avon city
OH Avon Lake city
OH Bainbridge township
OH Barberton city
OH Batavia township
OH Bath township
OH Bay Village city
OH Beachwood city
OH Beaver township
OH Beavercreek city
OH Beavercreek township
OH Bedford city
OH Bedford Heights city
OH Bellaire city
OH Bellbrook city
OH Belmont County
OH Belpre city
OH Belpre township
OH Bentleyville village
OH Berea city
OH Bethel township
OH Bexley city
OH Blendon township
OH Blue Ash city
OH Boardman township
OH Brady Lake village
OH Bratenahl village
OH Brecksville city
OH Brice village
OH Bridgeport village
OH Brilliant village
OH Brimfield township
OH Broadview Heights city
OH Brook Park city
OH Brookfield township
OH Brooklyn city
OH Brooklyn Heights village
OH Brookside village
OH Brown township
OH Brownhelm township
OH Brunswick city
OH Brunswick Hills township
OH Butler County
OH Butler township
OH Campbell city
OH Canfield city
OH Canfield township
OH Canton city
OH Canton township
OH Carlisle township
OH Carlisle village
OH Centerville city
OH Chagrin Falls township
OH Chagrin Falls village
OH Champion township
OH Chesapeake village
OH Cheviot city
OH Chippewa township
OH Cincinnati city
OH Clark County
OH Clear Creek township
OH Clermont County
OH Cleveland city
OH Cleveland Heights city
OH Cleves village
OH Clinton township
OH Coal Grove village
OH Coitsville township
OH Colerain township
OH Columbia township
OH Concord township
OH Copley township
OH Coventry township
OH Cridersville village
OH Cross Creek township
OH Cuyahoga County
OH Cuyahoga Falls city
OH Cuyahoga Heights village
OH Deer Park city
OH Deerfield township
OH Delaware County
OH Delhi township
OH Doylestown village
OH Dublin city
OH Duchouquet township
OH East Cleveland city
OH Eastlake city
OH Eaton township
OH Elmwood Place village
OH Elyria city
OH Elyria township
OH Englewood city
OH Erie County
OH Etna township
OH Euclid city
OH Evendale village
OH Fairborn city
OH Fairfax village
OH Fairfield city
OH Fairfield County
OH Fairfield township
OH Fairlawn city
OH Fairport Harbor village
OH Fairview Park city
OH Fayette township
OH Forest Park city
OH Fort Shawnee village
OH Franklin city
OH Franklin County
OH Franklin township
OH Gahanna city
OH Garfield Heights city
OH Geauga County
OH Genoa township

OH German township
OH Girard city
OH Glendale village
OH Glenwillow village
OH Golf Manor village
OH Goshen township
OH Grand River village
OH Grandview Heights city
OH Green township
OH Green village
OH Greene County
OH Greenhills village
OH Grove City city
OH Groveport village
OH Hamilton city
OH Hamilton County
OH Hamilton township
OH Hanging Rock village
OH Hanover township
OH Harbor View village
OH Harrison township
OH Hartville village
OH Heath city
OH Highland Heights city
OH Hilliard city
OH Hills and Dales village
OH Hinckley township
OH Holland village
OH Howland township
OH Hubbard city
OH Hubbard township
OH Huber Heights city
OH Hudson township
OH Hudson village
OH Independence city
OH Ironton city
OH Island Creek township
OH Jackson township
OH Jefferson County
OH Jefferson township
OH Jerome township
OH Kent city
OH Kettering city
OH Kirtland city
OH Lake County
OH Lake township
OH Lakeline village
OH Lakemore village
OH Lakewood city
OH Lawrence County
OH Lawrence township
OH Lemon township
OH Lexington village
OH Liberty township
OH Licking County
OH Licking township
OH Lima city
OH Lima township
OH Lincoln Heights city
OH Linndale village
OH Lockland village
OH Lorain city
OH Lorain County
OH Louisville city
OH Loveland city
OH Lowellville village
OH Lucas County
OH Lyndhurst city
OH Macedonia city
OH Mad River township
OH Madeira city
OH Madison township
OH Mahoning County
OH Maineville village
OH Mansfield city
OH Maple Heights city
OH Marble Cliff village
OH Mariemont village
OH Martins Ferry city
OH Mason city
OH Massillon city
OH Maumee city
OH Mayfield Heights city
OH Mayfield village
OH McDonald village
OH Mead township
OH Medina County
OH Mentor city
OH Mentor-on-the-Lake city
OH Meyers Lake village
OH Miami County
OH Miami township
OH Miamisburg city
OH Middleburg Heights city
OH Middletown city
OH Mifflin township
OH Milford city
OH Millbury village
OH Millville village
OH Minerva Park village
OH Mingo Junction city
OH Mogadore village
OH Monclova township
OH Monroe township
OH Monroe village
OH Montgomery city
OH Montgomery County
OH Moorefield township
OH Moraine city
OH Moreland Hills village
OH Mount Healthy city
OH Munroe Falls village
OH New Miami village
OH New Middletown village
OH New Rome village
OH Newark city
OH Newark township
OH Newburgh Heights village
OH Newton township
OH Newtown village
OH Niles city
OH Nimishillen township
OH North Bend village
OH North Canton city
OH North College Hill city
OH North Olmsted city
OH North Randall village
OH North Ridgeville city
OH North Royalton city
OH Northfield Center township
OH Northfield village
OH Northwood city
OH Norton city
OH Norwich township
OH Norwood city
OH Oakwood city
OH Oakwood village
OH Obetz village
OH Ohio township
OH Olmsted Falls city
OH Olmsted township
OH Ontario village
OH Orange township
OH Orange village
OH Oregon city
OH Ottawa County
OH Ottawa Hills village
OH Painesville city
OH Painesville township
OH Palmyra township
OH Parma city
OH Parma Heights city
OH Pease township
OH Pepper Pike city
OH Perry township
OH Perrysburg city
OH Perrysburg city
OH Perrysburg township
OH Pierce township
OH Plain township
OH Pleasant township
OH Poland township
OH Poland village
OH Portage County
OH Powell village
OH Prairie township
OH Proctorville village
OH Pultney township
OH Randolph township
OH Ravenna city
OH Ravenna township
OH Reading city
OH Reminderville village
OH Reynoldsburg city
OH Richfield township
OH Richfield village
OH Richland County
OH Richmond Heights city
OH Riveredge township
OH Riverlea village
OH Riverside village
OH Rocky River city
OH Rome township
OH Ross township
OH Rossford city
OH Russell township
OH Russia township
OH Sagamore Hills township
OH Seven Hills city
OH Shadyside village
OH Shaker Heights city
OH Sharon township
OH Sharonville city
OH Shawnee Hills village
OH Shawnee township
OH Sheffield Lake city
OH Sheffield township
OH Sheffield village
OH Silver Lake village
OH Silverton city
OH Solon city
OH South Amherst village
OH South Euclid city
OH South Point village
OH South Russell village
OH Springboro city
OH Springdale city
OH Springfield city
OH Springfield township
OH St. Bernard city
OH St. Clair township
OH Stark County
OH Steubenville city
OH Steubenville township
OH Stow city
OH Strongsville city
OH Struthers city
OH Suffield township
OH Sugar Bush Knolls village
OH Sugar Creek township
OH Summit County
OH Sycamore township
OH Sylvania city
OH Sylvania township
OH Symmes township
OH Tallmadge city
OH Terrace Park village
OH The Village of Indian Hill city

OH Timberlake village
OH Trenton city
OH Trotwood city
OH Troy township
OH Trumbull County
OH Truro township
OH Turtle Creek township
OH Tuscarawas township
OH Twinsburg city
OH Twinsburg township
OH Union city
OH Union County
OH Union township
OH University Heights city
OH Upper Arlington city
OH Upper township
OH Urbancrest village
OH Valley View village
OH Valleyview village
OH Vandalia city
OH Vermilion city
OH Vermilion township
OH Violet township
OH Wadsworth city
OH Wadsworth township
OH Waite Hill village
OH Walbridge village
OH Walton Hills village
OH Warren city
OH Warren County
OH Warren township
OH Warrensville Heights city
OH Warrensville township
OH Washington County
OH Washington township
OH Wayne County
OH Wayne township
OH Weathersfield township
OH Wells township
OH West Carrollton City city
OH West Milton village
OH Westerville city
OH Westlake city
OH Whitehall city
OH Whitewater township
OH Wickliffe city
OH Willoughby city
OH Willoughby Hills city
OH Willowick city
OH Wintersville village
OH Wood County
OH Woodlawn village
OH Woodmere village
OH Worthington city
OH Wyoming city
OH Youngstown city
OK Arkoma town
OK Bethany city
OK Bixby city
OK Broken Arrow city
OK Canadian County
OK Catoosa city
OK Choctaw city
OK Cleveland County
OK Comanche County
OK Creek County
OK Del City city
OK Edmond city
OK Forest Park town
OK Hall Park town
OK Harrah town
OK Jenks city
OK Jones town
OK Lake Aluma town
OK Lawton city
OK Le Flore County
OK Logan County
OK Midwest City city
OK Moffett town
OK Moore city
OK Mustang city
OK Nichols Hills city
OK Nicoma Park city
OK Norman city
OK Oklahoma County
OK Osage County
OK Pottawatomie County
OK Rogers County
OK Sand Springs city
OK Sequoyah County
OK Smith Village town
OK Spencer city
OK The Village city
OK Tulsa County
OK Valley Brook town
OK Wagoner County
OK Warr Acres city
OK Woodlawn Park town
OK Yukon city
OR Central Point city
OR Columbia County
OR Durham city
OR Jackson County
OR Keizer city
OR King City city
OR Lane County
OR Marion County
OR Maywood Park city
OR Medford city
OR Phoenix city
OR Polk County
OR Rainier city
OR Springfield city
OR Troutdale city
OR Tualatin city
OR Wood Village city
PA Abington township
PA Adamsburg borough
PA Alburtis borough
PA Aldan borough
PA Aleppo township
PA Aliquippa city
PA Allegheny County
PA Allegheny township
PA Allen township
PA Allenport borough
PA Alsace township
PA Altoona city
PA Ambler borough
PA Ambridge borough
PA Amwell township
PA Antis township
PA Antrim township
PA Archbald borough
PA Arnold city
PA Ashley borough
PA Aspinwall borough
PA Aston township
PA Avalon borough
PA Avoca borough
PA Baden borough
PA Baldwin borough
PA Baldwin township
PA Beaver borough
PA Beaver County
PA Beaver Falls city
PA Bell Acres borough
PA Belle Vernon borough
PA Bellevue borough
PA Ben Avon borough
PA Ben Avon Heights borough
PA Bensalem township
PA Berks County
PA Bern township
PA Bethel Park borough
PA Bethel township
PA Bethlehem city
PA Bethlehem township
PA Big Beaver borough
PA Birdsboro borough
PA Birmingham township
PA Blair County
PA Blair township
PA Blakely borough
PA Blawnox borough
PA Boyertown borough
PA Brackenridge borough
PA Braddock borough
PA Braddock Hills borough
PA Bradfordwoods borough
PA Brentwood borough
PA Bridgeport borough
PA Bridgeville borough
PA Bridgewater borough
PA Brighton township
PA Bristol borough
PA Bristol township
PA Brookhaven borough
PA Brownstown borough
PA Brownsville borough
PA Brownsville township
PA Bryn Athyn borough
PA Buckingham township
PA Bucks County
PA California borough
PA Caln township
PA Cambria County
PA Camp Hill borough
PA Canonsburg borough
PA Canton township
PA Carbondale city
PA Carbondale township
PA Carnegie borough
PA Carroll township
PA Castle Shannon borough
PA Catasauqua borough
PA Cecil township
PA Center township
PA Centre County
PA Chalfant borough
PA Chalfont borough
PA Charleroi borough
PA Charlestown township
PA Chartiers township
PA Cheltenham township
PA Chester city
PA Chester County
PA Chester Heights borough
PA Chester township
PA Cheswick borough
PA Chippewa township
PA Churchill borough
PA Clairton city
PA Clarks Green borough
PA Clarks Summit borough
PA Clifton Heights borough
PA Coal Center borough
PA Coatesville city
PA Colebrookdale township
PA College township
PA Collegeville borough
PA Collier township
PA Collingdale borough
PA Columbia borough
PA Colwyn borough
PA Concord township
PA Conemaugh township
PA Conestoga township

PA Conewago township
PA Conshohocken borough
PA Conway borough
PA Coplay borough
PA Coraopolis borough
PA Courtdale borough
PA Crafton borough
PA Crescent township
PA Cumberland County
PA Cumru township
PA Daisytown borough
PA Dale borough
PA Dallas borough
PA Dallas township
PA Dallastown borough
PA Darby borough
PA Darby township
PA Daugherty township
PA Dauphin County
PA Delaware County
PA Delmont borough
PA Derry township
PA Dickson City borough
PA Donora borough
PA Dormont borough
PA Douglass township
PA Dover borough
PA Dover township
PA Downingtown borough
PA Doylestown borough
PA Doylestown township
PA Dravosburg borough
PA Duboistown borough
PA Duncansville borough
PA Dunlevy borough
PA Dunmore borough
PA Dupont borough
PA Duquesne city
PA Duryea borough
PA East Allen township
PA East Bradford township
PA East Brandywine township
PA East Caln township
PA East Conemaugh borough
PA East Coventry township
PA East Deer township
PA East Fallowfield township
PA East Goshen township
PA East Hempfield township
PA East Lampeter township
PA East Lansdowne borough
PA East McKeesport borough
PA East Norriton township
PA East Pennsboro township
PA East Petersburg borough
PA East Pikeland township
PA East Pittsburgh borough
PA East Rochester borough
PA East Taylor township
PA East Vincent township
PA East Washington borough
PA East Whiteland township
PA Easton city
PA Easttown township
PA Eastvale borough
PA Economy borough
PA Eddystone borough
PA Edgewood borough
PA Edgeworth borough
PA Edgmont township
PA Edwardsville borough
PA Elco borough
PA Elizabeth borough
PA Elizabeth township
PA Ellport borough
PA Ellwood City borough
PA Emmaus borough
PA Emsworth borough
PA Erie city
PA Erie County
PA Etna borough
PA Exeter borough
PA Exeter township
PA Export borough
PA Fairfield township
PA Fairview township
PA Fallowfield township
PA Falls township
PA Fallston borough
PA Farrell city
PA Fayette City borough
PA Fayette County
PA Fell township
PA Ferguson township
PA Ferndale borough
PA Findlay township
PA Finleyville borough
PA Folcroft borough
PA Forest Hills borough
PA Forks township
PA Forty Fort borough
PA Forward township
PA Fountain Hill borough
PA Fox Chapel borough
PA Franconia township
PA Franklin borough
PA Franklin County
PA Franklin Park borough
PA Franklin township
PA Frankstown township
PA Frazer township
PA Freedom borough
PA Freemansburg borough
PA Geistown borough
PA Glassport borough
PA Glendon borough
PA Glenfield borough
PA Glenolden borough
PA Green Tree borough
PA Greensburg city
PA Hallam borough
PA Hampden township
PA Hampton township
PA Hanover township
PA Harborcreek township
PA Harmar township
PA Harmony township
PA Harris township
PA Harrisburg city
PA Harrison township
PA Harveys Lake borough
PA Hatboro borough
PA Hatfield borough
PA Hatfield township
PA Haverford township
PA Haysville borough
PA Heidelberg borough
PA Hellam township
PA Hellertown borough
PA Hempfield township
PA Hepburn township
PA Hermitage city
PA Highspire borough
PA Hilltown township
PA Hollidaysburg borough
PA Homestead borough
PA Homewood borough
PA Hopewell township
PA Horsham township
PA Houston borough
PA Hughestown borough
PA Hulmeville borough
PA Hummelstown borough
PA Hunker borough
PA Indiana township
PA Ingram borough
PA Irwin borough
PA Ivyland borough
PA Jackson township
PA Jacobus borough
PA Jeannette city
PA Jefferson borough
PA Jenkins township
PA Jenkintown borough
PA Jermyn borough
PA Jessup borough
PA Johnstown city
PA Juniata township
PA Kenhorst borough
PA Kennedy township
PA Kilbuck township
PA Kingston borough
PA Kingston township
PA Koppel borough
PA Lackawanna County
PA Laflin borough
PA Lancaster city
PA Lancaster County
PA Lancaster township
PA Langhorne borough
PA Langhorne Manor borough
PA Lansdale borough
PA Lansdowne borough
PA Larksville borough
PA Laurel Run borough
PA Laureldale borough
PA Lawrence County
PA Lawrence Park township
PA Lebanon County
PA Leesport borough
PA Leet township
PA Leetsdale borough
PA Lehigh County
PA Lehman township
PA Lemoyne borough
PA Liberty borough
PA Limerick township
PA Lincoln borough
PA Lititz borough
PA Logan township
PA Loganville borough
PA London Britain township
PA Londonderry township
PA Lorain borough
PA Lower Allen township
PA Lower Alsace township
PA Lower Burrell city
PA Lower Chichester township
PA Lower Frederick township
PA Lower Gwynedd township
PA Lower Heidelberg township
PA Lower Macungie township
PA Lower Makefield township
PA Lower Merion township
PA Lower Moreland township
PA Lower Nazareth township
PA Lower Paxton township
PA Lower Pottsgrove township
PA Lower Providence township
PA Lower Salford township
PA Lower Saucon township
PA Lower Southampton township
PA Lower Swatara township
PA Lower Yoder township
PA Loyalsock township
PA Luzerne borough
PA Luzerne County
PA Luzerne township

PA Lycoming County
PA Lycoming township
PA Macungie borough
PA Madison borough
PA Maidencreek 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 Tredyffrin township
PA Tullytown borough
PA Turtle Creek borough
PA Union township
PA Upland borough
PA Upper Allen township
PA Upper Chichester township
PA Upper Darby township
PA Upper Dublin township
PA Upper Gwynedd township
PA Upper Leacock township
PA Upper Macungie township
PA Upper Makefield township
PA Upper Merion township
PA Upper Milford township
PA Upper Moreland township
PA Upper Pottsgrove township
PA Upper Providence township
PA Upper Saucon township
PA Upper Southampton township
PA Upper St. Clair township
PA Upper Yoder township
PA Uwchlan township
PA Valley township
PA Vanport township
PA Verona borough
PA Versailles borough
PA Wall borough
PA Warminster township
PA Warrington township
PA Warrior Run borough
PA Warwick township
PA Washington city
PA Washington County
PA Washington township
PA Wayne township
PA Wernersville borough
PA Wesleyville borough
PA West Bradford township
PA West Brownsville borough
PA West Chester borough
PA West Conshohocken borough
PA West Deer township
PA West Earl township
PA West Easton borough
PA West Elizabeth borough
PA West Fairview borough
PA West Goshen township
PA West Hanover township
PA West Hempfield township
PA West Homestead borough
PA West Lampeter township
PA West Lawn borough
PA West Manchester township
PA West Mayfield borough
PA West Middlesex borough
PA West Mifflin borough
PA West Newton borough
PA West Norriton township
PA West Pikeland township
PA West Pittston borough
PA West Pottsgrove township
PA West Reading borough
PA West Taylor township
PA West View borough
PA West Whiteland township
PA West Wyoming borough
PA West York borough
PA Westmont borough
PA Westmoreland County
PA Westtown township
PA Wheatland borough
PA Whitaker borough
PA White Oak borough
PA White township
PA Whitehall township
PA Whitemarsh township
PA Whitpain township
PA Wilkes-Barre city
PA Wilkes-Barre township
PA Wilkins township
PA Wilkinsburg borough
PA Williams township
PA Williamsport city
PA Willistown township
PA Wilmerding borough
PA Wilson borough
PA Windber borough
PA Windsor borough
PA Windsor township
PA Worcester township
PA Wormleysburg borough
PA Wrightsville borough
PA Wyoming borough
PA Wyomissing borough
PA Wyomissing Hills borough
PA Yardley borough
PA Yatesville borough
PA Yeadon borough
PA Yoe borough
PA York city
PA York County
PA York township
PA Youngwood borough
PR Aibonita
PR Anasco
PR Aquada
PR Aquadilla
PR Aquas Buenas
PR Arecibo
PR Bayamon
PR Cabo Rojo
PR Caguas
PR Camuy
PR Canovanas
PR Catano
PR Cayey
PR Cidra
PR Dorado
PR Guaynabo
PR Gurabo
PR Hatillo
PR Hormigueros
PR Humacao
PR Juncos
PR Las Piedras
PR Loiza
PR Manati
PR Mayaguez
PR Moca
PR Naguabo
PR Naranjito
PR Penuelas
PR Ponce
PR Rio Grande
PR San German
PR San Lorenzo
PR Toa Alta
PR Toa Baja
PR Trujillo Alto
PR Vega Alta
PR Vega Baja
PR Yabucao
RI Barrington town
RI Bristol town
RI Burrillville town
RI Central Falls city
RI Coventry town
RI Cranston city
RI Cumberland town
RI East Greenwich town
RI East Providence city
RI Glocester town
RI Jamestown town
RI Johnston town
RI Lincoln town
RI Middletown town
RI Newport city
RI Newport County
RI North Kingstown town
RI North Providence town
RI North Smithfield town
RI Pawtucket city
RI Portsmouth town
RI Providence city
RI Providence County
RI Scituate town
RI Smithfield town
RI Tiverton town
RI Warren town
RI Warwick city
RI Washington County
RI West Greenwich town
RI West Warwick town
RI Woonsocket city
SC Aiken city
SC Aiken County
SC Anderson city
SC Anderson County
SC Arcadia Lakes town
SC Berkeley County
SC Burnettown town
SC Cayce city
SC Charleston city
SC Charleston County
SC City View town
SC Columbia city
SC Cowpens town
SC Darlington County
SC Dorchester County
SC Edgefield County
SC Florence city
SC Florence County
SC Folly Beach city
SC Forest Acres city
SC Fort Mill town
SC Georgetown County
SC Goose Creek city
SC Hanahan city
SC Horry County
SC Irmo town
SC Isle of Palms city
SC Lexington County
SC Lincolnville town
SC Mount Pleasant town
SC Myrtle Beach city
SC North Augusta city
SC North Charleston city
SC Pickens County
SC Pineridge town
SC Quinby town
SC Rock Hill city
SC South Congaree town
SC Spartanburg city
SC Spartanburg County
SC Springdale town
SC Sullivan's Island town
SC Summerville town
SC Sumter city
SC Sumter County
SC Surfside Beach town
SC West Columbia city
SC York County
SD Big Sioux township
SD Central Pennington unorg.
SD Lincoln County
SD Mapleton township

SD Minnehaha County
SD North Sioux City city
SD Pennington County
SD Rapid City city
SD Split Rock township
SD Union County
SD Wayne township
TN Alcoa city
TN Anderson County
TN Bartlett town
TN Belle Meade city
TN Berry Hill city
TN Blount County
TN Brentwood city
TN Bristol city
TN Carter County
TN Church Hill town
TN Clarksville city
TN Collegedale city
TN Davidson County
TN East Ridge city
TN Elizabethton city
TN Farragut town
TN Forest Hills city
TN Germantown city
TN Goodlettsville city
TN Hamilton County
TN Hawkins County
TN Hendersonville city
TN Jackson city
TN Johnson City city
TN Jonesborough town
TN Kingsport city
TN Knox County
TN Lakesite city
TN Lakewood city
TN Lookout Mountain town
TN Loudon County
TN Madison County
TN Maryville city
TN Montgomery County
TN Mount Carmel town
TN Mount Juliet city
TN Oak Hill city
TN Red Bank city
TN Ridgeside city
TN Rockford city
TN Shelby County
TN Signal Mountain town
TN Soddy-Daisy city
TN Sullivan County
TN Sumner County
TN Washington County
TN Williamson County
TN Wilson County
TX Addison city
TX Alamo city
TX Alamo Heights city
TX Allen city
TX Archer County
TX Azle city
TX Balch Springs city
TX Balcones Heights city
TX Bayou Vista village
TX Baytown city
TX Bedford city
TX Bell County
TX Bellaire city
TX Bellmead city
TX Belton city
TX Benbrook city
TX Beverly Hills city
TX Bexar County
TX Blue Mound city
TX Bowie County
TX Brazoria County
TX Brazos County
TX Brookside Village city
TX Brownsville city
TX Bryan city
TX Buckingham town
TX Bunker Hill Village city
TX Cameron County
TX Carrollton city
TX Castle Hills city
TX Cedar Hill city
TX Cedar Park city
TX Chambers County
TX Cibolo city
TX Clear Lake Shores city
TX Clint town
TX Cockrell Hill city
TX College Station city
TX Colleyville city
TX Collin County
TX Comal County
TX Combes town
TX Converse city
TX Copperas Cove city
TX Corinth town
TX Coryell County
TX Crowley city
TX Dallas County
TX Dalworthington Gardens city
TX Deer Park city
TX Denison city
TX Denton city
TX Denton County
TX DeSoto city
TX Dickinson city
TX Donna city
TX Double Oak town
TX Duncanville city
TX Ector County
TX Edgecliff village
TX Edinburg city
TX El Lago city
TX El Paso County
TX Ellis County
TX Euless city
TX Everman city
TX Farmers Branch city
TX Flower Mound town
TX Forest Hill city
TX Fort Bend County
TX Friendswood city
TX Galena Park city
TX Galveston city
TX Galveston County
TX Grand Prairie city
TX Grapevine city
TX Grayson County
TX Gregg County
TX Groves city
TX Guadalupe County
TX Haltom City city
TX Hardin County
TX Harker Heights city
TX Harlingen city
TX Harrison County
TX Hedwig Village city
TX Hewitt city
TX Hickory Creek town
TX Hidalgo County
TX Highland Park town
TX Highland Village city
TX Hill Country Village city
TX Hilshire Village city
TX Hitchcock city
TX Hollywood Park town
TX Howe town
TX Humble city
TX Hunters Creek Village city
TX Hurst city
TX Hutchins city
TX Impact town
TX Jacinto City city
TX Jefferson County
TX Jersey Village city
TX Johnson County
TX Jones County
TX Katy city
TX Kaufman County
TX Keller city
TX Kemah city
TX Kennedale city
TX Killeen city
TX Kirby city
TX Kleberg County
TX La Marque city
TX La Porte city
TX Lacy-Lakeview city
TX Lake Dallas city
TX Lake Worth city
TX Lakeside City town
TX Lakeside town
TX Lampasas County
TX Lancaster city
TX League City city
TX Leander city
TX Leon Valley city
TX Lewisville city
TX Live Oak city
TX Longview city
TX Lubbock County
TX Lumberton city
TX Martin County
TX McAllen city
TX McLennan County
TX Meadows city
TX Midland city
TX Midland County
TX Mission city
TX Missouri City city
TX Montgomery County
TX Morgan's Point city
TX Nash city
TX Nassau Bay city
TX Nederland city
TX Nolanville city
TX North Richland Hills city
TX Northcrest town
TX Nueces County
TX Odessa city
TX Olmos Park city
TX Palm Valley town
TX Palmview city
TX Pantego town
TX Parker County
TX Pearland city
TX Pflugerville city
TX Pharr city
TX Piney Point Village city
TX Port Arthur city
TX Port Neches city
TX Portland city
TX Potter County
TX Primera town
TX Randall County
TX Richardson city
TX Richland Hills city
TX River Oaks city
TX Robinson city
TX Rockwall city
TX Rockwall County
TX Rollingwood city
TX Rose Hill Acres city
TX Rowlett city

TX Sachse city
TX Saginaw city
TX San Angelo city
TX San Benito city
TX San Juan city
TX San Patricio County
TX Sansom Park city
TX Santa Fe city
TX Schertz city
TX Seabrook city
TX Seagoville city
TX Selma city
TX Shavano Park city
TX Sherman city
TX Shoreacres city
TX Smith County
TX Socorro town
TX South Houston city
TX Southside Place city
TX Spring Valley city
TX Stafford town
TX Sugar Land city
TX Sunset Valley city
TX Tarrant County
TX Taylor County
TX Taylor Lake Village city
TX Temple city
TX Terrell Hills city
TX Texarkana city
TX Texas City city
TX Tom Green County
TX Travis County
TX Tye town
TX Tyler city
TX Universal City city
TX University Park city
TX Victoria city
TX Victoria County
TX Wake Village city
TX Waller County
TX Watauga city
TX Webb County
TX Webster city
TX Weslaco city
TX West Lake Hills city
TX West University Place city
TX Westover Hills town
TX Westworth village
TX White Oak city
TX White Settlement city
TX Wichita County
TX Wichita Falls city
TX Williamson County
TX Wilmer city
TX Windcrest city
TX Woodway city
UT American Fork city
UT Bluffdale city
UT Bountiful city
UT Cache County
UT Cedar Hills town
UT Centerville city
UT Clearfield city
UT Clinton city
UT Davis County
UT Draper city
UT Farmington city
UT Farr West city
UT Fruit Heights city
UT Harrisville city
UT Highland city
UT Hyde Park city
UT Kaysville city
UT Layton city
UT Lehi city
UT Lindon city
UT Logan city
UT Mapleton city
UT Midvale city
UT Millville city
UT Murray city
UT North Logan city
UT North Ogden city
UT North Salt Lake city
UT Ogden city
UT Orem city
UT Pleasant Grove city
UT Pleasant View city
UT Providence city
UT Provo city
UT River Heights city
UT Riverdale city
UT Riverton city
UT Roy city
UT Sandy city
UT Smithfield city
UT South Jordan city
UT South Ogden city
UT South Salt Lake city
UT South Weber city
UT Springville city
UT Sunset city
UT Syracuse city
UT Uintah town
UT Utah County
UT Washington Terrace city
UT Weber County
UT West Bountiful city
UT West Jordan city
UT West Point city
UT West Valley City city
UT Woods Cross city
VA Albemarle County
VA Alexandria city
VA Amherst County
VA Bedford County
VA Botetourt County
VA Bristol city
VA Campbell County
VA Charlottesville city
VA Colonial Heights city
VA Danville city
VA Dinwiddie County
VA Fairfax city
VA Falls Church city
VA Fredericksburg city
VA Gate City town
VA Gloucester County
VA Hanover County
VA Herndon town
VA Hopewell city
VA James City County
VA Loudoun County
VA Lynchburg city
VA Manassas city
VA Manassas Park city
VA Occoquan town
VA Petersburg city
VA Pittsylvania County
VA Poquoson city
VA Prince George County
VA Richmond city
VA Roanoke city
VA Roanoke County
VA Salem city
VA Scott County
VA Spotsylvania County
VA Stafford County
VA Suffolk city
VA Vienna town
VA Vinton town
VA Washington County
VA Weber City town
VA Williamsburg city
VA York County
VT Burlington city
VT Chittenden County
VT Colchester town
VT Essex Junction village
VT Essex town
VT Shelburne town
VT South Burlington city
VT Williston town
VT Winooski city
WA Algona city
WA Auburn city
WA Beaux Arts Village town
WA Bellevue city
WA Bellingham city
WA Benton County
WA Bonney Lake city
WA Bothell city
WA Bremerton city
WA Brier city
WA Clyde Hill town
WA Cowlitz County
WA Des Moines city
WA DuPont city
WA Edmonds city
WA Everett city
WA Fife city
WA Fircrest town
WA Franklin County
WA Gig Harbor city
WA Hunts Point town
WA Issaquah city
WA Kelso city
WA Kennewick city
WA Kent city
WA Kirkland city
WA Kitsap County
WA Lacey city
WA Lake Forest Park city
WA Longview city
WA Lynnwood city
WA Marysville city
WA Medina city
WA Mercer Island city
WA Mill Creek city
WA Millwood town
WA Milton city
WA Mountlake Terrace city
WA Mukilteo city
WA Normandy Park city
WA Olympia city
WA Pacific city
WA Pasco city
WA Port Orchard city
WA Puyallup city
WA Redmond city
WA Renton city
WA Richland city
WA Ruston town
WA Selah city
WA Steilacoom town
WA Sumner city
WA Thurston County
WA Tukwila city
WA Tumwater city
WA Union Gap city
WA Vancouver city
WA West Richland city
WA Whatcom County
WA Woodway city
WA Yakima city
WA Yakima County
WA Yarrow Point town
WI Algoma town

WI Allouez village
WI Altoona city
WI Appleton city
WI Ashwaubenon village
WI Bayside village
WI Bellevue town
WI Beloit city
WI Beloit town
WI Big Bend village
WI Black Wolf town
WI Blooming Grove town
WI Brookfield city
WI Brookfield town
WI Brown County
WI Brown Deer village
WI Brunswick town
WI Buchanan town
WI Burke town
WI Butler village
WI Caledonia town
WI Calumet County
WI Campbell town
WI Cedarburg city
WI Cedarburg town
WI Chippewa County
WI Chippewa Falls city
WI Clayton town
WI Combined Locks village
WI Cudahy city
WI Dane County
WI De Pere city
WI De Pere town
WI Delafield town
WI Douglas County
WI Dunn town
WI Eagle Point town
WI Eau Claire city
WI Eau Claire County
WI Elm Grove village
WI Elmwood Park village
WI Fitchburg city
WI Fox Point village
WI Franklin city
WI Germantown town
WI Germantown village
WI Glendale city
WI Grafton town
WI Grafton village
WI Grand Chute town
WI Green Bay city
WI Greendale village
WI Greenfield city
WI Greenville town
WI Hales Corners village
WI Hallie town
WI Harmony town
WI Harrison town
WI Hobart town
WI Holmen village
WI Howard village
WI Janesville city
WI Janesville town
WI Kaukauna city
WI Kenosha city
WI Kenosha County
WI Kimberly village
WI Kohler village
WI La Crosse city
WI La Crosse County
WI La Prairie town
WI Lafayette town
WI Lannon village
WI Lima town
WI Lisbon town
WI Little Chute village
WI Madison town
WI Maple Bluff village
WI Marathon County
WI McFarland village
WI Medary town
WI Menasha city
WI Menasha town
WI Menomonee Falls village
WI Mequon city
WI Middleton city
WI Middleton town
WI Monona city
WI Mount Pleasant town
WI Muskego city
WI Neenah city
WI Neenah town
WI Nekimi town
WI New Berlin city
WI North Bay village
WI Norway town
WI Oak Creek city
WI Onalaska city
WI Onalaska town
WI Oshkosh city
WI Oshkosh town
WI Outagamie County
WI Ozaukee County
WI Pewaukee town
WI Pewaukee village
WI Pleasant Prairie town
WI Pleasant Prairie village
WI Racine city
WI Racine County
WI Rib Mountain town
WI River Hills village
WI Rock County
WI Rock town
WI Rothschild village
WI Salem town
WI Schofield city
WI Scott town
WI Sheboygan city
WI Sheboygan County
WI Sheboygan Falls city
WI Sheboygan Falls town
WI Sheboygan town
WI Shelby town
WI Shorewood Hills village
WI Shorewood village
WI Somers town
WI South Milwaukee city
WI St. Francis city
WI Stettin town
WI Sturtevant village
WI Superior city
WI Superior village
WI Sussex village
WI Thiensville village
WI Turtle town
WI Union town
WI Vandenbroek town
WI Vernon town
WI Washington County
WI Washington town
WI Waukesha city
WI Waukesha County
WI Waukesha town
WI Wausau city
WI Wauwatosa city
WI West Allis city
WI West Milwaukee village
WI Weston town
WI Westport town
WI Wheaton town
WI Whitefish Bay village
WI Wilson town
WI Wind Point village
WI Winnebago County
WV Bancroft town
WV Barboursville village
WV Belle town
WV Benwood city
WV Berkeley County
WV Bethlehem village
WV Brooke County
WV Cabell County
WV Cedar Grove town
WV Ceredo city
WV Charleston city
WV Chesapeake town
WV Clearview village
WV Dunbar city
WV East Bank town
WV Follansbee city
WV Glasgow town
WV Glen Dale city
WV Hancock County
WV Huntington city
WV Hurricane city
WV Kanawha County
WV Kenova city
WV Marmet city
WV Marshall County
WV McMechen city
WV Mineral County
WV Moundsville city
WV Nitro city
WV North Hills town
WV Ohio County
WV Parkersburg city
WV Poca town
WV Putnam County
WV Ridgeley town
WV South Charleston city
WV St. Albans city
WV Triadelphia town
WV Vienna city
WV Wayne County
WV Weirton city
WV Wheeling city
WV Wood County
WY Casper city
WY Cheyenne city
WY Evansville town
WY Laramie County
WY Mills town
WY Natrona County

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
AL Jacksonville city
AL Selma city
AR Arkadelphia city
AR Benton city
AR Blytheville city
AR Conway city
AR El Dorado city
AR Hot Springs city
AR Magnolia city
AR Rogers city
AR Searcy city
AR Stuttgart city
AZ Douglas city
CA Arcata city
CA Arroyo Grande city
CA Atwater city
CA Auburn city
CA Banning city
CA Brawley city
CA Calexico city
CA Clearlake city
CA Corcoran city
CA Delano city
CA Desert Hot Springs city
CA Dinuba city
CA Dixon city
CA El Centro city
CA El Paso de Robles (Paso Robles) city
CA Eureka city
CA Fillmore city
CA Gilroy city
CA Grover City city
CA Hanford city
CA Hollister city
CA Lemoore city
CA Los Banos city
CA Madera city
CA Manteca city
CA Oakdale city
CA Oroville city
CA Paradise town
CA Petaluma city
CA Porterville city
CA Red Bluff city
CA Reedley city
CA Ridgecrest city
CA Sanger city
CA Santa Paula city
CA Selma city
CA South Lake Tahoe city
CA Temecula city
CA Tracy city
CA Tulare city
CA Turlock city
CA Ukiah city
CA Wasco city
CA Woodland city
CO Canon City city
CO Durango city
CO Lafayette city
CO Louisville city
CO Loveland city
CO Sterling city
FL Bartow city
FL Belle Glade city
FL De Land city
FL Eustis city
FL Haines City city
FL Key West city
FL Leesburg city
FL Palatka city
FL Plant City city
FL St. Augustine city
FL St. Cloud city
GA Americus city
GA Carrollton city
GA Cordele city
GA Dalton city
GA Dublin city
GA Griffin city
GA Hinesville city
GA Moultrie city
GA Newnan city
GA Statesboro city
GA Thomasville city
GA Tifton city
GA Valdosta city
GA Waycross city
IA Ames city
IA Ankeny city
IA Boone city
IA Burlington city
IA Fort Dodge city
IA Fort Madison city
IA Indianola city
IA Keokuk city
IA Marshalltown city
IA Mason City city
IA Muscatine city
IA Newton city
IA Oskaloosa city
IA Ottumwa city
IA Spencer city
ID Caldwell city
ID Coeur d'Alene city
ID Lewiston city
ID Moscow city
ID Nampa city
ID Rexburg city
ID Twin Falls city
IL Belvidere city
IL Canton city
IL Carbondale city
IL Centralia city
IL Charleston city
IL Danville city
IL De Kalb city
IL Dixon city
IL Effingham city
IL Freeport city
IL Galesburg city
IL Jacksonville city
IL Macomb city
IL Mattoon city
IL Mount Vernon city
IL Ottawa city
IL Pontiac city
IL Quincy city
IL Rantoul village
IL Sterling city
IL Streator city
IL Taylorville city
IL Woodstock city
IN Bedford city
IN Columbus city
IN Crawfordsville city
IN Frankfort city
IN Franklin city
IN Greenfield city
IN Huntington city
IN Jasper city
IN La Porte city
IN Lebanon city
IN Logansport city
IN Madison city
IN Marion city
IN Martinsville city
IN Michigan City city
IN New Castle city
IN Noblesville city
IN Peru city
IN Plainfield town
IN Richmond city
IN Seymour city
IN Shelbyville city
IN Valparaiso city
IN Vincennes city
IN Wabash city
IN Warsaw city
IN Washington city
KS Arkansas City city
KS Atchison city
KS Coffeyville city
KS Derby city
KS Dodge City city
KS El Dorado city
KS Emporia city
KS Garden City city
KS Great Bend city
KS Hays city
KS Hutchinson city
KS Junction City city
KS Leavenworth city
KS Liberal city
KS Manhattan city
KS McPherson city
KS Newton city
KS Ottawa city
KS Parsons city
KS Pittsburg city
KS Salina city
KS Winfield city
KY Bowling Green city
KY Danville city
KY Frankfort city
KY Georgetown city
KY Glasgow city
KY Hopkinsville city
KY Madisonville city
KY Middlesborough city
KY Murray city
KY Nicholasville city
KY Paducah city
KY Radcliff city
KY Richmond city
KY Somerset city
KY Winchester city

LA Abbeville city
LA Bastrop city
LA Bogalusa city
LA Crowley city
LA Eunice city
LA Hammond city
LA Jennings city
LA Minden city
LA Morgan City city
LA Natchitoches city
LA New Iberia city
LA Opelousas city
LA Ruston city
LA Thibodaux city
MA Amherst town
MA Clinton town
MA Milford town
MA Newburyport city
MD Aberdeen town
MD Cambridge city
MD Salisbury city
MD Westminster city
ME Waterville city
MI Adrian city
MI Albion city
MI Alpena city
MI Big Rapids city
MI Cadillac city
MI Escanaba city
MI Grand Haven city
MI Marquette city
MI Midland city
MI Monroe city
MI Mount Pleasant city
MI Owosso city
MI Sturgis city
MI Traverse City city
MN Albert Lea city
MN Austin city
MN Bemidji city
MN Brainerd city
MN Faribault city
MN Fergus Falls city
MN Hastings city
MN Hutchinson city
MN Mankato city
MN Marshall city
MN New Ulm city
MN North Mankato city
MN Northfield city
MN Owatonna city
MN Stillwater city
MN Willmar city
MN Winona city
MO Cape Girardeau city
MO Farmington city
MO Hannibal city
MO Jefferson City city
MO Kennett city
MO Kirksville city
MO Marshall city
MO Maryville city
MO Poplar Bluff city
MO Rolla city
MO Sedalia city
MO Sikeston city
MO Warrensburg city
MO Washington city
MS Brookhaven city
MS Canton city
MS Clarksdale city
MS Cleveland city
MS Columbus city
MS Greenville city
MS Greenwood city
MS Grenada city
MS Indianola city
MS Laurel city
MS McComb city
MS Meridian city
MS Natchez city
MS Starkville city
MS Vicksburg city
MS Yazoo City city
MT Bozeman city
MT Havre city
MT Helena city
MT Kalispell city
NC Albemarle city
NC Asheboro city
NC Boone town
NC Eden city
NC Elizabeth City city
NC Havelock city
NC Henderson city
NC Kernersville town
NC Kinston city
NC Laurinburg city
NC Lenoir city
NC Lexington city
NC Lumberton city
NC Monroe city
NC New Bern city
NC Reidsville city
NC Roanoke Rapids city
NC Salisbury city
NC Sanford city
NC Shelby city
NC Statesville city
NC Tarboro town
NC Wilson city
ND Dickinson city
ND Jamestown city
ND Minot city
ND Williston city
NE Beatrice city
NE Columbus city
NE Fremont city
NE Grand Island city
NE Hastings city
NE Kearney city
NE Norfolk city
NE North Platte city
NE Scottsbluff city
NJ East Windsor township
NJ Plainsboro township
NJ Bridgeton city
NJ Princeton borough
NM Alamogordo city
NM Artesia city
NM Clovis city
NM Deming city
NM Farmington city
NM Gallup city
NM Hobbs city
NM Las Vegas city
NM Portales city
NM Roswell city
NM Silver City town
NV Elko city
NY Amsterdam city
NY Auburn city
NY Batavia city
NY Canandaigua city
NY Corning city
NY Cortland city
NY Dunkirk city
NY Fredonia village
NY Fulton city
NY Geneva city
NY Gloversville city
NY Jamestown city
NY Kingston city
NY Lockport city
NY Massena village
NY Middletown city
NY Ogdensburg city
NY Olean city
NY Oneonta city
NY Oswego city
NY Plattsburgh city
NY Potsdam village
NY Watertown city
OH Alliance city
OH Ashland city
OH Ashtabula city
OH Athens city
OH Bellefontaine city
OH Bowling Green city
OH Bucyrus city
OH Cambridge city
OH Chillicothe city
OH Circleville city
OH Coshocton city
OH Defiance city
OH Delaware city
OH Dover city
OH East Liverpool city
OH Findlay city
OH Fostoria city
OH Fremont city
OH Galion city
OH Greenville city
OH Lancaster city
OH Lebanon city
OH Marietta city
OH Marion city
OH Medina city
OH Mount Vernon city
OH New Philadelphia city
OH Norwalk city
OH Oxford city
OH Piqua city
OH Portsmouth city
OH Salem city
OH Sandusky city
OH Sidney city
OH Tiffin city
OH Troy city
OH Urbana city
OH Washington city
OH Wilmington city
OH Wooster city
OH Xenia city
OH Zanesville city
OK Ada city
OK Altus city
OK Bartlesville city
OK Chickasha city
OK Claremore city
OK McAlester city
OK Miami city
OK Muskogee city
OK Okmulgee city
OK Owasso city
OK Ponca City city
OK Stillwater city
OK Tahlequah city
OK Weatherford city
OR Albany city
OR Ashland city
OR Astoria city
OR Bend city
OR City of the Dalles city
OR Coos Bay city
OR Corvallis city
OR Grants Pass city
OR Hermiston city

OR Klamath Falls city
OR La Grande city
OR Lebanon city
OR McMinnville city
OR Newberg city
OR Pendleton city
OR Roseburg city
OR Woodburn city
PA Berwick borough
PA Bloomsburg town
PA Butler city
PA Carlisle borough
PA Chambersburg borough
PA Ephrata borough
PA Hanover borough
PA Hazleton city
PA Indiana borough
PA Lebanon city
PA Meadville city
PA New Castle city
PA Oil City city
PA Pottsville city
PA Sunbury city
PA Uniontown city
PA Warren city
RI Narragansett town
SC Clemson city
SC Easley city
SC Gaffney city
SC Greenwood city
SC Newberry town
SC Orangeburg city
SD Aberdeen city
SD Brookings city
SD Huron city
SD Mitchell city
SD Vermillion city
SD Watertown city
SD Yankton city
TN Brownsville city
TN Cleveland city
TN Collierville town
TN Cookeville city
TN Dyersburg city
TN Greeneville town
TN Lawrenceburg city
TN McMinnville city
TN Millington city
TN Morristown city
TN Murfreesboro city
TN Shelbyville city
TN Springfield city
TN Union City city
TX Alice city
TX Alvin city
TX Andrews city
TX Angleton city
TX Bay City city
TX Beeville city
TX Big Spring city
TX Borger city
TX Brenham city
TX Brownwood city
TX Burkburnett city
TX Canyon city
TX Cleburne city
TX Conroe city
TX Coppell city
TX Corsicana city
TX Del Rio city
TX Dumas city
TX Eagle Pass city
TX El Campo city
TX Gainesville city
TX Gatesville city
TX Georgetown city
TX Henderson city
TX Hereford city
TX Huntsville city
TX Jacksonville city
TX Kerrville city
TX Kingsville city
TX Lake Jackson city
TX Lamesa city
TX Levelland city
TX Lufkin city
TX Mercedes city
TX Mineral Wells city
TX Mount Pleasant city
TX Nacogdoches city
TX New Braunfels city
TX Palestine city
TX Pampa city
TX Pecos city
TX Plainview city
TX Port Lavaca city
TX Robstown city
TX Rosenberg city
TX Round Rock city
TX San Marcos city
TX Seguin city
TX Snyder city
TX Stephenville city
TX Sweetwater city
TX Taylor city
TX The Colony city
TX Uvalde city
TX Vernon city
TX Vidor city
UT Brigham City city
UT Cedar City city
UT Spanish Fork city
UT Tooele city
VA Blacksburg town
VA Christiansburg town
VA Front Royal town
VA Harrisonburg city
VA Leesburg town
VA Martinsville city
VA Radford city
VA Staunton city
VA Waynesboro city
VA Winchester city
VT Rutland city
WA Aberdeen city
WA Anacortes city
WA Centralia city
WA Ellensburg city
WA Moses Lake city
WA Mount Vernon city
WA Oak Harbor city
WA Port Angeles city
WA Pullman city
WA Sunnyside city
WA Walla Walla city
WA Wenatchee city
WI Beaver Dam city
WI Fond du Lac city
WI Fort Atkinson city
WI Manitowoc city
WI Marinette city
WI Marshfield city
WI Menomonie city
WI Monroe city
WI Oconomowoc city
WI Stevens Point city
WI Sun Prairie city
WI Two Rivers city
WI Watertown city
WI West Bend city
WI Whitewater city
WI Wisconsin Rapids city
WV Beckley city
WV Bluefield city
WV Clarksburg city
WV Fairmont city
WV Martinsburg city
WV Morgantown city
WY Evanston city
WY Gillette city
WY Green River city
WY Laramie city
WY Rock Springs city
WY Sheridan 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.
* * * * * * *	
EPA Administered Permit Programs: The National Pollutant Discharge Elimination System	
* * * * * * *	
122.26(g)	2040–0211
* * * * * * *	
State Permit Requirements	
* * * * * * *	
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.	• 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).)
Potential Designation: Optional Evaluation and Designation by the NPDES Permitting Authority or EPA Regional Administrator..	• 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 DECENNIAL 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.
Colorado	Denver.
District of Columbia	
Florida	Jacksonville.
	Miami.
	Tampa.
Georgia.	Atlanta.
Illinois	Chicago.
Indiana	Indianapolis.
Kansas	Wichita.
Kentucky	Louisville.
Louisiana	New Orleans.
Maryland	Baltimore.
Massachusetts	Boston.
Michigan	Detroit.
Minnesota	Minneapolis.
	St. Paul.
Missouri	Kansas City.
	St. Louis.
Nebraska	Omaha.
New Jersey	Newark.
New Mexico	Albuquerque.
New York	Buffalo.
	Bronx Borough.
	Brooklyn Borough.
	Manhattan Borough.
	Queens Borough.
	Staten Island Borough.
North Carolina	Charlotte.
Ohio	Cincinnati.
	Cleveland.
	Columbus.
	Toledo.
Oklahoma	Oklahoma City.
	Tulsa.
Oregon	Portland.
Pennsylvania	Philadelphia.
	Pittsburgh.
Tennessee	Memphis.
	Nashville/Davidson.
Texas	Austin.
	Dallas.
	El Paso.
	Fort Worth.
	Houston.

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
	San Antonio.
Virginia	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.
Colorado	Aurora.

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
	Colorado Springs.
	Lakewood.
	Pueblo.
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.
Rhode Island	Providence.
South Carolina	Columbia.
Tennessee	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.
	Tacoma.
Wisconsin	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 [1]	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
	Prince George's	494,369
Texas	Harris	729,206
Utah	Salt Lake	270,989
Virginia	Fairfax	760,730
Washington	King	520,468

[1] 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 [1]	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

[1] 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.

[FR Doc. 99–29181 Filed 12–7–99; 8:45 am]

BILLING CODE 6560–50–P

APPENDIX C

FACT SHEET AND DRAFT GENERAL PERMIT NO. AZG2002-002, ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS TO WATERS OF THE UNITED STATES

Permit No. AZG2002-002

STATE OF ARIZONA
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PHOENIX, ARIZONA 85012-2809

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR DISCHARGE FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) TO WATERS OF THE UNITED STATES

In compliance with the provisions of the Arizona Pollutant Discharge Elimination System program, (Arizona Revised Statutes, Title 49, Chapter 2, Article 3.1 and Arizona Administrative Code, Title 18, Chapter 9, Articles 9 and 10), this general permit authorizes discharges certified under this general permit from those locations specified throughout the state of Arizona to waters of the United States. These discharges shall be in accordance with the conditions of this general permit.

This permit only authorizes discharges from those operators of small municipal separate storm sewer systems in Arizona who submit a complete Notice of Intent in accordance with Parts III and V of this general permit and who comply with the permit requirements and conditions of Parts IV and VI. All discharges authorized by this general permit shall be consistent with the terms and conditions of this general permit.

This general permit becomes effective on December 19, 2002.

This general permit and the authorization to discharge expire at midnight, December 19, 2007.

Issued this ____ day of _____ 2002.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

_____
Karen Smith, Director
Water Quality Division

TABLE OF CONTENTS

PAGE

PART I. COVERAGE UNDER THIS GENERAL PERMIT . . . 4
- A. Permit Area . . . 4
- B. Eligibility . . . 4
- C. Non-Stormwater Discharges . . . 4
- D. Limitations of Coverage . . . 5

PART II. AUTHORIZATION UNDER THIS GENERAL PERMIT . . . 6
- A. Application for Coverage . . . 6
- B. Terminating Coverage . . . 6

PART III. NOTICE OF INTENT REQUIREMENTS . . . 7
- A. Deadlines for Notification . . . 7
- B. Contents of Notice of Intent . . . 7
- C. Where to Submit . . . 8
- D. Co-Permittees Under a Single NOI . . . 9

PART IV. SPECIAL CONDITIONS . . . 9

PART V. STORMWATER MANAGEMENT PROGRAM (SWMP) . . . 9
- A. General Requirements . . . 9
- B. Minimum control measures . . . 9
  - 1. Public Education and Outreach on Stormwater Impacts . . . 9
  - 2. Public Involvement/Participation . . . 10
  - 3. Illicit Discharge Detection and Elimination . . . 10
  - 4. Construction Site Stormwater Runoff Control . . . 12
  - 5. Post-Construction Stormwater Management in New Development and Redevelopment 13
  - 6. Pollution Prevention/Good Housekeeping for Municipal Operations . . . 14
- C. Qualifying State or Local Program . . . 14
- D. Sharing Responsibility . . . 14
- E. Reviewing and Updating SWMPs . . . 15

PART VI. STANDARD PERMIT CONDITIONS . . . 18
- A. Duty to Comply . . . 18
- B. Duty to Reapply . . . 18
- C. Continuation of an Expired General Permit. . . . 18
- D. Need to Halt or Reduce an Activity Is Not a Defense . . . 18
- E. Duty to Mitigate . . . 18
- F. Proper operation and maintenance . . . 18
- G. Permit actions . . . 19
- H. Property Rights . . . 19
- I. Duty to Provide Information . . . 19
- J. Inspection and Entry . . . 19
- K. Recordkeeping. . . . 19
- L. Signatory Requirements . . . 20
  - 1. NOIs and NOTs . . . 20
  - 2. Reports and other information . . . 20
  - 3. Changes to Authorization . . . 20
  - 4. Certification . . . 20
- M. Reporting . . . 20
  - 1. Anticipated noncompliance . . . 20

2. Transfers 21
3. Other information 21
N. Severability 21
O. Requiring Coverage Under an Individual Permit 21
P. Request For an Individual Permit. 22
Q. Other Environmental Laws 22

PART VII. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS 22
A. Civil Penalties 22
B. Criminal Penalties 23

PART VIII. DEFINITIONS 23

PART I. COVERAGE UNDER THIS GENERAL PERMIT

A. Permit Area. This permit covers the state of Arizona, except for Indian Country.

B. Eligibility.

1. This permit authorizes the discharge of stormwater from small municipal separate storm sewer systems (MS4s) provided that the permittee complies with all the requirements of this general permit and the MS4:

   a. Is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census, or

   b. Is designated for permit authorization by the Department under R-18-9-A902(D)(1), R18-9-A902(D)(2), R-18-9-A902(E), and R18-9-A905(A)(1)(f) which incorporates 40 CFR 122.32.

C. Non-Stormwater Discharges.

1. The permittee shall prohibit all types of non-stormwater discharges into its MS4 unless the discharges are authorized by a separate NPDES or AZPDES permit or not prohibited under Part I, Section C.2 or are identified by the permittee as occasional incidental non-stormwater discharges under Part V, Section B.3.a.ii.

2. The following categories of non-stormwater discharges (occurring within the jurisdiction of the permittee) are only prohibited if the discharges are identified as significant contributors of pollutants to or from the MS4. If any of the following categories of discharges are identified as a significant contributor, the permittee must address the category as an illicit discharge as specified in Part V, Section B.3:

   a. Water line flushing,

   b. Landscape irrigation,

   c. Diverted stream flows,

   d. Rising ground waters,

   e. Uncontaminated ground water infiltration,

   f. Uncontaminated pumped groundwater,

   g. Discharges from potable water sources,

   h. Foundation drains,

   i. Air conditioning condensate,

   j. Irrigation water,

   k. Springs,

   l. Water from crawl space pumps,

m. Footing drains,

n. Lawn watering,

o. Individual residential car washing,

p. Discharges from riparian habitats and wetlands,

q. Dechlorinated swimming pool discharges,

r. Street wash water, and

s. Discharges or flows from emergency fire fighting activities.

D. Limitations of Coverage. This general permit does not authorize:

1. Discharges mixed with sources of non-stormwater unless the non-stormwater discharges:

   a. Comply with a separate NPDES or AZPDES permit, or

   b. Are determined not to be a significant contributor of pollutants to waters of the United States;

2. Stormwater discharges associated with industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi);

3. Stormwater discharges associated with construction activity as defined in 40 CFR 122.26(b)(14)(x) or 40 CFR 122.26(b)(15);

4. Stormwater discharges currently covered under another permit;

5. Discharges to impaired waterbodies listed under section 303(d) of the Clean Water Act (CWA) if discharges from the MS4 contain, or may contain, pollutant(s) for which the waterbody is listed except:

   a. If a TMDL has been established, and the stormwater management program (SWMP) is consistent with the requirements of the TMDL, including any wasteload allocation or load allocation in the TMDL. The SWMP must also identify BMPs the permittee will use to meet wasteload allocations or load allocations and include monitoring for associated pollutant(s); and

   b. If a TMDL has not been established, and the SWMP includes a section describing how the program will control the discharge of 303(d) listed pollutants and ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards. The SWMP must also identify BMPs the permittee will use to control discharges and include monitoring of their effectiveness;

6. Discharges that do not comply with Arizona's anti-degradation rule (R18-11-107). The anti-degradation rule may be obtained from the Department's Phoenix office or from the Department's Web site.

PART II. AUTHORIZATION UNDER THIS GENERAL PERMIT

A. Application for Coverage.

1. An applicant seeking authorization to discharge under this general permit shall submit to the Department a complete notice of intent (NOI), in accordance with the deadlines in Part III, Section A. The NOI must include the information and attachments required by Part III, Section B.

   If the Department notifies an applicant (either directly, by public notice, or by making information available on the Internet) of other NOI options that become available at a later date, such as electronic submission of forms or information, the applicant may take advantage of those options to satisfy the NOI submittal requirements.

2. If an operator changes or a new operator is added after an NOI has been submitted, the permittee shall submit a new or revised NOI to the Department.

3. A discharger who submits a complete NOI and meets the eligibility requirements in Part I may discharge stormwater from a small MS4 under the terms and conditions of this general permit 30 days after the date the NOI is received by the Department. For the purposes of this permit, receipt is the day the fax was sent, the day the NOI was hand-delivered to the Department, or the day the Department signed certified mail containing the NOI. Submission of the NOI demonstrates the discharger's intent to be covered by this permit; it is not a determination by the Department that the discharger has met the eligibility requirements for the permit.

4. If the Department notifies the applicant of deficiencies or inadequacies in any portion of the NOI (including the stormwater management program), the applicant must correct the deficient or inadequate portions and submit a written statement to the Department certifying that appropriate changes have been made. The certification must be submitted within the time-frame specified by the Department and must specify how the NOI has been amended to address the identified concerns.

B. Terminating Coverage.

1. A permittee may terminate coverage under this general permit by submitting a notice of termination (NOT). Authorization to discharge terminates at midnight on the day the NOT is signed.

2. A permittee shall submit an NOT to the Department within 30 days after the permittee:

   a. Ceases discharging stormwater from the MS4,

   b. Ceases operations at the MS4, or

   c. Transfers ownership of or responsibility for the facility to another operator.

3. The NOT form can be obtained from the Department and must include the following information:

   a. Name, mailing address, and location of the MS4 for which the notification is submitted;

   b. The name, address and telephone number of the operator addressed by the NOT;

c. The NPDES or AZPDES permit number for the MS4;

d. An indication of whether another operator has assumed responsibility for the MS4, the discharger has ceased operations at the MS4, or the stormwater discharges have been eliminated; and

e. The following certification:

I certify under penalty of law that all stormwater discharges from the identified MS4 that are authorized by an AZPDES general permit have been eliminated, or that I am no longer the operator of the MS4, or that I have ceased operations at the MS4. I understand that by submitting this Notice of Termination I am no longer authorized to discharge stormwater under this general permit, and that discharging pollutants in stormwater to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by an AZPDES permit. I also understand that the submission of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

f. NOTs, signed in accordance with Part VI, Section L , must be sent to the Department at the following address:

Small MS4 NOT
Surface Water Permits Unit (5415 B)
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

PART III. NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification.

1. MS4s automatically designated under R18-9-A905(A)(1)(f) are required to submit an NOI and a stormwater management program or apply for an individual permit by March 10, 2003.

2. MS4s designated under R18-9-A902(D)(1), R18-9-A902(D)(2), or R18-9-A902(E) are required to submit an NOI and a stormwater management program within 180 days of notice (unless the Department provides additional time in the designation notice).

3. New MS4s and New Operators

a. For new MS4s within urbanized areas which commence discharges subsequent to March 10, 2003, the NOI must be submitted not later than 30 days prior to commencing discharges.

b. For new operators of an existing MS4, the NOI must be submitted not later than two days prior to taking operational control of the MS4.

4. If a late NOI is submitted, the authorization is only for discharges that occur after permit coverage is granted. The Department reserves the right to take appropriate enforcement actions for any unpermitted discharges.

B. Contents of Notice of Intent. An applicant eligible for coverage under this general permit shall submit an NOI to discharge under this general permit. The NOI shall contain the following

information:

1. The name, mailing address, and telephone number of the municipal entity applying;

2. An indication of whether the applicant is a federal, state, or other public entity;

3. The urbanized area or core municipality (if not located in an urbanized area) where the small MS4 is located; the county(ies) where the small MS4 is located, and the latitude and longitude of the approximate center of the small MS4;

4. The name of the major receiving water(s) and an indication of whether any of the receiving waters are on the latest CWA section 303(d) list of impaired waters. If the small MS4 discharges to any 303(d) listed waters, include a certification that the SWMP meets the requirements of Part I, Section D.5;

5. An indication of whether all or a portion of the small MS4 is located in Indian country;

6. If the applicant is relying on another governmental entity to satisfy one or more permit obligations (see Part V, Section D), the identity of that entity(ies) and the element(s) the entity(ies) will be implementing;

7. The name and work position or title of the contact person;

8. The signature of the certifying official, signed in accordance with the signatory requirements of Part VI, Section L; and

9. A stormwater management program (SWMP), including best management practices (BMPs) that will be implemented and the measurable goals for each of the stormwater minimum control measures specified in Part V, Section B., the month and year in which the applicant will start and fully implement each of the minimum control measures or the frequency of the action, and the name of the person(s) responsible for implementing or coordinating the SWMP.

10. The following certification:

    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. In addition I certify that the permittee will comply with all terms and conditions stipulated in General Permit No. AZG2002-002 issued by the Director.

C. Where to Submit. The applicant shall submit the signed NOI to the Department at the following address:

Small MS4 NOI
Surface Water Permits Unit, 5415B
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

D. Co-Permittees Under a Single NOI.

Any small MS4 that meets the requirements of Part I of this general permit may choose to partner with another regulated MS4 to develop and implement a SWMP. The MS4s may also jointly submit one NOI. If responsibilities are being shared as provided in Part V, Section D , the SWMP must describe which permittees are responsible for implementing each of the minimum measures. All small MS4 permittees are subject to the provisions in Part V, Section E.

PART IV. SPECIAL CONDITIONS

Total Daily Maximum Loads (TMDLs) Allocations Established after Permit Issuance. If a TMDL is established for any waterbody into which the permittee discharges prior to the date that the permittee or applicant submits an NOI, and if that TMDL includes a wasteload allocation or load allocation for a parameter likely to be discharged by the MS4, the permittee must meet the requirements of the TMDL and/or its associated implementation plan. If a TMDL is approved for any waterbody into which the permittee discharges afer the date that the permittee or applicant submits an NOI, the Department may require revisions to the SWMP to ensure that the wasteload allocation, load allocation and/or the TMDL's associated implementation plan will be met. Monitoring of the discharges may also be required, as appropriate, to ensure compliance with the TMDL.

PART V. STORMWATER MANAGEMENT PROGRAM (SWMP)

A. General Requirements. An applicant shall develop, and a permittee shall implement, and enforce a SWMP designed to reduce the discharge of pollutants from a small MS4 to the maximum extent practicable (MEP) to protect water quality. The SWMP shall include management practices; control techniques; system, design, and engineering methods; and other provisions the Department determines appropriate for the control of pollutants.

1. A permittee must fully implement the SWMP, including its measurable goals, no later than December 19, 2007 (except as provided under Part V, Section A.2).

2. If a permittee is required to obtain permit coverage after March 10, 2003, the permittee shall implement the SWMP, including its measurable goals, for the period between the date of authorization to discharge and the expiration date of this permit. For example, if the permittee was authorized to discharge under this permit on March 10, 2006 the measurable goals established in the SWMP for the period between 2006 and the expiration date of this general permit must be met.

3. The SWMP shall address each of the minimum control measures of Part V, Section B and must include measurable goals, including interim milestones, for each BMP, including as appropriate, the months and years in which the MS4 will undertake the required actions and the frequency of the action. The name and title of the person or persons responsible for implementing the SWMP shall also be included.

4. The permittee shall protect water quality by ensuring, to the maximum extent practicable, that no discharge shall cause or contribute to an exceedance of applicable water quality standard. To do so, the permittee shall fully implement all SWMP and permit requirements in accordance with the established time frames.

B. Minimum control measures.

1. Public Education and Outreach on Stormwater Impacts. The permittee or applicant, as applicable, shall:

a. Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impact of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff.;

b. Include the following information in the SWMP:

i. A description of the education program and outreach activities;

ii. A description of the methods for disseminating information;

iii. The target audiences and target pollutants and sources that the applicant will address in the program, and how they were selected;

iv. An estimation of the number of people with whom the applicant intends to communicate;

v. A list of measurable goals for the public education and outreach program;

vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals

vii. The name(s) and title(s) of the person(s) responsible for implementing and coordinating the education activities.

2. Public Involvement/Participation. The permittee or applicant, as applicable, shall:

a. Develop and implement a plan to encourage public involvement and participation in the development and implementation of the SWMP;

b. Comply with state and local public notice requirements when implementing the public involvement/participation program.

c. Include the following information in the SWMP:

i. A description of the general plan for informing the public of involvement and participation opportunities;

ii. The types of activities for public involvement that the program will include and the target audiences;

iii. A description of the procedure for receiving and reviewing public comments;

iv. An explanation of how interested parties may access the SWMP and NOI;

v. A list of measurable goals for the public involvement/participation program;

vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals and;

vii. The name(s) and title(s) of the person(s) responsible for implementing and coordinating the public involvement/participation activities.

3. Illicit Discharge Detection and Elimination. The permittee or applicant, as applicable, shall:

a. Develop, implement, and enforce a program to detect and eliminate illicit discharges into the small MS4, except those discharges listed below:

   i. Non-stormwater discharges as listed in Part I, Section C.2 ; This exception does not apply to those categories of discharge which the permittee or applicant has determined to be a significant contributor of pollutants to the small MS4; or

   ii. Occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) that the permittee does not expect (based on information available to the permittee) to be a significant contributor of pollutants to the small MS4 because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the small MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.).

b. 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;

c. To the extent allowable under state or local law, effectively prohibit through ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

d. Develop and implement a plan to detect, identify the source of, and address non-stormwater discharges, including illegal dumping, to the system;

e. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;

f. Conduct dry weather field screening for non-stormwater flows. The screening must include qualitative field tests based on color, odor, or visually observed characteristics as indicators of discharge sources. If the qualitative field tests do not provide enough information for the permittee to determine the source of the discharge, the permittee must test the discharge, while in the field, for selected chemical parameters. The permittee must investigate the illicit discharge within 15 days of its detection, and must follow up investigation with an action to further study the source of the discharge or eliminate it.

g. Include the following information in the SWMP:

   i. A description of detection methods;

   ii. A description or citation of the established ordinance or other regulatory mechanism used to prohibit illicit discharges. If the permittee needs to develop this mechanism, describe the plan and a schedule to do so.

   iii. A description of enforcement policy and jurisdiction;

   iv. A description of the non-stormwater discharges allowed in the small MS4 pursuant to Part V, Section B.3.a.i;

   v. A description of the non-stormwater discharges allowed in the small MS4 pursuant to Part V, Section B.3.a.ii;

vi. The methods for informing/training employees about illicit discharges;

vii. The methods for informing the public of hazards associated with illegal discharges and improper disposal of waste;

viii. A list of measurable goals for the illicit detection and elimination program;

ix. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and

x. The name(s) and title(s) of the person(s) responsible for implementing and coordinating illicit discharge detection and elimination activities.

4. Construction Site Stormwater Runoff Control. The permittee or applicant, as applicable, shall:

a. Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the 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 Department waives requirements for stormwater discharges associated with small construction activity, defined under 40 CFR 122.26(b)(15)(i), the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from these sites;

b. Using an ordinance or other regulatory mechanism available under the legal authorities of the small MS4, require construction site operators to practice erosion and sediment control and require construction site operators to control waste and properly dispose of wastes, 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. This ordinance must apply, at a minimum, to those sites described in Part V, Section B.4.a.

c. Review all site plans for those sites described in Part V, Section B.4.a. for potential water quality impacts, including erosion and sediment control, control of other wastes, and any other impacts that must be examined according to the requirements of the law or ordinance of Part V, Section B.4.b. Before ground is broken at the construction site, the small MS4 operator shall review the plans and, verify (in written communication with the construction site operator) that the BMPs for the site are appropriate;

d. Develop and implement procedures for site inspection and enforcement of control measures for those sites described in Part V, Section B.4.a.;

e. Include the following information in the SWMP:

i. A description or citation of the established ordinance or other regulatory mechanism used to prohibit erosion and ensure proper management of wastes on construction sites per Part V, Section 4.b. If the permittee needs to develop the required regulatory mechanism, describe the plan and a schedule to do so;

ii. A description of the sanctions and enforcement mechanism(s) to ensure compliance;

iii. A description of the procedures for site inspection and enforcement of control measures, and procedures for site plan reviews;

iv. Procedures for receipt, acknowledgment and consideration of information submitted by the public,

v. A list of measurable goals for the construction site runoff control program;

vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and

vii. The name(s) and title(s) of the person(s) responsible for overseeing construction site runoff control activities.

5. Post-Construction Stormwater Management in New Development and Redevelopment. The permittee or applicant, as applicable, shall:

a. Develop, implement, and enforce a program to address stormwater 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, and discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts;

b. Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the community;

c. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under the legal authorities of the small MS4;

d. Ensure adequate long-term operation and maintenance of BMPs; and

e. Include the following information in the SWMP:

i. A description of the management practices to reduce post-construction runoff from new development and redevelopment projects within the MS4; address any specific priority areas and tailor to the local community;

ii. A description or citation of the established ordinance or other regulatory mechanism used to address post-construction runoff control. If the permittee needs to develop the required regulatory mechanism, describe the plan and a schedule to do so;

iii. A description of the procedure to ensure compliance with local requirements;

iv. A description of the education program for developers, architects and the public about project designs that minimize water quality impacts;

v. An identification of the measurable goals for the post-construction runoff control program;

vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and

vii. The name(s) and title(s) of the person(s) responsible for the development, implementation, and enforcement of post-construction stormwater management.

6. Pollution Prevention/Good Housekeeping for Municipal Operations. The permittee or applicant, as applicable, shall:

a. 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 due to activities, including but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The permittee shall address the following topics in the program:

i. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the small MS4;

ii. Controls to reduce or eliminate 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 and sand storage locations and snow disposal areas; and

iii. Procedures to properly dispose of waste removed from the small MS4 and municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris.

b. Include the following information in the SWMP:

i. A list of the municipal operations impacted by this operation and maintenance program;

ii. A description of the training program for municipal employees

iii. A list of measurable goals for the municipal pollution prevention program;

iv. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and

v. The name(s) and title(s) of the person(s) responsible for implementing and coordinating employee training and pollution prevention activities.

C. Qualifying State or Local Program. The permittee may substitute the BMPs and measurable goals of an existing stormwater pollution control program to qualify for compliance with one or more of the minimum control measures if the existing measure meets the requirements of the minimum control measure as established in Part V, Section B.

D. Sharing Responsibility. Implementation of one or more of the minimum measures may be shared with another entity, or the entity may fully take over the measure. A permittee may rely on another entity only if:

1 The other entity, in fact, implements the control measure;

2. The control measure, or component of that measure, is at least as stringent as the

corresponding permit requirement;

3. The other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is expected. The permittee shall maintain this obligation as part of the SWMP description. If the other entity agrees to report on the minimum measure, the permittee shall supply the other entity with the reporting requirements in Part V, Section G of this general permit. The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.

E. Reviewing and Updating SWMPs.

1. The permittee shall annually review the SWMP in conjunction with preparation of the annual report required under Part V, Section G.

2. The permittee may change the SWMP during the life of the permit according to the following procedures:

   a. Changes adding (but not subtracting) components, controls, or requirements to the SWMP may be made at any time upon written notification to the Department;

   b. Changes replacing an ineffective or infeasible management practice specifically identified in the SWMP with an alternate management practice may be made at any time, as long as the permittee submits a written analysis to the Department explaining why the management practice is ineffective or infeasible (including cost prohibitive), and why the replacement management practice is expected to achieve the goals of the management practice to be replaced;

   c. Change notifications must be signed in accordance with Part VI, Section L;

3. The Department may notify a permittee that changes to the SWMP are necessary:

   a. To address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

   b. To include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; and

   c. If, at any time, the Department determines that the SWMP does not meet permit requirements.

4. The notification described above in Part V, Section E.3 will need to be addressed by the permittee in one of the following manners:

   a. If the Department specifies changes that are to be made to the SWMP (including changes in implementation schedules), the permittee shall, within 60 days (or a later date if provided by the Department) certify that it has made changes as required by the Department. Changes must go into effect 30 days from the date the permittee certifies that changes have been made to the SWMP.

   b. If the permittee proposes an alternative to the Department's required change (including changes in implementation schedule), the proposed alternative must be received by the Department within 60 days of notification of the required change. If the Department approves the proposed alternative, the changes to the SWMP must go into effect 30 days from the date the Department approved the proposal. If the Department does not approve the proposed alternative, the permittee must make

changes to the SWMP as specified by the Department. Certification that changes have been made to the SWMP must be received within 60 days of the date the permittee received notification that the proposal had been rejected. Changes must go into effect 30 days from the date the permittee certifies that changes have been made to the SWMP.

5. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation. The permittee must implement the SWMP in all new areas added to the permittee's portion of the MS4 (or for which the permittee becomes responsible for implementation of stormwater quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.

   a Within 90 days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee must have a plan for implementing the SWMP in all affected areas. The plan may include schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP must be included in the annual report.

   b. Only those portions of the SWMP specifically required as permit conditions shall be subject to the modification requirements of 40 CFR 124.5. Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.

F. Monitoring.

1. The permittee must evaluate program compliance, the appropriateness of identified BMPs, and progress toward achieving identified measurable goals. If the permittee discharges to a water for which a TMDL has been established, the permittee must monitor to determine if the stormwater controls are adequate to maintain compliance with the MS4's wasteload allocation or load allocation. If the permittee discharges to a 303(d) listed water that contains, or may contain, pollutant(s) for which the waterbody is listed, the permittee must monitor to determine if BMPs are effective to control discharges of pollutants of concern.

2. If the permittee conducts analytical monitoring at the permitted small MS4, the permittee must comply with the following:

   a. *Representative monitoring.* Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

   b. *Test Procedures.* Monitoring results shall be conducted according to test procedures approved in R18-9-A905(B) or other test procedures mutually agreed upon by the Director and the permittee or applicant.

   c. *Discharge Monitoring Report*. Monitoring results must be reported on a Discharge Monitoring Report (DMR) when monitoring is performed in accordance with a TMDL requirement.

3. Records of analytical monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;

   b. The names(s) of the individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The name(s) of the individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

4. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

G. Annual Reports.

1. The permittee must submit annual reports to the Department for each year of the permit term. The first report is due September 30, 2004, covering the activities of the permittee during the period beginning on the effective date of the permit for the permittee and ending June 30, 2004. Subsequent annual reports are due on September 30 of each year following 2004 during the remainder of the term of the permit and must cover the activities of the permittee for the previous year up to and including June 30. The report must include:

a. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP and protecting water quality, and the measurable goals for each of the minimum control measures,

b. Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

c. Any changes made to the SWMP since the last annual report and a summary of the stormwater activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);

d. Proposed changes to the stormwater management program, including changes to any BMPs or any identified measurable goals that apply to the program elements;

e. A description of BMPs to be implemented within new areas annexed over the past year that are located within the regulated boundaries of the MS4;

f. A description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs; and

g. Notice that the permittee is relying on another government entity to satisfy some of the permit obligations (if applicable).

2. Where to Submit. Annual reports shall be signed in accordance with Part VI, Section L.2 and sent to the Department at the following address:

Arizona Department of Environmental Quality
Compliance Data Unit
1110 West Washington
Phoenix, AZ 85007

PART VI. STANDARD PERMIT CONDITIONS

A. Duty to Comply.

1. Failure to comply with any applicable term or condition of this permit shall be a violation of this permit and shall be grounds to enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.

2. The issuance of this general permit does not waive any federal, state, county, or local regulations or permit requirements with which a permittee discharging under this general permit is required to comply.

B. Duty to Reapply. If a permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

C. Continuation of an Expired General Permit.

1. If the Director does not reissue this general permit before the expiration date, the current general permit will be administratively continued and remain in force and effect until the general permit is reissued.

2. Any permittee granted general permit coverage before the expiration date automatically remains covered by the continued general permit until the earlier of:

   a. Reissuance or replacement of the general permit, at which time the permittee shall comply with the NOI conditions of the new general permit to maintain authorization to discharge; or

   b. The date the permittee has submitted a Notice of Termination; or

   c. The date the Director has issued an individual permit for the discharge; or

   d. The date the Director has issued a formal permit decision not to reissue the general permit, at which time the permittee shall seek coverage under an alternative general permit or an individual permit.

3. Upon reissuance of a new general permit, the permittee shall file an NOI, within 60 days of the effective date of the new general permit.

D. Need to Halt or Reduce an Activity Is Not a Defense. It is not a defense for a permittee in an enforcement action to plead that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this general permit.

E. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this general permit that has a reasonable likelihood of adversely affecting human health or the environment.

F. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the conditions of the permittee's SWMP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

G. Permit actions.

1. This general permit may be reopened (in accordance with A.A.C. R18-9-A905(3)(a) which incorporates 40 CFR 122.41(f)) to address any changes in state or federal plans, policies, or regulations that would affect the quality requirements for the discharge.

2. This general permit may be modified by the Director before the expiration date to include discharge or receiving water limitations for toxic constituents determined to be present in significant amounts in the discharge.

3. This general permit may be modified, revoked and reissued, or terminated for cause.

4. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

H. Property Rights. The issuance of this general permit does not convey any property rights or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, Indian tribe, or local laws or regulations.

I. Duty to Provide Information. The permittee must promptly furnish the Department with the following information:

1. Upon request, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit, or to determine compliance with this general permit.

2. Upon request, copies of records required by this general permit.

3. In the event that the permittee becomes aware that the permittee failed to submit any relevant facts in the NOI or submitted incorrect information in the NOI or in any other report to the Department, such facts or information.

J. Inspection and Entry. The permittee shall allow the Director or the Director's designee, upon presentation of credentials and other documents as required by law, to:

1. Enter the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this general permit;

2. Have access to and copy, at reasonable times, any records required by this general permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and

4. Sample or monitor, at reasonable times, to assure permit compliance or as otherwise authorized under A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Articles 9 and 10, any substances or parameters at any location.

K. Recordkeeping.

1. The permittee shall retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES or AZPDES permit, and records of all data used to complete the application (NOI) for this permit, for a period of at least three years from the

date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended at the request of the Department at any time.

2. The permittee shall submit its records to the Department only when specifically asked to do so. The permittee must retain the SWMP required by this permit (including a copy of the permit language) at a location accessible to the Department. The permittee must make its records, including the notice of intent (NOI) and the SWMP, available to the public.

L. Signatory Requirements. All NOIs, NOTs, reports required by the general permit, and other information requested by the Director shall be signed as follows:

1. NOIs and NOTs:

   a. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official.

2. Reports and other information.

   a. All reports required by this general permit and other information requested by the Department or authorized representative of the Department shall be signed by a person described in Part VI, Section L.1 or by a duly authorized representative of that person.

   b. A person is a duly authorized representative only if the authorization is made in writing by a person described in Part VI, Section L.1. The authorization shall specify either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the permittee.

3. Changes to Authorization. If the information on the NOI filed for general permit coverage is no longer accurate because a different operator has responsibility for the overall operation of the facility, a new authorization satisfying the requirement of Part VI, Section L.2.b. above must be submitted to the Department prior to or together with any reports, information, or notices of intent to be signed by an authorized representative.

4. Certification. Any person (as defined above in Part VI, Sections L.2.a and L.2.b) signing documents under this Section shall make the following certification:

   "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."

M. Reporting.

1. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

2. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate other requirements that may be necessary to comply with the permit. (In some cases, modification or revocation and reissuance is mandatory.)

3. Other information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, the permittee shall promptly submit the facts or information.

N. Severability. The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of the provision to other circumstances, and the remainder of this general permit shall not be affected.

O. Requiring Coverage Under an Individual Permit.

1. The Director may require a person authorized by a general permit to apply for and obtain an individual permit for any of the following cases:

   a. A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

   b. Effluent limitation guidelines are promulgated for point sources covered by the general permit;

   c. An Arizona Water Quality Management Plan containing requirements applicable to the point sources is approved;

   d. Circumstances change after the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

   e. If the Director determines that the discharge is a significant contributor of pollutants. When making this determination, the Director shall consider:

      i. The location of the discharge with respect to waters of the United States,

      ii. The size of the discharge,

      iii. The quantity and nature of the pollutants discharged to waters of the United States, and

      iv. Any other relevant factor.

2. If an individual permit is required, the Director shall notify the discharger in writing of the decision. The notice shall include:

   a. A brief statement of the reasons for the decision,

   b. An application form,

   c. A statement setting a deadline to file the application,

d. A statement that on the effective date of issuance or denial of the individual permit, coverage under the general permit will automatically terminate,

e. The applicant's right to appeal the individual permit requirement with the Water Quality Appeals Board under A.R.S. § 49-323, the number of days the applicant has to file a protest challenging the individual permit requirement, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process; and

f. The applicant's right to request an informal settlement conference under A.R.S. §§ 41-1092.03(A) and 41-1092.06.

3. The discharger shall apply for an individual permit within 90 days of receipt of the notice, unless the Director grants a later date. In no case shall the deadline be more than 180 days after the date of the notice.

4. If the permittee fails to submit the individual permit application within the time period established in Part V, Section Q.3, the applicability of the general permit to the permittee is automatically terminated at the end of the day specified by the Director for application submittal.

5. Coverage under the general permit shall continue until an individual permit is issued unless the general permit coverage is terminated under Part V, Section Q.4.

P. Request For an Individual Permit.

1. An owner or operator authorized by a general permit may request an exclusion from coverage of a general permit by applying for an individual permit.

a. The owner or operator shall submit an individual permit application under R18-9-B901(B) and include the reasons supporting the request no later than March 10, 2003.

b. The Director shall grant the request if the reasons cited by the owner or operator are adequate to support the request.

2. If an individual permit is issued to an owner or operator otherwise subject to a general permit, the applicability of the general permit to the discharge is automatically terminated on the effective date of the individual permit.

Q. Other Environmental Laws. No condition of this general permit releases the permittee from any responsibility or requirements under other environmental statutes or regulations. For example, this permit does not authorize the "take" of endangered or threatened species as prohibited by section 9 of the Endangered Species Act, 16 U.S.C. 1538. Information regarding the location of endangered and threatened species and guidance on what activities constitute a "take" are available from the U.S. Fish and Wildlife Service.

PART VII. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

Any permit noncompliance constitutes a violation and is grounds for an enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

A. Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 2, 3 or 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed

$25,000 per day per violation.

B. Criminal Penalties. Any a person who violates a condition of this general permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 2, Articles 9 and 10 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

PART VIII. DEFINITIONS

In addition to the definitions contained in A.R.S. 49-255 and A.A.C. R18-9-A901, all definitions contained in section 502 of the Act and 40 CFR 122 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the statute or regulation takes precedence.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Control Measure as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

CWA means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq.

Department as used in this permit, means the Arizona Department of Environmental Quality.

Discharge when used without qualification means the discharge of a pollutant,

Discharge of a Pollutant means

1. Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or
2. Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Discharge-related activities include: activities which cause, contribute to, or result in stormwater point source pollutant discharges; and measures to control stormwater discharges, including the siting, construction and operation of best management practices (BMPs) to control, reduce or prevent stormwater pollution.

Facility means any NPDES or AZPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES or AZPDES program.

Illicit connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit discharge means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES or AZPDES permit (other than the NPDES or AZPDES permit for discharges from the municipal separate storm sewer) and discharges

resulting from fire fighting activities,

Indian country means:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

Large or Medium Municipal Separate Storm Sewer System means all municipal separate storm sewers as defined at 40 CFR 122.26(b)(4) or (7)

MEP means maximum extent practicable, the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit 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, and other provisions that the state determines appropriate for the control of such pollutants.

Measurable goal means a quantitative measure of progress in implementing a component of a stormwater management program.

MS4 means municipal separate storm sewer system.

Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, and storm drains):

1. Owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. That is not a combined sewer; and
4. That is not part of a publicly owned treatment works.

NOI means Notice of Intent to be covered by this permit (see Part II).

NOT means Notice of Termination.

Outfall means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States,

Owner or operator means the owner or operator of any facility or activity subject to regulation under the NPDES program.

Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated

animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant is defined at R18-9-A901(22). A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

Significant contributors of pollutants means any discharge that causes or could cause or contribute to a violation of surface water quality standards.

Small Municipal Separate Storm Sewer System all separate storm sewers that are:

1 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, stormwater, 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;

2 Not defined as large or medium municipal separate storm sewer systems in accordance with this permit;

3 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.

Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Management Program (SWMP) means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.

Waters of the United States which is interchangeable with the term “navigable waters” means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
   a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
   b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (1) through (4) of this definition;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1. through 6. of this definition.

   Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR 423, which also meet the criteria of this definition) are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination

of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Fact Sheet for the Issuance of the AZPDES Small MS4 General Permit

December 19, 2002

Facilities: AZPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (small MS4s) in Arizona, except for those in Indian Country.

Background: Section 405 of the Water Quality Act of 1987 (WQA) added section 402(p) of the Clean Water Act (CWA) which required the Environmental Protection Agency (EPA) to develop a phased approach to regulate stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. EPA published a final regulation on the first phase on this program on November 16, 1990, establishing permit application requirements for stormwater discharges from large and medium municipal separate storm sewer systems.

EPA has issued Phase I MS4 permits to the Cities of Phoenix, Mesa, Tempe, Glendale, Scottsdale, Tucson, Pima County and the highway system operated by the Arizona Department of Transportation. EPA has issued two general permits for storm water discharges associated with industrial activity. One general permit covers construction sites disturbing five or more acres (63 Fed. Reg. 7858, February 17, 1998), and a multi-sector general permit (MSGP) has been issued for other discharges associated with industrial activity (65 Fed. Reg. 64746, October 30, 2000). As of December 5, 2002, ADEQ was authorized to implement the AZPDES program in Arizona. Therefore, these permits are now considered state permits under the AZPDES program. Additionally, ADEQ intends to issue a construction general permit in February 2003 that covers construction sites disturbing one or more acres.

Final Phase II storm water regulations were promulgated by EPA on December 8, 1999 (64 Fed. Reg. 68722). These regulations set forth the additional categories of discharges to be permitted and the requirements of the program. The additional discharges to be permitted include small MS4s.

A draft AZPDES Small MS4 General Permit was developed in the fall of 2002 in conjunction with EPA Region 9. Region 9 and ADEQ jointly public noticed the draft Small MS4 General Permit in the Federal Register on September 18, 2002. ADEQ also public noticed a draft of the AZPDES Small MS4 General Permit in the Arizona Administrative Register on September 27, 2002. While the jointly noticed permit and the permit noticed by ADEQ had nearly identical requirements, the federal version of the permit varied in that it contained eligibility requirements pertaining to the Endangered Species Act, National Historic Preservation Act and Essential Fish Habitat. The AZPDES permit did not contain these eligibility requirements because the issuance of an Arizona state AZPDES permit is not a federal action.

A public meeting was held in Phoenix by EPA on October 16, 2002 to discuss both versions of the draft Small MS4 General Permit. The comment period for both permits ended on October 30, 2002. Comments were received by both EPA and ADEQ from interested parties including regulated MS4s and county associations of government. A response to comments has been issued concurrently with this permit and fact sheet.

The following provides a fact sheet for the AZPDES small MS4 general permit for discharges in Arizona except for Indian Country. Hereinafter, the terms “permit” or “small MS4 general permit” will be used. Note

also that the permit references various federal regulations. These regulations have been incorporated by reference into the state AZPDES rules in the Arizona Administrative Code (A.A.C.) R18-9-A905. As an aid to reviewers, however, the permit cites the federal regulations where specific regulatory language can be found.

I. Introduction

ADEQ is issuing the small MS4 general permit that authorizes the discharge of pollutants in municipal stormwater to waters of the United States.

II. Coverage Provided by General Permits

Section 402(p) of the Clean Water Act (CWA) states that stormwater discharges associated with industrial activity to waters of the United States must be authorized by an NPDES permit. The term "discharge" when used in the context of the NPDES/AZPDES program means the discharge of pollutants (A.R.S. § 49-255 and 40 CFR 122.2).

III. Permitted Facilities

A. Regulated Small MS4s. The following four categories of small MS4s are potentially subject to permitting under Phase II of the storm water program (A.A.C. R18-9-A905 which incorporates 40 CFR 122.32 by reference):

- MS4s operated by municipalities in urbanized areas as defined by the Census Bureau based on the 1990 or 2000 census. These MS4s must be permitted unless they receive a waiver based on the criteria discussed in Part III, Section B of this fact sheet. An urbanized area is basically a core city and urban fringe with a population of 50,000 or more. There were six Urbanized Areas defined in Arizona in the year 2000 Census. These Urbanized Areas were named for the core city and include Avondale, Flagstaff, Phoenix, Prescott, Tucson and Yuma.

  Regulated county and city MS4s subject to permitting under this condition include:

Cities	***Counties***
Apache Junction	*Coconino*
Avondale	*Maricopa*
Cave Creek	*Pinal*
Chandler	*Yavapai*
El Mirage	*Yuma*
Flagstaff	
Gilbert	
Goodyear	
Guadalupe	
Litchfield Park	
Marana	
Oro Valley	
Paradise Valley	
Peoria	
Prescott	
Prescott Valley	
South Tucson	
Surprise	
Tolleson	
Youngtown	
Yuma	

- Designated MS4s are outside urbanized areas. These MS4s can be designated

according to "designation criteria" established by the permitting authority. The permitting authority is required to apply designation criteria to municipalities which have a population of 10,000 or more and population density of 1,000/mi^2 or more. An MS4 may also be designated when it has a smaller population and/or less density based on the designation criteria. Permitting of these MS4s is required on a case-by-case basis based on factors such as rapid growth, high population density or adverse water quality impacts.

Designated criteria were developed jointly by ADEQ and Region 9. On November 27, 2002, Region 9 sent notification to all of the cities listed below of their inclusion in the NPDES program based on designation criteria. The designation criteria had to be applied to the four cities with a population greater than 10,000 people and a density greater than 1,000/mi^2 located outside of the Urbanized Areas. These cities included Douglas, Nogales, Fountain Hills and Florence. The 1990 Census showed that Douglas had a population greater than 10,000 people and a density greater than 1,000/mi^2. The 2000 Census added Nogales, Florence and Fountain Hills. Of these four cities, *Douglas, Nogales and Fountain Hills* were designated due to designation criteria.

Region 9 and ADEQ elected to apply the designation criteria to additional cities based on Arizona's growth and water quality concerns. Additional cities that have been designated include *Camp Verde, Cottonwood, Lake Havasu, Sedona and Sierra Vista*. The Designation Criteria document provides further information regarding the decision to designate these cities.

! MS4s which contribute substantial pollutant loads to regulated MS4s through interconnections.

No small MS4s in Arizona were designated under this condition. ADEQ reserves the right, however, to require a permit of any small MS4 which is found to be a significant contributor of pollutants to any neighboring MS4.

! MS4s designated by petition.

Neither ADEQ nor EPA received any petitions to designate any small MS4s. Should ADEQ receive a petition, it has 180 days in which to determine whether the facility will need to apply for coverage under a permit.

B. Waivers for Small MS4s in Urbanized Areas. The Phase II regulations at 40 CFR 122.32(d) and (e), incorporated by reference into state rules at R18-8-A905, provide permitting waivers for small MS4s in urbanized areas under the following circumstances:

! **MS4s with a Population Less than 1,000** if the MS4 is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES storm water program; and if discharges include any pollutant(s) that have been identified as a cause of impairment of any receiving water body, 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.

! **MS4s with a Population of 1,000 to 10,000** if the permitting authority has evaluated all waters of the U.S., including small streams, tributaries, lakes, and ponds, that receive a discharge from the MS4 and if 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. 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 receives a discharge from the MS4; and

For such waivers, the permitting authority must determine 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. ADEQ does not have such information for any of these MS4s; hence, this type of waiver will not be granted and the MS4s must seek permit coverage for their discharges.

! ADEQ is authorized to, and will be granting waivers to, MS4s with a population less than1,000, unless information is available showing that the discharges are a threat to water quality. The population (within an urbanized area) of all MS4s that are eligible to apply for coverage under this permit is over 1,000, except for the Town of Cave Creek. Thus, Cave Creek has been waived from the requirement to obtain permit coverage at this time.

C. Non-traditional Small MS4s. The definition of a small MS4 in the Phase II regulations (40 CFR 122.26(b)(16)(iii), incorporated by reference in A.R.S. R18-9-A905) includes storm sewers at facilities operated by the federal or state government (or other public entities such as a sewer or port district) such as military bases, universities, hospitals and prisons. The definition does not include facilities which consist of very discrete areas, such as an individual post office. ADEQ has termed these publicly-owned facilities that are neither counties nor cities as "non-traditional small MS4s."

Most non-traditional small MS4s would be subject to permitting by virtue of being located within urbanized areas. The Census Bureau (www.census.gov) provides maps of urbanized areas which may be used by potentially affected facilities to determine if they are located within an urbanized area. ADEQ is not aware of any facilities of this nature which are outside an urbanized area and which have the population and population density by themselves to be potentially designated for permitting. Non-traditional small MS4s located within counties or cities that are regulated MS4s are subject to permitting, provided they have a population size greater than 1,000 people.

The Phase II regulations do not provide guidance on how to determine population for these facilities. ADEQ believes that a reasonable method to determine population is to combine the total resident population and the number of full-time workers. To determine the need to apply for coverage, facility operators should use this method to determine their population, and consider the applicability of the Phase II regulations to their specific facilities. Unless otherwise advised by ADEQ, facility operators should assume the following:

1. A permit application is required for all facilities with a population of 1,000 or more.
2. A permit application is not required for facilities with a population less than 1,000.

The non-traditional small MS4s listed below have been identified by ADEQ and Region 9 to exist within urbanized area boundaries. These facilities have been contacted by Region 9 regarding the potential applicability of Phase II stormwater rules to their stormwater discharges.

Arizona State University
Northern Arizona University

University of Arizona
Arizona Department of Corrections
Yuma Marine Corps
Davis Monthan Air Force Base
Arizona State Hospital
Maricopa Community Colleges
Pima Community Colleges
Central Arizona College
Arizona Western College
Yavapai College
VA Medical Centers in Tucson and Phoenix

D. Non-traditional Small MS4s owned or operated by a regulated city or county. County or city facilities (such as hospitals or prisons) within a permitted area for the same county or city would not need a separate permit. The discharges from these facilities would be need to be incorporated into the Stormwater Management Program implemented by the county or city as part of its permit requirements. However, if a county or city operates a facility outside its permitted area (for example, Maricopa County operates a county hospital in Chandler), the facility would need separate permit coverage.

E. Permitting Options for Small MS4s. The Phase II regulations provide three options for storm water permitting for small MS4s:

- Apply for coverage under the proposed general permit discussed in this fact sheet (or an alternate general permit if one were to be issued).
- Apply for an individual permit.
- Seek coverage as a co-permittee under an existing Phase I MS4 permit via a permit modification.

ADEQ believes that most small MS4s in Arizona will seek coverage under the general permit. However, the other options are also available to small MS4s which may believe that the terms and conditions of the general permit are not appropriate for them.

IV. Environmental Impacts of Discharges from Small MS4s

The 1987 decision by Congress to require NPDES permitting for the storm water discharges discussed above was based on a growing awareness of the environmental significance of nonpoint sources of pollutants. For example, EPA's report entitled "National Water Quality Inventory, 1998 Report to Congress" (EPA, 2000) shows that nonpoint sources, including storm water runoff, are the leading causes of existing water quality impairments.

The Nationwide Urban Runoff Program (NURP), which was sponsored by EPA in the years 1978 through 1983, also showed that storm water runoff is a significant source of pollutants (EPA, 1983). The study identified 77 priority toxic pollutants in storm water runoff discharged from residential, commercial and light industrial areas. Of these toxic pollutants, heavy metals such as copper, lead and zinc were detected most frequently and at levels of greatest concern.

For Arizona, the state's latest 305(b) Water Quality Report (Arizona Department of Environmental Quality, 2000) provides an assessment of the significance of storm water discharges in Arizona. The report shows that urban runoff is a significant contributor of pollutants in Arizona.

V. NPDES Delegation to Arizona

Region 9 approved ADEQ's NPDES delegation request on December 5, 2002. The delegation covers all discharges within the State of Arizona except for discharges in Indian country lands. The final general permit as issued by ADEQ includes references to Arizona regulations rather than EPA

regulations. The permit also does not include eligibility restrictions related to endangered species, historic properties and essential fish habitat since these requirements are based on requirements for federally-issued permits but not state-issued permits. ADEQ is the permitting authority, therefore, NOIs and other information will be required to be sent to ADEQ rather than Region 9. Region 9 will continue to have oversight of the AZPDES program including all permitting and enforcement actions.

VI. Summary of Permit Conditions

This section has been written in an informal style that does not reflect verbatim the actual language used in the permit. It is intended to help the regulated community and members of the public understand the intent and basis of the actual permit language. If any confusion or conflicts exist between this summary and the actual permit language, the permittee must comply with the permit as written. The response to comments may also serve to clarify the conditions of this permit. For additional information, please contact Karyn Moldenhauer, ADEQ Surface Water Permits Unit at (602) 771-4449.

Part I. Coverage Under This General Permit

Introduction: This permit authorizes stormwater discharges from small municipal separate storm sewer systems into waters of the U.S.. Note the AZPDES authorizing statute uses the term "Navigable Waters" which is defined as equivalent to the waters of the U.S. However, because the term 'navigable waters' can be confusing to the general public (i.e., the definition of 'navigable waters' also includes ephemeral washes, intermittent streams, playas, and wetlands, that may not be able to be traveled by conventional vessels), this permit generally references discharges to waters of the U.S. In accordance with the Federal Register December 8, 1999, the goal of this permit is to reduce or eliminate stormwater pollution from municipal activity through development and implementation of a municipality-specific Stormwater Management Program (SWMP).

A. Permit Area. This permit will be for all municipal stormwater discharges in the state of Arizona, except for those in Indian Country. ADEQ does not have authority for such discharges and applicants must pursue permitting through EPA Region 9 or other appropriate permitting authority.

Each permittee operating under this permit will be assigned an Authorization Number when his or her Notice of Intent (NOI) is processed. Note that the assigned number is not an AZPDES Permit Number; rather, the assigned number is for tracking purposes only. The actual permit number is AZG2002-002.

B. Eligibility and Allowable Stormwater Discharges. This permit authorizes all discharges of stormwater from small MS4s except those excluded under Limitations on Coverage (Part I, Section D) of the permit. Coverage under this permit is authorized for:

MS4 discharges originating from the municipalities that are regulated according to the condition listed above in Part III, Permitted Facilities.

C. Allowable Non-Stormwater Discharges. This permit allows municipalities to decide whether or not they will prohibit certain non-stormwater discharges from entry or release through their MS4. If the MS4 specifies which of these non-stormwater discharges they consider "allowable," ADEQ will in most cases, accept the municipality's decision that these allowable non-stormwater discharges are not causing or contributing to a violation of water quality standards. The permit provides a list of non-stormwater discharges that the municipality can decide whether or not to prohibit. This list came from the federal regulations. A second list may be developed by the municipality if additional occasional, incidental non-stormwater discharges are considered not to be causing or contributing to a water quality violation. If ADEQ does not object to non-stormwater discharges listed by the municipality, the

municipality will not be required to prohibit the listed types of non-stormwater discharges into its MS4. All non-stormwater discharges must be addressed in the municipality's SWMP.

D. Limitations on Coverage. Not all stormwater discharges from MS4s are authorized by this permit. Specifically excluded are:

Discharges Mixed With Non-Stormwater. Stormwater discharges that are mixed with non-stormwater sources, other than those identified in and in compliance with the permit are prohibited. Non-stormwater discharges that are authorized under a different NPDES/AZPDES permit may be commingled with discharges authorized under this permit.

Discharges Covered by Another Permit. Stormwater discharges associated with construction activity, industrial activity or that are covered under an individual permit or discharges required to be covered under an alternative general permit are prohibited.

Discharging into Impaired Waters. Eligibility for permit coverage is dependant upon the inclusion of provisions in the SWMP that are consistent with the assumptions and requirements of the TMDL, or are protective of water quality. Also, in cases where a TMDL has not been established for a 303(d) listed water that receives municipal stormwater, the permittee must address control of pollutants of concern such as oil, grease, sediment, pesticides and metals and any other contaminants known to be common in municipal stormwater runoff.

Discharges Causing Degradation. A discharge is not allowed to be inconsistent with Arizona's anti-degradation policy. This policy addresses the degradation of waters that occurs due to a discharge. In the future, determination of consistency with this policy may involve ambient water monitoring or discharge monitoring.

Part II. Authorization Under this General Permit

A. General. Any municipality that is required to obtain coverage must submit a Notice of Intent to operate under the conditions of this general permit. ADEQ believes that this general permit will be used by most municipalities that require coverage. Submission of a complete and accurate NOI eliminates the need to apply for an individual permit for a regulated discharge, unless ADEQ specifically notifies the discharger that an individual permit application must be submitted.

Only NOI forms provided by ADEQ (or reproductions thereof) are valid. Applicants must be aware that by signing and dating the form they certify that they understand and are willing to comply with all terms and conditions of the AZPDES Small MS4 General Permit. Each operator must submit an NOI. For each municipality, there should be only one NOI submitted.

The SWMP must be submitted with the NOI form in order for the NOI to be considered complete. If an NOI is found to be incomplete, ADEQ will require more information before authorization to discharge under this permit is granted. A municipality will be considered authorized to discharge 30 days after the NOI is submitted. This does not guarantee that an NOI or SWMP has been reviewed by ADEQ. Therefore, although the permittee is authorized to discharge under this permit, ADEQ may review the NOI or SWMP materials at any time and require changes.

B. Termination of Coverage. Permittees must submit a completed Notice of Termination (NOT) that is signed according to Part VI, Section L of the permit when discharge ceases from the municipality or the operator has been changed or is no longer the operator. NOTs must be submitted using the form provided by ADEQ, or a reproduction thereof, and sent to the address specified on the form.

The operator may face enforcement action if a NOT is submitted without meeting one of the requirements of the permit unless there has been authorization under an alternative permit or a waiver for coverage under this permit has been approved.

Part III. Notice of Intent Requirements

This part of the permit covers the timing of submittal of the NOI and the information that must be provided. The general due date for the NOI is March 10, 2003. By this day, the permittee must have applied for coverage under a stormwater permit. The March 10, 2003-deadline applies to all regulated municipalities that are in the program because of their location within an Urbanized Area. The date may be different for municipalities that have been designated after December 9, 2002 or municipalities that have been given a different due date by ADEQ.

Information required as part of the NOI is indicated on the NOI form. The applicant must fill out the entire NOI form and also submit the SWMP. The information provided on the NOI form gives ADEQ information about the location of the municipality and any area-specific details that ADEQ should consider when evaluating the application materials. The SWMP that must be attached should be considered to be a description of the program that will be implemented. The detail of this description is found in Part V, Section B describing the requirements for minimum control measures.

The NOI must be signed in accordance with the signatory requirements of 40 CFR 122.22, incorporated by reference in A.A.C. R18-9-A905. A complete description of these signatory requirements is provided in Part VI, Section L of the permit.

As provided by NPDES regulations at 40 CFR 122.33(b)(1), incorporated by reference in A.A.C. R18-9-A905, if permit responsibilities are being shared with another MS4 (such as a neighboring small MS4 or a neighboring large MS4), this information must be provided in the NOI and SWMP. The SWMP is to describe the activities that are being developed or implemented by the other entity. If the small MS4 is partnering with a large MS4, the activities that will be conducted by the large MS4 on behalf of the small MS4 must be incorporated into the permit for the large MS4.

Part IV. Special Conditions. TMDLs established after Permit Issuance

This special condition is different from the TMDL condition of Part I, Section D because it addresses TMDLs that are established after permit coverage has been granted. In order to maintain permit coverage, a municipality would need to comply with this provision. This provision basically requires that a municipality incorporate any new TMDL requirements or provisions into its SWMP.

Part V. Stormwater Management Programs (SWMPs)

Applicants must submit SWMPs that develop and implement the six minimum control measures listed in Part V, Section A of this fact sheet. The permittee has five years to fully implement the management practices that will be used by the municipality to reduce or eliminate pollution from the municipal stormwater discharge.

A. Minimum Control Measures and BMPs. The permit requires that all dischargers covered by the permit develop and implement a SWMP. The SWMP is the means through which dischargers comply with the CWA's requirement to control pollutants in the discharges to the maximum extent practicable (MEP), and comply with the water quality related provisions of the CWA. MEP is considered to be an iterative process in which an initial SWMP is proposed and then periodically upgraded as new BMPs are developed or new information becomes available concerning the effectiveness of existing BMPs (64 Fed. Reg. 68754). The Phase II regulations at 40 CFR 122.34 set forth the following six minimum pollution control measures to be included in SWMPs.

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.

The permit includes nearly verbatim the required program elements for each minimum measure. The permit also includes additional requirements for minimum measures which were derived from the recommendations of the regulations. These provisions are included in the permit as requirements rather than recommendations to clarify and make certain the responsibilities of the permittee.

Each minimum control measure contains requirements to include descriptive information about the SWMP. The descriptive information is expected to clarify the MS4's methods for achieving pollutant reduction to the maximum extent practicable.

EPA has also developed a menu of BMPs for small MS4s which is available on EPA's website at http://www.epa.gov/npdes/menuofbmps/menu.htm to assist in the development of SWMPs. The menu provides detailed descriptions of BMPs which may be included in SWMPs to satisfy the requirements of the six minimum measures. As the permit requirements for Phase I MS4s are quite similar to those for Phase II MS4s, Phase II MS4s may wish to contact Phase I MS4s to gain additional insight from the experiences of Phase I MS4s.

B. Measurable Goals. The Phase II regulations at 40 CFR 122.34(d)(1) and the proposed general permit require that measurable goals be included with the SWMP which is submitted by small MS4s with their NOIs. The measurable goals become permit requirements once the MS4 has requested and has been granted coverage under the general permit.

Measurable goals are quantifiable measures of progress in implementing the various BMPs which comprise a SWMP. Measurable goals may consist of specific one-time only objectives such as the development of a storm water ordinance by a certain date, or they may consist of numeric objectives for the frequency of implementation of a given BMP (such as the frequency of street sweeping or catch basin cleaning). Measurable goals may also consist of specific objectives for water quality improvement over a given time period.

Measurable goals must be included for each specific BMP which is proposed to be included in the SWMP. Measurable goals were included in the Phase II regulations to ensure that the public can better evaluate the level of effort proposed by MS4s in controlling pollutants in the discharges and to ensure accountability of the MS4s.

EPA has developed a measurable goals guidance which is available on EPA's website at http://www.epa.gov/npdes/stormwater/measurablegoals/index.htm. Example measurable goals are provided for each of the six minimum measures to assist MS4s in the development of their own measurable goals. ADEQ recommends that this guidance be reviewed by MS4s in developing their measurable goals.

C. Qualifying Programs. The Phase II regulations at 40 CFR 122.34(c) recognize that state, tribal or local programs may already exist that meet the requirements of one or more of the six minimum measures. In such a case, the regulations and Part V, Section C of the permit provide that the MS4 may include the local qualifying program in the SWMP instead of developing a new program in accordance with the requirements of the minimum measure. A local qualifying program must include, at a minimum, the relevant requirements of the six

minimum measures described in the regulations at 40 CFR 122.34(b).

D. Sharing Responsibility. As stated above in Part III of this fact sheet, a municipality may partner with another municipality operating a small or large MS4 to implement some or all components of its SWMP. This portion of the permit addresses that right and notifies the permittee that it will be ultimately responsible for the implementation of any management practices conducted to achieve compliance with the minimum control measures, regardless of the entity actually implementing the program.

E. Reviewing and Updating SWMPs. This portion of the permit addresses the permittee's rights and responsibilities involved in maintaining a compliant SWMP. As stated before, the BMPs are meant to be part of an iterative process designed to reduce or eliminate pollutants. As such, the management practices selected to address each of the minimum control measures should be re-evaluated at regular intervals for effectiveness. Revision of the SWMP is an expected outcome of frequent re-assessment of the SWMP.

Updates to the SWMP may be proposed by the permittee or required by ADEQ. The permittee is not allowed to remove any BMPs from its SWMP in a modification request. However, if a permittee wishes to replace a BMP with a suitable, like BMP, the permittee may request to do so at any time, provided the supporting information is submitted as required by Part V, Section E.2.b of the permit. A permittee may at any time add a BMP to its SWMP upon written notification to ADEQ. ADEQ could require modifications to the SWMP in order to address water quality concerns. Specific requirements regarding the deadlines for complying with ADEQ's required changes are provided in Part V, Section E.4 of the permit. ADEQ reserves the right to require changes to the permit in accordance with the duties of a permitting authority as established in A.A.C. R18-9-A905 which incorporates 40 CFR 122.

Transfer of Ownership provisions address changes to the SWMP that would need to be made as the result of new management of the facility. For example, a county hospital could lose funding to operate its facility and could be handed over to a private party.

F. Monitoring. The Phase II storm water regulations at 40 CFR 122.34(g) require that small MS4s evaluate program compliance, the appropriateness of the BMPs in their SWMPs and progress towards meeting their measurable goals.

In complying with these requirements, ADEQ is not currently focusing on the traditional end-of-pipe monitoring which is commonly found in most NPDES permits (64 Fed. Reg. 68769). Instead, ADEQ is encouraging a mix of physical, chemical, biological, or programmatic indicators such as described in Claytor and Brown (1996).

The nature of the monitoring activities which will be implemented by permittees will largely depend on the measurable goals selected by the permittees. As discussed above, measurable goals may be measures of the level of effort of an MS4 in implementing a given BMP (such as frequency of street sweeping), or they may be measures of water quality improvement. ADEQ considers that for the initial five-year term of the general permit, most small MS4s will opt for measurable goals which consist of a given level of effort in implementing a particular BMP. As such, the monitoring activities will largely consist of keeping track of these efforts. This information must be submitted to ADEQ in the annual report described below. If stormwater monitoring is conducted by the permittee, Part V, Section F of the permit includes requirements related to representative monitoring, test procedures and reporting of results.

A permittee must evaluate the effectiveness of its SWMP on a yearly basis that corresponds with the reporting period and annual report submittal. It is expected that during this review process, the permittee will make revisions to the SWMP, propose new BMPs, and address

these revisions in the annual report. ADEQ intends to evaluate these proposals and provide the municipality with feedback regarding the appropriateness of the proposed modifications.

G. Annual Reports. In accordance with 40 CFR 122.34(g)(3), each permittee is required to submit a report to ADEQ on an annual basis. This report must include the information required by Part V, Section G.1 of the permit. The information required summarizes the success of BMPs at reducing or eliminating pollutants, revisions necessary to achieve reduction to the MEP, new areas of the municipality that will be subject to the SWMP and plans for the upcoming reporting period. Revisions made to the SWMP in annual reports will be reviewed by ADEQ, however, ADEQ cannot guarantee that it will be able to quickly respond to municipalities regarding the content of their revised SWMP. The revisions stated in the annual reports are therefore subject to the terms of Part II, Section A.4 of the permit which addresses the need to revise the NOI or SWMP based on ADEQ requirements. As stated before, these requirements will be based on water quality concerns.

ADEQ has established the reporting period according to the schedule for most municipal fiscal years (July 1 - June 30). ADEQ has also provided three months after the reporting period in which time the permittee will review the effectiveness of the SWMP and assemble the report that must be submitted on September 30 of each year. Therefore, each annual report must contain the required information for the period of July 1 to June 30.

Part VI. Standard Permit Condition

Although some of these conditions may not appear directly related to the small MS4 general permit, the federal regulations require all AZPDES permits to contain the standard conditions specified at 40 CFR 122.41. This section of the permit describes those conditions.

A. Duty to Comply. The permittee must comply with all conditions of this permit. An operator not fulfilling his or her obligations, as agreed upon by signing the NOI, is considered in violation of the permit, state statutes and the Clean Water Act and is grounds for injunctive relief, substantial monetary penalties, incarceration, changes or terminations to the permit, or denial of permit renewal.

B. Duty to Reapply. For general permits, this requires the permittee to comply with the instructions of the permit that would be reissued to replace this permit, in order to continue permit coverage.

C. Continuation of the Expired General Permit. The permit specifies procedures for continued coverage under a general permit if the permit expires prior to a replacement permit being issued. In short, the expired permit would remain in full force and effect. Any permittee granted coverage prior to the permit's expiration date will automatically remain covered by the continued permit until the earliest of:

- The permit being reissued or replaced;
- The permittee terminating coverage by submitting a NOT;
- Issuance of an individual permit for the permittee's discharges; or
- A formal decision by ADEQ not to reissue the general permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit. However, should the permit expire prior to a replacement permit being issued, the existing permit will only cover those operators that submitted a complete and accurate NOI and met all the eligibility requirements prior to the expiration date of the permit.

Upon re-issuance of a new general permit, the permittee shall file an NOI, within 60 days of the effective date of the new general permit.

D. **Need to Halt or Reduce Activity Not a Defense.** The permittee facing enforcement action may not use as a defense the reasoning that compliance could only be achieved by halting or reducing the permitted activity.

E. **Duty to Mitigate.** The permittee is required to take all reasonable steps to prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

F. **Proper Operation and Maintenance.** The permittee must properly operate and maintain all equipment and treatment systems used by the permittee for compliance with the terms of the permit. This includes all BMPs used to achieve compliance with the terms of the permit and the SWPPP. The permittee must provide appropriate laboratory controls and quality assurance procedures as necessary. Backup systems are required when needed to ensure compliance.

G. **Permit Actions.** The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation, reissuance, termination, or a notification of planned changes or anticipated noncompliance does not halt any permit condition.

H. **Property Rights.** An operator of a small MS4 does not convey his or her property rights or privileges through issuance of this permit or coverage of activity under this permit. Injury to private property or invasion of personal rights are also not authorized under this permit nor is any infringement of federal, state, or local laws or regulations.

I. **Duty to Provide Information.** The permittee must transmit any information needed to determine compliance with the permit or to modify the permit.

J. **Inspection and Entry.** The permittee must, upon presentation of valid credentials by ADEQ or its representative, allow entry into the premises where the regulated activity and/or records are present. ADEQ must have access to view and to be able to make copies of any required records, inspect facilities, practices, operations, and equipment, and sample or monitor at reasonable times.

K. **Recordkeeping.** Any samples taken must be representative of the monitored activity. Records must be retained for three years or for the term of the permit (whichever is longer) subject to extension by ADEQ. Falsification of results is a violation. This part of the permit also requires the permittee to make the NOI and SWMP available to the permitting authority and to the public.

L. **Signatory Requirements.** Applications, reports, NOIs, NOTs, or other information submitted to ADEQ must be signed and certified by a responsible officer, a general partner or proprietor of a partnership, or a principal executive officer or ranking elected official for a municipality, state, federal, or other public agency. Knowingly making false statement, representations, or certifications is subject to penalties. Other than for applications and NOIs, these reports may be signed by a duly authorized representative. A person is considered a duly authorized representative only if the authorization is made in writing by such person and submitted to ADEQ. A duly authorized representative may be either a named individual or any individual occupying a named position. The duly authorized representative is not the same as an operator, but the legally bound representative of the operator.

M. **Reporting.** The permittee must orally report to ADEQ's Water Quality Compliance staff at (602) 771-4841 any anticipated noncompliance activity that may endanger health or the environment within 24 hours. Also, if the permittee becomes aware that there was incorrect information on the NOI that was submitted, he must contact ADEQ Water Quality Permits staff

at (602) 771-4449 and report that information.

N. **Severability.** This provision establishes that any change in a part of the permit will not affect any other part of the permit or cause it to be invalidated.

O. **Requiring Coverage Under an Individual Permit.** An operator may apply for an individual permit rather than apply for coverage under this general permit. An individual application must be submitted for coverage under an individual permit with reasoning supporting the request. An individual permit can be issued by ADEQ provided that the requirement to obtain the individual permit is substantiated and the applicant has submitted a complete individual permit application for municipal stormwater discharges according to the requirements of R18-9-B901(B).

If an individual permit or alternative AZPDES permit is issued to the permittee currently covered under this general permit, coverage under the general permit is terminated on the effective date of the new permit. Alternatively, if a permittee, currently covered under the general permit, seeks coverage under an individual or alternative AZPDES permit and is denied, coverage under the general permit is terminated on the date of such denial, unless otherwise specified by ADEQ.

P. **Request for an Individual Permit.** If a permittee wishes to be covered by an individual permit, he or she must request coverage and submit a complete application as provided in R18-9-B901(B) to ADEQ by March 10, 2003.

Q. **Other Environmental Laws.** Compliance with this permit does not authorize any person to violate other environmental rules or statutes.

Part VII. Penalties for Violation of Permit Conditions

This part advises the regulated community of the appropriate legal authorities and potential penalties for non-compliance with this permit.

Part VIII. Definitions

The permit contains definitions of statutory, regulatory and other terms important for understanding the permit and its requirements.

APPENDIX D

NOTICE OF INTENT

ALL REQUESTED INFORMATION MUST BE PROVIDED ON THIS FORM	**Arizona Department of Environmental Quality** **Water Permits Section** **1110 N. Washington, 5415B-3, Phoenix, Arizona 85007** **Notice of Intent (NOI) for Coverage** **under AZPDES Permit No. AZG2002-002 for** ***Discharges from Small MS4s to Waters of the United States***

FOR AGENCY USE ONLY

AUTHORIZATION NUMBER: |__|__|__|__|__|__|__| AUTHORIZATION GRANTED: Y N

DATE RECEIVED: |__|__|-|__|__|-|__|__| REVIEWER: |__|__|__| RECEIPT MAILED: |__|__|-|__|__|-|__|__|

CHECK AS APPLICABLE: (NEW NOI) ” REVISED NOI ”

IF A REVISION, PROVIDE PRIOR AUTHORIZATION NO. _____

Applicant is:
” (Federal)
” State
” Other_____

PERMITTEE (Agency Responsible for the Discharge)

Applicant’s Name: _Marine Corps Air Station Yuma_____ Phone: __(928) 269-3460_____

Applicant’s Mailing Address: _Environmental Department, Building 228, Marine Corps Air Station_____

City: ____Yuma_____ Zip Code: __85369-9110_____

CONTACT PERSON Name: ___Mr. Jon Buehler_____ Phone:___(928) 269-3460_____

E-mail Address: _____buehlerjo@yuma.usmc.mil_____ Fax: _____(928) 269-5216_____

Contact Person’s Agency and Title: __MCAS Yuma Environmental Protection Specialist (Water)_____

LOCATION INFORMATION

Name of Urbanized Area where the MS4 is located: ____Yuma, AZ_____

Name of county(ies) where the MS4 is located: _____Yuma County_____

Provide the following information on the approximate center of the MS4:

Latitude: __32___E__38__’___59___” Longitude: _-114__E __36___’___48___”

Township: ____9 S_____ Range: _____23 W_____ Section: _____11, 14_____

Is any portion of the MS4 located in Indian Country? Yes ” If yes, name_____ (No) ”

Does any portion of the MS4 service a population within Indian Country?

Yes ” If yes, how many people within the Indian Country are served by your MS4?_____ (No) ”

Name(s) of neighboring Tribes/Counties/Cities/Towns (places that share borders with the permittee):

___City of Yuma_____ _____ _____

___Yuma County_____ _____ _____

_____ _____ _____

WATERSHED INFORMATION

Name of Watershed: _____Yuma Groundwater Basin_____

	Is the Receiving Water a 303 (d) Impaired Water?	
Name of Receiving Water(s): __Colorado River_____	Yes ”	(No) ”
_____	Yes ”	No ”
_____	Yes ”	No ”
_____	Yes ”	No ”

If any of the receiving waters are 303 (d)-listed Impaired Waters, you must complete the Impaired Water Information portion of this form.

IMPAIRED WATERS INFORMATION

If you indicated that any of the receiving waters to which you discharge are listed as a 303 (d) Impaired Water, please answer the following questions.

Is there a Total Maximum Daily Load (TMDL) for the 303 (d) Impaired Water?

Yes ” Proceed to Part A No ” Proceed to Part B

Part A.

Does the TMDL prescribe a wasteload allocation to stormwater discharge from your MS4?

Yes ” Check the box below No ” Proceed to Part B

” *I certify that the SWMP identifies specific BMPs that will be used to meet wasteload allocations. I also certify that I will monitor for pollutants for which my MS4 is assigned a wasteload allocation.*

Part B.

Check the box below if the MS4 has the potential to discharge the pollutants identified on the 303(d) list.

” *I certify that the description of the SWMP addresses specific BMPs for reducing the discharge of 303 (d)-listed pollutants.*

ADDITIONAL INFORMATION

This NOI must include the following attachments prepared as specified in Part III of the general permit.

” A description of your Stormwater Management Program

Has another governmental entity agreed to satisfy any of your permit obligations?

Yes ” If yes, check the boxes below (No) ”

” The agreement is explained in the description of your Stormwater Management Program.

” Written documentation of your agreement is included as an attachment.

CERTIFICATION

This certification must be signed by the appropriate party as specified in this general permit Part VI.L.

“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. In addition I certify that the permittee will comply with all terms and conditions stipulated in General Permit No. AZG2002-002 issued by the Director.”

Printed Name of Applicant’s Representative: ___Herbert "Gil" Guillory_____ Title: by direction of the __Commanding Officer MCAS Yuma__

Signature of Applicant’s Representative:_____ Date: |_03_|-|_10_|-|_03_|

MCAS Yuma SWDMP Description

Marine Corp Air Station (MCAS) Yuma developed a Phase II Storm Water Management Plan (SWMP) to comply with the Draft General Permit No. AZG2002-002, Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4) to Waters of the United States. The United States Environmental Protection Agency (USEPA) finalized these Phase II regulations on December 8, 1999. In Arizona, the Arizona Department of Environmental Quality (ADEQ) is in the process of developing a Phase II General Permit to comply with the federal regulations; however, the ADEQ has not published final Phase II regulations as of the date of this SWMP. Therefore, the SWMP is based on the *Draft* Arizona Phase II regulations. If the *Final* Arizona regulations differ significantly from those of the *Draft* Arizona Phase II regulations, the Phase II compliance plan described in the SWMP should be amended.

This SWMP is organized into ten sections with appropriate figures, tables and appendices that describe MCAS Yuma property and operations, regulatory background of the storm water compliance program, and the current plan for Phase II storm water discharge compliance. The plan addresses the six minimum control measures outlined in the Draft Arizona regulations. The individual sections are described below. The titles of the tables, figures and appendices are also listed.

Section 1.0: Introduction - Describes the organization of this SWMP, important terminology, MCAS Yuma property and operations, federal and Arizona storm water regulations, and MCAS Yuma's storm water program.

Section 2.0: Phase II Compliance Actions - Describes the compliance actions required to meet the Arizona Phase II requirements. These include a Notice of Intent (NOI) and SWMP.

Section 3.0: Public Education and Outreach on Storm Water Impacts - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small municipal separate storm sewer systems (MS4s) implement a public education/outreach program to inform affected communities regarding the impacts of storm water discharges and the steps that can be taken to reduce storm water pollution. For the purposes of this SWMP, the "public" consists of military personnel at MCAS Yuma, civil service employees, and any residents in MCAS Yuma housing.

Section 4.0: Public Involvement/Participation - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small MS4s devise and implement (1) a public participation strategy to involve the community in the planning and implementation of the storm water management program, and (2) effective public notification procedures. As stated above, the "public," for the purposes of this SWMP, consists of military personnel at MCAS Yuma, civil service employees, and any residents in MCAS Yuma housing.

Section 5.0: Construction Site Storm Water Runoff Control - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small MS4s develop and implement a policy and procedures for the control of construction site runoff for sites one acre in size and larger.

Section 6.0: Post-Construction Storm Water Management in New Development and Redevelopment - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small MS4s develop and implement a policy and procedures for the control of post-construction runoff.

Section 7.0: Pollution Prevention/Good Housekeeping for Municipal Operations - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small MS4s develop and implement an operation and maintenance program that has a training component with the ultimate goal of preventing or reducing pollutants in storm water discharges to the Maximum Extent Practicable (MEP).

Section 8.0: Illicit Discharge Detection and Elimination - Describes the requirements of this minimum control measure and MCAS Yuma's plan for addressing those requirements. The measure requires that operators of regulated small MS4s (1) create a detailed storm drain system map, (2) effectively prohibit illicit discharges to the storm drain system, (3) develop a plan to detect and address illicit discharges, and (4) inform the public of hazards associated with illegal discharges and the improper disposal of waste.

Section 9.0: Reporting and Recordkeeping - Describes the reporting and recordkeeping requirements for compliance with the General Permit.

Section 10.0: References – A list of documents used in the preparation of the SWMP.

Tables

3-1 Compliance Schedule and Measurable Goals for Public Education and Outreach on Storm Water Impacts

4-1 Compliance Schedule and Measurable Goals for Public Involvement/Participation

5-1 Compliance Schedule and Measurable Goals for Construction Site Storm Water Runoff Control

6-1 Compliance Schedule and Measurable Goals for Post-Construction Storm Water Management in New Development and Redevelopment

7-1 MCAS Yuma Best Management Practices

7-2 Compliance Schedule and Measurable Goals for Pollution Prevention/Good Housekeeping For Municipal Operations

8-1 Compliance Schedule and Measurable Goals for IllicitDischarge Detection and Elimination

Figures

1 – Regional Map

2 – Site Map

Appendices

A – Abbreviations and Acronyms

B – Fact Sheet and Phase II Regulations Published in the Federal Register on December 8, 1999

C – Fact Sheet and Draft General Permit No. AZG2002-002, Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems to Waters of the United States

D – Notice of Intent

E – Public Education and Outreach Materials

APPENDIX E

PUBLIC EDUCATION AND OUTREACH MATERIALS

EDUCATIONAL BROCHURES

To report illegal dumping into a storm drain or a sewage spill, please call:

MCAS Yuma Environmental
(928) 269-3201

To RECYCLE or properly DISPOSE of household hazardous waste including:

- ☑ **Paints**
- ☑ **Batteries**
- ☑ **Antifreeze**
- ☑ **Cleaning products**
- ☑ **Used oil and oil filters**

To find a facility or event near you Contact:

☑**Earth911: (800) CLEANUP**

☑**Yuma County Department of Public Works: (928) 329-2306**

☑**City of Yuma Department of Public Works: (928) 783-1276**

The City of Yuma Department of Public Works offers quarterly household hazardous waste central disposal locations.

For more storm water information, please see the following web pages:
www.adeq.state.az.us/environ/water/permits
www.nelp.navy.mil/training/sw

Storm Water Education Outreach Program

MCAS Yuma Environmental **(928) 269-3201**
(928) 269-5580

Photos and artwork used in this brochure are courtesy of the ADEQ, City of San Diego's Storm Water Pollution Prevention Program, City of Los Angeles Storm water Program

Remember,
only rain

is allowed
down the
storm drain

MCAS YUMA

How YOU can be the Solution to Storm Water Pollution

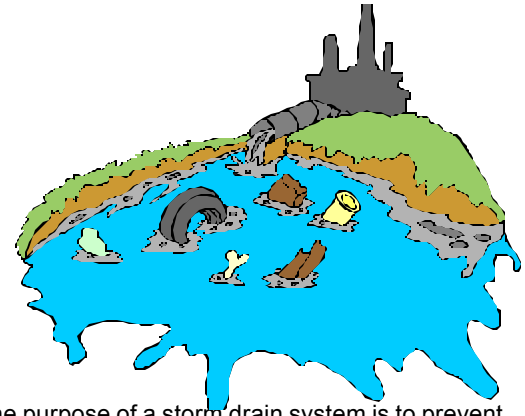
Help Protect your Recreational Lakes and Rivers

Guidelines for Bachelor Enlisted and Officer Quarters (BEQs & BOQs)

Plan Your Activities to Prevent Pollutants From Entering Your Storm Drain System

Problem

Storm water runoff is a major source of pollution to lakes and rivers. When it rains, the rain flows over streets or other surfaces, picks up pollutants, and carries them into earthen ditches or pipes that are part of the storm drain conveyance system.



The purpose of a storm drain system is to prevent flooding by transporting water away from urban areas. Therefore, pollutants that enter a storm drain or a creek will eventually flow into lakes and rivers **without** being treated.

Typical pollutants and the sources of these pollutants consist of the following:

- Dirt, trash and debris from streets;
- Motor oil, antifreeze, paints and household cleaners that are dumped into storm drains;
- Oils and metals from industrial related maintenance activities and automobiles;
- Soap from washing your car;
- Pesticides and fertilizers from lawns and gardens;
- Soil erosion from yards and hillsides;
- Biological contaminants from animal waste;
- Litter, leaves and lawn clippings.

Solution

MCAS Yuma is committed to proper management of storm water to ensure compliance with environmental laws. You can help and be part of the solution to storm water pollution by implementing suggestions contained in this brochure. Many organizations in Yuma including MCAS Yuma, are dedicated to improving water quality in our lakes and rivers to protect public health and to enhance quality of life. For more information, visit the web pages in this brochure.

General

By law, only rain is allowed down the storm drain. Practice good housekeeping measures, and do not discharge rinse water, wastewater, or toxic pollutants into a storm drain.

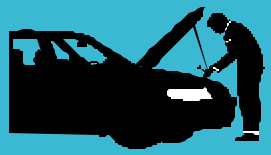
- Use a broom (instead of a hose) to sweep up litter and debris from paved areas (i.e. gutters, sidewalks and driveways). Dispose of wastes into the trash.

- Purchase non-toxic or safer products for household cleaning. If you must use a toxic cleaning product, buy in small quantity, limit use, and follow dilution instructions. Ensure proper disposal by contacting the **City of Yuma Department of Public Works (928)783-1276**

- Do not litter. Ensure that trash is disposed of properly, with the lid closed tightly on the trash can. Don't allow storage containers to leak outside on pavement. Report any leaks from trash cans and dumpsters to **MCAS Yuma Environmental (928) 269-3201.**

Automotive

- To protect your waterways, wash your car at an off-base commercial wash facility or at the **MCAS Yuma Car Wash Building 567.**



- Conduct automobile maintenance at an approved locations such as the AutoPride ServiCenter Building 570. If you perform your our maintenance, use the MCAS Yuma **Auto Hobby Shop at Building 564**:

- Take used motor oil and antifreeze to the following locations for recycling or proper disposal:
  - ⇨ **MCAS Yuma AutoPride ServiCenter Building 570**
  - ⇨ **MCAS Yuma Auto Hobby Shop Building 564**.
  - ⇨ **City of Yuma quarterly household waste disposal site**.

- Maintain your car to reduce leakage of oil, antifreeze and other fluids.

- Protect against spills and leaks by using drip pans whenever possible.

- Use public transportation whenever feasible to reduce automobile related pollutants (i.e. oils and metals) from entering the storm drain system.

To report illegal dumping into a storm drain or a sewage spill, please call:
MCAS Environmental
(928) 269-3201

For more storm water information, please see the following web pages:

www.adeq.state.az.us/environ/water/permits
www.nelp.navy.mil/training/sw

To recycle or properly dispose of household hazardous waste contact:

- ☑ **MCAS Housing: (928) 269-3640**
- ☑ **Earth911: (800) CLEANUP**
- ☑ **Yuma County Department of Public Works: (928) 329-2306**
- ☑ **City of Yuma Department of Public Works: (928) 783-1276**

Paints, batteries, antifreeze, cleaning products, used oil, oil filters, and other household hazardous wastes can be recycled or properly disposed through these facilities.

The City of Yuma Department of Public Works offers quarterly household hazardous waste central disposal locations.

Storm Water Education Outreach Program

MCAS Yuma Environmental **(928) 269-3201**
(928) 269-5580

Photos used in this brochure are courtesy of the Water Quality Consortium, a cooperative venture between the Washington State Department of Ecology, King County and the cities of Bellevue, Seattle and Tacoma. Artwork courtesy of the City of Sacramento Storm Water Program.

WATER QUALITY CONSORTIUM

Remember,
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down the
storm drain

MCAS YUMA

How YOU can be the Solution to Storm Water Pollution

Help Protect your Recreational Lakes and Rivers

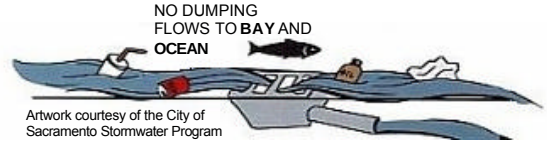
MARINE CORP AIR STATION
YUMA ARIZONA

Guidelines for Family Housing Areas

Plan Your Home Activities to Prevent Pollutants From Entering Your Storm Drain System

Problem

Storm water runoff is a major source of pollution to lakes and rivers. When it rains, the rain flows over streets and other surfaces and picks up pollutants and carries them into earthen ditches and/or pipes which are part of the storm drain conveyance system. The purpose of a storm drain system is to prevent flooding by transporting water away from urban areas. Therefore, pollutants that enter a storm drain or a creek will eventually flow into lakes and rivers **without** being treated.



Artwork courtesy of the City of Sacramento Stormwater Program

Typical pollutants and the sources of these pollutants consist of the following:

- Dirt, trash and debris from streets;
- Motor oil, antifreeze, paints and household cleaners that are dumped into storm drains;
- Industrial related maintenance activities;
- Soap from washing your car;
- Pesticides and fertilizers from lawns and gardens;
- Soil erosion from yards and hillsides;
- Biological contaminants from animal waste;
- Litter, leaves and lawn clippings.

Solution

MCAS Yuma is committed to proper management of storm water to ensure compliance with environmental laws. You can help and be part of the solution to storm water pollution by implementing suggestions contained in this brochure. Many organizations in Yuma are dedicated to improving water quality in our lakes and rivers to protect public health and to enhance quality of life. For more information, visit the web pages in this brochure.

General

By law, only rain is allowed down the storm drain. Practice good housekeeping measures, and do not discharge rinse water, wastewater, or toxic pollutants into a storm drain.

- Use a broom (instead of a hose) to sweep up litter and debris from paved areas (i.e. gutters, sidewalks and driveways.) Dispose of wastes into the trash.
- Dispose of latex (water-based) paint properly, wash equipment in a sink that discharges to the sanitary sewer.
- Purchase non-toxic or safer products for household cleaning. If you must use a toxic cleaning product, buy in a small quantity, limit use, and follow dilution instructions. Ensure proper disposal of unused portions by **contacting your housing office (928)269-3640 or the City of Yuma Department of Public Works (928)783-1276**.

Pet Waste

- Immediately dispose of pet waste to prevent harmful bacteria from entering storm drains and waterways.

Lawn Care

- Dispose of yard waste frequently. Rake up lawn clippings and leaves for composting or for recycling. Do not hose material down into streets.

- Avoid chemical fertilizers whenever possible, otherwise follow directions when using pesticides, herbicides and fertilizers, use only what you need.
- Irrigate your lawn properly. Overwatering your lawn will result in excess water transporting pollutants from your lawn into your street and storm drains.

Automotive

To protect your waterways, wash your car off-base at a commercial wash facility or at the **MCAS Yuma Car Wash Building 567.**

Conduct automobile maintenance at approved locations such as the AutoPride ServiCenter Building 570. If you perform your our maintenance, use the MCAS Yuma **Auto Hobby Shop at Building 564**

Take used motor oil and antifreeze to the following locations for recycling or proper disposal:

- ⇨ **MCAS Yuma AutoPride ServiCenter Building 570**
- ⇨ **MCAS Yuma Auto Hobby Shop Building 564**.
- ⇨ **City of Yuma quarterly household waste disposal site**.

Maintain your car to reduce leakage of oil, antifreeze and other fluids.

Protect against spills and leaks by using drip pans whenever possible.

To report illegal dumping into a storm drain or a sewage spill, please call:

MCAS Yuma Environmental
(928) 269-3201

RECYCLE or properly DISPOSE of household hazardous waste including:

- ☑ **Paints**
- ☑ **Batteries**
- ☑ **Antifreeze**
- ☑ **Cleaning products**
- ☑ **Used oil and oil filters**

To find a facility or event near you Contact:

☑**Earth911: (800) CLEANUP**
☑**Yuma County Department of Public Works: (928) 329-2306**
☑**City of Yuma Department of Public Works: (928) 783-1276**

The City of Yuma Department of Public Works offers quarterly household hazardous waste central disposal locations.

For more storm water information, please see the following web pages:
www.adeq.state.az.us/environ/water/permits
www.nelp.navy.mil/training/sw

Storm Water Education Outreach Program
MCAS Yuma Environmental **(928) 269-3201**
(928) 269-5580

Photos and artwork used in this brochure are courtesy of the ADEQ, City of Los Angeles and the City of Sacramento Storm Water Programs

Remember,
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is allowed
down the
storm drain

MCAS YUMA

How YOU can be the Solution to Storm Water Pollution

Help Protect your Recreational Lakes and Oceans

Guidelines for Housekeeping and Landscaping Maintenance

Plan Your Maintenance Activities to Prevent Pollutants From Entering Your Storm Drain System

Problem

Storm water runoff is a major source of pollution to lakes and rivers. When it rains, the rain flows over streets and other surfaces and picks up pollutants and carries them into earthen ditches and/or pipes which are part of the storm drain conveyance system. The purpose of a storm drain system is to prevent flooding by transporting water away from urban areas. Therefore, pollutants that enter a storm drain or a creek will eventually flow into lakes and rivers **without** being treated.

Artwork courtesy of the City of Sacramento Stormwater Program

Landscaping, maintaining golf courses and housekeeping activities may contribute to storm water pollution through improper cleaning and disposal practices. Typical pollutants generated from these activities are:

- Litter, trash and debris;
- Fertilizers, pesticides and herbicides;
- Leaves, grass clippings and tree trimmings;
- Soil and sediment;
- Detergents, soaps and degreasers.

These materials degrade local waters when allowed to flow into the street, gutter or storm drain system.

Solution

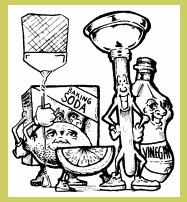
MCAS Yuma is committed to proper management of storm water to ensure compliance with environmental laws. You can help and be part of the solution to storm water pollution by implementing suggestions contained in this brochure. Many organizations in Yuma are dedicated to improving water quality in our lakes and rivers to protect public health and to enhance quality of life. For more information, visit the web pages in this brochure.

General

By law, only rain is allowed down the storm drain. Practice good housekeeping measures and do not discharge rinse water, wastewater or toxic pollutants into a storm drain.

Housekeeping

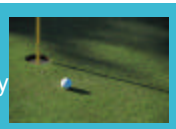
- Ensure that Marine Corps and contract personnel engaged in janitorial work, carpet cleaning and pressure washing dispose of wash water properly, either into the sanitary sewer or as hazardous waste. Do not dispose of wash water in the storm drain.
- NEVER pour chemicals into a storm drain.
- All trash receptacles must be leak proof. Replace any leaky dumpsters.
- Regularly clean floors and impervious surfaces such as sidewalks, parking lots and dumpster areas to keep them free of litter, trash and debris.
- Keep dumpster lids closed to keep rainwater out.
- Purchase non-toxic or safer products for household cleaning. If you must use a toxic cleaning product, buy in small quantity, limit use, and follow dilution instructions. Ensure proper disposal by contacting the **City of Yuma Department of Public Works (928)783-1276**

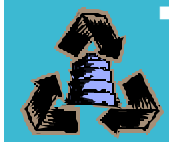


Landscaping and Golf Course Maintenance Activities

- When excavating or landscaping, prevent soil from washing or blowing into the street or storm drain.
- Cover stockpiles and landscaped materials with tarp to prevent transport of soil by wind or rain.
- Conduct grading and excavation activities during dry weather.
- Install plants after grading to stabilize areas of bare soil to minimize erosion.

- Leave mulched grass clippings from golf courses and lawns to act as a natural fertilizer. Use dry cleaning methods to rake away leaves, grass clippings and tree trimmings.





- Compost grass and leaves on-site or at a landfill, or use a curbside program to recycle yard waste. Do not hose or blow material down into streets or storm drains.
- Check your irrigation system to ensure proper operation. Excessive watering allows pollutants like yard wastes, soil, fertilizers, pesticides and herbicides to be carried away from landscaped areas down into streets and storm drains.

- Avoid chemical pest controls whenever possible. First, try physical controls such as caulking holes, barriers, hand picking and traps. Next try biological controls such as predatory insects and bacterial insecticides.
- Apply pesticides as a last resort. If you must use a pesticide, use one designed to control your specific pest.
- For proper application of chemicals, read the labels of pesticides, herbicides and fertilizers. Follow dilution instructions. Use only what you need and use up the chemicals entirely. Rinse containers and use rinse water as product.
- Be sure to properly store and dispose of landscape wastes, pesticides and herbicides.
- Do not apply excess fertilizer or fertilize land near ditches, storm drains, streams or other water bodies.

- Do not use pesticides or herbicides if rain is expected.
- Teach employees how to implement these specific housekeeping and landscaping steps.

To report illegal dumping into a storm drain or a sewage spill, please call:
MCAS Environmental
(928) 269-3201

To recycle or properly dispose of commercial hazardous waste contact:

- ☑ MCAS Environmental (928) 269-3201
- ☑ Earth911: (800) CLEANUP
- ☑ Yuma County Department of Public Works: (928) 329-2306
- ☑ City of Yuma Department of Public Works: (928) 783-1276

Commercial hazardous wastes that can be recycled or require proper disposal include:

- ☑ Paints
- ☑ Batteries
- ☑ Antifreeze
- ☑ Used oil and filters
- ☑ Cleaning products

The City of Yuma Department of Public Works offers quarterly household hazardous waste central disposal locations.

For more storm water information, please see the following web pages:

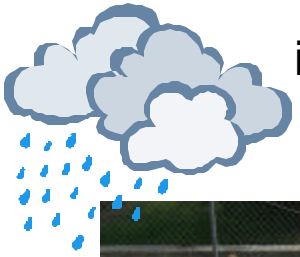
www.adeq.state.az.us/environ/water/permits
www.nelp.navy.mil/training/sw

Storm Water Education Outreach Program

MCAS Yuma Environmental (928) 269-3201
(928) 269-5580

Photos and artwork used in this brochure are courtesy of the ADEQ, City of Los Angeles and the City of Sacramento Storm Water Programs

Remember, only rain



is allowed down the storm drain

MCAS YUMA

How YOU can be the Solution to Storm Water Pollution

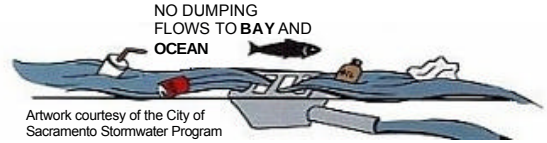
Help Protect your Recreational Lakes and Rivers

Guidelines for Vehicle and Equipment Fueling, Maintenance and Repair

Plan Your Activities to Prevent Pollutants From Entering Your Storm Drain System

Problem

Storm water runoff is a major source of pollution to lakes and rivers. When it rains, the rain flows over streets and other surfaces and picks up pollutants and carries them into earthen ditches and/or pipes which are part of the storm drain conveyance system. The purpose of a storm drain system is to prevent flooding by transporting water away from urban areas. Therefore, pollutants that enter a storm drain or a creek will eventually flow into lakes and rivers **without** being treated.



Artwork courtesy of the City of Sacramento Stormwater Program

Industrial activities such as vehicle and equipment maintenance, repair and fueling may contribute to storm water pollution through improper maintenance and fueling practices. Typical pollutants generated from these activities are:

- Litter, sediment, trash and debris;
- Metals (copper, zinc, chromium, nickel and lead);
- Gasoline, diesel fuel, oil and grease;
- Antifreeze, transmission and radiator fluids; and
- Solvents, degreasers or other cleansers.

These materials degrade local waters when allowed to flow into the street, gutter or storm drain system.

Solution

MCAS Yuma is committed to proper management of storm water to ensure compliance with environmental laws. You can help and be part of the solution to storm water pollution by implementing suggestions contained in this brochure. Many organizations in Yuma are dedicated to improving water quality in our lakes and rivers to protect public health and to enhance quality of life. For more information, visit the web pages in this brochure.

General

By law, only rain is allowed down the storm drain. Practice good housekeeping measures and do not discharge rinse water, wastewater or toxic pollutants into a storm drain.

Keep Your Shop Clean

- Use a drip pan to capture leaking fluids and to prevent any spills.
- Regularly sweep or vacuum shop floors and other impervious surfaces at your facility to prevent runoff of pollutants.

- Clean up spills immediately to minimize safety hazards and prevent spreading. Do not wait for spills to evaporate. Use dry cleanup methods to sweep or vacuum up any spills. Apply absorbents or rags first, then sweep up.

- A mop may be used as an alternative to hosing down the area. Dispose of wash water properly, either into a sink or floor drain for disposal to the sanitary sewer.
- Hazardous waste should be disposed of at a proper waste disposal/recycling center. Ensure proper disposal by contacting the **Yuma County Department of Public Works at (928) 329-2306**.
- Recycle greases, oil and filters, antifreeze, cleaning solutions, batteries, hydraulic and transmission fluids.

- Capture all metal filings, dust, particles and paint chips from grinding, shaving, and sanding. Dispose of waste properly. NEVER dispose of this waste into a storm drain or sanitary sewer.

Utility Maintenance Activities

- Electrical, telephone and natural gas suppliers must adhere to the NPDES General Utility Vault Permit.

☑ Marine Corps Policy requires point source discharges to comply with NPDES permits and not cause violation of water standards. Water from utility vaults is not allowed to enter the street or storm drain system if it is suspected to contain pollutants.

Maintenance and Fuel Dispensing Areas

- Do not wash down areas with water, unless the wash water is collected diverted from the storm drain system.
- Use catch basin infiltration inserts to capture particulate pollutants.
- Post signs to prevent "topping off" of fuel tanks.
- Clean storm drains regularly, stencil inlets with "No Dumping."
- Move activities indoors, or cover equipment with a permanent roof.
- Inspect and keep equipment clean to prevent leaks and excessive grease/oil buildup.
- Berm maintenance and fueling areas to contain spills and prevent discharge to the storm drain.

☑ Conduct maintenance only in these contained areas to prevent pollutant runoff.

- Properly store and dispose of hazardous wastes. Store hazardous materials and wastes in secondary containment.
- Train employees on how to implement these steps for proper maintenance, repair, fueling and cleanup to minimize the introduction of pollutants into the storm drain system.

To report illegal dumping into a storm drain or a sewage spill, please call:
MCAS Environmental
(928) 269-3201

To recycle or properly dispose of commercial hazardous waste or grease contact:

- ☑ MCAS Environmental (928) 269-3201
- ☑ Earth911: (800) CLEANUP
- ☑ Yuma County Department of Public Works: (928) 329-2306
- ☑ City of Yuma Department of Public Works: (928) 783-1276

Commercial hazardous wastes that can be recycled or require proper disposal include:

- ☑ Grease
- ☑ Used oil
- ☑ Batteries
- ☑ Paint
- ☑ Cleaning products

The City of Yuma Department of Public Works offers quarterly household hazardous waste central disposal locations.

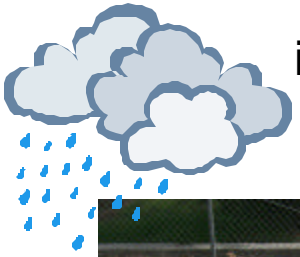
For more storm water information, please see the following web pages:

www.adeq.state.az.us/environ/water/permits
www.nelp.navy.mil/training/sw

Storm Water Education Outreach Program
MCAS Yuma Environmental **(928) 269-3201**
(928) 269-5580

Artwork courtesy of the City of Los Angeles and the City of Sacramento Stormwater Programs.

Remember,
only rain



is allowed
down the
storm drain

MCAS YUMA

How YOU can be the Solution to Storm Water Pollution

Help Protect your Recreational Lakes and Rivers

MARINE CORP AIR STATION
YUMA ARIZONA

Guidelines for Food Establishments

Plan Your Food Establishment Activities to Prevent Pollutants From Entering Your Storm Drain System

Problem

Storm water runoff is a major source of pollution to lakes and rivers. When it rains, the rain flows over streets and other surfaces and picks up pollutants and carries them into earthen ditches and/or pipes which are part of the storm drain conveyance system. The purpose of a storm drain system is to prevent flooding by transporting water away from urban areas. Therefore, pollutants that enter a storm drain or a creek will eventually flow into lakes and rivers **without** being treated.

Artwork courtesy of the City of Sacramento Stormwater Program

Restaurants, clubs and galleys may contribute to storm water pollution through improper cleaning and disposal practices. Typical pollutants generated from food establishments are:

- Litter, trash and debris
- Food related wastes/particles
- Oil and grease
- Detergents, soaps and degreasers.

Solution

MCAS Yuma is committed to proper management of storm water to ensure compliance with environmental laws. You can help and be part of the solution to storm water pollution by implementing suggestions contained in this brochure. Many organizations in Yuma are dedicated to improving water quality in our lakes and rivers to protect public health and to enhance quality of life. For more information, visit the web pages in this brochure.

General

By law, only rain is allowed down the storm drain. Practice good housekeeping measures , and do not discharge rinse water, wastewater, or toxic pollutants into a storm drain.

- Use dry cleaning methods to sweep away litter, debris, and food wastes/particles and dispose of these wastes in a trash can. DO NOT HOSE down floors and other surfaces, sending wastes into the street. If you must use a hose--see the Cleaning Guidance section titled for proper collection and disposal of wash water.

- Regularly clean floors and impervious surfaces, both inside and outside (process areas, kitchen and food preparation areas, dining areas, sidewalks, parking lots, dumpster areas etc.) to keep them free of pollutants, trash and debris that are generated or may accumulate there.

- Eliminate spills onto floors or other surfaces through good housekeeping. If a spill does occur, apply rags or absorbents like cat litter, sawdust or sand onto spilled fluids and sweep or wipe them immediately to prevent spreading and minimize safety hazards.
- Pour mop water into a sink or floor drains for disposal to the sanitary sewer and NOT to the storm drain system.

- Clean floor mats in a covered area outside or indoors with disposal of the rinse water to the sanitary sewer system.
- Use non-toxic or safer products for cleaning. If you must use a toxic cleaning product, buy in a small quantity, limit use, and follow dilution instructions. Ensure proper disposal by contacting the **City of Yuma Department of Public Works (928)783-1276 or MCAS Environmental (928) 269-3201.**

Preventative Measures

- Be sure to collect, store and dispose of grease properly. Recycle kitchen oil, grease and meat fat--see “Renderers” or “Tallow” in Yellow Pages.
- Regularly inspect floor drains and grease traps. Pump out waste grease from traps often to ensure proper operation and prevent any overflows or backups from occurring. NEVER pour grease into a sink, floor drain, dumpster, storm drain, or sanitary sewer system.
- Train employees on implementing these cleaning methods for a successful program.

Cleaning Guidance

Ensure compliance with MCAS Yuma storm water program by adhering to the following Standard Operating Procedures for maintaining cleanliness and sanitation at MCAS Yuma and commercial food establishments:

- All trash receptacles must be leak proof (replace any leaky dumpsters). All liquid wastes must be contained within the receptacle at all times. Keep dumpster lids closed to keep rainwater out.
- Pressure washing and cleaning trash receptacles loading docks and surrounding areas to comply with sanitation requirements is allowed only when;

  ☑ **Storm drains are sealed and all water from cleaning activities is collected and disposed in the sanitary sewer system** or another acceptable alternative. NONE of this water may enter the storm water conveyance system.

Contact MCAS FMC or Environmental to develop a plan to wash down the entire building or other large areas

NOTES PAGES FOR THE
CLASSROOM PRESENTATION

Preventing Storm Water Pollution From MCAS YUMA Operations

The topic of this presentation is the prevention of storm water pollution from MCAS Yuma operations.

For personnel at this installation, storm water pollution prevention is very important for three reasons:

(1) respecting and maintaining the natural resources entrusted to the Marine Corps allows the training opportunities enjoyed by today's Marines to be available for future generations of Marines;

(2) the Marine Corps is legally required to comply with federal and state environmental regulations that mandate storm water pollution prevention; and

(3) the Marine Corps strives to be a good neighbor in Yuma and to help protect the natural resources we all share.

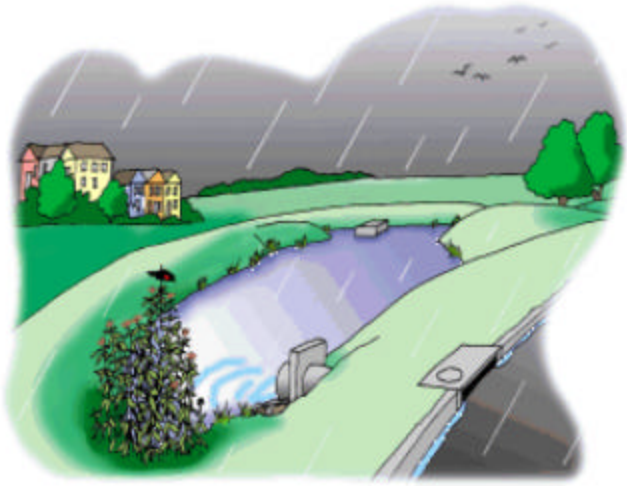
You !

Can Be The Solution To *Storm Water* Pollution

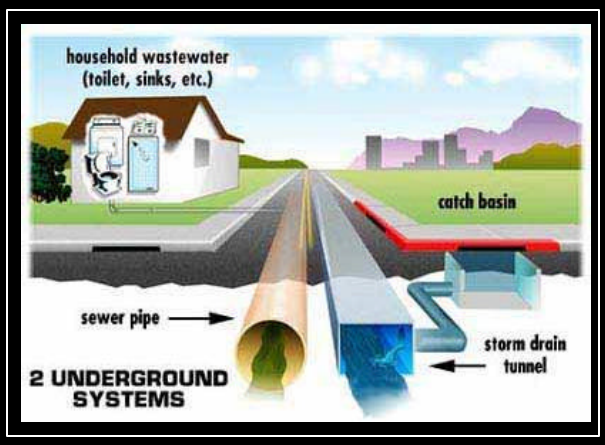
And at this installation, every one of us can be part of the solution to storm water pollution if we understand:

- **What storm water is;**
- **The sources of storm water pollutants;**
- **How storm water transports these pollutants to water bodies; and**
- **How we can keep these pollutants out of storm water.**

What is Storm Water?



At MCAS Yuma, storm water runoff is rain that flows across the ground and pavement during and after a storm. Typically, storm water runoff either seeps into the ground or drains into storm drains. Storm drains direct and collect storm water runoff through gutters, swales and channels as well as underground piping. You may not realize it, but this storm water runoff is a serious concern in commercial, industrial and residential areas because of the pollutants it may carry. When polluted storm water enters the storm drain system, it ultimately discharges to local lakes and rivers and can seriously degrade these natural resources.



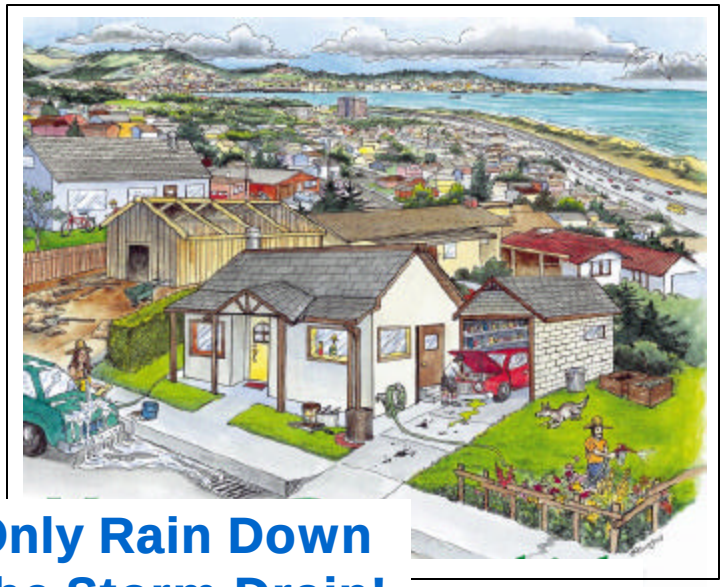
The Storm Drain is NOT a Sewer!

What do we do about it?

The first thing we must *all* understand is the difference between the storm drain system and the sanitary sewer.

Our sinks, toilets and showers discharge to the municipal sanitary sewer system that flows to a wastewater treatment facility where the wastewater is processed to a safe condition and returned to lakes and rivers.

Storm water runoff that enters a storm drain has a completely different fate. The storm drain system is NOT connected to a treatment facility. Thus, anything entering the storm drain flows directly into local lakes and rivers. This means the rinse water from your driveway while car washing, the used motor oil your neighbor dumped in the street, pesticide runoff from over watering the lawn, and lots of other harmful pollutants are seriously damaging our precious water resources because they reach the storm drain system and flow untreated to our lakes and rivers.



Only Rain Down the Storm Drain!

So, we must remember that the storm drain is not a conduit for wastewater treatment, but a path to pollution. That's why, by law, only rain is allowed down the storm drain.

Which means we must examine the common things people do and identify changes we can make to protect the water bodies we rely on for drinking water and recreation.

Common Sources of Storm Water Pollution

- Vehicle Maintenance, Repair and Washing
- Vehicle Fueling
- Landscaping and Grounds Maintenance
- Household Activities
- Food Service Operations
- Improper Waste Disposal

Some common sources of storm water pollution include:

- **Vehicle maintenance, repair and washing activities - These activities typically involve several chemical substances that can easily find their way into storm water runoff, including oil and grease, brake fluid, and soap;**
- **Vehicle fueling mishaps can discharge gasoline and other fuels.;**
- **Landscaping and grounds maintenance operations involve pesticides, herbicides, fertilizers, grass clippings, and other debris;**
- **Our household activities offer numerous opportunities to send pollutants to the storm drain. These can be chemicals, soaps, and even pet waste;**
- **Restaurants and other food service operations generate trash and other debris food related wastes and scrap oil and grease detergents, soaps and degreasers; and**
- **Improper waste disposal in general is a major concern.**

We need to take precautions to keep these pollutants away from storm water runoff.

Vehicle Maintenance, Repair Washing and Fueling

- Oil and Grease
- Antifreeze
- Gasoline & Diesel Fuel
- Brake Fluid
- Transmission Fluid
- Battery Acid
- Dirt and Debris
- Soaps and Solvents

Maintaining a vehicle that is clean and properly serviced is a very good practice. Well maintained vehicles are less likely to leak fluids that pollute storm water runoff. But it's how and where the vehicle is maintained, repaired and washed that makes the difference.

Oil and grease, antifreeze, gasoline and diesel fuel, brake fluid, transmission fluid, battery acid, dirt and debris, soaps and solvents are all potential pollutants from these activities.

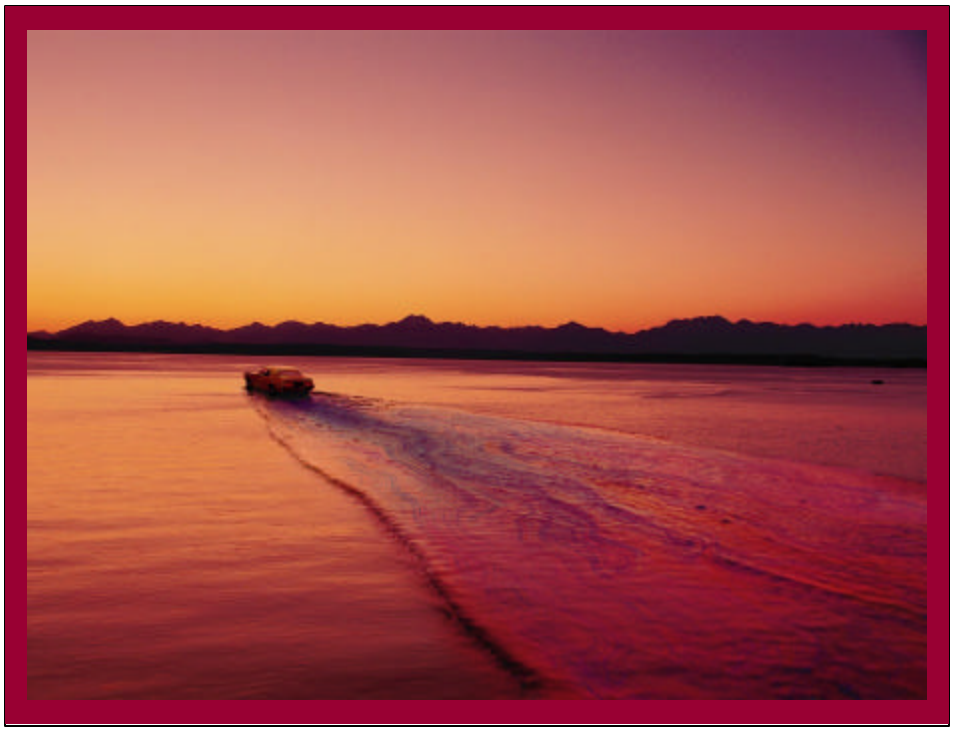
Some significant sources of pollutants from vehicle washing that have been proven detrimental to aquatic animals include:

- **Brake dust washed off wheels contains heavy metals including copper**
- **The undercoating of cars contain zinc, and**
- **Exhaust deposits contain lead**
  - **unleaded gas contains lead!**

To prevent substances associated with automobile maintenance from polluting storm water, it's essential that we follow proper vehicle maintenance practices.

For example:

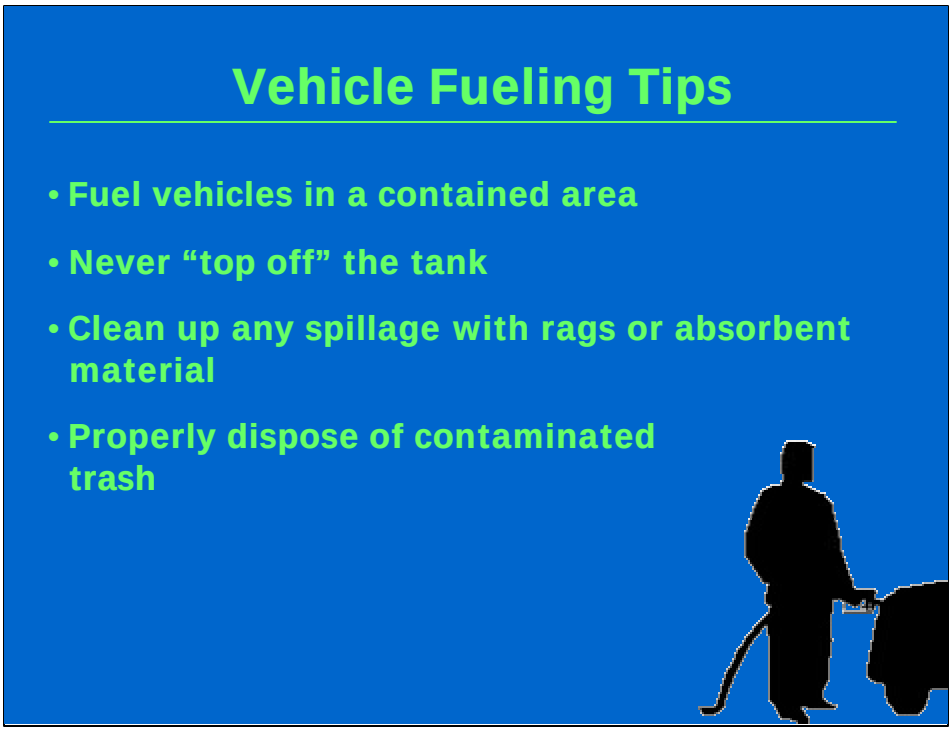
- We should properly maintain our vehicles to reduce the leakage of oil, antifreeze and other fluids.
- The maintenance work should be done in a covered, preferably contained, area where storm water cannot get in and chemical spills cannot get out.
- When possible, we should select alternatives to hazardous chemicals. Non-hazardous cleaning materials are available and chlorinated organic solvents can be replaced with non-chlorinated ones like kerosene or mineral spirits.
- Always clean up spills and leaks. This is done effectively with absorbent materials like rags or kitty litter.
- Dispose of all wastes properly. That means sending all wastes, debris and used absorbent materials to the trash. Unwanted hazardous materials and hazardous waste must be taken to a recycling and/or disposal facility designated to accept such substances.
- Use drip pans or ground cloths to collect potential spills and leakage.
- Store all chemicals—including soaps, fuels and batteries—in a cabinet or other container to prevent contact with storm water.
- Best of all, have vehicle maintenance and repair work done at a commercial shop designed and equipped for optimum pollution prevention and recycling.



It's essential that we keep vehicle-related pollutants from entering the storm drain system and flowing to open water. Oil and other petroleum products are toxic to people, wildlife and plants.

As this poster comically suggests, oil from cars and other vehicles does not dissolve in water. It lasts a long time and sticks to everything from beach sand to bird feathers.

One pint of oil can make a slick larger than a football field.



Fueling areas have the potential to contribute oil and grease, solvents, car battery acid, antifreeze, and fuels to the storm drain system.

To prevent this, we should:

- **Always fuel vehicles in a contained area, so that any spills will stay put until we can clean them up.**
- **Never top off the tank, which can easily result in spillage onto the vehicle and the ground.**
- **Immediately clean up any spillage that does occur, using rags or an absorbent material like kitty litter.**
- **Properly dispose of the cleanup materials and any other contaminated trash.**

Vehicle washing also poses problems.

When you wash your car in the driveway or other uncontained area, it's like washing it at a lake or river. The soap, together with the dirt and oil washed from your car, can travel down the street, through the storm drain system, and flow untreated right into our lakes and rivers.

Most soap contains phosphates and other chemicals that harm fish and water quality. The phosphates from the soap can cause excess algae to grow. Algae looks bad, smells bad, and harms water quality. As algae decays, the process uses up oxygen in the water that fish need to live.

Vehicle Washing Tips

- Wash all vehicles in contained areas
- Wash water should be recycled or treated prior to being discharged to the sanitary sewer
- If containment is not possible, wash vehicles on gravel, grass, or other permeable surfaces
- Block off the storm drain or use an insert to catch wash water
- Use hoses with auto shut-off nozzles
- Use only small amounts of biodegradable soap

How can you wash your vehicles while helping to keep our waters clean?

First, you can do the washing in a contained area where the wash water is recycled or treated prior to discharge to the sanitary sewer. The best place to wash vehicles is to wash them at a commercial wash facility that recycles the wash water. An alternative is to wash your vehicle over a grassy area and allow the wash water and pollutants to soak into the ground and be filtered naturally.

If you must wash vehicles near a storm drain, block off the storm drain or use an insert to capture the wash water.

Use hoses with auto shut-off nozzles to stop the water flow when unneeded.

Use soap in small amounts and use biodegradable soap if possible.

Pour soapy rinse water into a sink that discharges to the sanitary sewer, not into the street where it can flow into a storm drain.

MCAS Yuma Facilities for Maintenance, Repair and Washing

Car Wash Facilities

Building 567

Auto Hobby Shop

Building 564

AutoPride ServiCenter

Building 570

The best places to wash your car are at a commercial facility or at one of the approved base car washes listed above.

Likewise, conduct automobile maintenance at a commercial facility or at the base auto hobby shop.

Hazardous Waste and Materials Disposal and Recycling

- Take used oil to an commercial auto center or gas station that has a recycling program.
- For a collection/recycling location near you, call 1-800 CLEANUP or visit the website at www.cleanup.org.
- Call the City of Yuma Department of Public Works at (928) 783-1276 for dates and locations of hazardous waste disposal events.
- Call the County of Yuma Department of Public Works (928) 329-2306 for recycling information

During vehicle maintenance, remember to properly dispose of all hazardous products and wastes.

Dispose of used oil at a commercial auto center or gas station that has a recycling program.

Dispose of paints, batteries, antifreeze, cleaning products, oil, oil filters, and other hazardous wastes at your local hazardous waste collection facility. Do NOT throw these items in the common trash.

Better yet, recycle these products. You can call 1-800-CLEANUP or visit www.cleanup.org for recycling centers and hazardous waste collection facilities near you.

You can also drop off household hazardous wastes every quarter at a designated location. To do this, all you need to do is call the City of Yuma Department of Public Works at (928) 783-1276 to find out when and where. Or you can contact the County of Yuma at (928) 329-2306 for approved disposal and recycling locations.

The bottom line is: Recycle or properly dispose of these hazardous wastes so they cannot come into contact with storm water runoff and flow into our rivers and lakes.

Landscaping and Grounds Maintenance

Landscaping and grounds maintenance activities typically generate the following:

- **Litter, trash and debris**
- **Fertilizers, pesticides and herbicides**
- **Leaves, grass clippings and tree trimmings**
- **Soil and sediment**
- **Detergents, soaps and degreasers**

These materials should be cleaned up and properly disposed of and not allowed to flow into the street, gutter or storm drain system and harm our lakes and rivers.

Landscaping and Grounds Maintenance

To Prevent Erosion:

- Prevent soil from washing or blowing into the street or storm drain system.
- Protect stockpiles and landscaping materials from wind and rain.
- Conduct grading and excavation activities during dry weather.
- Install plants after grading to stabilize areas of bare soil to minimize erosion.

Without proper care and planning, landscaping and soil excavation can result in sediment being washed away by storm water runoff into the storm drain system and into our lakes and rivers. Large amounts of sediment can seriously degrade our water resources. To prevent this, proper erosion and sediment controls must be maintained. These include:

- Preventing soil from washing or blowing into the street or storm drain system.
- Protecting stockpiles and landscaping materials from wind and rain. This can be done with tarps, temporary barriers like sand bags, and other forms of soil stabilization.
- Conducting grading and excavation activities during dry weather only.
- Installing plants after grading to stabilize areas of bare soil to minimize erosion.

Landscaping and Grounds Maintenance

What to do with Green Waste:

- Use dry cleaning methods like sweeping and raking to remove leaves, grass and tree trimmings. Do not hose or blow material into streets or storm drains.
- Compost/recycle green waste.
- Use mulched grass clippings as natural fertilizer.

Green waste such as grass trimmings and leaves require proper management to reduce storm water impacts. These items can be carried away by storm water runoff that can find its way into waterways where it rapidly decomposes and releases nutrients that can lead to harmful algal blooms.

Use the following methods to minimize green waste in our waterways:

- **Rake or sweep away leaves, grass clippings and tree trimmings. Do not hose or blow material into the streets or storm drains.**

- **The Marine Corps requires landscaping contractors to collect and recycle all green waste to produce compost and mulch.**

- **Leave mulched grass clippings in place to act as a natural fertilizer.**

Landscaping and Grounds Maintenance

Chemical Use:

Marine Corps policies for landscaping contractors require:

- **An Integrated Pest Management Plan (IPMP) that describes the detailed strategy for pesticide use at a specific site.**
- **A state-licensed professional to apply the pesticides**

Landscape maintenance often requires the use of pesticides. These materials must be properly applied according to product instructions and site-specific conditions.

Because these materials can be so damaging to our water resources, the Marine Corps has developed policies for landscaping contractors that require:

(1) An Integrated Pest Management Plan that describes the detailed strategy for pesticide use at a specific site, and

(2) A state-licensed professional to apply the pesticides.

Landscaping and Grounds Maintenance

Avoid chemical pest controls whenever possible. This can be done by :

- **First trying physical controls such as caulking holes, barriers, hand picking and traps.**
- **Next try biological controls such as predatory insects and bacterial insecticides.**

It is good practice to avoid chemical pest controls whenever possible by:

- **First, trying physical controls such as caulking holes, barriers, hand picking and traps.**
- **Next try biological controls such as predatory insects and bacterial insecticides.**

Pesticides should be the last resort.

What's the problem with fertilizer?

Fertilizer isn't a problem when used carefully. If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden into storm drains and flow untreated into lakes or rivers. Just like in your garden, fertilizer in lakes and rivers makes plants grow. In water bodies, extra fertilizer can mean extra algae and aquatic plant growth. Too much algae harms water quality and makes boating, fishing and swimming unpleasant. As algae decays, it uses up the oxygen in the water that fish and other wildlife need.

Landscaping and Grounds Maintenance

How to use Fertilizer efficiently:

- Use fertilizers sparingly.
- Don't fertilize right before a rain storm.
- Consider using organic fertilizers.
- Use commercially available compost or make your own using garden waste.

How can you fertilize while helping to keep our waterways clean?

- **Use fertilizers sparingly. Many plants do not need as much fertilizer or need it as often as you might think.**
- **Don't fertilize right before a rain storm.**
- **Consider using organic fertilizers; they release nutrients more slowly.**
- **Use commercially available compost or make your own using garden waste. Mixing compost with your soil means your plants will need less chemical fertilizer and puts your waste to good use.**

Landscaping and Grounds Maintenance

Tips for Chemical Fertilizer Use:

- Read the labels carefully and follow dilution instructions.
- Do not apply more product than you need.
- Select pest-specific pesticides.
- Do not fertilize land near ditches, storm drains, streams or other water bodies.
- Do not use chemicals if rain is expected.
- Properly store and dispose of the materials.

When pesticides, herbicides and fertilizers are required:

- **Read the labels carefully and follow the dilution instructions;**
- **Do not apply more product than you need;**
- **Select pesticides designed to combat your specific pests;**
- **Do not apply fertilizer to land near ditches, storm drains, streams or other water bodies;**
- **Do not use pesticides or herbicides if rain is expected; and**
- **Properly store and dispose of all pesticides, herbicides and fertilizers.**

Landscaping and Grounds Maintenance

Tips for Proper Irrigation:

- Use contractors with proven expertise in the design and maintenance of irrigation systems in the desert environment
- Frequently inspect and maintain the systems
- Adjust watering locations and amounts to specific conditions
- Avoiding pesticide and fertilizer runoff

Improper watering practices can result in significant amounts of runoff laden with sediment and chemicals.

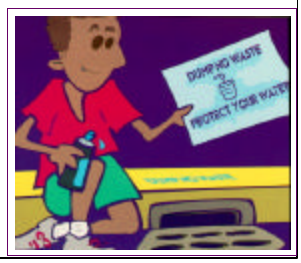
To ensure proper irrigation:

- **The Marine Corps requires landscaping contractors maintain a qualified and competent Water Irrigation Manager on staff. That person must have specific education, experience and capabilities to design and maintain effective irrigation plans and systems.**
- **Inspect the irrigation system to identify any components that require maintenance or replacement.**
- **Adjust watering locations and amounts to specific conditions so that water runoff is minimized.**
- **Avoid over-watering when irrigating after fertilizer and pesticide applications.**

Landscaping and Grounds Maintenance

In General:

- Properly dispose of all landscape wastes.
- Eliminate or minimize the amount of trash, debris and other pollutants entering the storm drain system.
- Discharge swimming pool water to the sanitary sewer when necessary.

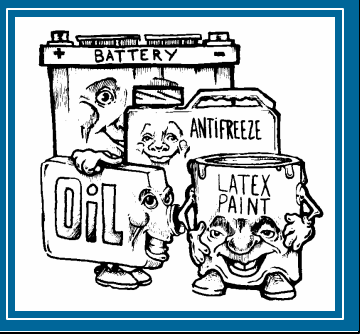


And finally, some general considerations are to:

- **Properly dispose of all landscape wastes.**
- **Eliminate or minimize the amount of trash, debris and other pollutants entering the storm drain system.**
- **Discharge swimming pool water to the sanitary sewer when necessary.**

Household Wastes

- Hazardous Chemicals
- General Trash and Debris
- Pet Waste



At every household there are items that, if improperly used or disposed of, can contact storm water runoff and reach the storm drain system and our waterways.

These items include:

- **Hazardous chemicals,**
- **Trash and other debris, and**
- **Pet waste.**

It is essential that we conduct our everyday activities with storm water pollution prevention in mind.

Household Wastes

- Use Dry Cleanup Methods like sweeping instead of hosing-down
- Store chemicals in a safe, dry place
- Purchase non-toxic or safer products for household cleaning
- Properly store trash and other wastes
- Report any leaks from trash cans to MCAS Environmental by calling (928) 269-3201

To keep our homes clean and minimize storm water impacts, we should:

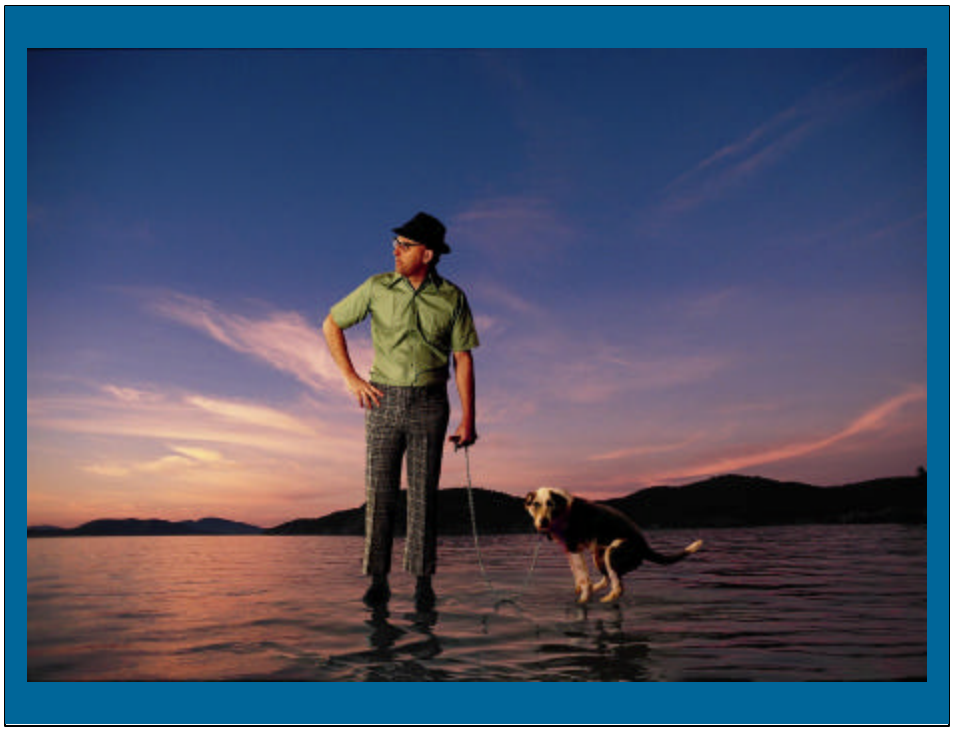
- **Keep paved areas and other ground surfaces clean. Use dry cleanup methods like sweeping when possible.**
- **Store chemicals in a safe, dry place.**
- **Purchase non-toxic or safer products for household cleaning.**
- **Properly store trash and other wastes.**
- **Report any leaks from trash cans to MCAS Environmental by calling (928) 269-3201.**

How to be a Less Toxic Consumer:

- Use elbow grease instead!
- Use less toxic alternatives whenever possible
- Buy only the amount you need
- Properly handle and store materials
- Dispose of hazardous waste legally and safely
- Call 1 800-CLEANUP for more information and the locations for used oil recycling and hazardous waste disposal

You can also be a less toxic consumer if you:

- **Clean with a little elbow grease instead of relying on harsh cleaners.**
- **When possible, use the least toxic products, follow the dilution instructions, and properly dispose of wastes.**
- **Buy only the amount that you need.**
- **Properly handle and store materials.**
- **Dispose of hazardous waste legally and safely.**
- **Call 800-CLEANUP for more information and the locations for hazardous waste oil recycling and disposal.**



What's the problem with pet waste?

It's a health risk to pets and people, especially children. It's a nuisance in our neighborhoods. Pet waste is full of bacteria that can make people sick. If it's washed into the storm drain and ends up in our lake and rivers, the bacteria can be detrimental to aquatic life. People who eat infected seafood can get very sick. Please pick up after your pet or the waste will enter our lakes and rivers untreated.

Pet Wastes

Ways to Dispose of Pet Waste:

- **Scoop it up and flush it down the toilet**
- **Seal the waste in a plastic bag and throw it in the garbage**
- **Bury small quantities in your yard where it can decompose slowly**

How can you get rid of pet waste while helping keep our waters clean?

Here are some options:

- **Scoop it up and flush it down the toilet. This is best because your community sewage treatment plant or your septic system treats the pet waste.**
- **Seal the waste in a plastic bag and throw it in the garbage.**
- **Bury small quantities in your yard where it can decompose slowly. Dig a hole one foot deep. Put three to four inches of waste at the bottom of the hole. Cover the waste with at least eight inches of soil. Bury the waste in several different locations in your yard and keep it away from vegetable gardens.**

Food Service Operations

- Waste generated by Food Service Operations
- Litter, trash and debris
- Food related wastes/particles
- Oil and grease
- Detergents, soaps and degreasers

Restaurants, clubs and mess halls may contribute to storm water pollution through improper cleaning and disposal practices. Typical pollutants generated from food establishments are:

- **Litter, trash and debris**
- **Food related wastes/particles**
- **Oil and grease**
- **Detergents, soaps and degreasers**

These materials degrade local waters when allowed to flow into the street, gutter or storm drain system

Food Service Operations

Preventative Measures:

- Collect, store and dispose of grease properly
- Regularly inspect floor drains and grease traps
- Pump out waste grease from traps often to ensure proper operation and prevent any overflows or backups
- NEVER pour grease into a sink, floor drain, dumpster, storm drain, or sanitary sewer

Some preventative measures are:

- **To collect, store and dispose of grease properly.**
- **Recycle kitchen oil, grease and animal fat. See "Renderers" or "Tallow" in the Yellow Pages for places where these items can be disposed.**
- **Regularly inspect floor drains and grease traps.**
- **Pump out waste grease from traps often to ensure proper operation and prevent system overflows or backups.**
- **NEVER pour grease into a sink, floor drain, dumpster, storm drain, or sanitary sewer system.**
- **Train employees on implementing these cleaning methods.**

Food Service Operations

Cleaning Guidance:

- Replace any leaking trash receptacles.
- Keep receptacle lids closed to keep rainwater out
- Properly clean and sanitize trash receptacles and loading dock areas.
- Seal storm drains before cleaning
- All wash water must be disposed of in the city sewer system or another acceptable alternative.

Cleaning Guidance:

- All trash receptacles must be leak proof (replace any leaky dumpsters). All liquid wastes must be contained within the receptacle at all times.
- Keep dumpster lids closed to keep rainwater out.
- Clean/sanitize trash receptacles and wash down the loading docks and surrounding areas to meet sanitation requirements.
- You may use minimal soap and pressure washers; however, seal storm drains first.
- All wash water must be collected and disposed of in the city sewer system or another acceptable alternative.
- NONE of this water may enter the storm drain system.

Marine Corps Storm Water Program

- Clean Water Act requires the Marine Corps to minimize storm water pollution.
- Storm water permits mandate pollution prevention practices.
- Storm water pollution prevention requires cooperation among all Station operations, industrial and non-industrial.

The Clean Water Act requires the Marine Corps to minimize storm water pollution by implementing storm water pollution prevention practices. This requires the cooperation of all base operations and personnel. It requires all of us to understand our part in this important effort.

MCAS Yuma Pollution Prevention Resources

Telephone Contacts:

MCAS Environmental	(928) 269-3201
MCAS Housing	(928) 269-3640
County of Yuma Department of Public Works	(928) 329-2906
City of Yuma Department of Public Works	(928) 783-1276
Earth 911	1-(800)-CLEANUP

Informative Websites:

ADEQ	www.adeq.state.az.us/environ/water
Earth 911 Network	www.earth911.org
Navy Storm Water Training	www.nelp.navy.mil/training/sw

The Marine Corps is committed to properly managing our water resources to ensure both public welfare and regulatory compliance. Here are just some of the Marine Corps's pollution prevention contacts for base personnel.

Many other organizations in the Yuma area are also working to improve water quality with the ultimate goals of protecting public health and enhancing our quality of life. For a lot more information and opportunities to make a difference, please visit these excellent web pages.

APPENDIX F

AZPDES CONSTRUCTION SWPPP REFERENCES

BOILER CONSTRUCTION SWPPP

BOILER

For

CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

At

MARINE CORPS AIR STATION
YUMA, ARIZONA

Contract No. _____, D.O._____

Prepared for

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
Naval Facilities Engineering Command
Desert Area Focus Team
1220 Pacific Highway
San Diego, CA 92132-5181

Prepared by

_____

DATE

_____

TABLE OF CONTENTS

PAGE

1.0 SITE AND ACTIVITY DESCRIPTION 1-1

1.1 IDENTIFICATION OF OPERATORS 1-1

1.2 SITE DESCRIPTION 1-2

1.3 SUMMARY OF OTHER POTENTIAL POLLUTANT SOURCES 1-3

1.4 OFF-SITE MATERIAL STORAGE 1-3

1.5 MAPS 1-3

2.0 CONTROLS TO REDUCE POLLUTANTS 2-1

2.1 STORM WATER CONTROLS 2-1

2.2 EROSION AND SEDIMENT CONTROLS 2-1

2.3 GOOD HOUSEKEEPING CONTROLS 2-1

2.4 STABILIZATION PRACTICES 2-2

2.5 STRUCTURAL PRACTICES 2-2

2.5.1 Structural Control Requirements 2-2

2.6 POST-CONSTRUCTION STORM WATER MANAGEMENT 2-3

2.7 OTHER CONTROLS 2-3

3.0 NON-STORM WATER DISCHARGE MANAGEMENT 3-1

4.0 ROUTINE INSPECTIONS 4-1

4.1 INSPECTION REQUIREMENTS 4-1

4.2 FOLLOW-UP ACTIONS 4-1

4.3 INSPECTION REPORTS 4-1

4.4 INSPECTION SCHEDULE 4-2

5.0 GENERAL PROVISIONS 5-1

TABLE OF CONTENTS

FIGURES

FIGURE 1 GENERAL LOCATION

FIGURE 2 SITE MAP

APPENDICES

APPENDIX A NOI APPLICATION TO ADEQ

APPENDIX B ADEQ CERTIFICATE AND AUTHORIZATION NUMBER

APPENDIX C AZPDES GENERAL PERMIT NO. AZG2003-001 FOR DISCHARGES FROM CONSTRUCTIOJN ACTIVITIES TO WATER OF THE UNITED STATES

APPENDIX D INTERAGENCY AGREEMENTS

1.0 SITE AND ACTIVITY DESCRIPTION

1.1 IDENTIFICATION OF OPERATORS

Operator 1

Name:

Address:

Telephone:

AZPDES Permit Authorization Number:

Areas of control for construction project:

Operator 2

Name:

Address:

Telephone:

AZPDES Permit Authorization Number:

Areas of control for construction project:

Operator 3

Name:

Address:

Telephone:

AZPDES Permit Authorization Number:

Areas of control for construction project:

Operator 4

Name:

Address:

Telephone:

AZPDES Permit Authorization Number:

Areas of control for construction project:

1.2 SITE DESCRIPTION

Describe the nature of the construction activity, including:

- Describe the project and its intended use.
- Describe the sequence of activities that disturb soils at the site.
- The total area of the site.
- Estimated area of the site expected to be disturbed (include off-site borrow and fill areas).
- Estimate the pre-construction runoff coefficient of the site.
- Estimate the post-construction runoff coefficient of the site.
- Soil description.
- Existing water quality data for the site (if any).
- Identify the name of and approximate distance of the nearby receiving water(s).

1.3 SUMMARY OF OTHER POTENTIAL POLLUTANT SOURCES

Identify the location and describe any storm water or non-storm water discharges at the site associated with the activity other than construction.

1.4 OFF-SITE MATERIAL STORAGE

Identify and address off-site material storage areas used solely by this project.

1.5 MAPS

A General Location Map and a Site Map are included in the Figures Section.

2.0 CONTROLS TO REDUCE POLLUTANTS

2.1 STORM WATER CONTROLS

Describe pollution control measures implemented to control pollutants in storm water discharges. For each major activity identified in the project description:

- Describe the associated control measures.
- The implementation schedule.
- The person responsible for the control measure.

  Note: Offsite material storage areas used solely by the project are considered a part of the project and must be addressed in the SWPPP.

2.2 EROSION AND SEDIMENT CONTROLS

- Describe BMPs designed to retain sediment on site.
- Describe the criteria used for selection of each control, include manufacturer's specifications when applicable.
- Describe the proper procedure for the installation of each control including manufacturer's specifications.
- Describe the proper procedure for maintaining each control including manufacturer's specifications.
  - Sediment traps or sedimentation ponds must have sediment removed when design capacity has been reduced by 50%.
- Describe modified or replacement BMPs identified during inspections as deficient.
- Describe BMPs for removal of accumulated offsite sediment associated with the construction activity.

  Note: If site inspections identify requirements for addition, modification or maintenance of BMPs, the required correction must be performed before the next anticipated storm event or alternative BMPs shall be implemented as soon as practicable.

2.3 GOOD HOUSEKEEPING CONTROLS

- Describe procedures to prevent storm water pollution from exposed.
  - Litter
  - Construction debris
  - Construction chemicals

2.4 STABILIZATION PRACTICES

- Document existing vegetation that is to be preserved.
- Description of interim and permanent stabilization practices for the site
- Develop a stabilization schedule.

  - Stabilization required as soon as practicable where construction has ceased.
  - Stabilization required no more than 14 days after construction has ceased.
  - Perennial vegetation used for stabilization must be initiated as soon as practicable during seasonally arid conditions in areas with an average annual rainfall of less than 20 inches (this can be greater than 14 days).

- Stabilization records must include:
  - Dates when major grading activities occur.
  - Dates when construction activities temporarily or permanently cease on a portion of the site.
  - Dates when stabilization measures are initiated and completed.

2.5 STRUCTURAL PRACTICES

A combination of sediment and erosion control measures are usually required to achieve maximum pollutant removal.

- Describe BMPs to divert flows.
- Describe BMPs to store flows.
- Describe BMPs to limit runoff.

2.5.1 Structural Control Requirements

- Sediment Basins (temporary or permanent).

  - Required when 10 or more acres are disturbed.
  - Designed for a 2 year, 24 hour storm or 3,600 cubic feet of storage per acre.
  - Temporary basins remain until final stabilization.

    Note: Offsite areas and undisturbed/stabilized onsite areas can be excluded from the calculations if runoff from these areas is diverted away from disturbed areas and the sediment basin.

Note: If a sediment basin is required but not feasible document why. Factors may include site soils, slope, available area, and public safety. Alternative sediment BMPs must be used that achieve effective sediment control. Alternate BMPs include a combination of smaller sediment basins, sediment traps, silt fences, vegetative buffer strips and other BMPs.

- Velocity dissipation devices.

  - Placed at discharge locations
  - Placed along channels

2.6 POST-CONSTRUCTION STORM WATER MANAGEMENT

- Describe storm water management measures installed during the construction process to control pollutants in storm water discharges after construction.

- Describe structural measures placed on upland soils (**required**).

Note: Post-construction Storm water BMPs that discharge pollutants from point sources may require a separate AZPDES permit. Obtaining a separate AZPDES permit is the responsibility of MCAS Yuma.

2.7 OTHER CONTROLS

- Describe BMPs to prevent the discharge of building materials.

- Describe BMPs to minimize off-site vehicle tracking of sediments.

- Describe BMPs to minimize the generation of dust.

- Describe BMPs to reduce pollutants from construction and waste materials expected to be stored on-site.

  - Include storage practices to minimize exposure of the materials to storm water, and spill prevention and response practices.

- Describe BMPs to minimize pollutant sources from areas other than construction.

  - Include storm water discharges from asphalt plants, concrete plants and other off-site pollutant sources associated exclusively with the project.

- Describe BMPs to prevent rill and gully erosion at culvert locations.

3.0 NON-STORM WATER DISCHARGE MANAGEMENT

- Describe BMPs to reduce pollutants from non- storm water discharges that include:

  - Fire hydrant flushing;
  - Vehicle wash water where detergents are not used;
  - Dust control water from a potable water source (no wastewater);
  - Potable water source including flushing;
  - Building wash down water where detergents are not used;
  - Pavement wash water where detergents are not used and spill or leaks have not occurred;
  - Uncontaminated air conditioning or air compressor condensate;
  - Uncontaminated ground water;
  - Uncontaminated foundation or footing drains; and
  - Water well flushing.

4.0 ROUTINE INSPECTIONS

4.1 INSPECTION REQUIREMENTS

- Observe all disturbed areas.
- Observe areas used for storage of materials that are exposed to precipitation.
- Observe for evidence of, or the potential for, pollutants to enter the drainage system.
- Observe sedimentation and erosion control measures to ensure that they are operating correctly.
- Observe discharge locations or nearby downstream locations to evaluate BMP effectiveness in preventing significant impacts to receiving waters.
- Observe vehicle entrances and exits for evidence of off-site sediment tracking.

4.2 FOLLOW-UP ACTIONS

- Modify the SWPPP to include additional or modified BMPs:
  - Revise SWPPP within seven calendar days of the inspection.
- Implement modified or additional BMPs.
  - Before the next anticipated storm even; or
  - As soon as practicable.

4.3 INSPECTION REPORTS

- Complete a Compliance Evaluation Report for each inspection that includes:
  - The date, inspector(s) name(s), and title(s).
  - Information on storm events since the last inspection.
  - Identified discharges of sediment or other pollutants.
  - BMPs requiring maintenance.
  - BMPs that have failed to operate as designed.
  - BMPs that have proven to be inadequate.
  - BMPs that should be added or are required.
  - Corrective actions required and implementation dates.
  - Corrections required to the SWPPP and implementation dates.
  - If present identify non-storm water discharge sources and associated BMPs.
  - If present identify material storage areas and, evidence of or potential for, pollutant discharge from such areas.

- Provide a certification that the construction project or site is being operated in compliance with the SWPPP and the permit.
- Identify any non-compliance with the conditions of this permit.
- Authorized signature, or the duly authorized representative.

4.4 INSPECTION SCHEDULE

Choose the schedule frequency appropriate for the project.

- Performed once every month if:
  - Construction is occurring during the seasonal arid period in areas with less than 20 inches of average annual rainfall; or
  - The site has been temporarily stabilized.
- Performed at least once every 7 calendar days, or
- Performed at least once every 14 calendar days and within 24 hours of the end of each storm event of 0.5 inches or greater.

Note: The selected inspection frequency must be documented.

Note: Inspectors must be knowledgeable in erosion and sediment control, storm water pollution prevention, and BMP effectiveness. Qualifications of the inspector must be documented by inspector name in the SWPPP.

Note: Records from inspection reports and follow-up actions must be retained as part of the SWPPP for at least three years from the date that permit coverage expires.

5.0 GENERAL PROVISIONS

All General provisions are not addressed in this section. Person(s) responsible for implementation of a SWPPP should be familiar with ADEQ General Permit No. AZG2003-001, AZPDES General Permit for Discharges from Construction Activities to Waters of the United States. A copy of this General Permit is required to be contained in the SWPPP.

The permittee must post a sign or other notice near the main entrance of the construction site with the following information:

- The NPDES or AZPDES authorization number for the project or a copy of the NOI if an authorization number has not yet been assigned.
- The name and telephone number of a local contact person.
- A brief description of the project.
- The location of the SWPPP.

The permittee must sign the SWPPP in accordance with Part VII, Section K, and retain the plan on site at the construction site or other location easily accessible during normal business hours.

The permittee must amend the SWPPP: 1) whenever there is a change in design, construction, operation, or maintenance at the construction site that has a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP; or 2) if during inspections, monitoring (if required,) or investigations, by the permittee, or by local, state, MS4, or federal officials, it is determined the discharges are causing or contributing to water quality exceedances, or the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site.

FIGURES

General Location Map Checklist

Identify the location of the construction site and the receiving waters within one mile of the site.

Site Map Checklist

Site map must identify all items below that apply:

- Directions of storm water flow;
- Approximate slopes after major grading activities;
- Areas of soil disturbance;
- Areas that will not be disturbed;
- Locations of controls identified in the SWPPP;
- Locations where stabilization practices are expected to occur;
- Locations of off-site material, waste, borrow areas, or equipment storage areas;
- Locations of all surface water bodies;
- Locations where storm water discharges to a receiving water or MS4;
- Locations and registration numbers of on-site drywells; and
- Areas where final stabilization has been accomplished and no further construction phase permit requirements apply.

APPENDIX A

NOI APPLICATION TO ADEQ

APPENDIX B

ADEQ CERTIFICATE AND AUTHORIZATION NUMBER

APPENDIX C

AZPDES GENERAL PERMIT
NO. AZG2003-001
FOR DISCHARGES FROM
CONSTRUCTION ACTIVITIES TO
WATERS OF THE UNITED STATES

APPENDIX D

INTERAGENCY AGREEMENTS

CONSTRUCTION EROSIVITY WAIVER

ALL REQUESTED INFORMATION MUST BE PROVIDED ON THIS FORM	**Stormwater Program - Water Quality Division** **Arizona Department of Environmental Quality** 1110 W. Washington, Phoenix, Arizona 85007 **PERMIT WAIVER CERTIFICATION** under AZPDES Permit No. AZG2003-001 for ***Construction Activity Discharges to Waters of the United States***

CHECK AS APPLICABLE: NEW WAIVER ” REVISED WAIVER

” IF A REVISION, PROVIDE PRIOR WAIVER NO. _____

Is the Site Located on Indian Country Lands? (Y or N): _____

I. OWNER/OPERATOR (Applicant) **INFORMATION**

Operator Name:_____ Phone: _____

Operator's Business Name _____

Operator's Address: _____

City: _____ State: |___|___| Zip Code: _____

OPERATOR STATUS: Federal ___ State ___ Other Public ___ Private ___ Tribal ___

II. CONSTRUCTION SITE INFORMATION

Project/Site Name:_____ Phone: _____

Site physical location (include address, if applicable and finding directions from nearest city):

_____

_____

County: |__|__|__|__|__|__|__|__|__|__|__| Zip Code |__|__|__|__|__|- |__ |__|__|__|

Latitude: |__|__|__|-|__|__|-|__|__| Longitude: |__|__|__|-|__|__|-|__|__|

Township: |__|__|__| Range: |__|__| Section: |__|__| Quarter: |__|__| Quarter: |__|__| Quarter: |__|__|

Earliest Project Start Date _____ Latest Completion Date _____

Estimate of total acres to be disturbed with the project (to the nearest acre) _____

Estimate of total acres to be disturbed by your operations _____

Will the discharge enter a municipal storm sewer system, canal, or a privately-owned conveyance?

YES ” NO ”

If yes, enter name of system/conveyance owner: _____

III. EROSIVITY FACTOR _____

CALCULATED PER METHODS IN EPA Fact Sheet 3.1, EPA 833-F-00-014 ”
(Attach calculations or show under certification below)

CALCULATED PER THE “SMART NOI” DATABASE ”

Permit Waiver Certification under AZPDES Permit No. AZG2003-001

IV. CERTIFICATION

“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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons direction responsible for gathering the information, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Address: _____

Phone: _____

CONSTRUCTION NOI

ALL REQUESTED INFORMATION MUST BE PROVIDED ON THIS FORM	**Stormwater Program - Water Quality Division** **Arizona Department of Environmental Quality** 1110 W. Washington, Phoenix, Arizona 85007 **NOTICE OF INTENT (NOI) FOR COVERAGE** under AZPDES Permit No. AZG2003-001 for ***Construction Activity Discharges to Waters of the United States***

CHECK AS APPLICABLE: NEW NOI ” REVISED NOI ”

IF A REVISION, PROVIDE PRIOR AUTHORIZATION NO. _____

Is the Site Located on Indian Country Lands? (Y or N): _____

I. OWNER/OPERATOR (Applicant) **INFORMATION**

Operator Name:_____ Phone: _____

Operator's Business Name _____

Operator's Address: _____

City: _____ State: |___|___| Zip Code: _____

OPERATOR STATUS: Federal ___ State ___ Other Public ___ Private ___ Tribal ___

II. CONSTRUCTION SITE INFORMATION

Project/Site Name:_____ Phone: _____

Type of Project (subdivision, school, commercial, etc.) _____

If a subdivision, has subdivision approval been obtained. Yes No

If yes, the name and number of the subdivision _____

Is the project part of a greater plan of development? Yes No

Does the project have or need other environmental permits? If so, list: _____

_____

Site physical location (include address, if applicable and finding directions from nearest city):

_____

_____

County: _____ Zip Code _____

Latitude: _____ Longitude: _____

Township: |__|__|__| Range: |__|__| Section: |__|__| Quarter: |__|__| Quarter: |__|__| Quarter: |__|__|

Estimated Project Start Date _____ Estimated Completion Date _____

Estimate of total acres to be disturbed with the project (to the nearest acre) _____

Estimate of total acres to be disturbed by your operations _____

List any non-storm water discharges expected to be associated with construction activities: _____
_____
_____
_____

II. RELATIONSHIP TO WATERS

Name of closest waters to construction site: (including dry washes, named waterbodies, and unnamed tributaries):_____

Name of closest perennial waters to construction site: _____

Distance from the site to the perennial waterbody: within 1/4 mile ___ 1/4 -1/2 mile ___ > 1mile ___ > 5 miles ___

Is the construction site located within 1/4 mile of an impaired water, or does it discharge to an impaired water (listed under 303(d) of the CWA)? YES ” NO ”

Will the discharge enter a municipal storm sewer system, canal, or a privately-owned conveyance? ” YES ” NO

If yes, enter name of system/conveyance owner: _____

IV. Check the following statement, if true. Permit authorization can not be granted until a SWPPP has been developed and implemented according to the terms of the Construction General Permit, AZG2002-003:

” **STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**. I confirm that a SWPPP meeting the requirements of this general permit has been developed and will be implemented prior to commencing construction activities at this site.

The SWPPP may be viewed at the following location: _____

To view the SWPPP, contact: (name and phone of contact person) _____

V. CERTIFICATION

"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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons direction responsible for gathering the information, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition I certify that the permittee will comply with all terms and conditions stipulated in General Permit No. AZG2002-003 issued by the Director."

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Address: _____

Phone: _____

CONSTRUCTION NOT

NOTICE OF TERMINATION

Construction Activity Discharges to Waters of The United States

AZPDES Permit No. AZG2003-001

Submission of this Notice of Termination (NOT) constitutes notice that the party identified on this form is terminating coverage under the AZPDES general permit, and authorization to construction activity discharges to waters of the United States terminates at midnight on the day the NOT is received by ADEQ. **ALL REQUESTED INFORMATION MUST BE PROVIDED**. Submit this form to:

Stormwater Program- Water Quality Division/ NOT
Arizona Department of Environmental Quality
1110 West Washington, Arizona 85007

I. PERMIT INFORMATION

AZPDES Stormwater Construction GP Authorization Number _____

Name of Operator on Notice of Intent (NOI) submitted to ADEQ _____

II. CONSTRUCTION SITE INFORMATION

Project/Site Name:_____

Site physical location (include address, if applicable and finding directions from nearest city):

_____

_____

County: _____ Zip Code _____

Latitude: _____ Longitude: _____

III. COVERAGE IS BEING TERMINATED BECAUSE: (Check those below as applicable)

" Final stabilization has been achieved on all portions of the site for which the operator/permittee is responsible.

" Another operator/permittee has assumed control over all areas of the site that have not been finally stabilized.

" For residential construction only, temporary stabilization has been completed and the residence has bee transferred to the homeowner.

" The operator/permittee has obtained coverage under an alternative AZPDES permit.

IV. CERTIFICATION

"I certify under penalty of law that all stormwater discharges associated with construction activity from the identified facility that are authorized by a general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES or AZPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act."

Printed Name:_____ Title: _____

Signature: _____ Date: _____