ST. JOHN THE BAPTIST PARISH

1801 W. Airline Highway
LaPlace, Louisiana 70068

MS4 Stormwater Management Plan

Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4)

January 2019

Prepared By:
Digital Engineering and Imaging, Inc.
527 West Esplanade Ave.
Suite 200
Kenner, Louisiana 70065

digital
engineering

LIST OF REVISIONS

Date	Person/Company	Reason for Revision
January 2019	Digital Engineering / St. John the Baptist Parish	Updated Measureable Goals in Section 1.3 to reflect current programs; updated permit in Appendix B to 2018 Small MS4 Permit

Table of Contents

Appendices:

Introduction

In 1972, the Federal Water Pollution Control Act was passed with the intent to eliminate the discharge of pollutants into navigable waters, to protect and propagate shellfish and wildlife, to provide for recreation in or on the waters of the nation, and to prohibit the discharge of toxic pollutants in concentrations which would impair the multiple uses of all waters. Over the next thirty years, various legislation was enacted that addressed aspects of both point source and non-point source (NPS) pollution. By 1994, the "National Water Quality Inventory" indicated that stormwater discharges from sources such as separate storm sewers, construction sites, waste disposal sites, and resource extraction activities were major causes of water quality impairment.

The National Pollutant Discharge Elimination System (NPDES) Phase I Stormwater regulations were developed in response to the 1987 Amendments to the Clean Water Act (CWA). Under Phase I, the Environmental Protection Agency (EPA) mandated medium and large municipal separate storm sewer systems (MS4) located in incorporated communities or counties with populations of 100,000 or more to permit their stormwater discharges with the intent to produce significant reductions in pollutant discharges and improvement in surface water quality. Municipal separate storm sewer systems include stormwater conveyance through means of subsurface piping, catch basins, ditches, man-made canals and/or storm drains owned or operated by a public body, designed or used for collecting and conveying stormwater, is not a combined sewer and is not part of a publicly owned treatment works. Ultimately, federally mandated Phase II Stormwater Regulations were passed to address the small MS4s (serving less than 100,000 persons).

Effective February 2000, small MS4 operators in urbanized areas and construction sites that disturb one to five acres became regulated. EPA believes that the implementation of minimum control measures identified for small MS4s should significantly reduce pollutants in urban stormwater compared to existing levels.

St. John the Baptist Parish (Parish) is located in the southeast region of Louisiana and is home to approximately 44,000 residents. The Parish Seat is Edgard, an unincorporated area, and the largest city is LaPlace, which is also unincorporated. The Parish is an operator of a Small Municipal Separate Storm Sewer System. A list and map of drainage canals within the Parish can be found in Appendix A.

Louisiana Pollutant Discharge Elimination System (LPDES) Permit, No. LAR040000 (Appendix B) was issued to the Parish and renewed by the United Stationed Environmental Protection Agency on February 13, 2013 to permit discharge from all portions of the St. John the Baptist Parish MS4 to waters of the United States. The permit became effective March 1, 2013.

The LPDES MS4 Permit required the Parish to develop a MS4 Stormwater Management Program Plan (this document) and to submit annual reports documenting implementation of

the plan. Modifications to this MS4 Program Plan are expected throughout the life of the permit. This MS4 Program Plan outlines the requirements for each of six required program components, known as minimum control measures. These control measures include the following:

- Public Education and Outreach on Stormwater Impacts
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

Each minimum control measure section of this stormwater management plan includes best management practices which identify selected management practices and activities that the Parish will implement and measurable goals for each of the management practices and activities that have been. Measurable goals are identified to aid in the assessment of plan implementation and progress all in accordance with measures described in General Permit Number LAR040000, AI 186100, Part IV D.

The actions and programs listed is the following sections should continue to occur during every year of the permit cycle. Measures implemented during each reporting period will be documented in the corresponding MS4 Annual Report.

Parish Contact Information

Responsible Party:

Chief Administrative Officer
1801 W. Airline Hwy.
LaPlace, LA 70068
Phone: (985) 652-9569

Additional Stakeholders:

Department of Utilities
1801 W. Airline Hwy.
LaPlace, LA 70068
Phone: (985) 652-9569

Public Works
1801 W. Airline Hwy.
LaPlace, LA 70068
Phone: (985) 652-4815

Department of Fire
1801 W. Airline Hwy.
LaPlace, LA 70068
Phone: (985) 359-0440

Department of Planning and Zoning
102 E. Airline Hwy.
LaPlace LA 70068
Phone: (985) 651-5565

Department of Public Information
1801 W. Airline Hwy.
LaPlace, LA 70068
Phone: (985) 652-9569

Department of Parks and Recreation
200 Regala Park Drive
Reserve, LA 70084
Phone: (985) 652-9569

Minimum Control Measure 1:
Public Education and Outreach on Stormwater Impacts

1.1 Introduction

Community support is critical to ensure the success of any stormwater management program and the implementation of watershed management practices. Educational activities are not only an important part of the stormwater management program but are required by the MS4 permit.

To promote watershed stewardship and awareness of nonpoint source pollution, the Parish will distribute educational materials to the community (either indirectly or directly) and/or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. These efforts are intended to encourage Parish citizens to play an active role in protecting local water resources.

1.2 Selected Activities and Best Management Practices

1.2.1 Policies and Ordinances

The Parish will continue tracking and responding to citizen complaints and concerns. These complaints and concerns are received in a number of ways including through the Parish website, telephone calls, emails and verbal communication with Parish officials.

1.2.2 Household and Business Hazardous Waste Education and Minimization

The Parish employs staff to address municipal solid waste, universal waste and hazardous waste issues. The staff also addresses employee awareness and community education by seeking partnerships with community recycling programs, school systems, local homeowners, businesses or industrial associations to develop public outreach programs.

The Parish will make efforts to educate businesses about the proper Parish and Federal guidelines on the disposal of grease and other illicit discharges. The Parish will identify businesses receiving complaints on disposal of grease, oils or other illicit discharges and will provide educational material for best management practices that address the storage, disposal, and spills.

1.2.3 Illicit Discharge Education

Information on best management practices, alternative options of best management practices and proper disposal techniques for non-stormwater discharges will be made

available to businesses via government access channel, parish website, flyers and/or public notices.

1.2.4 Parish Stormwater Web Page Maintenance

Stormwater related information will be available on the Parish's website for the general public. The site may contain links to EPA, LDEQ, and other relevant web pages related to stormwater pollution, MS4, and TMDLs. The Parish's stormwater management ordinance(s), MS4 Program plan, annual reports, and LPDES permit(s), will also posted on the website.

1.3 Measurable Goals

- Develop and implement storm drain marking program by end of permit term.
- Distribute educational materials at a minimum of one event per year.
- Develop procedure to record resident complaints and Parish's response to complaints.
- Maintain the parish website to educate the public where to submit complaints throughout the entire permit term.
- Continue to make trash pick-up days and drop off facility information available to the public on the parish website throughout entire permit term.
- Conduct Household Hazardous Materials Collection event once per year.

Minimum Control Measure 2:
Public Involvement and Participation

2.1 Introduction

The Public Involvement and Participation minimum control measure focuses on activities specifically involving the public in the development, implementation and evaluation of the local stormwater management program. Involving the public and stakeholders early on in the stormwater management planning process should improve support for programs as parties should be able to voice their concerns and suggestions for the program.

St. John the Baptist Parish is committed to meeting public notice requirements regarding implementation of the LPDES permit. These commitments include ensuring that citizens have an opportunity to review and comment on the MS4 Program Plan and ensuring that citizens have access to the Parish's annual compliance reports.

2.2 Selected Activities and Best Management Practices

2.2.1 Public Notice and Participation

Providing an opportunity for public input should allow the Parish to take advantage of the knowledge of residents and ensure that stormwater management efforts have the support of the community. St. John the Baptist Parish will ensure these efforts reach the public and stakeholders including but not limited to commercial and industrial businesses and associations, environmental groups, homeowners associations, and educational institutions. The Parish is also committed to complying with local, state, and federal public notice requirements for local ordinances or legislative actions related to the stormwater management program.

2.2.2 Outreach Event Participation

The Parish encourages staff and the public to become more actively involved in helping clean the environment by promoting and sponsoring local litter clean-up efforts (such as Adopt a Highway and Leaders Against Litter). Promotional activities will include information sent via public notices, website, educational brochures, and/or the government access channel.

2.3 Measurable Goals

- Conduct 3 community litter clean up events per year.
- Stormwater personnel will attend all civic association meetings.

- Keep the Parish website updated throughout the entire permit term with links to the final MS4 Program Plan and annual performance report.

- Conduct a public hearing for major updates/revisions to the Stormwater Management Plan.

- Participate in Christmas Tree Collection and Marsh Restoration Program once per year.

- Conduct a public hearing for new stormwater ordinances.

Minimum Control Measure 3:
Illicit Discharge Detection and Elimination

3.1 Introduction

This section provides background information on the regulatory aspects of reducing illicit discharges as well as general requirements outlined in the LPDES General Permit No. LAR040000. Illicit discharges include wastes and wastewater from non-stormwater sources. Allowable non-stormwater discharges are listed in Appendix C. Illicit discharges enter the collection system through either direct connections such as piping mistakenly or deliberately connected to the storm drains or indirect connections such as infiltration into the MS4 from cracked sanitary sewer pipes. The purpose of this Program is to develop, implement and enforce procedures and practices by St. John the Baptist Parish to address potential pollutants generated by the discharge of non-stormwater.

3.2 Selected Activities and Best Management Practices

3.2.1 Policies and Ordinances

The Parish will continue to provide scheduled garbage collection and enforce the following ordinances:

- ***Sec. 32-1. - Littering, trash burning prohibited; penalty.***

  (a) It shall be unlawful for any person to throw, deposit, or burn trash, garbage, grass, or debris upon the public highways, streets, ditches, roads, sidewalk, and public areas of the parish other than as provided for in sections 12-21 through 12-28. Any person who violates the provisions of this chapter will be fined $500.00, and be required to work picking up trash throughout the parish for four weekends during a one-month time.

  (b) Any person who possesses a valid occupational license for the operation of a business in the parish and/or any owner of commercial or industrial property in the parish shall maintain his business property in such a manner so as to prevent the accumulation of trash, garbage or debris on his or her property, and shall take all reasonable steps to prevent any type of litter, trash, garbage or debris located on his property from being placed upon the public highways, streets, ditches, roads, sidewalks or other public areas of the parish, or upon the properties of adjacent land owners.

- ***Sec. 32-31. - Unlawful to discharge medical waste into public waterway, etc.***

  (a) For purposes of this section, the term "medical waste" means those wastes resulting from the operations of medical clinics, hospitals, abattoirs, and other facilities producing waste which may consist of, but not limited to, human and animal parts, or contaminated bandages, pathological specimens, hypodermic needles, contaminated clothing, and surgical gloves.

  (b) It shall be unlawful for any person to place, deposit, dump, discard or throw any medical waste or hypodermic needles or syringes into or upon any public waterway, lake, bayou or drainage canal, or body of water in the parish.

- ***Sec. 42-78. - Prohibitions and limitations on discharges into public storm drainage system.***

  (a) Policy statement.
  (1) The public storm drainage system exists primarily to allow the removal of stormwater runoff from public and private land surfaces. The control of discharges into said system and thus in the receiving stream which ultimately receives storm drainage water is manifestly in the public interest.
  (2) The parish recognizes that, in order to facilitate disposal of wastewater, the public storm drainage system may serve on a limited basis as an alternative disposal method relieving the sanitary sewerage system of the burden of processing unpolluted wastewater. However, no treatment of wastewater is provided by this system. Therefore, discharge into the storm drainage system of any wastewater other than stormwater runoff shall be permitted only subject to such treatment as may be necessary to bring such wastewater up to current acceptable levels as set by the U.S. EPA and the state department of natural resources.
  (3) Nothing herein is intended to conflict with the state sanitary code, or with the state water pollution laws contained in R.S. 56:1435.

  (b) General prohibitions and limitations. No person shall discharge or deposit or cause or permit to be discharged or deposited to the public storm drainage system any wastewater containing at the point of connection to the system, any pollutant or other material of such character or quantity that will:
  (1) Interfere with or damage the system or the efficiency thereof;
  (2) Constitute a hazard to human or animal life, or to the stream or watercourse receiving the effluent of the system;
  (3) Violate any pretreatment standard or effluent limitation;

(4) Cause the storm drainage system to violate any applicable NPDES permit or any applicable receiving water quality standard;

(5) Violate any of the specific prohibitions or limitations established by subsection (c) of this section.

(c) Specific prohibitions and limitations. No person shall discharge or deposit or cause or permit to be discharged or deposited to the public storm drainage system any wastewater which has or contains any of the following:

(1) Oil and grease. Oils in such concentration as to create a sheen on the surface or more than five pounds per day of wax, grease or oil or at a concentration of more than 30 mg/l if emulsified, or containing substances which may solidify or become viscous at temperatures between 32 degrees and 150 degrees Fahrenheit (0 degrees and 65 degrees Celsius) at the point of discharge into the system.

(2) Flammable mixtures. Any gasoline, toluene, xylene, ethers, alcohols, benzene, naphtha, fuel or lubricating oils or other flammable liquid, solid or gas.

(3) Noxious material. Noxious or malodorous solids, liquids, or gases, which either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life. In no event shall the threshold odor number of any industrial waste exceed a value of 2, or the color (true color) of any industrial waste exceed 50 color units.

(4) Radioactive wastes. Radioactive wastes or isotopes of such half-life or concentrations that they do not comply with regulations or orders issued by the appropriate authority having control over their use or which exceed the standards of the Louisiana Board of Nuclear Energy Division of Radiation, or which will or may cause damage or hazards to the system, to personnel operating the system, or to receiving waters or the biota therein.

(5) Solid or viscous wastes. Solid or viscous wastes that will or may cause obstruction to the flow in a drainage canal or otherwise interfere with the proper operation of the drainage system. Prohibited materials include, but are not limited to, grease garbage, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime or lime wastes, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastic, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, and similar substances.

(6) Toxic substances. Any substances at concentrations considered or found to be toxic to aquatic, human or animal life including, but not limited to, hydrocarbons, pesticides, and herbicides. In no event shall any

wastewater discharged into the system contain any substance in such concentration as has been or is declared to be toxic by the U.S. EPA pursuant to section 307(a) of the Clean Water Act.

(7) Incompatible wastes. Any waste containing any materials which form coatings on the sides or deposits on the bottoms of the drainage system such as, but not limited to, sand silt or lime wastes; or containing any other material harmful to or incompatible with the drainage system.

(8) pH. A pH of less than 5.0 or greater than 9.0.

(9) Temperature. A temperature of greater than 110 degrees Fahrenheit (43.3 degrees Celsius).

(10) Suspended and dissolved solids. Total dissolved solids (TOS) at a concentration greater than 2,000 mg/l; or total suspended solids (TSSO) in excess of 42 pounds per day or at a concentration greater than 250 mg/l.

(11) BOD and COD. A BOD loading of more than 25 pounds per day or at a concentration greater than 200 mg/l, or a COD loading of more than 50 pounds per day or at a concentration greater than 400 mg/l.

(12) Dissolved oxygen. Dissolved oxygen of less than one mg/l.

(13) Heavy metals. Any of the following elements at concentrations greater than those indicated opposite the element:

Element	***mg/l***
Antimony	*0.1*
Arsenic	*0.05*
Barium	*1.0*
Beryllium	*1.0*
Bismuth	*1.0*
Boron	*0.5*
Cadmium	*0.02*
Chromium (Hexavalent)	*0.02*
Chromium (Trivalent)	*0.1*
Cobalt	*0.2*
Copper	*0.5*
Iron	*15*
Lead	*0.1*
Manganese	*0.5*
Mercury	*0.001*
Molybdenum	*0.1*
Rhenium	*0.5*
Selenium	*0.02*
Silver	*0.05*
Strontium	*0.5*
Tellurium	*0.5*

Tin	*1.0*
Zinc	*2.0*

(14) Other elements and substances.

a. Pathogenic bacteria or the indicator organisms of pathogenic bacteria in quantities greater than the densities prescribed by the U.S. Environmental Protection Agency and the state department of natural resources as the maximum limit for safe recreational contact waters.

b. Cyanides or cyanogen compounds in excess of 0.1 mg/l as CN in the discharge waste.

c. Phenols or other taste or odor producing substances in such concentrations as to effect a change in the taste or odor of the receiving stream.

d. Hydrogen sulfide in excess of 1.0 mg/l as sulfide ion.

e. Phosphorous as orthophosphate ion in excess of 1.0 mg/l.

f. Inorganic Nitrogen in the form of nitrite or nitrate or nitrate or ammonia ion in excess of 5.0 mg/l.

g. Any foaming or frothing agents of a persistent nature, such as, but not limited to, Anionic Surfactants.

h. Any other agents, material, element or thing which either alone or by combination or interaction with other substances, will or may be harmful to the system, or to human or animal or aquatic life, or to the receiving waters.

(d) Pretreatment. In any case where pretreatment is required or is used to meet the requirements of this section with respect to a particular discharge, the pretreatment methods and system used shall comply with section 42-80 and must be approved by the parish in the permit issued to the discharger pursuant to section 42-81.

(e) The discharger must submit to the parish photocopies of all NPDES discharge monitoring reports when these reports are routinely required by the U.S. EPA.

- ***Sec. 42-81. - Industrial waste discharge permit.***

(a) Required.

(1) All persons proposing to discharge any industrial waste as defined by section 42-73 must first obtain a discharge permit therefor; and no person

shall discharge industrial waste except pursuant to and in compliance with such a permit issued by the parish pursuant to this section.

(2) The discharge permit required by this section shall be separate and distinct from any connection permit that may be required by section 42-76.

(3) No person shall commence any construction, modification or addition to any industrial facility which discharges or will discharge industrial waste, without first securing a discharge permit pursuant to this section.

- ***Sec. 42-83. - Control of prohibited waste; powers and duties of parish.***

(a) Regulatory actions. If wastewater is discharged or proposed to be discharged in violation of this article, the parish and/or the parish attorney may take such action necessary to:

(1) Prohibit the discharge.

(2) Require a discharger to demonstrate that in-plant modifications will reduce or eliminate the discharge of such substances in conformity with this article.

(3) Require pretreatment, including storage facilities, or flow equalization necessary to reduce or eliminate the objectionable characteristics or substances so that the discharge will not violate these rules and regulations.

(4) Require the person making, causing or allowing the discharge to pay any additional cost or expense for damages incurred by the parish for handling and treating excess loads imposed in the collection/treatment system and/or the storm drainage system.

(5) Take such other remedial action as may be deemed to be desirable or necessary to achieve the purpose of this article.

(b) Admission to property.

(1) Whenever it shall be necessary for the purpose of this article, the parish and/or the EPA, upon presentation of credentials, may enter upon any property or premises at reasonable times for the purpose of: a. Copying any records required to be kept under the provisions of this article; b. Inspecting any monitoring equipment or method; c. Sampling any discharge of wastewater, inspecting any pretreatment facility and any part of the disposal system; d. The parish and/or the EPA may enter upon the property at any hour under emergency circumstance.

(2) The parish and/or EPA when under the authority of this subsection shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection. Except when caused by

negligence or failure of the company to maintain safe conditions, the parish and/or the EPA shall indemnify the company against loss or damage to its property by parish and/or EPA employees and against liability claims and demands for personal injury or property damage asserted against the company and proximate caused by any negligent act of the parish and/or the EPA while on the property.

- ***Sec. 42-84. - Enforcement.***

(a) Compliance order.

(1) Whenever, on the basis of any information available to it, the parish finds that any person is or is about to be in violation of this article, they shall issue a compliance order in accordance with this subsection, or he may bring a civil action in accordance with subsection (b) of this section. They may also issue a notice of termination of service in accordance with subsection (c) of this section.

(2) Any compliance order issued under this section shall be sent by certified mail, addressed to the principal place of business in the parish and shall state with reasonable specificity the nature of the violation, specify a time for compliance, which the parish determines is reasonable taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. The order shall also provide an opportunity for the person to whom it is directed to confer with the parish concerning the alleged violation.

(b) Civil action. The parish and/or parish attorney is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which the parish is authorized to issue a compliance order under subsection (a) of this section.

(c) Termination of service. The parish may take action to terminate service to any person for any violation for which he is authorized to issue a compliance order under subsection (a) of this section. The procedure for termination of service shall be as follows:

…

(d) Penalties.

(1) Any person who willfully or negligently violates this article or any condition of a permit issued under this article, shall be guilty of a misdemeanor.

(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other

document filed or required to be maintained under this article or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this article, shall be guilty of a misdemeanor.

(3) Any person who violates any compliance order issued by the parish under subsection (a) of this section shall be guilty of a misdemeanor.

(4) These penalties are in addition to the other penalties provided by this article and said remedies do not exclude or supersede the penalties provided by state and federal law.

3.2.2 Illicit Discharge and Illegal Connection Prevention

The Parish will audit, review and make applicable changes to the Code of Ordinances that prohibits illicit discharges, inappropriate dumping and illegal connections to the stormwater collection system as necessary. The ordinance classifies illicit discharges as a civil violation and establishes legal authority to carry out inspection, monitoring and enforcement procedures necessary to ensure compliance.

The Parish will also verify that all contractors applying herbicides, pesticides and/or fertilizers are certified with the Louisiana Department of Agriculture and Forestry.

3.2.3 Illicit Discharge and Illegal Connection Identification

Known outfall locations will be visually inspected at least once every five years during periods of dry and wet weather. Irregularities (foam, color, smell, etc.) will be documented and the Parish will make efforts to identify and eliminate the source of the irregularity. A flow chart outlining illicit discharge inspection procedures is presented in Appendix D. If significant visual evidence of potential dry weather pollution is discovered during the windshield screening, then a dry weather survey of the sub-basin will be conducted using the illicit discharge inspection (dry weather survey) checklist (Appendix E) and the Parish will make efforts to identify and eliminate the pollutant source.

The Parish will also monitor the sewer collection system for leaks that may drain into the stormwater system. Pipes found to be leaking will be repaired.

3.2.4 Response to Illicit Discharges and Illegal Connections

Resident concerns and complaints regarding hazardous spills and sewer overflows will be addressed with a site visit from Parish personnel. If known, the start time, cause, estimated volume of discharge, repair methods, and the time the repair of the incident was completed will be documented. Responses to hazardous spills will follow the

guidelines outlined in Appendix F. The Parish will also respond to citizen concerns or complaints of accumulated trash and litter.

3.3 Measurable Goals

- Verify all contractors applying pesticides and herbicides are certified from the Louisiana Department of Agriculture and Forestry.
- Maintain checklist for visual inspection and windshield screening of canals and outfalls throughout permit term.
- Record and respond to all reported hazardous spills.
- Record and respond to all known sewer overflows.
- Maintain sewer point repair contract throughout entire permit term.
- Implement capital improvement projects as necessary.
- Conduct visual screening of all major outfalls once per permit term.

Minimum Control Measure 4:
Construction Site Stormwater Runoff Control

4.1 Introduction

Erosion of construction sites can cause sediment to enter runoff and contribute to pollutants entering local waterbodies. Reducing the volume of runoff flowing over disturbed areas of construction sites along with removing sediment from the site helps to reduce the amount of pollutants leaving the site and entering storm drains.

The outlines presented below have been prepared to assist in notification procedures and training of St. John the Baptist Parish staff in the inspection of construction sites disturbing one (1) or more acres of land. This section provides background information on the regulatory aspects of controlling stormwater pollution from construction sites to reduce the risk of pollutants from construction sites contaminating local waterbodies.

4.2 Selected Activities and Best Management Practices

4.2.1 Policies and Ordinances

Building permit applications will be reviewed to determine if construction sites require an LDEQ stormwater permit. Per Section 105 of the Code of Ordinances, submittals from the contractor, owner or owner's representative shall include fire protection system shop drawings, manufacturer's installation instructions, information for construction in flood hazard areas and a site plan. If the Parish determines an LDEQ stormwater permit is necessary during the planning phase of new construction, a Notice of Intent and Notice of Termination for developments five (5) acres or greater, and a Notice of Termination for developments one (1) acre or greater, are submitted to LDEQ. A Stormwater Pollution Prevention Plan (SWPPP) shall be developed and implemented by the contractor to maintain compliance during the construction phase of the project. A guide to developing a Stormwater Pollution Prevention Plan for construction sites can be found in Appendix I.

4.2.2 Best Management Practices for Construction Sites

The Parish will consider the following procedures acceptable as pollutant mitigation efforts for construction sites:

- Stabilization practices including temporary and permanent stabilization (e.g. seeding, shielding soil surface, etc.)

- Structural controls (e.g. silt fences, earthen dikes, etc.)
- Pesticide, herbicide, construction chemical, hazardous waste and construction waste management (e.g. proper storage, handling and disposal)
- Petroleum products management (e.g. monitoring on-site vehicles for leaks; lining petroleum storage area with impervious plastic sheeting, etc.)
- Solid waste management (e.g. maintaining dumpster area, capping dumpsters, etc.)
- Truck Washout (e.g. prohibiting trucks from discharging surplus concrete on site)
- Off-site vehicle traffic (e.g. stabilization of construction entrances, covering of dump trucks hauling material to and from site, etc.)

4.2.3 Inspection and Enforcement Procedures

St. John the Baptist Parish will complete a Construction Inspection Checklist (Appendix H) for developments greater than one (1) acre. During the initial construction site inspection, Parish personnel will meet with the individual in charge of the site who will identity the person(s) responsible for the implementation and maintenance of construction site best management practices. Additionally, Parish personnel and the person(s) in charge of the stormwater pollution prevention plan will confirm the following information:

- Total area to be disturbed by the construction project;
- Construction timing and phasing;
- Sources of potential stormwater contamination (e.g., storage areas);
- Best Management Practices used at the site; and
- Outfall location and receiving waters

Deficiencies which could increase the risk of pollutants entering the stormwater system will be identified, photographed and included in the checklist. Actions taken to rectify deficiencies will be documented.

The Parish will periodically conduct training for their personnel that perform construction site inspections. The training program addresses pollution control laws and regulations, construction site runoff pollution prevention practices and development of stormwater pollution prevention plans.

The Parish will establish an ordinance to require erosion and sediment controls. In the interim, St. John the Baptist Parish will accept Stormwater Pollution Prevention Programs developed for the Louisiana Department of Environmental Quality as sufficient control measures.

4.3 Measurable Goals

- Create an ordinance that addresses erosion and sediment control practices for construction sites by the end of the permit term.

- Implement a building permit review strategy to determine if an LDEQ stormwater permit is necessary for areas of new construction by end of permit term.

- Conduct initial inspections of all construction sites 1 acre or greater. Follow up inspections will be conducted as warranted.

- Train Parish personnel on construction site run-off pollution prevention practices once per permit term.

- Review all site plans prior to construction for use of control measures (BMPs).

Minimum Control Measure 5:
Post Construction Stormwater Management in New Development and Redevelopment

5.1 Introduction

Limiting the permissible post construction runoff in new developments reduces the risk of pollutants reaching waterbodies. If unchecked, the increased impervious surface area associated with new developments may increase stormwater volume and degrade water quality. Innovative site designs that reduce imperviousness help achieve the goals of reducing flows and improving water quality.

St. John the Baptist Parish is committed to these goals. The Parish is currently in the planning stages of a formal Low Impact Development Program. Development and implementation of the program will help avoid water quality degradation as well as reduce flooding potential caused by increased runoff rates associated with development. The Parish will also make outreach efforts to educate public and private entities on best management practices for new developments.

5.2 Selected Activities and Best Management Practices

5.2.1 Policies and Ordinances

The St. John the Baptist Parish Code of Ordinances will be audited and revised upon development of the Low Impact Development Program to outline measures to reduce the volume of runoff and pollutants introduced into receiving waters from new developments by encouraging the use of green infrastructure, including requirements for landscaped buffer yards, utility and waste disposal and aggregate surface course. Examples of green infrastructure may include green parking, porous pavement, downspout disconnection, rain gardens, bioswales, etc. The inclusion of green infrastructure as acceptable options for new developments should serve to reduce the volume of inflow to the receiving waterbodies during periods of wet weather, improve the water quality of runoff and improve the aesthetics of new developments.

5.2.2 Public Outreach

The Parish Code of Ordinances will continue to be accessible at the Parish website throughout the entire permit term.

Parish planners will be available during office hours to answer owner or owner's representative questions about site development.

5.3 Measurable Goals

- Review drainage calculations, construction plans and specifications from the owner or owner's representative of new development projects as needed.

- Audit and revise Code of Ordinances to encourage the use of green infrastructure and other stormwater management practices by end of permit term

- Conduct post-construction site stormwater management training for Parish personnel once per permit term.

- Inspect all construction sites to ensure that stormwater controls were built as designed.

Minimum Control Measure 6:
Pollution Prevention/Good Housekeeping for Municipal Operations

6.1 Introduction

The pollution prevention and good housekeeping minimum control measure outlines activities that ensure municipal facilities and operations are managed in ways that will minimize contamination of stormwater discharges emanating from these facilities. This measure requires the Parish to examine its own actions to help ensure a reduction in the amount and type of pollution that collects on roadways, parking lots, open spaces, storage vehicles and vehicle maintenance areas, Parish owned facilities and other Parish owned or leased operations that discharge into local waterways. St. John the Baptist Parish will implement the methods outlined below to meet the goal of reducing the risk of pollutants contaminating waterbodies.

6.2 Selected Activities and Best Management Practices

6.2.1 Policies and Ordinances

Worn tires and batteries of Parish vehicles are currently sent to facilities that will reclaim or recycle these materials.

The Parish currently employs grass cutting servicemen that are required to properly dispose of debris and litter within Parish properties. Contracted grass cutting services are required to comply with HUD Environmental Procedures (24 CFR Part 58) as it pertains to the National Environmental Policy Act of 1969, amended (40 CFR Part 1500-1508) along with state and local ordinances.

6.2.2 Hazardous Chemical Storage, Handling and Disposal

St. John the Baptist Parish will host a hazardous waste training seminar for relevant employees in the Public Works Department regarding the storage, handling and disposal of hazardous chemicals. This will reduce the risk of hazardous chemical spills reaching the storm drain system due to improper handling and containment procedures.

Chemicals stored by the Parish will be indoors in an environment recommended by the manufacturer. Material Safety Data Sheets for hazardous materials are available to Parish personnel at applicable facilities.

6.2.3 Pollutant Assessment

St. John the Baptist Parish will assess properties owned or operated by the Parish that have the potential for contaminate exposure (storage yards, fleet and maintenance shops, waste transfer stations, etc.) for potential sources of pollutants of concern.

6.3 Measurable Goals

- Develop and update Spill Prevention, Control and Countermeasure Plans for Parish facilities as required by LDEQ.

- Develop and update Storm Water Pollution Prevention Plans for Parish facilities as required by LDEQ.

- Train Parish personnel on hazardous waste disposal, spill cleanup, stormwater hazards and pollution prevention once per permit term.

- Develop maintenance procedures for the storm sewer system by the end of the permit term.

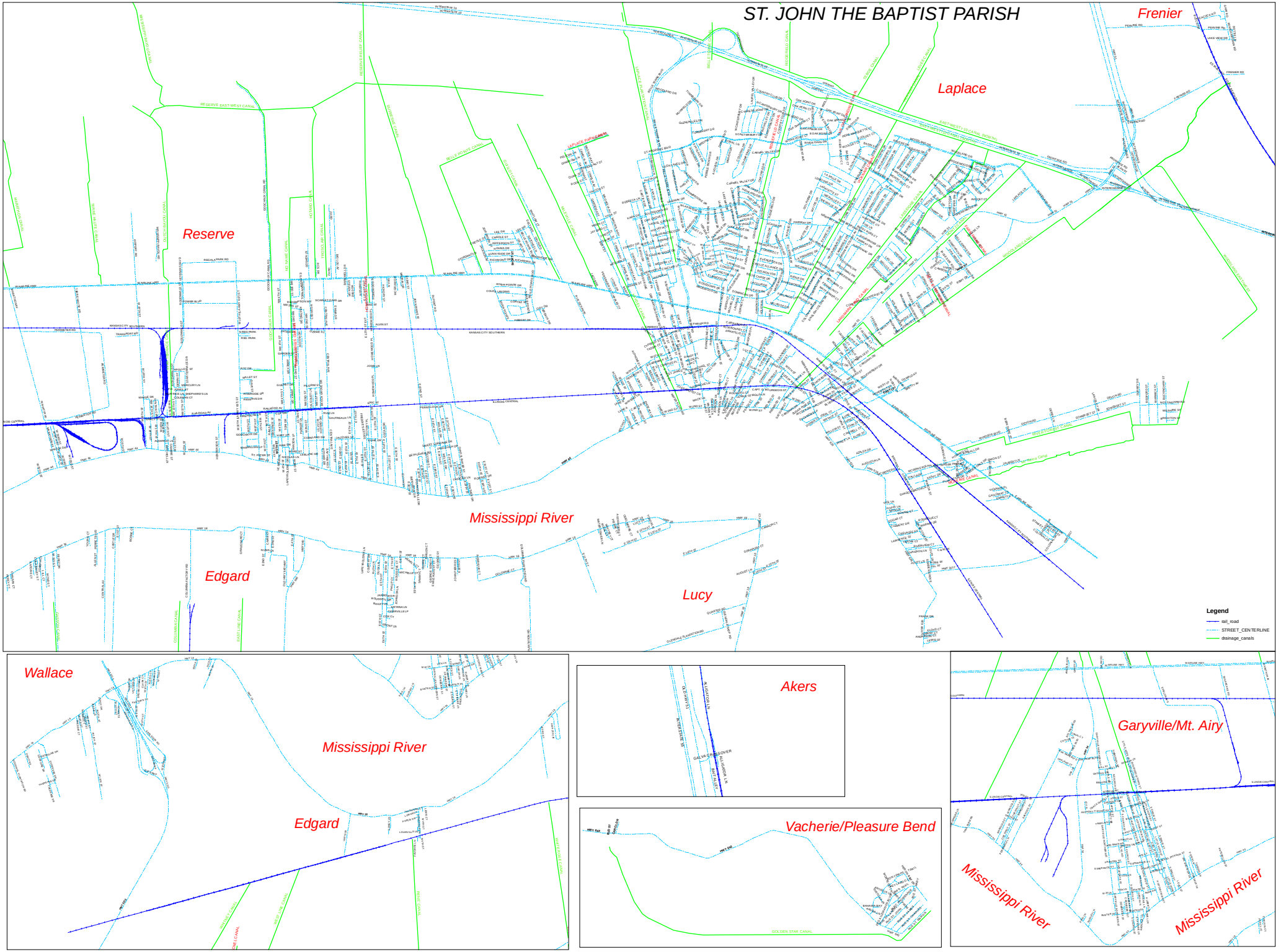
- Inspect all Parish facilities for good housekeeping practices once per permit term.

- Sweep streets as needed throughout permit term.

APPENDIX A

MAP AND LIST OF CANALS

	CANAL NAME	LAT & LONG			CANAL NAME	LAT & LONG	
1	MOLL CANAL	30 00'52""	-90 32'35""	**40**	EAST-WEST I10 CANAL (SOUTH)	30 05'16""	-90 26'36""
2	COLUMBIA CANAL	30 01'08""	-90 34'25""	**41**	RIDGEFIELD CANAL	30 06'09""	-90 29'10""
3	GASSON CANAL	30 00'56""	-90 35'20""	**42**	TEBOE CANAL	30 05'58""	-90 28'36""
4	COMPANY CANAL	30 00'51""	-90 32'17""	**43**	VICKNAIR CANAL	30 05'50""	-90 28'13""
5	MARMILLION CANAL	30 01'08""	-90 34'48""	**44**	LEVEE CANAL	30 05'51""	-90 28'15""
6	MOLL CANAL EXTENSION	30 00'52""	-90 32'35""	**45**	EAST-WEST I-10 CANAL (NORTH)	30 06'30""	-90 30'33""
7	RIVER FOREST CANAL	30 03'19""	-90 27'46""	**46**	BELLE TERRE CANAL	30 06'14""	-90 29'50""
8	LANDMARK LAND CANAL	30 04'11""	-90 28'51""	**47**	NW 3RD STREET CANAL	30 04'37""	-90 33'26""
9	LASSEIGNE CANAL	30 04'14""	-90 28'57""	**48**	RESERVE EAST-WEST CANAL	30 05'51""	-90 34'36""
10	VICKNAIR CANAL	30 04'24""	-90 29'24""	**49**	NO NAME CANAL	30 04'38""	-90 33'26""
11	RIDGEFIELD CANAL	30 04'29""	-90 29'34""	**50**	MISSISSIPPI BAYOU CANAL	30 05'55""	-90 34'29""
12	HAYDEL CANAL	30 04'31""	-90 30'32""	**51**	BAYOU BECNEL CANAL	29 59'51""	-90 39'04""
13	GUILLOT CANAL	30 04'37""	-90 31'08""	**52**	HOPE (GARYVILLE) CANAL	30 04'34""	-90 37'30""
14	MILEVILLE CANAL	30 04'34""	-90 30'50""	**53**	BLIND RIVER	30 12'45""	-90 35'42""
15	BELLE POINTE CANAL	30 04'40""	-90 31'47""	**54**	ALLIGATOR BAYOU	30 12'48""	-90 36'40""
16	DUFRESNE CANAL	30 04'40""	-90 32'12""	**55**	BOURGEOIS CANAL	30 08'35""	-90 38'48""
17	HOTARD CANAL	30 04'39""	-90 33'12""	**56**	GOLDEN STAR CANAL	29 55'14""	-90 37'15""
18	TROSCLAIR CANAL	30 04'39""	-90 33'07""	**57**	BEN CANAL	30 01'42""	-90 34'58""
19	DUTCH BAYOU CANAL	30 04'37""	-90 34'27""	**58**	EAST LINE CANAL	30 00'29""	-90 33'56""
20	TERRE HAUTE CANAL	30 04'36""	-90 35'02""	**59**	WEST LINE CANAL	29 59'53""	-90 39'00""
21	MARATHON CANAL	30 04'35""	-90 35'48""	**60**	GEORGE COUSINS CANAL	29 59'44""	-90 37'43""
22	BOURGEOIS CANAL	30 04'34""	-90 37'24""	**61**	GUSS ROAD CANAL	29 59'48""	-90 38'23""
23	WEST FRISCO CANAL	30 04'34""	-90 37'03""	**62**	Mc REINE CANAL	30 03'08""	-90 27'30""
24	EAST FRISCO CANAL	30 04'34""	-90 36'51""	**63**	RENE' CANAL	29 59'47""	-90 37'21""
25	DUPONT CANAL	30 04'33""	-90 38'20""	**64**	WILLOWBEND 1	30 00'12""	-90 36'22""
26	SUGAR HOUSE CANAL	30 04'33""	-90 37'49""	**65**	WHITE ROSE CANAL	30 00'23""	-90 35'58""
27	HOPE (GARYVILLE) CANAL	30 04'34""	-90 37'30""	**66**	WILLOWBEND 2	29 59'59""	-90 36'52""
28	RESERVE RELIEF CANAL	30 04'39""	-90 32'46""	**67**	DUGAS CANAL	30 00'26""	-90 35'54""
29	GODCHAUX CANAL	30 03'57""	-90 33'34""	**68**	WHITE ROSE CANAL	30 00'26""	-90 35'58""
30	LAPLACE PLANTATION CANAL	30 06'27""	-90 30'34""	**69**	RENE' CANAL	29 59'50""	-90 37'21""
31	MCREINE CANAL	30 03'08""	-90 27'32""	**70**	WHITNEY CANAL	30 59'34""	-90 39'47""
32	FARM ROAD CANAL	30 04'59""	-90 27'42""	**71**	WHITNEY CANAL	30 59'36""	-90 39'47""
33	STEBBINS CANAL	30 04'32""	-90 37'23""	**72**	LASSENE CANAL		
34	HOMEWOOD CANAL	30 04'35""	-90 32'45""	**73**	BRAZAN CANAL		
35	STAR TERRACE CANAL	30 04'36""	-90 34'28""	**74**	WOODLAND CANAL	30 04'02""	-90 28'32""
36	LAPLACE PARK CANAL	30 05'35""	-90 31'03""	**75**	MONTZ CANAL	30 04'02""	-90 28'32""
37	RETRIEVER ROAD CANAL	30 04'25""	-90 27'54""	**76**	WOODLAND EAST/WEST		
38	LIVE OAK LANDING CANAL	30 05'54""	-90 28'38""	**77**	BARDELL CANAL		
39	EAST-WEST I10 CANAL (SOUTH)	30 06'17""	-90 29'50""	**78**	ANGELINE CANAL		


ST. JOHN THE BAPTIST PARISH
Frenier
Laplace
Reserve
Mississippi River
Edgard
Lucy
Legend
rail_road
STREET_CENTERLINE
drainage_canals
Wallace
Mississippi River
Edgard
Akers
Vacherie/Pleasure Bend
Garyville/Mt. Airy
Mississippi River
Mississippi River

APPENDIX B

LPDES PERMIT NO. LAR040000

GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

MASTER GENERAL PERMIT NO. LAR040000
AUTHORIZATION TO DISCHARGE UNDER THE LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R.S. 30:2001, et seq.), rules and regulations effective or promulgated under the authority of said Acts, this Louisiana Pollutant Discharge Elimination System (LPDES) General Permit is reissued. Except as provided in Part I.D of this permit, those operators of storm water discharges from small municipal separate storm sewer systems in the State of Louisiana who submit a completed Notice of Intent and a Storm Water Management Plan in accordance with Part II of this permit, and are approved for coverage, are authorized under this general permit.

This permit shall become effective on September 1, 2018

This permit and the authorization to discharge shall expire five (5) years from the effective date.

Issued on August 17, 2018

Elliott Vega
Assistant Secretary

LPDES GENERAL PERMIT
DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

TABLE OF CONTENTS

PART I
COVERAGE UNDER THIS PERMIT

A. Permit Area

This permit covers all areas, except agricultural lands, of the State of Louisiana that are served by regulated small municipal separate storm sewer systems (small MS4s).

B. Eligibility

1. This permit authorizes discharges of storm water from a regulated small MS4 as defined in LAC 33:IX.2511.B.16 and LAC 33:IX.2519, as stated below.

   The MS4 systems which are required to obtain permit coverage include:

   a. In urbanized areas (UAs), all core cities, plus any other MS4 systems operating within the UA unless specifically waived by the state administrative authority;

   b. Outside UAs, MS4 systems serving populations of 10,000 to 50,000 and a population density of at least 1,000 persons per square mile which have been "designated" by the state administrative authority. Other MS4 systems may be designated by the Director in response to a petition or as needed to protect water quality.

From LAC 33:IX.2511.B.16: *Small Municipal Separate Storm Sewer System - a municipal separate storm sewer system that:*

a. is owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or in accordance with 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 state;

b. is not defined as a large or medium municipal separate storm sewer system in accordance with Paragraph B.4 and 7 of this Section [2511]*, or designated under Subparagraph A.1.e of this Section* [2511]*; and*

c. 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.

From LAC 33:IX.2519:

As an operator of a small MS4, am I regulated under the LPDES Storm Water Program?

A. Unless you qualify for a waiver under Subsection C of this Section [2519]*, 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 state administrative authority, including where the designation is based upon a petition under LAC 33:IX.2511.F.4.

B. You may be the subject of a petition to the state administrative authority to require an LPDES permit for your discharge of storm water. If the state administrative authority determines that you need a permit, you are required to comply with LAC 33:IX.2521-2525.

C. The state administrative authority may waive the requirements otherwise applicable to you if you meet the criteria of Subsection D or E of this Section [2519]*. If you receive this waiver, you may subsequently be required to seek coverage under an LPDES permit in accordance with LAC 33:IX.2521.A if circumstances change.*

D. The state administrative 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 LPDES storm water program; 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 a department-established total maximum daily load (TMDL) that addresses the pollutant(s) of concern.

E. The department may waive permit coverage if your MS4 serves a population under 10,000 and you meet the following criteria:

1. *the department has evaluated all waters of the state, including small streams, tributaries, lakes, and ponds, that receive a discharge from your MS4;*

2. *for all such waters, the department has determined that storm water controls are not needed based on wasteload allocations that are part of a TMDL established by the department or by EPA and approved by EPA 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 Subsection, 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 department has determined that future discharges from your MS4 do not have the potential to result in noncompliance with water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.*

C. Allowable Non-Storm Water Discharges

The following non-storm water sources may be discharged from the MS4 and are not required to be addressed in the MS4's Illicit Discharge Detection and Elimination plan or other minimum control measures, provided that they have been determined by permittees to not be substantial sources of pollutants to the MS4:

- Discharges or flows from firefighting activities (excludes predictable and controllable discharges from a firefighting training facility)
- Fire hydrant flushings
- Potable water including: water line flushings using potable water, drinking fountain overflows, lawn watering runoff, and similar sources of potable water
- Uncontaminated air conditioning or compressor condensate
- Residual street wash water and pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed)
- Routine external building wash down which does not use detergents
- Drainage from landscape watering
- Rising ground waters
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- Uncontaminated pumped ground water
- Foundation drains
- Irrigation water
- Uncontaminated spring water

- Water from crawl space pumps
- Footing drains
- Water from individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Other similar occasional incidental discharges (for example, non-commercial or charity car washes) where such discharges will not cause a problem either due to the nature of the discharge or controls the MS4 places on the discharge. Permittees must identify all types of discharges that will be allowed as occasional incidental discharges and must specify those discharges in the storm water management plan.

D. Limitations on Coverage

The following discharges, whether discharged separately or commingled with municipal storm water, are not authorized by this permit:

1. Storm water discharges that are mixed with non-storm water or storm water associated with industrial activity unless such discharges are:

   a. In compliance with a separate LPDES permit, or

   b. Identified by and in compliance with Part I.C of this permit.

2. Discharges of material resulting from a spill. Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, permittees shall take, or ensure the responsible party for the spill takes all reasonable steps to minimize or prevent any adverse effects on human health or the environment. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittees nor relieve the party(ies) responsible for a spill from the reporting requirements of LAC 33:I.Chapter 39 (40 CFR Part 117 and 40 CFR Part 302).

3. Storm water discharges whose direct, indirect, interrelated, interconnected, or interdependent impacts are likely to have adverse effects upon endangered or threatened species, or on the critical habitat for these species as determined in conjunction with the U.S. Fish and Wildlife Service (USFWS).

4. Storm water discharges or implementation of your storm water management plan, which adversely affect properties listed or eligible for listing in the National Register of Historic Places, unless you are in compliance with requirements of the National Historic Preservation Act (NHPA) and any necessary activities to avoid or minimize impacts have been coordinated with the Louisiana State Historic Preservation Officer (SHPO). (For questions, the operator should contact the Section 106 Review Coordinator, Louisiana Office of Cultural Development, P.O.

Box 44247, Baton Rouge, LA 70804-4247, telephone (225) 342-8170, or email section106@crt.la.gov.)

5. Storm water discharges into any water body for which a TMDL has been approved if the storm water discharges do not comply with Part III.B of this permit.

6. Any new source or new discharge containing the pollutants of concern to a 303(d)- listed water body where a TMDL has not been approved unless allowed under LAC 33:IX.2317.A.9. You may be eligible under this section [2317] if you comply with Part IV.H of this permit.

E. Permittee Responsibilities

1. Permittees are responsible for:

   a. Compliance with permit conditions relating to discharges from portions of the MS4 where the permittee is the operator;

   b. Storm Water Management Program (SWMP) implementation in portions of the MS4 where the permittee is the operator (including developing and implementing clear, specific, and measurable goals and best management practices (BMPs) used to satisfy the control measures identified in Part IV.D.1-6); examples of clear, specific, and measurable goals and BMPs include BMP design requirements, performance requirements, adaptive management requirements, schedules for implementation and maintenance, and frequency of actions (for examples, see EPA guidance document *Measurable Goals Guidance for Phase II Small MS4s* found at https://www3.epa.gov/npdes/pubs/measurablegoals.pdf);

   c. Compliance with annual reporting requirements as specified in Part V.C;

   d. Collection of representative wet weather monitoring data required by Part V.A, according to such agreements as may be established between permittees; and

   e. A plan of action to assume responsibility for implementation of storm water management and monitoring programs in its portion of the MS4 should interjurisdictional agreements allocating responsibility between permittees be dissolved or in default. **This plan of action must be in place within 6 months of the permit issuance date and any new plans or changes to existing plans must be attached to the revised SWMP that is included along with the next annual report.**

2. Permittees are jointly responsible for permit compliance in portions of the MS4 where operational or SWMP implementation authority over portions of the MS4 is shared or has been transferred from one permittee to another in accordance with legally binding agreements. **Any co-permittee relying on another co-permittee or co-permittees to satisfy its permit obligations must have an interagency agreement in place within 6 months of the permit issuance date. A copy of the agreement must be attached to the revised SWMP and provided along with the next annual report submittal.**

3. Within 90 days of transfer of ownership, operational control, or responsibility for SWMP implementation, the MS4 must have developed a plan for implementing the SWMP. Implementation of the SWMP in new areas must be done as expeditiously as possible, but no later than 3 years from addition of the new area.

F. Obtaining Authorization

For general permits issued under LAC 33:IX.2515.B for small MS4s, the state administrative authority (LDEQ) will establish the terms and conditions necessary to meet the requirements of LAC 33:IX.2523 using the two-step permitting approach as described in LAC 33:IX:2515.B. After issuing the general permit, the state administrative authority may establish through a second permitting step additional permit terms and conditions for each MS4 seeking authorization to discharge under the general permit. These additional terms and conditions supplement the requirements of the general permit, resulting in a complete permit meeting the maximum extent practicable (MEP) permit standard for each individual MS4 permittee under the general permit. In the second permitting step, the state administrative authority satisfies its obligation to review the NOI for adequacy and determines what additional requirements are needed for the MS4 to meet the MEP permit standard. Once the NOI is determined to be administratively and technically complete, the state administrative authority will initiate the public noticing process. Public noticing provides an opportunity for the public to submit comments and to request a hearing. Upon completion of this process, LDEQ will notify the MS4 by means of an LPDES permit authorization letter of the authorization to discharge, subject to the terms of the general permit and the additional requirements that apply individually to that MS4. **Once accepted, the SWMP and any other additional conditions identified in the LPDES permit authorization letter become enforceable parts of the permit authorization.**

In accordance with LAC 33:IX.2515.B.2.h.ii, the state administrative authority includes required permit terms and conditions in the general permit applicable to all eligible small MS4s, and during the process of authorizing small MS4s to discharge, the state administrative authority may establish additional terms and conditions not included in the general permit to satisfy one or more of the permit requirements in LAC 33:IX.2523 for individual small MS4 operators. If the state administrative authority deems that additional terms and conditions are necessary for the small MS4 to meet MEP standards or address TMDL requirements, these enforceable terms and conditions will be included in the letter of authorization.

The state administrative authority shall review the Notice of Intent (NOI) submitted by the small MS4 operator to determine whether the information in the NOI is complete, whether the proposed SWMP meets the MEP standard, and to establish any additional terms and conditions necessary to meet the requirements of LAC 33:IX.2523. The state administrative authority may require the small MS4 operator to submit additional information.

Other applicable LPDES permit requirements, standards, and conditions may be established in the general permit, developed consistently with the provisions of LAC 33:IX.2701-2715.

All MS4 operators, including operators covered under a previous version of the LPDES General Permit LAR040000, must comply with the following application requirements.

Application and Public Notice Requirements

The following requirements apply in order for storm water discharges from regulated small MS4s to receive authorization under this general permit:

1. A correctly completed NOI (Form **MS4-G** found at: http://deq.louisiana.gov/page/lpdes-water-permits) must be submitted to the state administrative authority. **In accordance with the requirements of Part II of this permit, the applicant must submit a proposed storm water management plan**, using Sections IV-VI of the NOI form provided by the state administrative authority, or as an attachment. If an electronic NOI or SWMP form is developed during the term of this permit, the state administrative authority may suspend the use of paper NOIs or SWMPs. **Operators authorized under a previous version of LPDES General Permit LAR040000 shall submit the NOI along with the current storm water management plan, updated to meet new requirements contained in this permit (see Part IV.E)**.

2. A new NOI must be submitted in accordance with Part II of this permit when the operator changes, or when a new operator is added after the submittal of an NOI.

3. Any NOI submitted for authorization under this general permit will be placed on public notice for a minimum of 30 days, after the state administrative authority determines the NOI to be administratively complete. In accordance with LAC 33:IX.6521, the costs of publication shall be borne by the applicant. The public notice, the process for submitting public comments and hearing requests, and the hearing process, if a request for a hearing is granted, shall follow the procedures applicable to draft permits set forth in LAC 33:IX.315. All interested parties will be given the opportunity to comment and to request a public hearing to raise issues of concern related to permitting discharges from a particular drainage system during this period.

4. LDEQ may include additional enforceable terms and conditions to be included in the SWMP, and the basis for these additional requirements, upon authorization to discharge under this general permit.

5. The state administrative authority will issue written notification to those small MS4s who are accepted for coverage under this general permit. Upon authorization for the MS4 to discharge under the general permit, the final additional enforceable terms and conditions applicable to the MS4 operator become effective. The state administrative authority shall inform the public of the decision to authorize the MS4 to discharge under the general permit and of the final additional enforceable terms and conditions specific to the MS4. If it is determined that an MS4 would be more correctly regulated under an individual permit, the permittee will be notified that it will not be permitted under the general permit and that an individual permit will be issued to the MS4 operator. The state administrative authority may later deny coverage under this permit and require submittal of an application for an individual LPDES permit based on a review of the NOI or other information (see Part VI.A.6 of this permit).

6. MS4 permittees granted authorization to discharge under this general permit will be listed in the Water Permits Division activity report on the state administrative authority website at: http://deq.louisiana.gov/page/lpdes. NOIs and associated documents will be available in the Electronic Document Management System (EDMS) for public review: http://deq.louisiana.gov/page/edms.

PART II
NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification

1. If you are an operator of a newly regulated small MS4 designated under LAC 33:IX.2519.A.1 (located in urbanized areas as determined by the latest Decennial Census by the Bureau of the Census), you must apply for coverage under this permit within 120 days of being notified by the state administrative authority that you operate a regulated small MS4.

2. If you are an operator of a regulated small MS4 designated under LAC 33:IX.2519.A.2, you must apply for coverage under this permit, or apply for a modification of an existing LPDES permit within 120 days of notice from the state administrative authority that coverage is required.

3. If you are an operator of a regulated small MS4 that was authorized under a previous version of the LPDES General Permit LAR040000, you must reapply for coverage under this permit within 120 days of being notified by the state administrative authority.

4. Requests for waivers under LAC 33:IX.2519.C (see Part I.B) must be submitted in writing, with supporting documentation.

5. When the operator changes, or when a new operator is added after the submittal of an NOI under Part II, the new owner/operator must complete and file an NOI in accordance with Part I.F of the permit at least 30 days prior to taking over operational control of the facility. The prior operator must submit a Notice of Termination once authorization is provided to the new operator.

B. Contents of Notice of Intent

The NOI shall be signed in accordance with Part VI.D.10 of this permit and shall include the following information:

1. The MS4 name;

2. The street address, parish, and the latitude and longitude of the city hall or municipal business office of the MS4 operator for which the notification is being submitted;

3. The name, address, and telephone number of the operator(s) filing the NOI for permit coverage;

4. The names of all states where the applicant has federal or state environmental permits identical to or similar to the MS4 permit;

5. A statement that the applicant does not owe any outstanding fees or final penalties to the state administrative authority; if there are outstanding fees or penalties, you should explain why they have not been paid;

6. Whether or not the applicant is a corporation or limited liability company;

7. The name(s) of all receiving water(s);

8. A USGS 7.5 minute topographic map, or equivalent, of the MS4 service area that satisfies the requirement of LAC 33:IX.2523.B.3.b, showing the location of all outfalls and names and locations of all waters of the state that receive discharges from those outfalls, and any major structural controls (retention basins, detention basins, major infiltration devices, etc.) identified;

9. An estimate of the square miles of the MS4 service area;

10. Any existing quantitative data that characterizes the discharge, such as the monthly mean rainfall estimates, volume and quality of the discharges from the MS4, and the results of any visual field screening at identified outfalls; and

11. In the NOI or as an attachment to the NOI, the following information for each of the 6 minimum control measures defined in Part IV.D:

    a. Selected clear, specific, and measurable BMPs;

    b. The clear, specific, and measurable goals for each of the storm water minimum control measures, the month and year in which the MS4 operator began or will begin full implementation of each of the minimum control measures, interim milestones, frequency of the action; and

    c. Name(s) of the person(s) responsible for implementing or coordinating the SWMP.

C. Where to Submit

NOIs, signed in accordance with Part VI.D.10 of this permit, are to be submitted to the state administrative authority at this address:

Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attention: Water Permits Division

PART III
SPECIAL CONDITIONS

A. Discharge Compliance with Water Quality Standards

Your discharges must not be causing or have the reasonable potential to cause or contribute to a violation of a water quality standard. Where a discharge is already authorized under this permit and is later determined to cause or have the reasonable potential to cause or contribute to the violation of an applicable state or federal water quality standard, the state administrative authority will notify you of such violation(s), and permittees shall take all necessary actions to ensure that future discharges do not cause or contribute to the violation of a water quality standard and to document these actions in the SWMP. If violations remain or recur, then the state administrative authority may require specific changes to the SWMP, or coverage under this permit may be terminated by the state administrative authority, and an individual permit may be issued. Compliance with this requirement does not preclude any enforcement activity as provided by the Clean Water Act (CWA) and Louisiana Environmental Quality Act for the underlying violation.

The state administrative authority has established procedures for monitoring water quality throughout the state to determine if water quality standards are being met and to determine if TMDLs are required to prevent further degradation to water quality-impaired streams. The permit requires that permittees implement a storm water management plan that is designed to minimize the discharge of pollutants from the regulated area to waters of the state. Permittees are required to implement BMPs to fulfill the requirements outlined in Part IV.D. Implementing BMPs to minimize the discharge of pollutants to the storm sewer system should result in less polluted storm water runoff from the regulated areas to receiving water bodies.

Permittees must comply with the state's antidegradation policy and plan (LAC 33:IX.1109.A; LAC 33:IX.1119). Permittees must ensure that storm water discharges to water bodies designated as Outstanding Natural Resource Waters (ONRWs) will not degrade water quality to the maximum extent practicable (MEP). Additional BMPs and regulatory mechanisms (for example, ordinances or codes) may be required in order to prevent erosion, sedimentation, or illicit discharges to ONRWs. If it is demonstrated that a discharge from a particular MS4 regulated by this permit would result in the violation of instream water quality criteria or adversely impact the designated uses of a receiving stream, the state administrative authority will consider how the implementation of the minimum control measures outlined in Part IV.D will affect the quality of storm water discharges from the MS4. If it is determined that the minimum control measures outlined in Part IV.D are inadequate to control the discharge of pollutants from the MS4 effectively enough to meet the instream water quality criteria or protect the designated uses of the receiving stream, then the procedures outlined in LAC 33:IX.1119.C may be implemented to determine if the discharge from the MS4 can be permitted under this general permit, or whether the MS4 may be required to obtain coverage under an individual LPDES permit.

Discharges of pollutants from an MS4 that cannot be effectively controlled under the conditions of this permit will not be authorized to discharge under this general permit.

B. Total Maximum Daily Load (TMDL) Allocations

Permittees must document in the SWMP how the BMPs and other controls implemented in the SWMP will control the discharge of any pollutant(s) of concern (POCs) for discharges into a receiving water which has been listed on the Clean Water Act 303(d) list of impaired waters.

If storm water runoff from a regulated MS4 flows into a basin subsegment **that is listed on the most recent EPA-approved 303(d) list**, then the permittee's SWMP must address any impairments where the suspected source has been identified as *urban runoff/storm sewers, municipal (urbanized high density area), discharges from municipal separate storm sewer systems, SSOs, forced drainage pumping, residential districts, or unspecified urban stormwater.* If a TMDL has not yet been approved for a 303(d)-listed basin subsegment number that receives storm water runoff from the regulated MS4s, **and** the source of pollutants causing the impairment(s) have been attributed to MS4s, then permittees must describe how the BMPs and other control(s) selected for the SWMP will minimize, to the MEP, the discharge of those pollutants which have been identified as causing the impairment. Impaired water bodies (without a TMDL) are listed as Category 5 in Appendix A of LDEQ's most recent Integrated Report (IR), located at: http://deq.louisiana.gov/page/water-quality-integrated-report-305b303d.

If a TMDL has been approved for a water body, permittees will be required to include any TMDL requirements in the SWMP that are applicable to MS4 discharges into basin subsegments where TMDLs have been established.

If a TMDL allocation has been assigned for specific pollutants, which are identified as impairments attributed to discharges from regulated MS4s, then permittees must update the SWMP to implement the TMDL within 6 months of the TMDL's approval or as otherwise specified in the TMDL. This requirement includes TMDLs that are developed during the term of this general permit. In addition to any MS4-specific requirements of the TMDL, permittees must also: (1) implement clear, specific, and measurable BMPs that specifically target the pollutant(s) of concern; (2) identify clear, specific, and measurable goal(s) to minimize the discharge of the pollutant(s) of concern; and (3) implement a monitoring program to assess whether or not the storm water controls are adequate to meet the wasteload allocation (WLA). *See Part IV.H for a thorough discussion of permit requirements should a WLA be assigned for discharges of one or more pollutants from your MS4.* Impaired water bodies for which TMDLs have been developed are listed as Category 4a in Appendix A of LDEQ's most recent IR, located at: http://deq.louisiana.gov/page/water-quality-integrated-report-305b303d.

C. Releases in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the storm water discharge(s) from a regulated small MS4 shall be prevented or minimized in accordance with the applicable storm water

management plan. This permit does not relieve permittees of the reporting requirements of LAC 33:I.3915 and LAC 33:I.3917.

The storm water management plan required under Part IV of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the plan must be modified where necessary.

D. Spills

The permit does not authorize the discharge of hazardous substances or oil resulting from spills. Nor does the permit authorize the discharge of any other substance resulting from a spill event. All reasonable steps must be taken to minimize or prevent any adverse effects on human health or the environment resulting from such spills.

PART IV
STORM WATER MANAGEMENT PROGRAMS

A. Requirements

Within 5 years following **initial** authorization under the permit, you must develop, implement, and enforce a storm water management program (SWMP).

Operators Applying for Initial Permit Coverage:

Operators who apply for initial permit coverage under the reissued general permit must develop and implement a storm water management plan within 5 years following initial authorization under the general permit. While full program implementation may take up to 5 years, credible progress in implementing existing, partial or interim programs must be made during the term of the permit; for example, initial illicit discharge and public education programs shall be launched within the first year of permit coverage.

Currently Permitted Operators:

Operators who were permitted more than 5 years prior to the effective date of this reissued general permit are required to have fully developed and implemented a storm water management plan. Operators who received initial coverage under the previous general permit within the last 5 years are required to have fully developed and implemented a storm water management plan within 5 years from the date of their initial coverage. Deadlines for complete program development and implementation are not extended with each general permit reissuance.

The SWMP shall be described in detail in a written storm water management plan. The storm water management plan shall be designed to reduce the discharge of pollutants from your small MS4 to the MEP, to protect water quality, and to satisfy the water quality requirements of the Louisiana Environmental Quality Act and the Clean Water Act.

The SWMP shall cover the term of the permit and shall be updated by the permittee, and when required by the secretary or the secretary's designee, to ensure compliance with the statutory requirements of LAC 33:IX.2523 and Section 402(p)(3)(B) of the Clean Water Act. Modifications to the SWMP shall be made in accordance with Parts IV.E and VI.A.6. Compliance with the SWMP, additional enforceable conditions required by the state administrative authority, and any schedules required by the permit shall be deemed compliance with Parts IV.A and IV.D. The SWMP, and all updates made in accordance with Part IV.E, are hereby incorporated by reference.

Your SWMP must include the minimum control measures described below in Section D of this Part.

Program development resources are available through the EPA website at https://cfpub.epa.gov/npstbx/index.html. Guidance on Minimum Measures and Measurable

Goals and a menu of BMPs are available on the EPA's main storm water program page which is located at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu. Other important MS4-related information is available on the EPA website at https://www.epa.gov/npdes/npdes-stormwater-program. Information related to BMPs that may be used to satisfy the requirements of the 6 minimum control measures required by Part IV.D of the permit are provided at: https://www3.epa.gov/npdes/pubs/measurablegoals.pdf.

B. Responsibilities of Co-permittees

Permittees must develop and implement a comprehensive SWMP for implementation within its jurisdiction and in accordance with interagency agreements (if applicable), including pollution prevention measures, treatment or removal techniques, storm water monitoring, enforcement of ordinances or other regulatory mechanisms identified in the SWMP, and other applicable means to control the quality of storm water discharged from the MS4. Permittees must continue to enforce the elements of the SWMP required by this permit and as described within the SWMP document(s). Existing permittees with fully developed SWMPs shall continue to implement the program and enforce the elements of the SWMP specifically required by this permit to control the discharge of pollutants to the MEP. Existing permittees with fully developed programs shall also continue to update the SWMP. Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part IV in lieu of creating duplicate program elements for each individual permittee. **You must describe in writing any participation in a cooperative effort and explain how that cooperative effort fulfills any of your Part IV permit requirements. Where a separate MS4 operator is contributing to implementation of the SWMP, the SWMP must clearly define the minimum measure and components(s) each entity agrees to implement and within which MS4 area(s)**. The SWMP, taken as a whole, shall achieve the "effective prohibition on the discharge of non-storm water" and "MEP" standards from LAC 33:IX.2523 and Section 402(p)(3)(B) of the Clean Water Act.

The SWMP shall be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act, and the LPDES Storm Water Regulations (LAC 33:IX.2511).

Controls and activities in the SWMP shall identify areas of permittee responsibility on a jurisdictional, applicability, or specific area basis. The SWMP shall include controls necessary to effectively prohibit the discharge of non-storm water into municipal separate storm sewers and reduce the discharge of pollutants from the MS4 to the MEP.

C. Legal Authority

1. Traditional MS4s, such as cities, towns, and parishes:

   Within 1 year from the effective date of this permit, a discharger permitted under a previous version of the general permit shall review ordinance(s) or other regulatory mechanism(s) to determine if the permittee has adequate legal

authority to control pollutant discharges into and from its MS4 in order to meet the requirements of Part IV.D of this permit. If legal authority does not meet the requirements of Part IV.D, the permittee(s) shall:

a. Revise relevant ordinances; or

b. Adopt a new ordinance(s) or other regulatory mechanism(s) to meet the requirements of Part IV.D.

If necessary, relevant ordinance(s) shall be revised no later than 2 years from the effective date of this permit. New operators without an ordinance or other regulatory mechanism shall establish a plan to adopt an ordinance prior to submittal of a Notice of Intent. New operators must adopt such an ordinance within 2 years of receiving notification of coverage. The first year's annual report must contain a certification statement that ordinances were reviewed.

2. Non-traditional MS4s, such as transportation entities or universities:

Where the permittee lacks the authority to develop ordinances or to implement enforcement actions, the permittee shall exert enforcement authority as required by this general permit for its facilities, employees, contractors, and other entities over which it has operational control, within the portion of the UA under jurisdiction of the permittee. If the permittee does not have enforcement authority and is unable to meet the goals of this permit through its own powers, then the permittee shall:

a. Enter into interjurisdictional agreements with municipalities where the small MS4 is located. These interjurisdictional agreements must state the extent to which the municipality will be responsible for enforcement in order to meet the conditions of this general permit, must be in place within 6 months of the permit issuance date, must be attached to the revised SWMP, and must be included along with the next annual report submittal; or

b. If it is not feasible for the permittee to enter into interjurisdictional agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or the LDEQ's Regional Office to report discharges or incidents for which it cannot itself take enforcement action (see map and contact information for regional offices at http://deq.louisiana.gov/directory).

D. Minimum Control Measures

You must provide a rationale for how and why you selected each of the BMPs and measurable goals for your SWMP. The rationale should include:

- The BMPs that you or another entity are implementing, or propose to implement (for operators permitted less than 5 years ago), for each of the storm water minimum control measures;

- The proposed measurable goals for each of the BMPs including the months and years in which you propose to undertake required actions, including interim milestones and the frequency of the action;

- Name(s) of the person(s) responsible for implementing or coordinating the BMPs for your SWMP; and

- Any additional information required by the state administrative authority.

In addition to providing the rationale described above, your written storm water management plan must include the following information for each of the 6 minimum control measures described below (1–6).

1. Public Education and Outreach on Storm Water Impacts

a. You must:

i. Identify the minimum elements and require implementation of 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. Identify each clear, specific, and measurable BMP and corresponding goal that you use in your public education and outreach program that is designed to minimize the discharge of pollutants into your MS4.

iii. Describe how you inform individuals and households about the steps they can take to reduce storm water pollution.

iv. Describe how you inform individuals and groups about becoming involved in the storm water program (with activities such as local stream and beach restoration).

v. Identify the target audiences for your education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities) and why those target audiences were selected.

vi. Identify the target pollutant sources your public education program is designed to address.

vii. Identify your outreach strategy, including the mechanisms (printed brochures, newspapers, media, and workshops, for example) you use to reach your target audiences, and how many people you expect to reach by your outreach strategy over the permit term.

viii. Identify who is responsible for overall management and implementation of your storm water public education and outreach program and, if different, who is responsible for each of the BMPs identified for your storm water public education and outreach program.

ix. Describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

x. Tailor your program, using a mix of locally suitable strategies, such as brochures, fact sheets, public service announcements, and speaking engagements, to target specific audiences and communities. You should designate some of the materials or outreach programs to be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, information could be provided to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges in storm water.

b. Recommendations:

i. You may use storm water educational materials locally developed or provided by the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s;

ii. You should tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority, non-English-speaking, and disadvantaged communities, as well as any special concerns relating to children.

2. Public Involvement/Participation

a. You must:

i. At a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program.

ii. Identify each clear, specific, and measurable BMP and corresponding goal used in your public involvement/participation program that is designed to minimize the discharge of pollutants into your MS4.

iii. Describe how you involve the public in the development and submittal of your NOI and SWMP. *(You are strongly encouraged to make the storm water management plan and annual report available for review/comment at the local level prior to submittal to LDEQ.)*

iv. Describe how you actively involve the public in the development of your storm water program. *(You are strongly encouraged to make updates to the storm water management plan and annual report available for review/comment at the local level prior to submittal to LDEQ.)*

v. Identify the target audiences for your public involvement program. You are encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others.

vi. Identify and describe the types of public involvement activities included in your program. Consider including the following types of public involvement activities:

(a) Citizen representatives on a storm water management panel;
(b) Holding public hearings;
(c) Working with citizen volunteers willing to educate others about the program; and
(d) Volunteer monitoring or stream/beach clean-up activities.

vii. Identify who is responsible for the overall management and implementation of your storm water public

involvement/participation program and, if different, who is responsible for each of the BMPs identified for this program.

viii. Describe how you evaluate the success of this minimum control measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

i. Use storm water educational materials locally developed or provided by the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s;

ii. Include the public in developing, implementing, and reviewing your SWMP and 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, and participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

3. Illicit Discharge Detection and Elimination

a. You must:

i. Develop, implement, and enforce a program to detect and eliminate illicit discharges (as defined at LAC 33:IX.2511.B.2) into your small MS4;

ii. Develop, if not already completed, a USGS 7.5 minute topographic map, or equivalent, of the MS4 service area that satisfies the requirement of LAC 33:IX.2523.B.3.b, showing the location of all outfalls and names and locations of all waters of the state that receive discharges from those outfalls, and any major structural controls (retention basins, detention basins, major infiltration devices, etc.) identified;

iii. 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 enforcement procedures and actions; in addition, modify the SWMP within 14 calendar days of knowledge of a release in excess of reportable quantities (see Part III.C);

iv. Develop, if not already completed, and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system;

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

vi. **Address the following categories of non-storm water discharges or flows 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, incidental discharges of potable water (for example, drinking fountain overflows), foundation drains, air conditioning condensate, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering runoff, water from individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, residual street wash water, and discharges or flows from firefighting activities (excludes predictable and controllable discharges from a firefighting training facility), where such discharges will not cause a problem either due to the nature of the discharge or controls placed by the MS4 on the discharge. Significant contributors of pollutants from the above sources may require additional controls, such as enhanced public education, ordinances, or other regulatory mechanisms (to be implemented by the MS4 operator); and

vii. **Develop a list of other similar occasional incidental non-storm water discharges (for example, non-commercial or charity car washes) that will not be addressed as illicit discharges.** These non-storm water discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions you have established for allowing these discharges to your MS4 (a charity car wash with controls on frequency, proximity to sensitive water bodies, and BMPs on the

wash water, for example). You must document in your SWMP any local controls or conditions placed on the discharges. You must include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to your MS4.

viii. Provide a description of how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

ix. Conduct visual screening of the outfalls during dry weather and conduct field tests of selected pollutants as part of the procedures for locating priority areas. Permittees must justify the screening schedule with respect to available resources, for example, combining visual screening with plumbing inspections, complaint investigations, etc.

b. You must identify each clear, specific, and measurable BMP and corresponding goal used in your illicit discharge detection and elimination program that is designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

i. A description of how you will develop or have developed a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information you used for the maps and how you plan to verify the outfall locations with field surveys. Permittees that are required to have completed their storm sewer maps must describe how the map was developed and how the map will be regularly updated.

ii. A description of the mechanism (ordinance or other regulatory mechanism) you use to effectively prohibit illicit discharges into the MS4 and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so in accordance with Part IV.C. Permittees that are required to have already developed an ordinance or other regulatory mechanism must include a copy of the relevant section(s) or a reference (such as a web URL) with their SWMP.

iii. A description of how you ensure that your illicit discharge ordinance (or other regulatory mechanism) is implemented through enforcement procedures and actions.

iv. A description of your plan to detect and address illicit discharges to your system, including discharges from illegal dumping and

spills. Your plan must include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. Your plan must also address on-site sewage disposal systems that flow into your storm drainage system. Your description must address, at a minimum, the following:

(a) Procedures for locating priority areas, including areas with higher likelihood of illicit connections (for example, areas with older sanitary sewer lines), or ambient sampling to locate impacted reaches.
(b) Procedures for tracing the source of an illicit discharge, including the specific techniques you will use to detect the location of the source.
(c) Procedures for removing the source of the illicit discharge.
(d) Procedures for program evaluation and assessment.
(e) Procedures for storm water management plan modification within 14 calendar days of knowledge of a release (see III.C.4).

v. A description of how you inform public employees, businesses, and the public of hazards associated with illegal discharges and improper disposal of waste. Include in your description how this plan will coordinate with your public education minimum measure and your pollution prevention/good housekeeping minimum measure programs.

vi. Identification of who is responsible for overall management and implementation of your storm water illicit discharge detection and elimination program and, if different, who is responsible for each of the BMPs identified for this program.

c. Recommendations:

i. Use storm water educational materials locally developed or provided by the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s.

4. Construction Site Storm Water Runoff Control

a. You must:

i. 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 1 acre. Reduction of storm water discharges from construction activity disturbing less than 1 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 1 acre or more. The extent to which the program will rely upon the recently amended NPDES Phase II Construction regulation (40 CFR Part 450) should be specified.

ii. In your written storm water management plan, 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 erosion and sediment control BMPs;
(c) Requirements for construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout (see EPA guidance at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#constr), 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;
(f) Procedures for site inspection and enforcement of control measures;
(g) Educational and training measures for construction site operators; and
(h) Storm water BMPs for construction sites within the MS4's jurisdiction that discharge into the system.

iii. Identify each clear, specific, and measurable BMP and corresponding goal that you use in your construction site storm water runoff control program designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

(a) The mechanism (ordinance or other regulatory mechanism) you use to require erosion and sediment controls at construction sites and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so in accordance with Part IV.C. Permittees that are required to have already developed an ordinance or other regulatory mechanism must include a copy of the relevant section(s) with their SWMP.

(b) Your mechanisms to ensure compliance with your erosion and sediment control mechanisms, including the sanctions and enforcement actions. Describe your procedures for determining which sanctions will apply to which infractions (such as your enforcement escalation process). Possible sanctions include nonmonetary penalties (such as stop work orders and/or permit denials for noncompliance), as well as monetary penalties such as fines and bonding requirements.

(c) A description of your procedures or methods to ensure that construction site operators implement erosion and sediment control BMPs and control waste at construction sites that causes adverse impacts to water quality. Examples of such waste might include discarded building materials, concrete truck washout, chemicals, litter and sanitary waste.

(d) Your procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Describe your procedures and the rationale for how you will identify certain sites for site plan review, if your site plan review does not include the review of all pre-construction site plans.

(e) Your procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with your public education program.

(f) Your procedures for site inspection and enforcement of control measures, including how you will prioritize sites for inspection. Include procedures for site inspections and enforcement of control measures including 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.

(g) Name(s) of the person(s) responsible for overall management and implementation of your construction site storm water control program and, if different, who is responsible for each of the BMPs identified for this program.

iv. Describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

i. Use storm water educational materials locally developed or provided by: the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, and https://www.epa.gov/npdes/stormwater-discharges-construction-activities), the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s.

5. Post-construction Storm Water Management in New Development and Redevelopment

a. You must:

i. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to 1 acre, including projects less than 1 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. Develop and implement strategies which include a combination of structural and/or nonstructural BMPs tailored to your community;

iii. 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;

iv. Ensure adequate long-term operation and maintenance (O&M) of BMPs;

v. Assess existing ordinances, policies, programs, and studies that address storm water runoff quality when developing your program. In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program;

vi. Adopt a planning process that identifies the municipality's program goals (for example, minimizing water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (for example, adopting a combination of structural and/or nonstructural BMPs), O&M policies and procedures, and enforcement procedures when developing a program that is consistent with this measure's intent;

vii. Describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

b. You must identify each clear, specific, and measurable BMP and corresponding goal used in your post-construction SWMP designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

i. A description of your program to address storm water runoff from new development and redevelopment projects. Include in your description any specific priority areas for this program.

ii. A description of how your program is specifically tailored for your local community, how it will minimize water quality impacts, and how it is designed to attempt to maintain pre-development runoff conditions.

iii. Descriptions of any nonstructural BMPs in your program, which may include, but are not limited to:

(a) 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;
(b) Policies or ordinances that encourage infill development in higher density urban areas and areas with existing storm sewer infrastructure;
(c) Education programs for developers and the public about project designs that minimize water quality impacts; and
(d) 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.

iv. Descriptions of any structural BMPs in your program, which may include, but are not limited to:

(a) Storage practices such as wet ponds and extended-detention outlet structures;
(b) Filtration practices such as grassed swales, bioretention cells, sand filters, and filter strips; and
(c) Infiltration practices such as infiltration basins and infiltration trenches.

v. A description of the mechanism (ordinance or other regulatory mechanism) you use to address post-construction runoff from new development and why you chose that mechanism. If you need to develop a mechanism, describe your plan and a schedule to do so in accordance with Part IV.C. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

vi. A description of how you ensure the long-term operation and maintenance of your selected BMPs. Options to help ensure that future O&M responsibilities are clearly identified include an agreement between you and another party, such as the post-development landowners or regional authorities. If such an agreement is developed, it must be added to your SWMP and included in the next annual report submittal.

vii. Name(s) of the person(s) responsible for overall management and implementation of your post-construction SWMP and, if different, responsible for each of the BMPs identified for that control measure.

c. Recommendations:

i. Use storm water educational materials locally developed or provided by: the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s;

ii. When choosing BMPs, participate in locally-based watershed planning efforts, which attempt to involve a diverse group of stakeholders including interested citizens.

iii. Ensure the 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; penalty provisions for noncompliance with preconstruction BMP design; failure to construct BMPs in accordance with the agreed upon pre-construction design; and ineffective post-construction O&M of BMPs; and

iv. Ensure that your requirements continue to respond to the constantly changing storm water technologies, developments and improvements in control technologies.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

a. You must:

i. Identify each clear, specific, and measurable BMP and corresponding goal used in your Pollution Prevention/Good Housekeeping for Municipal Operations program designed to minimize the discharge of pollutants into your MS4.

ii. Develop and implement an O&M program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; in addition, using training materials that are available from EPA, LDEQ, or other organizations, your program must include employee training to prevent and/or 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.

iii. Describe how your O&M program is designed to prevent or reduce pollutant runoff from your municipal operations. Your program must specifically list the municipal operations that are impacted by this O&M program.

iv. Include a list of industrial facilities you own or operate that are subject to the LPDES Multi-Sector General Permit (MSGP) or individual LPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to your MS4.

Include the LPDES permit number or a copy of the industrial NOI for each facility.

v. Describe any government employee training program you will use 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.

(a) Describe any existing available materials you plan to use (see https://www.epa.gov/npdes/stormwater-maintenance).
(b) Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum control measure.

vi. Specifically address the following areas in your program description:

(a) Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and nonstructural storm water controls to reduce floatables and other pollutants discharged from the MS4.
(b) 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 that you operate.
(c) Procedures for the proper disposal of waste removed from your MS4 and your municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris.
(d) Procedures to ensure that 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.

vii. Identify who is responsible for overall management and implementation of your pollution prevention/good housekeeping program and, if different, who is responsible for each of the BMPs utilized in your pollution prevention/good housekeeping program.

viii. Describe how you evaluate the success of this minimum control measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

i. Use storm water educational materials locally developed or provided by the EPA (refer to https://www.epa.gov/npdes/npdes-stormwater-program, the LDEQ (http://deq.louisiana.gov/page/storm-water-protection), environmental, public interest or trade organizations, or other MS4s.

E. Reviewing and Updating Your Storm Water Management Program

1. You must do an annual review of your SWMP in conjunction with preparation of the annual report required under Part V.C. You shall change your SWMP during the term of the permit in accordance with the following procedures:

a. Changes adding (but not subtracting or replacing) components, monitoring, controls/infrastructure, or requirements or updates to a MS4 map or ordinance and to the SWMP may be made at any time. For example, including new public education components or increasing the frequency of outfall inspections would be considered an addition. You must update your storm water management plan to include the above changes, and **these changes shall be reported in the next annual report that is prepared and submitted to LDEQ**.

b. Changes replacing an ineffective or infeasible BMP identified in the SWMP with an alternative BMP may be made at any time. For example, revising an ordinance or changing the parameters and sampling frequencies in the monitoring program would be considered a replacement. **You must update your storm water management plan to incorporate the changes. All such changes shall be reported in the next annual report that is prepared and submitted to LDEQ**. Your SWMP update and annual report to LDEQ must include documentation of the following:

i. An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);

ii. Expectations of the effectiveness of the replacement BMP; and

iii. An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

2. The permitting authority may require changes to the SWMP.

a. Changes may be needed to address impacts on receiving water quality caused, or contributed to, by discharges from the MS4.

b. Changes may be needed to include more stringent requirements necessary in order to comply with new federal statutory or regulatory requirements.

c. Changes may be needed to include such other conditions deemed necessary by the state administrative authority in order to comply with the goals and requirements of the Clean Water Act.

d. Changes requested by the state administrative authority must be made in writing, set forth the time schedule for you to develop the changes, and offer you the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the state administrative authority will be made in accordance with LAC 33:IX.307, LAC 33:IX.2903, or as applicable, LAC 33:IX.2905.

3. You must implement the SWMP in all new areas added to your portion of the MS4 (or areas for which you become responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than 1 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 change of ownership, operational authority, or responsibility for SWMP implementation, you must have a plan for implementing your 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 LAC 33.IX.307. *Addition of components, controls, or requirements by the permittee(s); changes to the SWMP to address storm water controls needed based on wasteload allocations that are part of TMDLs finalized during the permit's term that address pollutant(s) of concern attributed to your MS4 (see Part IV.H); and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternative BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.*

4. Changes to the SWMP that constitute a general permit modification must be sent to LDEQ **separately from the annual report** for review and approval in order to obtain a letter of modification of coverage. A general permit modification shall

follow the procedures in LAC 33:IX.2903 and 2515 and the permittee shall submit an NOI (marked "modified coverage" at the top) to LDEQ, along with any applicable changes to the SWMP as stated above in 4.a. In accordance with LAC 33:IX.2515B.2.h.ii.(b), "The state administrative authority shall review the NOI submitted by the small MS4 operator to determine whether the information in the NOI is complete and to establish the additional terms and conditions necessary to meet the requirements of LAC 33:IX.2523. **The state administrative authority may require the small MS4 operator to submit additional information**."

5. Minor modifications of permits.

   a. Upon the consent of the permittee, the state administrative authority may modify a permit to make corrections or allowances for changes in the permitted activity listed in i-vii (below) without following the procedures of LAC 33:IX.Chapters 31-35 (see LAC 33:IX.2905). Minor modifications may include the following:

      i. Correction of typographical errors;

      ii. Requirement for more frequent monitoring or reporting by the permittee;

      iii. Interim compliance date change in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

      iv. Changes to existing outfall descriptions;

      v. Addition of outfalls previously permitted under another LPDES permit; and

      vi. Any other changes determined to be minor by the administrative authority.

6. Modification of coverage requiring public notice.

   a. In accordance with LAC 33:IX.2903.A, "When the state administrative authority receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see LAC 33:IX.2701)," the state administrative authority may modify the permit accordingly. If the modification does not meet the criteria for a minor modification, the permittee is subject to the public notice and public hearing procedures of LAC 33:IX.Chapters 31-35. Substantial modifications may include:

i. Changes to the implementation of an MCM, including: delaying and/or deleting an MCM and/or requiring implementation of an MCM based upon the determination that another entity was responsible for implementation of the requirement but failed to implement the measures that satisfy the requirement(s); and

ii. Adding a co-permittee and/or including a small MS4 as a limited co-permittee (see LAC 33:IX.2521.B.1).

F. Qualifying State or Local Programs (QLP)

Any municipality, including a small MS4, may have its construction storm water program recognized as a QLP by LDEQ. A QLP is an LDEQ-approved program that fulfills the State LPDES Program requirements for small construction activities stated in Parts IV.D.4 and D.5. A local program can be recognized as a QLP if it meets or exceeds the minimum requirements outlined in the regulations (LAC 33:IX.2707.R) and the program is reviewed by LDEQ and is officially authorized as a recognized QLP. The provisions stated in LAC 33:IX.2707.R offer an opportunity to streamline administrative requirements in the storm water program by formally recognizing local construction management programs that meet or exceed the provisions in LDEQ's construction general permits. Under such a scenario, a construction site operator, responsible for a project within the jurisdiction of a recognized municipality, would follow that municipality's requirements for storm water management.

LDEQ will consider whether an MS4's construction program meets or exceeds the requirements contained in LDEQ's construction general permits and whether the MS4 has the institutional capacity to take on the delegated regulatory responsibilities when considering a municipality's proposal to have its construction program recognized as an LDEQ-approved QLP. More information related to QLPs is available on the EPA's website at http://www.epa.gov/npdes/pubs/qlp_memo.pdf.

G. Sharing Responsibility

If you are relying on another governmental entity that is regulated under LAC 33:IX.2511 of the storm water regulations to satisfy one or more of your permit obligations, you must note that fact in your NOI. This other entity must, in fact, implement the control measure(s); the measure of component thereof must be at least as stringent as the corresponding LPDES permit requirement, and the other entity must agree to implement the control measure on your behalf.

If the other entity agrees to implement the control measure on your behalf, you must have a written acceptance of this obligation. **The written agreement must be maintained as part of the description of your SWMP, and the state administrative authority shall require the cooperative agreement to be included in the NOI/SWMP submittal**. Should the other entity

fail to implement the minimum control measure on your behalf, you remain liable for any discharges due to the other entity's failure to implement the minimum control measure.
If the other entity agrees to report on the minimum measure that it agrees to implement, then the permittee must supply the other entity with the reporting requirements contained in Part V.C of this permit. Should the other entity fail to report in accordance with Part V.C on your behalf, you remain liable for failure to report any of the information required by Part V.C.

H. Discharges to Water Quality-Impaired Water Bodies

Upon written authorization of permit coverage, LDEQ may require the SWMP to be modified to include additional elements as enforceable permit conditions to address current impairments (where the suspected source(s) of the impairment include discharges from MS4s) and or TMDLs with a wasteload allocation assigned to pollutants from regulated MS4s.

Impaired Water Bodies Without an Established TMDL

If your MS4 discharges into a receiving water which has been listed in the LDEQ Section 303(d) List of Impaired Waters, a TMDL has not yet been approved, and the suspected source(s) of the impairment include discharges from MS4s, you must determine, within 1 year of the effective date of the permit if the MS4 is a source of the pollutant(s).

If sources are identified through monitoring for pollutants of concern throughout the MS4 and/or specific identified areas of concern (geographic area or targeted by discharger classification, for example residential, commercial, or industrial areas), the permittee must develop storm water control measures or BMPs that will reduce the discharge of the pollutants of concern. You must describe in your SWMP how the BMPs and other controls selected will reduce the discharge of the pollutant(s) of concern and how you will assess the effectiveness of the selected controls over time. This discussion must specifically identify control measures and BMPs that will collectively control the discharge of the pollutants of concern to ensure that discharges will not cause or contribute to instream exceedances of water quality standards. Targeted BMPs shall be included in the SWMP no later than 2 years after the effective date of the permit. You must report the progress on the implementation of the selected BMPs in your annual report in subsequent years thereafter. The MS4 operator shall select one or more of the recommended control measures in the following section (H.4.a-f) or develop other controls.

Requirements for Impaired Water Bodies with an Approved TMDL

Upon written authorization of permit coverage, LDEQ may require the SWMP to be modified to include additional elements as enforceable permit conditions for TMDLs finalized prior to issuance of coverage under this general permit. If a wasteload allocation (WLA) has been assigned to discharges of a particular pollutant from your MS4 to a particular basin subsegment:

1. You must include clear, specific, and measurable goals and BMPs in your SWMP targeting the pollutant(s) of concern. Include details, such as identifying areas of focused effort or implementing additional control measures or BMPs

that will reduce the pollutant(s) of concern. A schedule for implementing each targeted control shall be included in the SWMP.

2. Permittees shall adopt any assigned wasteload allocations (WLAs) as benchmark goals in the SWMP. The benchmark goal is not a permit limit, but shall be used to measure the progress toward achieving pollutant reductions from the MS4. If the benchmark goal is met, the permittee shall maintain the control measures, BMPs, or other pollutant reduction programs necessary to ensure that the goal will continue to be met.

3. Permittees must comply with monitoring or compliance schedules established in the TMDL.

4. Permittees shall select one or more of the following recommended controls (a–f) or develop other controls that may best achieve the pollutant reduction goals. The following storm water control measures address nutrient, dissolved oxygen, sediment, and/or bacteria impairments:

    a. Prioritization of the detection and elimination of illicit discharges contributing the pollutant(s) of concern to the MS4.

    b. Implementation of public education measures to reduce the discharge of bacteria and nutrients contributed by pets, livestock, and zoos.

    c. Implementation of a public education program to reduce the discharge of nutrients from the overapplication of residential and commercial fertilizers.

    d. Implementation of programs to reduce the pollutant contributions to the MS4 from failing on-site sewage treatment systems, such as septic tanks and small package plants. Such a program could include requiring the replacement of old septic tanks, regionalization of heavily populated areas without a centralized waste treatment facility, and/or extension of existing sewage treatment lines.

    e. Implementation of programs to enhance the MS4's sanitary sewer systems. Such a program should address inadequate collection systems, malfunctioning lift stations, or violations of the sewage treatment plant's water discharge permit.

    f. Requirement of a minimum buffer zone adjacent to surface waters to reduce erosion and sediment runoff for construction activities.

5. You must implement a monitoring program to determine whether the storm water controls that you have selected are adequate to meet the WLA. Each permitted MS4 must develop a monitoring program specific to the selected

BMPs that will be an effective tool to determine if measurable goals are being met. Document in your SWMP the reason and justification for the parameters and frequencies selected and how the monitoring program will effectively evaluate storm water controls. Monitoring programs may include, but are not limited to, the following elements:

a. Regular visual inspections of outfalls during wet and dry weather;

b. Regular inspections of receiving water bodies with the purpose of noting erosion or sedimentation problems;

c. Regular inspections of storm drains, major canals, or junctions;

d. Visual inspections of effluent samples for color, clarity, and the presence of foam, oil, debris, or noxious odors;

e. Instantaneous (*in situ)* water quality measurements of the receiving water body, such as dissolved oxygen, temperature, pH, etc.; and

f. Sampling and analysis of storm water discharges for pollutants of concern.

The permittee must also conduct any monitoring, including specific frequencies, required by applicable TMDLs.

6. Permittees must evaluate the effectiveness of the SWMP and document progress toward the benchmark goal(s). The MS4 operator may utilize third party data, such as that collected by LDEQ, USGS, EPA, and volunteer organizations in the evaluation process. However, the evaluation shall not be limited to only third party data. If subsequent evaluations show that additional or modified controls are necessary to meet the WLA for a particular pollutant, then you must describe the additional or modified controls that will be implemented and include a schedule for implementation. You must continue to evaluate the adequacy of the BMPs that you have implemented to meet the WLA for a particular pollutant. Make modifications to the SWMP until monitoring for a full permit cycle shows that the WLAs are being met or that the MS4 is no longer contributing to the water quality impairment.

7. Within 6 months of any <u>new</u> WLAs assigned for specific pollutants, which are identified as impairments attributed to discharges from regulated MS4s, the permittee shall: initiate development of clear, specific, and measurable goals and BMPs in your SWMP targeting the pollutant(s) of concern. Include details, such as identifying areas of focused effort of implementing additional control measures or BMPs that will reduce the pollutant(s) of concern. A schedule for implementing each targeted control shall be included in the SWMP. **Upon renewal of this permit, the selected clear, specific, and measurable**

goals and BMPs will be reviewed and, if accepted, established as enforceable permit conditions by the state administrative authority.

[NOTE: You should consult the latest edition of the Louisiana Water Quality Management Plan, which is available on the LDEQ website at: http://deq.louisiana.gov/page/water-quality-management (Volume 8), to determine if a wasteload allocation for any pollutant has been assigned to your MS4.]

Compliance with federal, state and local storm water programs revolves around the use of BMPs to manage storm water. Given the water quality and quantity benefits of smart growth at the site, neighborhood, and watershed levels, many smart growth techniques and policies are emerging as BMPs to manage storm water. You are strongly encouraged to utilize principles and BMPs contained in the following publications to minimize the discharge of pollutants within watersheds:
https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu, https://louisianastormwater.org/, and https://www.epa.gov/smartgrowth/. You must document in your SWMP which smart growth practices you utilize and describe how those practices minimize the discharge of pollutants of concern to any water body with an established TMDL.
LDEQ-developed TMDL reports are maintained and regularly updated on the LDEQ website at http://deq.louisiana.gov/page/tmld-reports-and-models.

LDEQ collects ambient surface water data at approximately 125 sites across the state each month. This data is used for establishing water quality criteria or standards, assessment of conditions, development of TMDLs, and the Section 303(d) List of Impaired Waters. This data may be accessed on the LDEQ website at http://deq.louisiana.gov/page/ambient-water-quality-monitoring-data.

LDEQ's Interactive Mapping Application (LIMA) can be accessed at http://deq.louisiana.gov/resources/category/make-a-map.

LDEQ's Small Business Assistance (http://deq.louisiana.gov/page/small-business-parish-assignments-regional-contacts) provides environmental regulatory assistance and information to small businesses and communities, including identification of subsegments, urbanized area boundaries, and the use of the LDEQ's Interactive Mapping Application.

PART V
MONITORING, RECORDKEEPING, AND REPORTING

A. Monitoring

On an ongoing basis during the permit term, you must:

- evaluate program compliance,
- evaluate the functionality of your identified BMPs,
- evaluate progress made toward the status of achieving your identified clear, specific, and measurable goals and BMPs, and
- make any necessary changes/updates to your plan.

If you discharge to a water for which a wasteload allocation (WLA) for a particular pollutant has been assigned to one or more of your MS4 outfalls, you are also required to develop and implement a monitoring program as described in Part IV.H. If the permittee discharges to two or more water bodies, the monitoring requirements apply only to those outfalls located within the subsegment for which the TMDL has been developed.

When conducting effluent (for example, wet weather discharge) sampling and analysis, permitted small MS4s must comply with the following:

1. All sampling and testing shall be conducted in accordance with the test procedures approved under 40 CFR Part 136, Tables A, B, C, D, E, F, G.

2. Proper sampling techniques shall be used to ensure that analytical results are representative of pollutants in the discharge. Monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136, and in particular, Appendices A, B, and C (LAC 33:IX.4901).

3. The flow measurement sample type for the effluent sampling shall be "estimate." Flow measurements shall not be subject to the accuracy provisions established in this permit. When collecting samples, the flow value may be estimated using best engineering judgment (LAC 33:IX.2701).

4. The permittee or designated laboratory shall have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures must be assessed and evaluated on an ongoing basis and quality control acceptance criteria must be used to determine the validity of the data. All method-specific quality control as prescribed in the method shall be followed. If quality control requirements are not included in the method, the permittee or designated laboratory shall follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136) *Standard Methods for the Examination of Water and Wastewater*, Sections 1020A and 1020B. General sampling protocol must follow guidelines established in the

Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982, U.S. Environmental Protection Agency. This publication is available as a downloadable PDF; search by publication #600482029 from https://www.epa.gov/nscep or by hardcopy order from the U.S. EPA/NSCEP, P.O. Box 42419, Cincinnati, OH 45242-0419, telephone number (800) 490-9198. Order by NSCEP publication number 600482029.

In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with an MDL that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method is greater than the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported.

5. Records of all monitoring information shall be retained in accordance with Part V.B of this permit.

B. Recordkeeping

You must 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, a copy of the LPDES permit, and records of all data used to complete the application (NOI) for this permit, for a period of at least 3 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 by request of the state administrative authority at any time.

You should not submit copies of records to the state administrative authority unless you are specifically asked to do so. You must retain a description of the SWMP required by this permit (including a copy of the permit language) at a location accessible to the state administrative authority. You must make your records, including the Notice of Intent (NOI) and a written description of the SWMP, available to the public if you receive a written request to do so.

C. Annual Report Requirements

Unless a co-permittee is exempted from providing updates to the annual report via an interagency agreement, each co-permittee must contribute to the preparation of a system-wide annual report. Each co-permittee must sign and certify the annual report in accordance with Part VI.D.10. You must submit the annual report to LDEQ by March 10 for the preceding calendar year. The annual report must be postmarked no later than March 10. If your MS4 has a public website, you must publish the SWMP and annual report on the website. If an electronic reporting format is developed during the permit

term, LDEQ may require the use of the electronic format in order to comply with EPA's eReporting rule. MS4s will be notified in writing if and when this occurs.

Your annual report must include:

1. The status of compliance with permit terms and conditions;

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

3. A summary of the storm water activities you plan to undertake to comply with the permit during the next reporting cycle (including an implementation schedule);

4. Any changes made during the reporting period to your SWMP, including control measures initiated in response to a new wasteload allocation;

5. Notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable) consistent with LAC 33:IX.2525; and

6. Any other information requested by the state administrative authority.

D. Reporting: Where and When to Submit

1. Two copies of the annual report required by Part V.C and any other reports required herein shall be mailed to:

   Louisiana Department of Environmental Quality
   Office of Environmental Services
   P.O. Box 4313
   Baton Rouge, LA 70821-4313
   Attention: Water Permits Division

   You must submit these reports to LDEQ by March 10 for the preceding calendar year. By 2020, you may be required to submit MS4 program reports electronically (40 CFR 127.16, Table 1).

2. In addition, requests concerning updates to the SWMP, changes in monitoring locations, or application for an individual permit shall be submitted to:

   Water Permits Division
   Office of Environmental Services
   Department of Environmental Quality
   P.O. Box 4313
   Baton Rouge, LA 70821-4313

PART VI
STANDARD PERMIT CONDITIONS

SECTION A. GENERAL CONDITIONS

1. Introduction
   In accordance with the provisions of LAC 33:IX.2701, et seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to the Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply
   The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions

   a. La. R.S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. La. R.S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details.)

   b. Any person may be assessed an administrative penalty by the state administrative authority under La. R.S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants

   a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

   b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or

standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply

a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

b. General Permits. General permits expire 5 years after the effective date. The 180-day reapplication period as defined above is not applicable to general permit authorizations. Reissued general permits may provide automatic coverage for permittees authorized under the previous version of the permit, and no new application is required. Requirements for obtaining authorization under the reissued general permit will be outlined in Part I of the new permit. Permittees authorized to discharge under an expiring general permit should follow the requirements for obtaining coverage under the new general permit to maintain discharge authorization.

6. Permit Action

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to, the following:

a. Noncompliance by the permittee with any condition of the permit;

b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge;

e. Failure to pay applicable fees under the provisions of LAC 33:IX.Chapter 13;

f. Change of ownership or operational control.

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.

7. Property Rights
   This permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private or public property, nor any infringement of federal, state, or local laws or regulations.

8. Duty to Provide Information
   The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability
   Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to La. R.S. 30:2025.

10. Oil and Hazardous Substance Liability
    Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws
    Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Severability
    If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution
    A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

14. Facilities Requiring Approval from Other State Agencies

In accordance with La. R.S. 40.4(A)(6) the plans and specifications of all sanitary sewerage treatment systems, both public and private, must be approved by the Department of Health and Hospitals state health officer or his designee. It is unlawful for any person, firm, or corporation, both municipal and private to operate a sanitary sewage treatment facility without proper authorization from the state health officer.

In accordance with La. R.S. 40.1149, it is unlawful for any person, firm or corporation, both municipal and private, operating a sewerage system to operate that system unless the competency of the operator is duly certified by the Department of Health and Hospitals state health officer. Furthermore, it is unlawful for any person to perform the duties of an operator without being duly certified.

In accordance with La. R.S. 48.385, it is unlawful for any industrial wastes, sewage, septic tanks effluent, or any noxious or harmful matter, solid, liquid or gaseous to be discharged into the side or cross ditches or placed upon the rights-of-ways of state highways without the prior written consent of the Department of Transportation and Development chief engineer or his duly authorized representative and of the secretary of the Department of Health and Hospitals.

15. The standards provided in Chapter 11 – Surface Water Quality Standards are official regulations of the state, and any person who discharges pollutants to the waters of the state in such quantities as to cause these standards to be violated shall be subject to the enforcement procedures of the state as specified in R.S. 30:2025.

SECTION B. PROPER OPERATION AND MAINTENANCE

1. Need to Halt or Reduce not a Defense
   It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate
   The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance

   a. 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. 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.

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities

a. ***Bypass***. The intentional diversion of waste streams from any portion of a treatment facility.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and 4.d of these standard conditions.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water Permits Division, if possible at least 10 days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6 (24-hour notice) and Section D.6.e of these standard conditions.

d. Prohibition of bypass

(1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notices as required by Section B.4.c of these standard conditions.

(2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions

a. Upset. An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c. are met. No determination made during administrative review of claims that noncompliance was caused by an upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii and Section D.6.e.(2) of these standard conditions; and

(4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal

For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3 and B.3. Publicly owned treatment works utilizing waste stabilization ponds/oxidation ponds are not subject to the 85 percent removal rate for Total Suspended Solids.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry
   The permittee shall allow the state administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

   a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

      Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

   b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;

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

   d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

   e. Sample Collection

      (1) When the inspector announces that samples will be collected, the permittee may be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.

(2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.

f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b. of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.

g. Upon written request copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

2. Representative Sampling
Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) may be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

3. Retention of Records
Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 CFR 503), 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, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

4. Record Contents
Records of monitoring information shall include:
a. The date, exact place, and time of sampling or measurements;

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

c. The date(s) analyses were performed;

d. The time(s) analyses were begun;

e. The individual(s) who performed the analyses;

f. The analytical techniques or methods used;

g. The results of such analyses; and

h. The results of all quality control procedures.

5. Monitoring Procedures

a. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in this permit.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to ensure accuracy of measurements and shall maintain appropriate records of such activities.

c. The permittee or designated laboratory shall have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures shall be assessed and evaluated on an on-going basis and quality control acceptance criteria shall be used to determine the validity of the data. All method specific quality control as prescribed in the method shall be followed. If quality control requirements are not included in the method, the permittee or designated laboratory shall follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136) Standard Methods for the Examination of Water and Wastewater, Sections 1020A and 1020B. General sampling protocol shall follow guidelines established in the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, 1982, U.S. Environmental Protection Agency. This publication is available as a downloadable PDF (search by publication #600482029 from https://www.epa.gov/nscep) or by hardcopy order from the U.S. EPA/National Service Center for Environmental Publications, P.O. Box 42419, Cincinnati, OH 45242-0419, telephone (800) 429-9198.

6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

a. *A Guide to Methods and Standards for the Measurement of Water Flow*, 1975, U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, telephone number (800) 553-6847. Order by NTIS publication number COM-75-10683.

b. *Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2*, U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, telephone number (800) 553-6847. Order by NTIS publication number PB-273 535.

c. *NPDES Compliance Flow Measurement Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, telephone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

7. Prohibition for Tampering: Penalties

a. La. R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.

b. La. R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance.

8. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR Part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation

a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:

(1) Submitted on behalf of any facility, as defined in La. R.S. 30:2004;
(2) Required as part of any permit application;
(3) Required by order of the department;
(4) Required to be included on any monitoring reports submitted to the department;
(5) Required to be submitted by contractor
(6) Otherwise required by department regulations.

b. The department laboratory accreditation program, Louisiana Environmental Laboratory Accreditation Program (LELAP) is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not LELAP accredited will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e., data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

c. Regulations on the Louisiana Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation are available on the department website located under LDEQ → About LDEQ→ LA Lab Accreditation at the following link:

http://deq.louisiana.gov/page/la-lab-accreditation

Questions concerning the program may be directed to (225) 219-3247.

SECTION D. REPORTING REQUIREMENTS

1. Facility Changes
The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.

c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301, or 306 of the CWA if it were directly discharging those pollutants; and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any

new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. Anticipated Noncompliance
The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

A permit may be transferred by the permittee to a new owner or operator only if: (1)the permit has been modified or revoked and reissued (under LAC 33:IX.2903.A.2.b) by the permittee and new owner submitting a Name/Ownership/Operator Change Form (NOC-1 Form) and approved by LDEQ (LAC 33:I.Chapter 19); or (2) a minor modification made (under LAC 33:IX.2905) to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.

The NOC-1 form can be found using the pathway LDEQ → Water→ LPDES Application Forms→ Other Forms at the following link: http://deq.louisiana.gov/page/lpdes-water-permits

4. Monitoring Reports
Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be submitted through a department-approved electronic document receiving system (NetDMR) in accordance with LAC 33:I.Chapter 21 unless the state administrative authority gives written authorization to the permittee to submit monitoring results in an alternative format such as paper DMRs.

Information about NetDMR and gaining access can be viewed using the pathway LDEQ → Water→ NETDMR on the department's website at: http://deq.louisiana.gov/page/netdmr.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) using the format specified in the permit.

If authorized to report using an alternative format such as paper DMRs, then preprinted DMRs will be provided to Majors/92-500s and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to

submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, LA 70821-4312

5. Compliance Schedules
Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Requirements for Notification

a. Emergency Notification
As required by LAC 33.I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (877) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c. of these standard conditions.

A written report shall be provided within 7 calendar days after the notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:I.3925.B.

b. Prompt Notification
As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify DPS by telephone at (877) 925-6595 (collect calls accepted 24 hours a day) within 24 hours after learning of the discharge.

In the event of an unauthorized discharge that requires notification, the DPS 24-hour Louisiana Emergency Hazardous Materials Hotline will notify the Department of Environmental Quality.

In accordance with LAC 33:I.3923, notifications not required by LAC 33:I.3915 or 3917 shall be provided to the department within a time frame not to exceed 24 hours, or as specified by the specific regulation or permit provision requiring the notification, and shall be given to SPOC, as follows:

(1) by the Online Incident Reporting screens found at http://deq.louisiana.gov/form/online-incident-reporting-spill-incident-release

(2) by e-mail utilizing the Incident Report Form and instructions found at http://deq.louisiana.gov/page/single-point-of-contact; or

(3) by telephone at (225) 219-3640 during office hours, or (225) 342-1234 after hours and on weekends and holidays.

c. Content of Prompt Notifications. The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:

(1) The name of the person making the notification and the telephone number where any return calls from response agencies can be placed;

(2) The name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;

(3) The date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;

(4) The extent of any injuries and identification of any known personnel hazards that response agencies may face;

(5) The common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants;

(6) A brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.

d. Written Notification Procedures. Written reports for any unauthorized discharge that requires notification under Section D.6.a. or 6.b., or shall be submitted by the discharger to the Office of Environmental Compliance, Assessment Division SPOC in accordance with LAC 33:I.3925 within 7 calendar days after the notification required by D.6.a. or 6.b., unless otherwise provided for in a valid permit or other department regulation. Written Notification Reports shall include, but not be limited to, the following information:

(1) The name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and

specific identification that the report is the written follow-up report required by this section;

(2) The time and date of prompt notification, the state official contacted when reporting, the name of person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;

(3) Date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;

(4) Details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:

(a) The current permitted limit for the pollutant(s) released; and

(b) The permitted release point/outfall ID.

(5) The common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all released pollutants (total amount of each compound expressed in pounds, including calculations);

(6) A statement of the actual or probable fate or disposition of the pollutant or source of radiation and resulting off-site impact;

(7) Remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.

(8) Written Notification Reports shall be submitted to the Office of Environmental Compliance, Assessment Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "**UNAUTHORIZED DISCHARGE NOTIFICATION REPORT**."
Written reports (LAC 33:I.3925) should be mailed to:

Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: OFFICE OF ENVIRONMENTAL COMPLIANCE – SPOC
"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

The Written Notification Report may also be faxed to the Louisiana Department of Environmental Quality, Office of Environmental Compliance at: (225)-219-4404.

Please see LAC 33:I.3925.B for additional written notification procedures.

e. Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b);

(2) Any upset which exceeds any effluent limitation in the permit;

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G).

7. Other Noncompliance
The permittee shall report all instances of noncompliance not reported under Section D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information
Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances
In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Water Permits Division as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:

i. Listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 μg/L);

(2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micro-grams per liter (500 µg/L) for 2,4 -dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
(4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

ii. Which exceeds the reportable quantity levels for pollutants at LAC 33:I.Subchapter E.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:

i. Listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/L);
(2) One milligram per liter (1 mg/L) for antimony;
(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
(4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

ii. Which exceeds the reportable quantity levels for pollutants at LAC 33:I.Subchapter E.

10. Signatory Requirements
All applications, reports, or information submitted to the state administrative authority shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A 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,

(b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that 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 ensure 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 the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: DEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a(1)(b) rather than to specific individuals.

(2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or

(3) For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:

(a) The chief executive officer of the agency, or

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in Section D.10.a of these standard conditions;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position); and,

(3) The written authorization is submitted to the state administrative authority.

c. Changes to authorization. If an authorization under Section D.10.b is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b must be

submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under Section D.10.a or b above, 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 gather and evaluate 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."

11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under La. R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, La. R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

a. The name and address of any permit applicant or permittee;
b. Permit applications, permits, and effluent data.

c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION

1. Criminal

a. Negligent Violations

The Louisiana Revised Statutes La. R.S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first

conviction of such person, he shall be subject to a fine of not more than $50,000 per day of violation, or imprisonment of not more than 2 years, or both.

b. Knowing Violations
The Louisiana Revised Statutes La. R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c. Knowing Endangerment
The Louisiana Revised Statutes La. R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements
The Louisiana Revised Statutes La. R.S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate~~,~~ any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than $10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than 4 years, or both.

2. Civil Penalties
The Louisiana Revised Statutes La. R.S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than $32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance

discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(**PLEASE NOTE**: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. Clean Water Act (CWA) means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L.92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et seq.).

2. Accreditation means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.

3. Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

4. Applicable standards and limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including, effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308 and 403.

5. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.

6. Commercial laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with La. R.S. 49:1001 et seq.

7. Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination

of concentration made using a composite sample shall be the concentration of the composite sample.

8. Daily maximum discharge limitation means the highest allowable "daily discharge."

9. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.

10. Domestic septage means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.

11. Domestic sewage means waste and wastewater from humans, or household operations that is discharged to or otherwise enters a treatment works.

12. Environmental Protection Agency or EPA means the U.S. Environmental Protection Agency.

13. Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.

14. Industrial user means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.

15. LEQA means the Louisiana Environmental Quality Act.

16. Loading is presented in the permit and reported in the DMR as the total amount of a pollutant entering the facility or discharged in the effluent. It is calculated by knowing the amount of flow, the concentration, and the density of water. Results should be rounded off and expressed with the same number of significant figures as the permit limit. If the permit does not explicitly state how many significant figures are associated with the permit limit, the permittee shall use two.

    For Industrial Facilities: Loading (lbs/day) = Flow (in MGD) x Concentration (mg/L) x 8.34*

    For POTWs: Loading (lbs/day) = Design Capacity Flow (in MGD) x Concentration (mg/L) x 8.34*

    *8.34 is the unit conversion for the weight of water

    Please note that the equations above may not be appropriate for production based effluent guideline limitations.

17. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

18. Monthly average: other than for fecal coliform bacteria, discharge limitations are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

19. National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

20. POTW means Publicly Owned Treatment Works.

21. Sanitary wastewater term(s):

    a. 3-hour composite sample consists of 3 effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.

    b. 6-hour composite sample consists of 6 effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.

    c. 12-hour composite sample consists of 12 effluent portions collected no closer together than one hour over the 12-hour period and composited according to flow, or a sample

continuously collected in proportion to flow over the 12-hour period. The daily sampling intervals shall include the highest flow periods.

d. 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample continuously collected in proportion to flow over the 24-hour period.

22. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

23. Sewage sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. *Sewage sludge* includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, domestic septage, portable toilet pumpings, Type III marine sanitation device pumpings (33 CFR Part 159), and sewage sludge products. *Sewage sludge* does not include grit or screenings, or ash generated during the incineration of sewage sludge.

24. Stormwater runoff: aqueous surface runoff including any soluble or suspended material mobilized by naturally occurring precipitation events.

25. Surface water: all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, wetlands, swamps, marshes, water sources, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction that are not part of a treatment system allowed by state law, regulation, or permit.

26. Treatment works means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof. (See Part 212 of the Clean Water Act)

27. For fecal coliform bacteria, a **sample** consists of one effluent grab portion collected during a 24-hour period at peak loads.

28. The term MGD shall mean million gallons per day.

29. The term GPD shall mean gallons per day.

30. The term mg/L shall mean milligrams per liter or parts per million (ppm).

31. The term SPC shall mean Spill Prevention and Control. Plan covering the release of pollutants as defined by the Louisiana Administrative Code (LAC 33:IX.Chapter 9).

32. The term SPCC shall mean Spill Prevention Control and Countermeasures Plan. Plan covering the release of pollutants as defined in 40 CFR Part 112.

33. The term µg/L shall mean micrograms per liter or parts per billion (ppb).

34. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).

35. Visible Sheen: a silvery or metallic sheen, gloss, or increased reflectivity; visual color; or iridescence on the water surface.

36. Wastewater: liquid waste resulting from commercial, municipal, private, or industrial processes. Wastewater includes, but is not limited to, cooling and condensing waters, sanitary sewage, industrial waste, and contaminated rainwater runoff.

37. Waters of the State: for the purposes of the Louisiana Pollutant Discharge Elimination system, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from 3 miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as “waters of the United States” in 40 CFR 122.2, and tributaries of all such waters. “Waters of the state” does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.

38. Weekly average, other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all “daily discharge(s)” measured during a calendar week divided by the number of “daily discharge(s)” measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge

$$= \frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

PART VII
ADDITIONAL DEFINITIONS

Allowable non-storm water means a non-storm water discharge that does not need to be effectively prohibited but must be controlled to the Maximum Extent Practicable (MEP) to protect water quality under CWA 402(p)(3)(B)(iii) in order to be allowed as part of the MS4 discharge.

Best management practices (BMPs) also known as storm water control measures (SCMs) 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.

Clean Water Act (Water Quality Act) – formerly the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972. Public Law 92-500; 33 U.S.C. § 1251 et seq.; legislation which provides statutory authority for the NPDES program. Also known as the Federal Water Pollution Control Act.

Conduit means any channel or pipe used to transport flowing water.

Construction activity – Soil disturbance, including clearing, grading, and excavating; and not including routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Small construction activity is construction activity that results in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) 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 (1) and less than five (5) acres of land.

Large construction activity is construction activity that results in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the

disturbance of less than five (5) acres 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 five (5) acres of land.

Control measure as used in this permit, refers to any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

Conveyance as used in this permit means the process of moving water from one place to another.

Co-permittee as used in this permit means a permittee to a LPDES permit that is only responsible for permit conditions relating to the discharge for which it is the operator.

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

Detention means a storm water system that delays the downstream progress of storm water runoff in a controlled manner. This is typically accomplished using temporary storage areas and a metered outlet device.

Discharge when used without a qualifier, means the discharge of a pollutant.

Discharge of storm water associated with construction activity as used in this permit, refers to a discharge of pollutants in storm water runoff from areas where soil-disturbing activities (clearing, grading, demolition, or excavation, for example), construction materials or equipment storage or maintenance (fill stockpiles, borrow areas, concrete truck washout, and fueling, for example), or other industrial storm water directly related to the construction process (cement/concrete or asphalt batch plants, for example) are located. (See LAC 33:IX.2511.B.14.j and LAC 33:IX.2511.B.15 for the two regulatory definitions of regulated storm water associated with construction sites).

Erosion occurs when land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road-building, and timber harvesting.

Excavation is the process of removing earth, stone, or other materials from land.

Flood control is defined as the specific regulations and practices that reduce or prevent the damage caused by storm water runoff.

Grading is defined as the cutting and/or filling of the land surface to a desired slope or elevation.

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

Illicit discharge is defined as any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges authorized under an LPDES permit (other than the LPDES permit for discharges from the MS4) and discharges resulting from firefighting activities.

Incorporated place as used in this permit means a city, town, township, or village that is incorporated under the laws of the state in which it is located.

Industrial activity is defined as any activity which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant.
Infeasible is defined as not technologically possible or not economically practicable and achievable in light of best industry practices.

Large and Medium Municipal Separate Storm Sewer Systems means all municipal separate storm sewers that are either:

(i) Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of LAC 33:IX.Chapter 71); or
(ii) Located in the counties (parishes) with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these parishes are listed in Appendices H and I of LAC 33:IX.Chapter 71); or
(iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the state administrative authority as part of the large or medium MS4.

Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

Maximum extent practicable (MEP) is defined as the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA 402(p). Section 402(p)(3)(B)(iii) of the Federal Clean Water Act requires "controls to reduce the discharge of 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." A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34.

MS4 is the abbreviation for municipal separate storm sewer system and is used to refer to either a Large, Medium or Small Municipal Separate Storm Sewer System. The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities.

Municipal Separate Storm Sewer System (MS4) is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(a) Owned or operated by the United States or by 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 sewerage, 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 state;

(b) Designed or used for collecting or conveying storm water;
(c) Which is not a combined sewer; and
(d) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at LAC 33:IX.2313.

National Pollutant Discharge Elimination System (NPDES) is the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

Non-traditional MS4 is an MS4 that may lack legal authority, often cannot pass ordinances, and may employ a different type of enforcement mechanism (such as withholding contract payment) to enforce the storm water management program. Other examples of non-traditional small MS4s include drainage districts, airports, military bases, prisons, hospitals, and universities.

Notice of Intent (NOI) is an application to notify the state administrative authority of a facility's intention to be covered by a general permit and is the mechanism used to "register" for coverage under a general permit.

Open space means an undeveloped piece of land adding ecological, scenic or recreational value to an urban area. Open spaces are generally large pervious areas that are free from paving, buildings, structures, etc., except for basic improvements that are complementary, necessary or appropriate to the use and enjoyment of the open area. Open space can be public or private. Open space includes any area that is characterized by natural scenic beauty or whose condition or quality is such that it will enhance the present or potential value of surrounding developed lands, or enhance the conservation of natural or scenic resources. Examples include forests, marshes, wildlife sanctuaries, stream corridors, wetlands, agricultural lands, pasture land, pathways, walking and riding trails, groves, wooded areas, fields, parkland, watersheds, and retention/detention areas and floodways and floodplains. Preserving open space is one of the principles of Smart Growth. Visit the EPA website to learn more about open space and principles of Smart Growth.

Outfall is the point where a municipal separate storm sewer discharges to waters of the state 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 state and are used to convey waters of the state.

Permitting authority is the NPDES-authorized state agency which in the State of Louisiana is the Louisiana Department of Environmental Quality (LDEQ).

Person is any individual, municipality, public or private corporation, partnership, firm, the United States Government and any agent or subdivision thereof, or any other juridical person

which shall include, but is not limited to, trusts, joint stock companies, associations, the State of Louisiana, political subdivisions of the state, commissions, and interstate bodies.

Physically interconnected means that one MS4 is connected to a second MS4 in such a way that it allows for direct discharges into the second system.

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, landfill leachate collection system, 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 storm water runoff.

Pollutants of concern (POCs) include biological 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 in any water body to which the MS4 discharges.

Retrofit means the modification of storm water management systems through the construction and/or enhancement of wet ponds, wetland plantings, or other BMPs designed to improve water quality.

Runoff means drainage or flood discharge that leaves an area as surface flow or as pipeline flow, or drainage or flood discharge that has reached a channel or pipeline by either surface or sub-surface routes.

Sanitary sewer is a system of underground pipes that carries sanitary waste or process wastewater to a treatment plant.

Sediment is defined as soil, sand, and minerals washed from land into water, usually after rain. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Site plan means a graphical representation of a layout of buildings and facilities on a parcel of land.

Site runoff means any drainage or flood discharge that is released from a specified area.

Small Municipal Separate Storm Sewer System (Small MS4) is defined at 40 CFR 122.26(b)(16) and refers to all separate storm sewers that are 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, but is not defined as a "large" or "medium" municipal separate storm sewer system. 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. This term does not include separate storm sewers in very discrete areas, such as individual buildings.

Smart Growth Principles: (1) Create a range of housing opportunities and choices; (2) Create walkable neighborhoods; (3) Encourage community and stakeholder collaboration; (4) Foster distinctive, attractive places with a strong sense of place; (5) Make development decisions predictable, fair and cost effective; (6) Mix land uses; (7) Preserve open space, farmland, natural beauty, and critical environmental areas; (8) Provide a variety of transportation choices of smart growth; (9) Strengthen and direct development toward existing communities; and (10) Take advantage of compact building design.

Stakeholder means an entity that holds a special interest in an issue or program—such as the storm water program—since it is or may be affected by it.

State administrative authority means the Secretary of the Department of Environmental Quality or his designee or the applicable assistant secretary or his designee.

Storm water associated with industrial activity is defined at LAC 33:IX.2511.B.14 and incorporated here by reference.

Storm water discharge associated with small construction activity is defined at LAC 33:IX.2511.B.15. This includes discharges of storm water from construction activities including clearing, grading, excavating, and support activities related to a construction site 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 or 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.

Storm water discharge associated with large construction activity includes discharges of storm water from construction activities including clearing, grading excavating, and support activities related to a construction site that results in land disturbance greater than five acres. Also included is construction activity that disturbs 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 greater than five acres.

Storm water management is defined as functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control, and/or convey storm water.

Storm water management program (SWMP) refers to a comprehensive program to manage the quality of storm water discharged from the MS4. The SWMP required by this permit must include the minimum control measures described in LAC 33:IX.2523.B and satisfy all of the requirements set forth in LAC 33:IX.2523.

Storm water pollution prevention plan (SWPPP) is a plan that describes a process whereby a facility thoroughly evaluates potential pollutant sources at a site and selects and implements measures designed to prevent or control the discharge of pollutants in storm water runoff.
Structural control is a pollution prevention practice that requires the construction of a device, or the use of a device, to capture or prevent pollution in storm water runoff. Structural controls may include but are not limited to: wet ponds, infiltration basins, and storm water wetlands.

Subsegments are watersheds or portions of watersheds delineated as management units for water quality monitoring, assessment, permitting, inspection, and enforcement purposes.

Surface water is defined as all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, wetlands, swamps, marshes, water sources, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction that are not part of a treatment system allowed by state law, regulation, or permit.

Total maximum daily loads (TMDLs) are water quality assessments that determine the source or sources of pollutants of concern for a particular water body, consider the maximum amounts of pollutants the water body can assimilate, and then allocate to each source a set level of pollutants that it is allowed to discharge (i.e., a "wasteload allocation").

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Urban runoff is storm water from urban areas, which tends to contain heavy concentrations of pollutants from urban activities.

Urbanized area (UA) is a Bureau of the Census determination of a central place (or places) and the adjacent densely settled surrounding area -- urban fringe -- that together have a minimum residential population of 50,000 people and an overall population density of 1,000 people/square mile. It is a calculation used by the Bureau of the Census to determine the geographic boundaries of the most heavily developed and dense urban areas.

Wasteload allocation (WLA) means that portion of the assimilative capacity of the receiving water apportioned to a specific discharger in such a way that water quality standards are maintained under design conditions.

Waters of the State for the purposes of the Louisiana Pollutant Discharge Elimination System, means all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from 3 miles into the Gulf of Mexico. For purposes of the LPDES, this includes all surface waters that are subject to the ebb and flow of the tide, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as Waters of the United States in 40 CFR 122.2,

and tributaries of all such waters. *Waters of the state* does not include wastewater treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.
Watershed is that geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Wet Weather Discharge or **Storm Water Discharge**, for monitoring purposes, is a discharge of storm water resulting from a storm event that is greater than 0.1 inch and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area.

You and **Your** as used in this permit is intended to refer to the permittee, the operator, or the discharger as the context indicates and that party's responsibilities (the city, the county, the flood control district, and the U.S. Air Force, for example).

APPENDIX C

ALLOWABLE NON-STORMWATER DISCHARGES

The St. John the Baptist Parish Municipal Separate Storm Sewer System (MS4) permit issued by the LPDES on February 13, 2013, requires that each permittee *"..contribute to the development, revision, and implementation of a comprehensive Stormwater Management Program (SWMP) including pollution prevention measures, treatment or removal techniques, stormwater monitoring, use of legal authority, and other appropriate means to control the quality of stormwater discharges from the Municipal Storm Sewer System."*

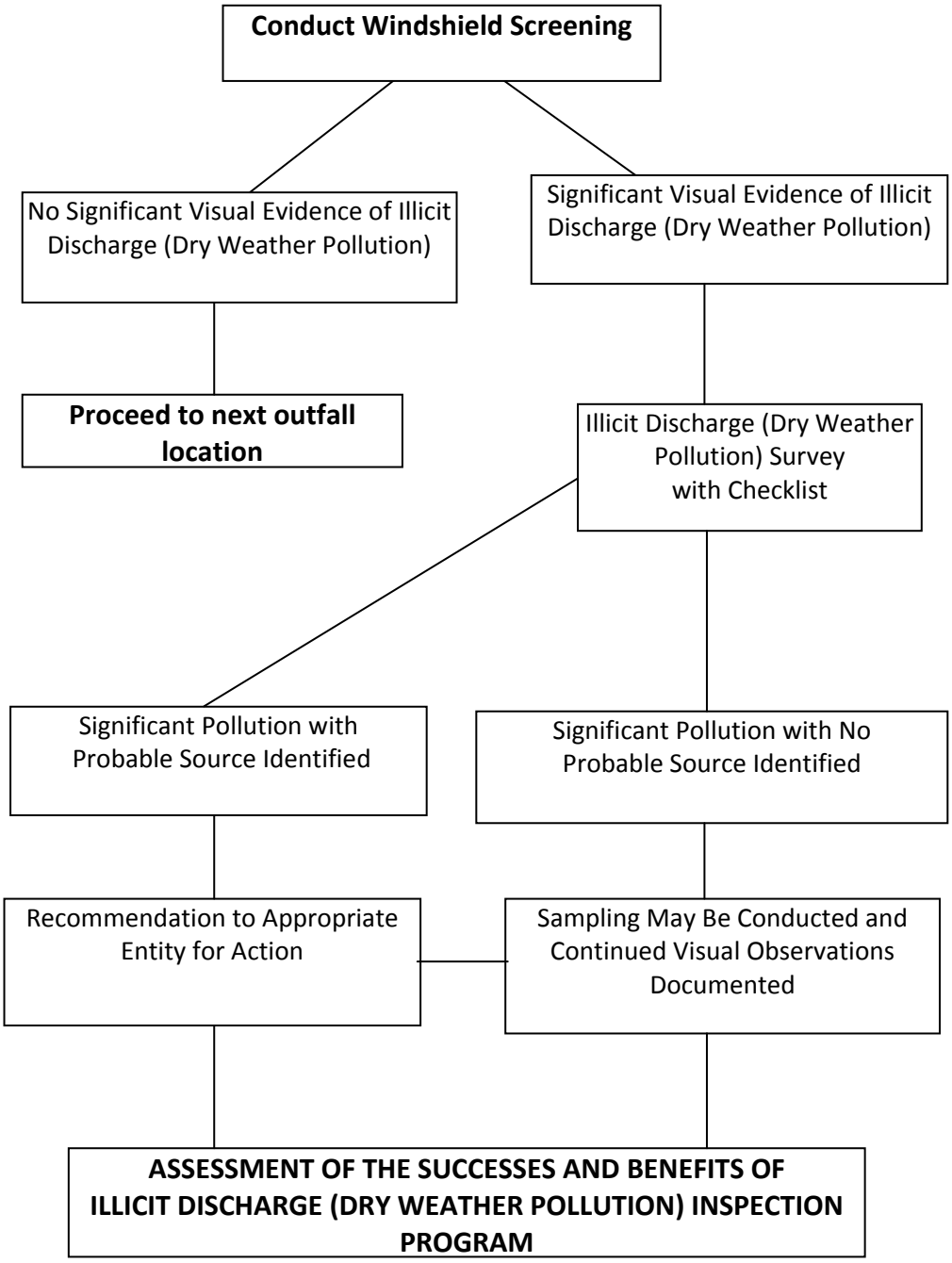
The permit requires that non-stormwater discharges to the MS4 shall be effectively prohibited by the permittees. However, certain discharges need not be addressed as illicit discharges by the permittees nor prohibited from entering the MS4 for the purpose of this permit. Part I.C of the permit requires that St. John the Baptist Parish *"..identify all type of discharges that they will allow as occasional incidental discharges and specify those discharges in their stormwater management plan (SWMP)."* These discharges include the following:

- Discharges or flows from firefighting activities (excludes predictable and controllable discharges from a firefighting training facility);
- Fire hydrant flushing;
- Potable water including: water line flushing using potable water, drinking fountain overflows; lawn watering runoff; similar sources of potable water;
- Uncontaminated air conditioning or compressor condensate;
- Residual street wash water and pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- Routine external building wash down which does not use detergents;
- Drainage from landscape watering;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- Uncontaminated pumped ground water;
- Foundation drains;
- Irrigation water;
- Uncontaminated spring water;
- Water from crawl space pumps;
- Footing drains;
- Water from individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Other similar occasional incidental discharges (e.g. non-commercial or charity car washes) where such discharges will not cause a problem either due to the nature of the discharge or controls the MS4 places on the discharge

APPENDIX D

ILLICIT DISCHARGE INSPECTION PROCEDURES
FLOW CHART

St. John the Baptist Parish Illicit Discharge Inspection Procedures Flow Chart



APPENDIX E

ILLICIT DISCHARGE VISUAL OBSERVATION CHECKLIST

DRAINAGE SUB-BASIN VISUAL OBSERVATION CHECKLIST
ST. JOHN THE BAPTIST PARISH MS4
ILLICIT DISCHARGE INSPECTION PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____
Date:_____

Area:_____

Pipe(s)
Size Type Location

_____

_____

VISUAL SCREENING OF STORM SEWER OUTFALLS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is water flowing from the pipe?	[ ]	[ ]	[ ]	_____

If so, please describe physical parameters of discharge:

Color	[ ]	[ ]	[ ]	_____
Turbidity	[ ]	[ ]	[ ]	_____
Sheen	[ ]	[ ]	[ ]	_____
Foam	[ ]	[ ]	[ ]	_____
Floatables	[ ]	[ ]	[ ]	_____
Other	[ ]	[ ]	[ ]	_____

Does the vegetation around the outfall or in the canal show visual signs of pollutants? [ ] [ ] [ ]

Describe (i.e. algae, excessive growth, absence of vegetation, etc.):

_____

_____

_____

SUB-BASIN SURVEY:

INDUSTRIAL RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there any industries that appear to be discharging or contributing polluted runoff to the storm sewer system? _____	[ ]	[ ]	[ ]	

List industries:

Name:	Address:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

URBAN RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is the area free from litter?	[ ]	[ ]	[ ]	_____
Are all storage tanks in good operating condition? (free from cracks and not leaking)	[ ]	[ ]	[ ]	_____
Does the storm drainage system appear to be operating properly?	[ ]	[ ]	[ ]	_____
Is the area free from surface liquid contamination?	[ ]	[ ]	[ ]	_____
Is the area free from non-stormwater discharges?	[ ]	[ ]	[ ]	_____
Are covers on all outside trash containers to prevent rainfall from entering?	[ ]	[ ]	[ ]	_____
Are area gas stations free of oil and gas spills or leaks?	[ ]	[ ]	[ ]	_____

EROSION:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is there excessive sediment accumulation?	[ ]	[ ]	[ ]	_____
Are canal banks stable and vegetated?	[ ]	[ ]	[ ]	_____
Is nutria activity apparent?	[ ]	[ ]	[ ]	_____
Do area construction sites have sedimentation and erosion controls? (silt fences, hay bales, etc.)	[ ]	[ ]	[ ]	_____
Are all nonpaved areas vegetated and free from erosion potential?	[ ]	[ ]	[ ]	_____

SEWER SYSTEM AND INDIVIDUAL SEPTIC SYSTEMS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there visible signs of of sanitary sewer overflows?	[ ]	[ ]	[ ]	_____
Are septic system discharge points free from odor and septic conditions?	[ ]	[ ]	[ ]	_____

RECOMMENDED ACTION:

_____

_____

_____

_____

_____

	YES	NO	NA	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

APPENDIX F

RESPONSE TO ILLICIT DISCHARGES AND ILLEGAL CONNECTIONS

Accidental Discharges

If an accidental dry weather discharge has occurred, the following actions will occur:

• Notify the appropriate authorities. Depending on the severity of the discharge, the first action is to notify the emergency services. Hazardous or toxic spills or discharges will be reported to the fire department or the emergency response system though the 911 system immediately after the accident is discovered. For discharges that are unlikely to be hazardous or toxic, the Department of Public Works will be notified immediately.

• Stop the discharge. The person concerned will take immediate steps to stop the discharge and contain, treat or take other actions to minimize the effects on the Parish MS4 and receiving streams. The person will also take immediate steps to prevent recurrence of the discharge.

• Identify and document the nature of the accidental discharge. In non-emergency cases, the Parish Department of Public Works will perform a field visit within five business days of notification to verify and document the discharge via the Parish's standard warning notice to comply. Notification will include the nature, quantity, and time of occurrence of the discharge.

• Prepare response report. A written report describing the occurrence, its impact on water quality, and the clean-up response will be prepared by the person concerned and submitted within 15 days of the occurrence to the Department.

Illicit Discharges

Since MS4s are not designed to treat non-stormwater wastes, illicit discharges result in the release of pollutants directly into streams. Illicit discharges can enter a stormwater system through accidental spills, surface disposal of wastes, dumping of wastes into stormwater catch basins, or conscious (but illegal) connection of waste lines to the stormwater system. With the exception of unpreventable accidental spills, most illicit discharges can and should be addressed though the Illicit Discharge Detection and Elimination Program (IDDEP). The procedure necessary to address an illicit discharge varies depending on the severity and nature of the event. The procedure consists of a series of steps:

• Notify the appropriate authorities. Depending on the severity of the discharges, the first action is to notify emergency services. Hazardous or toxic spills or discharges will be reported to the fire department or the emergency response system. For discharges that are unlikely to be hazardous or toxic, the Department of Public Works will be notified immediately.

• Identify and document the nature of the illicit discharge. In non-emergency cases, staff will immediately perform a field visit to verify and document the discharge via the Parish's standard warning notice to comply (Appendix F).

• The Parish immediately notifies the property owner verbally. The Department provides written notification to the property owner of the discharge, the corrective action necessary, and an appropriate timeframe for eliminating the discharge.

• The Parish re-inspects the site on the date the discharge was to cease to ensure that the elimination has occurred.

• Enforcement and legal actions. If an illicit discharge is not corrected, legal action may be initiated in St. John the Baptist Parish Court.

APPENDIX G

NOTICE OF INTENT AND NOTICE OF TERMINATION FORMS

To: **Prospective Applicants for a Storm water General Permit Associated with Construction Activity Greater than 5 Acres**

Attached is a **Stormwater General Permit Associated with Construction Activity Greater than 5 Acres Notice of Intent (NOI) CSW-G,** for a Louisiana Pollutant Discharge Elimination System (LPDES) permit, authorized under EPA's delegated NPDES program under the Clean Water Act.

Projects do not qualify for coverage under the general permit unless the NOI is complete and correct. To be considered complete, EVERY ITEM on the form must be addressed and the last page signed by an authorized company agent. If an item does not apply, please enter "NA" (for not applicable) to show that the question was considered.

Payment of the Annual Maintenance and Surveillance Fee(s) MUST be received with the NOI. Attach a check or money order to the NOI or go to http://business.deq.louisiana.gov/ to create an online account.

NOIs without payment are considered incomplete.

Two copies (one original and one copy) of your **completed and signed NOI** should be submitted to:

Mailing Address:
Department of Environmental Quality
Office of Environmental Services
Post Office Box 4313
Baton Rouge, LA 70821-4313
Attention: Water Permits Division

Physical Address (if NOI is hand delivered):
Department of Environmental Quality
Office of Environmental Services
602 N Fifth Street
Baton Rouge, LA 70802
Attention: Water Permits Division

Please be advised that completion of this NOI may not fulfill all state, federal, or local requirements for facilities of this size and type.

According to L. R. S. 48:385, any discharge to a state highway ditch, cross ditch, or right-of-way shall require approval from:

Louisiana DOTD
Office of Highways
Post Office Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1927

AND

Louisiana DHH
Office of Public Health
Center for Environmental Services
Post Office Box 4489
Baton Rouge, LA 70821-4489
(225) 342-7499

A copy of the LPDES regulations may be obtained from the Department's website at **http://www.deq.louisiana.gov/portal/tabid/1674/Default.aspx**.

After the review of the NOI, this Office will issue written notification to those applicants who are accepted for coverage under this general permit. For questions regarding this NOI please contact the Water Permits Division at (225) 219-9371. For help regarding completion of this NOI please contact DEQ, Small Business/Small Community Assistance at 1-800-259-2890.

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Environmental Services, Permits Division
Post Office Box 4313
Baton Rouge, LA 70821-4313
PHONE#: (225) 219-9371

LPDES NOTICE OF INTENT (NOI) TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY GREATER THAN 5 ACRES

(Attach additional pages if needed.)

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by an LPDES permit issued for storm water discharges associated with construction activity in Louisiana. In order to be automatically authorized under General Permit LAR100000 you must submit a complete and accurate NOI to the LDEQ.

EVERY ITEM MUST BE COMPLETED.

Submission of this Notice of Intent also constitutes that implementation of the Storm Water Pollution Prevention Plan required under the general permit will begin at the time the permittee commences work on the construction project identified in Section I below.

SECTION I - FACILITY INFORMATION

A. Permit is to be issued to the following: (must be a party having operational control over construction plans and specifications and /or a party having day-to-day operational control over those activities at a project site which are necessary to ensure compliance with the storm water pollution prevention plan or other permit conditions LAC 33:IX.2501.B and LAC 33:IX.2503.A and B).

1. Legal Name of Applicant
(Company, Partnership, Corporation, etc.) _____

Project Name _____

(NOTE: Only one NOI needs to be submitted to cover all of the permittee's activities on the common plan of development or sale (e.g., you do not need to submit a separate NOI for each separate lot in a **residential subdivision** or for two separate buildings being constructed on the same property, provided your SWPPP covers each area for which you are the operator.)

Mailing Address _____

_____ Email: _____ Zip Code: _____

If the applicant named above is not also the owner, state owner name, phone # and address.

_____

_____

Check status: ☐ Federal ☐ Parish ☐ Municipal ☐
☐ State ☐ Public ☐ Private ☐ Other: _____

2. Location of project. Provide a specific address, street, road, highway, interstate, and/or River Mile/Bank location of the project for which the NOI is being submitted._____

_____

City _____ Zip Code_____ Parish_____

Front Gate Coordinates:

Latitude- ___deg. ___min. _____sec. Longitude- _____deg. _____ min. ____sec.

Method of Coordinate Determination: _____

(ex:http://terraserver-usa.com/Quad Map, Previous Permit, website, GPS)

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

B. Storm water Pollution Prevention Plan Information.

1. Has the Storm water Pollution Prevention Plan (SWPPP) been prepared? (NOTE: The SWPPP must be prepared prior to submittal of the NOI. Do **not** submit SWPPP with this NOI.)

   ☐ Yes ☐ No

2. Indicate address of location of SWPPP if different from Project Location. **(N/A if SWPPP is located at the construction site.)**

   Address _____

   City _____ State _____ Zip _____

C. Location Information

1. Estimated Construction Start Date: (mo/day/yr) _____

2. **Select how long the permit is needed:**

   ☐ **0 months - 1 year**

   ☐ **2 years (not available after 9/30/2018)**

   ☐ **3 years (not available after 9/30/2017)**

   ☐ **4 years (not available after 9/30/2016)**

   ☐ **5 years (not available after 9/30/2015)**

   Note: Coverage cannot be granted beyond 9/30/2019 (the expiration date of the general permit). Therefore, 5 years is not available after 9/30/2015, 4 years is not available after 9/30/2016, etc. Instructions on extending coverage beyond 9/30/2019 will be provided at the time the master general is reissued.

3. Estimate of area to be disturbed (to nearest acre) _____

4. Describe the project or facility being constructed, such as a subdivision, single home, business, road project, or retail development (**be specific, if clearing land indicate if there are future plans to build a facility, subdivision, or retail development**):

_____

_____

5. Is the project part of a larger development or subdivision? (5 acres or greater) ☐ Yes ☐ No

If yes, provide the name of the development or subdivision. _____

D. Discharge Information

1. Indicate how the storm water run-off reaches state waters (named water bodies). This will usually be either *directly*, by *open ditch* (if it is a highway ditch, indicate the highway), or by *pipe*. Please specifically name all of the minor water bodies that your discharge will travel through on the way to a major water body. This information can be obtained from U.S.G.S. Quadrangle Maps. Maps can also be obtained online at http://map.deq.state.la.us/ or www.mytopo.com. Private map companies can also supply you with these maps. If you cannot locate a map through these sources you can contact the Louisiana Department of Transportation and Development at the address on the first page of this form.

By _____ (effluent pipe, ditch, etc.);

thence into _____ (effluent pipe, ditch, etc.);

thence into _____ (Parish drainage ditch, canal, etc.);

thence into _____ (named bayou, creek, stream, etc.)

2. Based on Appendix C, the Outstanding Natural Resource Water (ONRW) list, does your storm water run-off flow directly into a waterbody listed as an ONRW?

☐ Yes ☐ No

NOTE: If the discharge will ultimately enter a scenic stream, contact the Louisiana Department of Wildlife and Fisheries (LDWF) Scenic Stream Division at 318-343-4044 for direction regarding how to comply with their requirements.

3. Based on Appendix A, Endangered Species Guidance, are there any listed endangered or threatened species in the project area?

☐ Yes ☐ No

NOTE: Use the Endangered Species Guidance in Appendix A to determine if there are listed endangered or threatened species in the project area. Applicants should contact the U. S. Fish and Wildlife Service (address is in Appendix A) for guidance if they need assistance in making a determination.

4. Based on Appendix B, Historic Properties Guidance, are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or in proximity to the discharge?

☐ Yes ☐ No

5. Was the State Historic Preservation Office (see Part I.A.3.f of the permit) involved in your determination of eligibility?

☐ Yes ☐ No

E. Additional Discharge Information

1. Will the project or facility expansion, post-construction, result in a discharge that will require a wastewater discharge permit such as treated sanitary wastewater from a subdivision or apartment complex, industrial storm water or process wastewater?

☐ Yes ☐ No (e.g. direct to city POTW or no post-construction discharge)

2. If yes, does the subdivision, complex, or facility have an LPDES water discharge permit?

☐ Yes ☐ No

If yes, what is the LPDES permit number?

3. If the facility has an LPDES water discharge permit, will the construction activity result in an increase to the permitted discharge?

☐ No ☐ Yes – Please explain:_____

4. If the facility **does not** have an LPDES permit or if the construction will result in an **increased discharge,** the party or developer responsible for construction plans and specifications must provide a Request for Preliminary Determination (RPD), Notice of Intent (NOI), or a request for permit modification within **14 days** of submittal of the Construction NOI to: DEQ, OES, P.O. Box 4313, Baton Rouge, LA 70821-4313, Attn: Water Permits Division**.** Failure to submit this information may result in denial of this and/or any future applications for discharge of wastewater to waters of the state. The "Request for Preliminary Determination of LPDES Permit Issuance" form requests the information referenced above and can be accessed on our web page http://www.deq.louisiana.gov under DIVISIONS, Water Permits, LPDES Permits, LPDES Forms.

SECTION II – LAC 33.I.1701 REQUIREMENTS

A. Does the company or owner have federal or state environmental permits in other states that are identical to, or of a similar nature to, the permit for which you are applying? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

☐ Permits in Louisiana. List Permit Numbers or attach a list: _____

☐ Permits in other states (list states): _____

☐ No environmental permits.

B. Do you owe any outstanding fees or final penalties to the Department? ☐ Yes ☐ No

If yes, please explain.

_____

C. Is your company a corporation or limited liability company? ☐ Yes ☐ No

If yes, is the corporation or LLC registered with the Secretary of State? ☐ Yes ☐ No

SECTION III - SIGNATURE

According to the Louisiana Water Quality Regulations, LAC 33:IX.2503, the following requirements shall apply to the signatory page in this application:

Chapter 25. Permit Application and Special LPDES Program Requirements

2503. Signatories to Permit Applications and Reports

A. All permit applications shall be signed as follows:

1. For a corporation - by a responsible corporate officer. For the purpose of this Section, responsible corporate officer means:

   (a) A 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

   (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that 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 ensure 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 the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

NOTE: LDEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in the Permit **Standard Permit Conditions, Part VI.G.1.a(1)** The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Permit **Standard Permit Conditions, Part VI.G.1a.(2)** rather than to specific individuals.

2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or

3. For a municipality, state, federal or other public agency – by either a principal executive officer or ranking elected official. For the purposes of this section, a principal executive officer of a federal agency includes:

   (a) The chief executive officer of the agency, or

   (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

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 this 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 also certify that a storm water pollution prevention plan, including both construction and post construction controls, has been prepared for the site in accordance with the permit and that such plan complies with approved State, Tribal and/or local sediment and erosion plans or permits and/or storm water management plans or permits. I am aware that signature and submittal of the NOI is deemed to constitute my determination of eligibility under one or more of the requirements of Permit Part I.A.3.e(1), related to the Endangered Species Act requirements. To the best of my knowledge, I further certify that such discharges and discharge related activities will not have an effect on properties listed or eligible for listing on the National Register of Historic Places under the National Historic Preservation Act, or are otherwise eligible for coverage under Part I.A.3.f of the permit. I am also aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NOTE: **SIGNATURE MUST COMPLY WITH REQUIREMENTS STATED ABOVE IN SECTION III.**

Signature _____

Printed Name _____

Title _____

Company _____

Date _____

Telephone _____

Email: _____

Federal Tax ID No. _____

*****ANY NOI THAT DOES NOT CONTAIN ALL OF THE REQUESTED INFORMATION WILL BE CONSIDERED INCOMPLETE. NOI PROCESSING CANNOT PROCEED UNTIL ALL REQUIRED INFORMATION HAS BEEN SUBMITTED**.

FEES AND TERMINATION OF PERMIT

Permit Annual Fee:

All payments made by check, draft, or money order shall be made payable to the "Louisiana Department of Environmental Quality." We **DO NOT** accept cash payments. For online payments, see http://business.deq.louisiana.gov/.

Per LAG 33:IX.1309.E and 1309.N, you must submit the annual permit fee(s) as follows:

0 months - 1 year – **$264.00**
2 years – **$528.00 (not available after 9/30/2018)**
3 years – **$792.00 (not available after 9/30/2017)**
4 years – **$1056.00 (not available after 9/30/2016)**
5 years – **$ 1320.00 (not available after 9/30/2015)**

- Check / Money Order No. _____
- Amount of Check / Money Order _____
- Date of Check or Money Order _____
- Name on Check or Money Order _____
- Attach a copy of the e-receipt, if paid online.

See Section I.C for additional information on years of coverage.

TERMINATION OF PERMIT COVERAGE

Termination of coverage under the LAR100000 is automatic and no Notice of Termination (NOT) is required to be submitted to the Department of Environmental Quality. An NOT may be submitted prior to the pre-determined termination date due to a change of ownership or a change in operator, as coverage under the LAR100000 is not transferable.

All storm water discharges associated with construction activity from the portion of the facility or area identified on this NOI must cease by the termination date and the owner/operator must comply with all stabilization requirements contained in the general permit. The termination date will be determined by the number of years selected by the applicant and the date the Notice of Intent was received by the Water Permits Division. To clarify, a Notice of Intent that is received and processed on October 1, 2014 and where the applicant selected one year of coverage shall automatically terminate on September 30, 2014. The termination date will be noted on your letter of authorization. If continuation of this permit is needed beyond the selected number of years, please apply for a Notice of Extension 30 days before the termination date of your permit authorization expires. Please submit two copies (one original and one copy) of the completed and signed NOE Forms.

APPENDIX A
ENDANGERED SPECIES GUIDANCE – LARGE CONSTRUCTION GP

I. INSTRUCTIONS

A list of endangered and threatened species that the US Fish and Wildlife Service (USFWS) has determined may be affected by the activities covered by the Construction General Permit is available under OTHER LPDES DOCUMENTS in http://www.deq.louisiana.gov/portal/Default.aspx?tabid=243. These species are listed by parish. In order to be eligible for coverage under this permit, operators must:

Determine whether any species listed in this Guidance or critical habitats are in proximity to the facility,

Pursuant to Permit Part I.A.3.e follow the procedures found in this Guidance to protect listed endangered and threatened species and designated critical habitat and determine that the storm water discharges and BMPs to control storm water run-off covered under this permit meet one or more of the eligibility requirements of Part I.A.3.e.(1) of this permit. Signature and submittal of the Notice of Intent form is deemed to constitute the Operator's compliance with eligibility requirements for permit coverage.

To determine permit eligibility and to avoid unauthorized impacts upon threatened or endangered species or on the critical habitat for those species, you must follow steps 1 through 4 (and 5 if applicable), below when completing the NOI form and when developing the pollution prevention plan.

NOTE: At any step in the determination, applicants may contact the USFWS for guidance. That request should be in writing and should include a description of the facility and a topographic map depicting the locations of the facility, the proposed construction activities, and the associated storm water discharges.

U.S. Fish and Wildlife Service
646 Cajundome Blvd.
Suite 400
Lafayette, LA 70506
(337) 291-3108

STEP 1: DETERMINE IF THE CONSTRUCTION SITE OR ASSOCIATED STORM WATER DISCHARGES ARE WITHIN THE VICINITY OF FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES, OR THEIR DESIGNATED CRITICAL HABITAT.

If either the proposed site or the path of storm water from the site to the receiving stream is in a parish included on the Endangered Species List, the applicant should proceed to Step 2 below. If, however, neither is located in a listed parish, then the applicant should enter “no” in Section I.D.3 of the NOI, and move on to the next item.

If no species are listed in the site’s parish or if a facility’s parish is not found on the list, the applicant is eligible for permit coverage and may indicate in the Notice of Intent that no species are found in the project area and certify that it is eligible for permit coverage by marking “No” on the NOI. Where a project is located in more than one parish, the lists for all parishes shall be reviewed.

STEP 2: DETERMINE IF ANY SPECIES MAY BE FOUND “IN PROXIMITY” TO THE CONSTRUCTION ACTIVITY'S STORM WATER DISCHARGES:

A species is in proximity to a construction activity's storm water discharge when the species is:

- Located in the path or immediate area through which or over which contaminated point source storm water flows from construction activities to the point of discharge into the

receiving water; or

- Located in the immediate vicinity of, or nearby, the point of discharge into receiving waters; or

- Located in the area of a site where storm water BMPs are planned or are to be constructed.

The area in proximity to be searched/surveyed for listed species will vary with the size and structure of the construction activity, the nature and quantity of the storm water discharges, and the type of receiving waters. Given the number of construction activities potentially covered by the permit, no specific method to determine whether species are in proximity is required for permit coverage. Instead, operators should use the method or methods which best allow them to determine to the best of their knowledge whether species are in proximity to their particular construction activities. These methods may include:

- Conducting visual inspections: This method may be particularly suitable for construction sites that are smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for construction activities that discharge directly into municipal storm water collection systems.

- Contacting the nearest State or Tribal Wildlife Agency or USFWS offices. Many endangered and threatened species are found in well-defined areas or habitats. That information is frequently known to State, Tribal, or Federal wildlife agencies.

- Contacting local/regional conservation groups. These groups inventory species and their locations and maintain lists of sightings and habitats.

- Conducting a formal biological survey. Larger construction sites with extensive storm water discharges may choose to conduct biological surveys as the most effective way to assess whether species are located in proximity and whether there are likely adverse effects.

- Conducting an Environmental Assessment Under the National Environmental Policy Act (NEPA). Some construction activities may require environmental assessments under NEPA. Such assessments may indicate if listed species are in proximity. (Construction General Permit coverage does not trigger NEPA because it does not regulate any dischargers subject to New Source Performance Standards under Section 306 of the Clean Water Act. See CWA 511(c). However, some construction activities might require review under NEPA because of Federal funding or other Federal nexus.)

If no species are in proximity, an operator is eligible for Construction General Permit coverage under Permit Part I.A.3.E. (1)(a).

If listed species are found in proximity to a facility, operators must indicate the location and nature of this presence in the storm water pollution prevention plan and follow step 3 below.

STEP 3: DETERMINE IF SPECIES OR CRITICAL HABITAT COULD BE ADVERSELY AFFECTED BY THE CONSTRUCTION ACTIVITY'S STORM WATER DISCHARGES OR BY BMPs TO CONTROL THOSE DISCHARGES.

Scope of Adverse Effects: Potential adverse effects from storm water include:

- Hydrological. Storm water may cause siltation, sedimentation or induce other changes in the receiving waters such as temperature, salinity or pH. These effects will vary with the amount of storm water discharged and the volume and condition of the receiving water. Where a

storm water discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.

- Habitat. Storm water may drain or inundate listed species habitat.

- Toxicity. In some cases, pollutants in storm water may have toxic effects on listed species.

The scope of effects to consider will vary with each site. Operators must also consider the likelihood of adverse effects on species from any BMPs to control storm water. Most adverse impacts from BMPs are likely to occur from the construction activities. However, it is possible that the operation of some BMPs (for example, larger storm water retention ponds) may affect endangered and threatened species.

If adverse effects are determined to be not likely, then the operator is eligible for permit coverage under Part I.A.3.e (1) (a).

If adverse effects are likely, operators should follow step 4 below.

STEP 4: DETERMINE IF MEASURES CAN BE IMPLEMENTED TO AVOID ANY ADVERSE EFFECTS:

If an operator determines that adverse effects cannot be ruled out or are likely, it can receive coverage if appropriate measures are undertaken to avoid or eliminate any actual or potential adverse effects prior to applying for permit coverage. These measures may involve relatively simple changes to construction activities such as re-routing a storm water discharge to bypass an area where species are located, relocating BMPs, or limiting the size of construction activity that will be subject to storm water discharge controls.

At this stage, operators must contact the USFWS (or the National Marine Fisheries Service if referred to that Service by USFWS) to see what appropriate measures might be suitable to avoid or eliminate adverse impacts to listed species and/or critical habitat. (See 50 CFR 402.13(b)). This can entail the initiation of informal consultation with the USFWS (and/or NMFS, if appropriate) which is described in more detail below at step 5.

If operators adopt measures to avoid or eliminate adverse effects, they must continue to abide by them during the course of permit coverage. These measures must be described in the storm water pollution prevention plan and may be enforceable as permit conditions.

If appropriate measures to avoid the likelihood of adverse effects are not available to the operator, the operator should follow step 5 below.

STEP 5: DETERMINE IF THE ELIGIBILITY REQUIREMENTS OF PART I.A.3.E.(1)(b)-(e) CAN BE MET.

Where adverse effects are likely, the operator must contact USFWS. Operators may still be eligible for permit coverage if any likelihood of adverse effects is addressed through meeting the criteria of Part I.A.3.e.(1)(b)-(e) of the permit if:

- I.A.3.e. (1) (b). The operator's activity has received previous authorization through an earlier Section 7 consultation or issuance of a Endangered Species Act (ESA) Section 10 permit (incidental taking permit) and that authorization addressed storm water discharges and/or BMPs to control storm water runoff (e.g., developer included impact of entire project in consultation over a wetlands dredge and fill permit under Section 7 of the ESA).

OR

- I.A.3.e. (1) (c). The operator's activity was previously considered as part of a larger, more comprehensive assessment of impacts on endangered and threatened species and /or critical habitat under Section 7 or Section 10 of the Endangered Species Act which accounts for storm water discharges and BMPs to control storm water runoff (e.g., where an area-wide habitat conservation plan and Section 10 permit is issued which addresses impacts from construction activities including those from storm water or a NEPA review is conducted which incorporates ESA Section 7 procedures).

OR

- I.A.3.e. (1) (d). Consultation with the USFWS (or NMFS, if appropriate) for the operator's storm water discharges and BMPs to control storm water runoff results in either: 1) FWS/NMFS written concurrence with a finding of no likelihood of adverse effects (see 50 CFR 402.13) or 2) issuance of a biological opinion in which USFWS (or NMFS) finds that the action is not likely to jeopardize the continued existence of listed endangered or threatened species or result in the adverse modification or destruction of critical habitat (see 50 CFR 403.14(h)).

Any terms and conditions developed through consultations to protect listed species and critical habitat must be incorporated into the pollution prevention plan. As noted above, operators must initiate consultation during Step 4 above (upon becoming aware that endangered and threatened species are in proximity to the facility).

OR

- I.A.3.e.(1)(e). The operator's activity was considered as part of a larger, more comprehensive site-specific assessment of impacts on endangered and threatened species by the owner or other operator of the site when it developed a SWPPP and that permittee met the eligibility requirements stated in items I.A.3.e.(1)(a), (b), (c), or (d) of the permit (e.g., owner was able to determine there would be no adverse impacts for the project as a whole under item (a), so contractor meets the eligibility requirements stated in item (e)). Utility companies applying for area-wide permit coverage meet the eligibility requirements stated in item (e) since authorization to discharge is contingent on a principal operator of a construction project having been granted coverage under this, or an alternative LPDES permit for the areas of the site where utilities installation activities will occur.

The determination of eligibility under the conditions of permit Parts I.A.3.e.(1) (b)-(e) shall be documented in the facility's SWPPP and copies of all applicable documents, such as USFWS approval letters, included in the SWPPP. The operator must comply with any terms and conditions imposed under the eligibility requirements of permit Parts I.A.3.e. (1)(a), (b), (c), (d), (e) to ensure that storm water discharges or BMPs to control storm water runoff are protective of listed endangered and threatened species and/or critical habitat. Such terms and conditions must be incorporated in the operator’s storm water pollution prevention plan.

If the eligibility requirements of Part I.A.3.e. (1)(a)- (e) cannot be met then the operator may not receive coverage under this permit. Operators should then consider applying to LDEQ for an individual permit.

This permit does not authorize any taking (as defined under Section 9 of the Endangered Species Act) of endangered or threatened species unless such takes are authorized under Sections 7 or 10 the Endangered Species Act. Operators who believe their construction activities may result in takes of listed endangered and threatened species should be sure to get the necessary coverage for such takes through an individual consultation or Section 10 permit.

This permit does not authorize any storm water discharges or BMPs to control storm water runoff that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act or result in the adverse modification or destruction of designated critical habitat.

II. ENDANGERED SPECIES PARISH LIST

See http://www.deq.louisiana.gov/portal/. Click on Info About **Water**, then "LPDES Permits, Information . . ." under Permits, then "Current Endangered Species Listing" under **Other LPDES Documents**.

APPENDIX B
HISTORIC PROPERTIES GUIDANCE

Applicants must determine whether their facility's storm water discharge has the potential to affect a property that is either listed or eligible for listing on the National Register of Historic Places.

For existing dischargers who do not need to construct BMPs for permit coverage, a simple visual inspection may be sufficient to determine whether historic properties are affected. However, for facilities which are new storm water dischargers, applicants should conduct further inquiry to determine whether historic properties may be affected by the storm water discharge or BMPs to control the discharge. In such instances, applicants should first determine whether there are any historic properties or places listed on the National Register or if any are eligible for listing on the register (e.g., they are "eligible for listing").

Due to the large number of entities seeking coverage under this permit and the limited number of personnel available to the State Historic Preservation Officer to respond to inquiries concerning the location of historic properties, it is suggested that applicants first access the "National Register of Historic Places" information listed on the Louisiana Office of Cultural Development's web page at the address listed below. The address for the Louisiana State Historic Preservation Officer is also listed below. Applicants may also contact city, parish or other local historical societies for assistance, especially when determining if a place or property is eligible for listing on the register.

The following scenarios describe how applicants can meet the permit eligibility criteria for protection of historic properties under this permit:

(1) If historic properties **are not identified** in the path of a facility's storm water discharge or where construction activities are planned to install BMPs to control such discharges (e.g., diversion channels or retention ponds), or

    if historic properties **are identified** but it is determined that they will not be **affected** by the discharge or construction of BMPs to control the discharge

    then the applicant has met the permit eligibility criteria under Part I.A.3.f.

(2) If historic properties **are identified** in the path of a facility's storm water discharge or where construction activities are planned to install BMPs to control such discharges, and it is determined that **there is the potential** to adversely affect the property, the applicant can still meet the permit eligibility criteria if he/she obtains and complies with a written agreement with the State Historic Preservation Officer which outlines measures the applicant will follow to mitigate or prevent those adverse effects. The contents of such a written agreement must be included in the facility's storm water pollution prevention plan.

In situations where an agreement cannot be reached between an applicant and the State Historic Preservation Officer, applicants should contact the Advisory Council on Historic Preservation listed below in this addendum for assistance.

The term "adverse effects" includes but is not limited to damage, deterioration, alteration or destruction of the historic property or place. LDEQ encourages applicants to contact the Louisiana State Historic Preservation Officer as soon as possible in the event of a potential adverse effect to a historic property.

Applicants are reminded that they must comply with all applicable State and local laws concerning the protection of historic properties and places.

I. Internet Information on the National Register of Historic Places

An electronic listing of the "National Register of Historic Places," as maintained by the Louisiana Office of Cultural Development, Division of Historic Preservation, can be accessed on the Internet at http://www.crt.state.la.us/hp/historicplacesprogram.asp. Remember to use small case letters when accessing Internet addresses.

II. Louisiana State Historic Preservation Officer (SHPO)

Louisiana, SHPO, Office of Cultural Development, P.O. Box 44247, Baton Rouge, LA 70804-4247. For questions contact the Section 106 Review Coordinator, Telephone: (225) 342-8170.

III. Advisory Council on Historic Preservation

Advisory Council on Historic Preservation, 12136 W. Bayaud Ave., Suite 330, Lakewood, CO 80228, Telephone (303) 969-5110, Fax: (303) 969-5115, Email: achp@achp.gov

APPENDIX C
Outstanding Natural Resource Waters

ATCHAFALAYA RIVER BASIN:

None

BARATARIA BASIN:

Bayou Des Allemands – from Lac Des Allemands to old US 90
Bayou Des Allemands – fro Hwy. 90 to Lake Salvador

CALCASIEU RIVER BASIN:

Calcasieu River – from LA Highway 8 to the Rapides/Allen Parish line
Calcasieu River – from Rapides-Allen Parish line to Marsh Bayou
Calcasieu River – from Marsh Bayou to saltwater barrier
Whiskey Chitto Creek – from the southern boundary of Fort Polk Military Reservation to the Calcasieu River
Six Mile Creek – East and West Forks from the southern boundary of Fort Polk Military Reservation to Whiskey Chitto Creek
Ten Mile Creek – from headwaters to Whiskey Chitto Creek

LAKE PONTCHARTRAIN BASIN:

Comite River – from Wilson-Clinton Highway to entrance of White Bayou
Amite River – from Mississippi State Line to LA Highway 37
Blind River – from the Amite River Diversion Canal to the mouth at Lake Maurepas
Blind River – from headwaters to Amite River Diversion Canal
Tickfaw River – from the Mississippi State Line to LA Highway 42
Tangipahoa River – from the Mississippi State Line to I-12
Chappepeela Creek – from Louisiana Highway 1062 to Tangipahoa River
Tchefuncte River – from headwaters to Bogue Falaya River, includes tributaries
Lower Tchefuncte River – from Bogue Falaya River to LA Highway 22
Bogue Falaya River – from headwaters to Tchefuncte River
Bayou Lacombe – from the headwaters to U.S. Highway 190
Bayou Lacombe – from U.S. Highway 190 to Lake Pontchartrain
Bayou Cane – from the headwaters to U.S. Highway 190
Bayou Cane – from U.S. Highway 190 to Lake Pontchartrain
Bayou Labranche – from headwaters to Lake Pontchartrain
Bayou Trepagnier – from Norco to Bayou Labranche
Bayou St. John
Bayou Chaperon
Bashman Bayou – from headwaters to Bayou Dupre
Bayou Dupre – from Lake Borgne Canal to Terre Beau Bayou
Lake Borgne Canal – from the Mississippi River siphon at Violet to Bayou Dupre; also called Violet Canal
Pirogue Bayou – from Bayou Dupre to New Canal
Terre Beau Bayou – from Bayou Dupre to New Canal
Bayou Bienvenue – from Bayou Villere to Lake Borgne

MERMENTAU RIVER BASIN:

None

VERMILION-TECHE RIVER BASIN:

Spring Creek – from headwaters to Cocodrie Lake
Bayou Cocodrie – from U.S. Highway 167 to the Bayou Boeuf-Cocodrie Diversion Canal

MISSISSIPPI RIVER BASIN:

None

OUACHITA RIVER BASIN:

Bayou Bartholomew – from Arkansas State Line to Ouachita River
Bayou de L'Outre – from the Arkansas State Line to the Ouachita River
Bayou D'Arbonne – from Bayou D'Arbonne Lake to the Ouachita River
Corney Bayou – from the Arkansas State Line to Corney Lake
Corney Bayou – from Corney Lake to Bayou D'Arbonne Lake
Middle Fork of Bayou D'Arbonne – from headwaters to Bayou D'Arbonne Lake
Little River – from Bear Creek to Catahoula Lake
Fish Creek – from headwaters to Little River
Trout Creek – from headwaters to Little River
Big Creek – from the headwaters to Little River

PEARL RIVER BASIN:

Holmes Bayou – from Pearl River to West Pearl River
West Pearl River – from headwaters to Holmes Bayou
West Pearl River – from Holmes Bayou to The Rigolets; includes the east and west mouths)
Morgan River – from Porters River to West Pearl River
Wilson Slough – from Bogue Chitto to West Pearl River
Bradley Slough - from Bogue Chitto to West Pearl River
Pushepatapa Creek – from headwaters and tributaries at Mississippi State Line to Pearl River flood plain
Bogue Chitto River – from Mississippi State Line to Pearl River Navigation Canal

RED RIVER BASIN:

Bayou Dorcheat – from Arkansas State Line to Lake Bistineau
Black Lake Bayou – from one mile north of Leatherman Creek to Black Lake
Saline Bayou – from headwaters near Arcadia to Saline Lake
Kisatchie Bayou – from its Kisatchie National Forest to Old River
Saline Bayou – from Larto Lake to Saline Lake
Bayou Cocodrie – from Little Cross Bayou to Wild Cow Bayou

SABINE RIVER BASIN:

Pearl Creek – from headwaters to Sabine River

TERREBONNE BASIN:

Bayou Penchant – from Bayou Chene to Lake Penchant

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of Environmental Services, Water Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
PHONE#: (225) 219-3181

LPDES NOTICE OF TERMINATION OF COVERAGE UNDER LPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FIVE ACRES OR MORE (LAR100000)

I. PERMIT INFORMATION

Facility's Storm Water Authorization Number LAR10 _____ AI #: _____

_____ Check here if you are no longer the Operator of the Facility OR if the facility has been sold

_____ Check here if the storm water discharge associated with the construction activity is Being Terminated

II. FACILITY OPERATOR INFORMATION

Name: _____

Mail Address: _____

City: _____

State: _____ Zip Code: _____ Phone: _____

III. FACILITY/SITE LOCATION INFORMATION

Name of Project: _____

Location of Project: _____

City: _____ State: _____ Zip Code: _____

Parish _____

IV. CERTIFICATION

I certify under penalty of law that all storm water discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or that I am no longer an operator at the construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with construction activity under this general permit, and that discharging pollutants in storm water associated with construction activity to waters of the State is unlawful under the Clean Water Act where the discharge is not authorized by an LPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violation of this permit or the Clean Water Act.

Print Name: _____ Date: _____

Signature: _____

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of Environmental Services, Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
PHONE#: (225) 219-3181
FAX#: (225) 219-3309

SMALL CONSTRUCTION ACTIVITY COMPLETION REPORT LAR200000

To be submitted by January 28 in the year FOLLOWING COMPLETION of covered activities.

Section I – Operator Information

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ DEQ AI# (if known): _____

Section II – Facility/Site Information

Name of Project: _____

Location of Project: _____

City: _____ State: _____ Zip: _____

Parish: _____ Name of Receiving Water: _____

Total Area of Land Disturbance (in acres) _____

Construction Start Date: _____

Construction Completion/Site Stabilization Date: _____

List existing or prior water discharge permits for the location: _____

Section III - Certification

I certify under penalty of law that project activities were completed in accordance with the requirements of the Clean Water Act and the Louisiana Environmental Quality Act, and specifically in accordance with the LPDES Small Construction General Permit, LAR200000, under which the storm water discharges related to the construction were authorized. I understand that submittal of this Report does not release an Operator from liability for any violation of the permit or the Act. I further certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete, and that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: _____

Signature: _____

Date: _____

APPENDIX H

ST. JOHN THE BAPTIST PARISH CONSTRUCTION SITE INSPECTION FORM

NPDES Storm Water - Regulatory Construction Compliance Inspection Report

Weekly and Monthly Inspections

NPDES Permit #: **Date of Inspection:**
Project Name: **County:**
Project Description (check one) ☐ **Residential** ☐ **Commercial** ☐ **Linear (type):**

I. Type of Inspection: ☑ Once every 7 calendar days ☐ Monthly (upon MS4 approval)

II. Weather Conditions: Conditions during inspection: Rainfall Amount

III. On-Site Documentation - *Are the following required items available for regulatory review?*

Y ☐ **N** ☐ On-site, if off-site (where) my
Y ☐ **N** ☐ DHEC Coverage Letter **Y** ☐ **N** ☐ NOI
Y ☐ **N** ☐ SWPPP - Stamped Plans **Y** ☐ **N** ☐ Co-Permittee agreements/contractor statements
Y ☐ **N** ☐ Weekly Inspection forms Y ☐ N ☐ Copy of General Permit

IV. Best Management Practices

Y ☐ **N** ☐ Construction entrance/exit installed as per plan **Y** ☐ **N** ☐ Perimter silt fence and other controls properly installed **Y** ☐ **N** ☐ Are addition al BMPs needed or did any BMP fail to operate as designed or prove inadequate (If yes, describe and give specific location(s)

Y ☐ **N** ☐ Do any **BMPs** require maintenance? ***If yes,** provide location (s) and description(s):

Y ☐ **N** ☐ Is construction activity following the phasing and sequencing plan?
Y ☐ **N** ☐ Has construction activity ceased on any area of the site for 14 days or more?
Y ☐ **N** ☐ If activity has ceased, have temporary stabilization measures been installed within 14 days) * If **No**, identify location(s) needing stabilization:

Y ☐ **N** ☐ Are the following being addressed and/or removed? Check area of concern and describe corrective action.
☐ Cement Washout Area ☐ Stockpiled Soil ☐ Fuel ☐ Oil / Lubricants ☐ Construction Debris
☐ Building Products and Chemicals ☐ Land Clearing Debris ☐ Other:
Action:

V. Final Stabilization

Y ☐ **N** ☐ Have all land disturbing activities at the site permanently ceased? * If yes, complete the following questions:

Y ☐ **N** ☐ Are there any areas of active erosion evident? If **yes**, location (s):

Y ☐ **N** ☐ Does the permitted area have 70% permanent vegetative cover (i.e. grass or other cover) **OR** have equivalent measures such as riprap, or geotextiles been installed?

VI. Offsite Impacts from Project

Are there any offsite impacts? **Y** ☐ **N** ☐ where? ☐ Public ROW ☐ Adjoining Property Owner
☐ Wetlands ☐ Creek/River ☐ Lake/Pond ☐ Other:

If answering **"yes"** to the previous question, indicate location and describe the impact:

VII. Were deficiencies noted in this inspection previously listed in a last report? **Y** ☐ **N** ☐
Corrective Action needed as a result of this inspection, including date and time:

VIII. Storm Water Pollution Prevention Updates

Y ☐ **N** ☐ Does the SWPPP need to be modified as a result of the inspection?
Y ☐ **N** ☐ Has the SWPPP been modified since the last inspection? If so, note the date(s):

IX. Comments, Corrective Actions and Attachments:

Inspector **Title/Qualifications: CEPSCI #**
Name (printed) **Phone No.**
Email Address:

Signature:

Attachments Y ☐ **N** ☐ **Photos: (if applicable) Y** ☐ **N** ☐

APPENDIX I

DEVELOPING YOUR STORMWATER POLLUTION PREVENTION PLAN: A GUIDE FOR CONTRUCTION SITES

Developing Your Stormwater Pollution Prevention Plan

A Guide for Construction Sites

EPA-833-R-06-004
May 2007

Developing Your Stormwater Pollution Prevention Plan

A Guide for Construction Sites

Who?

Construction site operators (generally, the person who has operational control over construction plans and/or the person who has day-to-day supervision and control of activities occurring at the construction site)

Where?

Construction sites required to comply with stormwater discharge requirements

What?

A guide to help you develop a good Stormwater Pollution Prevention Plan (SWPPP)

Why?

Stormwater runoff from construction sites can cause significant harm to our rivers, lakes, and coastal waters

A SWPPP is required (by your construction general permit) and will help you prevent stormwater pollution

A SWPPP is more than just a sediment and erosion control plan.
It describes all the construction site operator's activities to prevent stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act

Purpose of this Guidance Document

This document provides guidance to construction site operators that need to prepare a SWPPP in order to receive NPDES permit coverage for their stormwater discharges. The Clean Water Act provisions, EPA regulations and EPA's Construction General Permit described in this document contain legally binding requirements. This document does not substitute for those provisions, regulations or permit, nor is it a regulation or permit itself. It also does not substitute for requirements under State law or construction general permits issued by States. It does not impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decisionmakers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular construction site will be made based on the applicable statutes, regulations and/or permit terms. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation, and EPA—or the applicable NPDES permitting authority—will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation based on the law and regulations.

This guidance document occasionally uses language describing mandatory requirements for construction site operators and those covered by a general permit for stormwater discharges from such sites. This language is generally intended to reflect requirements applicable where EPA is the NPDES permitting authority. Although requirements in jurisdictions where EPA is not the permitting authority may resemble these requirements, the reader should not assume that this guidance accurately describes those requirements. Rather, the reader should consult the applicable regulations and any applicable NPDES permit.

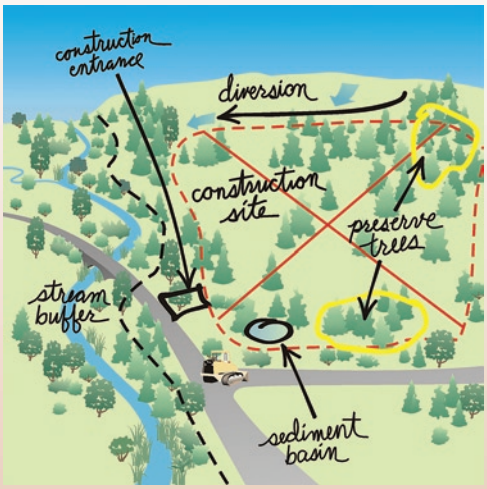
Contents

What is a Stormwater Pollution Prevention Plan (SWPPP)?

A SWPPP may be called many things. Your state may use terms like:

- **Construction Best Practices Plan**
- **Sediment and Stormwater Plan**
- **Erosion, Sediment, and Pollution Prevention Plan**
- **Construction Site Best Management Practices Plan**
- **Erosion Control Plan and Best Management Practices**
- **Best Management Practices Plan**
- **Erosion and Sediment Control Plan**

Regardless of the title used in your state, these documents—and the stormwater permits that require them—tend to have many common elements. This guide is intended to help you develop a better SWPPP for your construction site.



Example sketch identifying various points to address in the SWPPP.

How to Use This Guide

- This guide was developed as a helpful reference guide for construction site operators across the country. We have tried to accommodate the wide range of knowledge and experience about stormwater pollution prevention that currently exists among operators—from novice to expert.
  - If you are relatively new to managing stormwater at a construction site, you will probably want to read this entire guide.
  - If you are very experienced and familiar with the requirements in your state, this guide may help you brush up on certain requirements or provide you with ideas to improve your SWPPP. You might want to review the table of contents and skip around. Be sure to take a look at the SWPPP template (Appendix A) to see if you can make improvements in the way you develop and maintain your SWPPP.

- This guide is written in a general format and can be used at most construction sites in any state, territory, or in Indian country. The document assumes that you will obtain discharge authorization under an appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit and use both the permit and this guidance to assist in developing your SWPPP. In this guide, we make some references to the U.S. Environmental Protection Agency's Construction General Permit for illustrative purposes. **You should always consult your applicable NPDES permit for the exact requirements that apply to you**.

- Remember that you are developing your SWPPP for both your use and for review by the regulatory agencies responsible for overseeing your stormwater controls. As such, one of your goals in developing your SWPPP should be to present the information in a way that clearly demonstrates that it meets all the requirements of your NPDES permit.

- You can obtain an electronic copy of this guide (PDF format), the SWPPP template, and inspection form (in Microsoft Word) at **www.epa.gov/npdes/swpppguide**

Chapter 1: **Introduction**

▶ This chapter provides an orientation to this guide and its contents and describes why stormwater controls at construction sites are necessary.

A. Why Should You Use this Guide?

If you are responsible for erosion and sediment control and stormwater management at a permitted construction site, then this guide may be useful to you. This guide is designed to walk you through the steps for developing and implementing an effective stormwater pollution prevention plan (SWPPP). The basic outline of the guide is presented below:

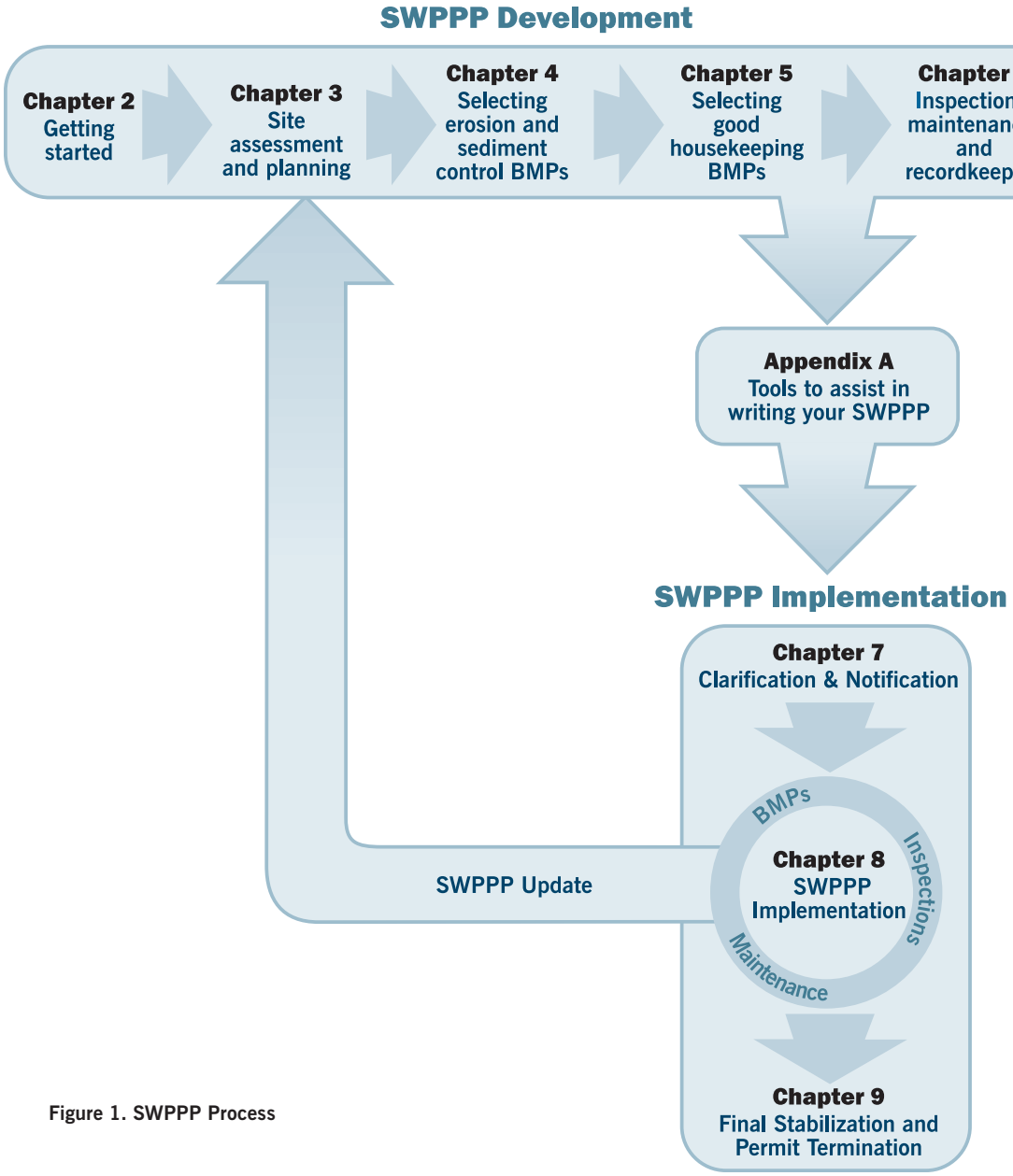


Figure 1. SWPPP Process

Take a Closer Look…

What is a SWPPP?

A SWPPP is a site-specific, written document that:

- Identifies potential sources of stormwater pollution at the construction site
- Describes practices to reduce pollutants in stormwater discharges from the construction site. Reduction of pollutants is often achieved by controlling the volume of stormwater runoff (e.g., taking steps to allow stormwater to infiltrate into the soil).
- Identifies procedures the operator will implement to comply with the terms and conditions of a construction general permit

What does this mean to me?

Failure to implement your SWPPP could result in significant fines from EPA or a state environmental agency. Therefore, it is important that you develop your SWPPP to address the specific conditions at your site, fully implement it, and keep it up-to-date to reflect changes at your site.

B. What Is Stormwater Runoff and What Are Its Impacts?

Stormwater runoff is rain or snowmelt that flows over land and does not percolate into the soil. Stormwater runoff occurs naturally, in small amounts, from almost any type of land surface, especially during larger storm events. Impervious surfaces, such as buildings, homes, roads, sidewalks, and parking lots, can significantly alter the natural hydrology of the land by increasing the volume, velocity, and temperature of runoff and by decreasing its infiltration capacity. Increasing the volume and velocity of stormwater runoff can cause severe stream bank erosion, flooding, and degrade the biological habitat of these streams. Reducing infiltration can lower ground water levels and affect drinking water supplies.

SWPPP Tip!

A SWPPP can have different names

A SWPPP may also be called a *"construction best practices plan," "sediment and stormwater plan," "erosion, sedimentation, and pollution prevention plan,"* or similar term. The SWPPP (or similarly named plan) is generally required to comply with EPA's or the state's stormwater construction general permit.

In addition, as stormwater runoff moves across surfaces, it picks up trash, debris, and pollutants such as sediment, oil and grease, pesticides and other toxics. Changes in ambient water temperature, sediment, and pollutants from stormwater runoff can be detrimental to aquatic life, wildlife, habitat, and human health. Soil exposed by construction activities is especially vulnerable to erosion. Runoff from an unstabilized construction site can result in the loss of approximately 35–45 tons of sediment per acre each year (ASCE and WFF, 1992). Even during a short period of time, construction sites can contribute more sediment to streams than would be deposited naturally over several decades. Excess sediment can cloud the water reducing the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation in our waterways.

The primary stormwater pollutant at a construction site is sediment. To control erosion at a construction site, it is important to understand the different types of erosion that can occur. Erosion begins when raindrops break down the soil structure and dislodge soil particles. Runoff carrying the soil particles becomes sheet erosion which eventually forms smaller rills and larger gullies. The best way to stop erosion is to keep the soil in place through vegetation, erosion control blankets, or other methods that prevent the soil from becoming dislodged during rain events.

The erosion process is typically influenced by climate, topography, soils, and vegetative cover. Understanding how these factors influence erosion will help you select and design appropriate controls to minimize erosion from your construction site.

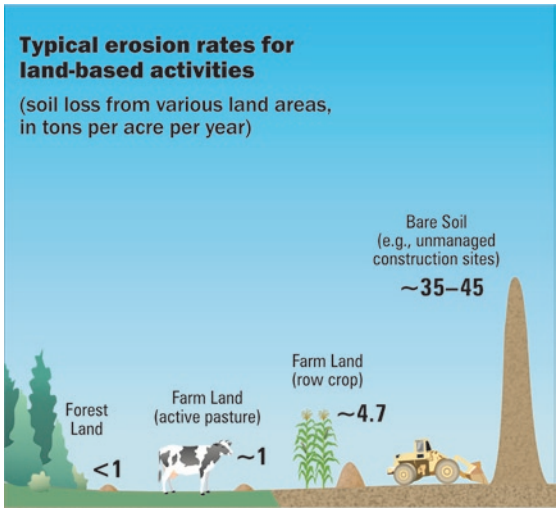


Figure 2. Typical erosion rates from land-based activities. (Dunne, T. and L. Leopold, 1978; NRCS, 2000; NRCS, 2006; ASCE and WEF, 1992)

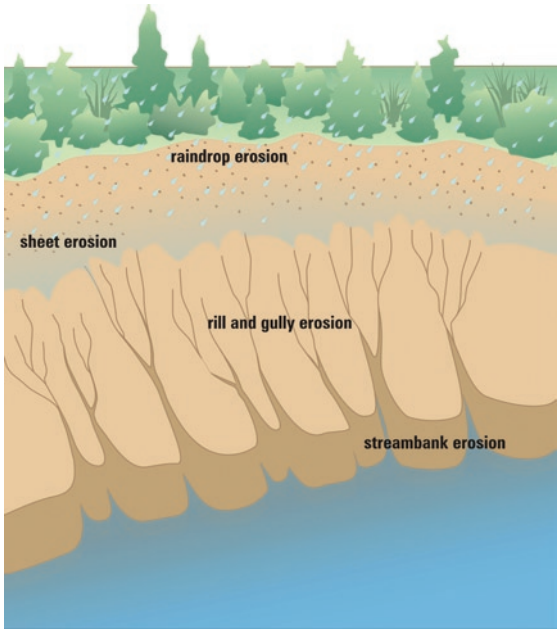


Figure 3. Types of erosion.

Raindrop erosion
Dislodging of soil particles by raindrops

Sheet erosion
The uniform removal of soil without the development of visible water channels

Rill erosion
Soil removal through the formation of concentrated runoff that creates many small channels

Gully erosion
The result of highly concentrated runoff that cuts down into the soil along the line of flow

Streambank erosion
Flowing water that erodes unstable streambanks

Climate. The frequency, intensity, and duration of rainfall are the principal factors influencing erosion from a construction site. Know the weather patterns in your area and, if possible, plan your soil disturbance activities for periods of historically lower rainfall.

Topography. The longer and steeper a slope, the greater the potential there is for erosion from that slope. Use practices such as diversions or fiber rolls to break up long slopes. Consider minimizing soil disturbance activities on steeper slopes.

Soils. Soil type can also impact erosion. Soil texture, structure, organic matter content, compaction, and permeability can all influence erosion rates.

Vegetative cover. Vegetative cover provides a number of critical benefits in preventing erosion—it absorbs the energy of raindrops, slows velocity of runoff, increases infiltration, and helps bind the soil. Soil erosion can be greatly reduced by maximizing vegetative cover at a construction site.

C. How Can Construction Site Operators Prevent Stormwater Pollution?

An effective SWPPP is the key! If sediment and erosion controls and good housekeeping practices are not followed, construction activity can result in the discharge of significant amounts of sediment and other pollutants. The term *Best Management Practices* or BMPs is often used to describe the controls and activities used to prevent stormwater pollution.

SWPPP Tip!

Erosion versus Sedimentation

Erosion is the process by which the land surface is worn away by the action of water or wind. Sedimentation is the movement and settling out of suspension of soil particles. It is usually easier and less expensive to prevent erosion than it is to control sediment from leaving a construction site.

BMPs can be divided into two categories—structural and non-structural BMPs. Structural BMPs include silt fences, sedimentation ponds, erosion control blankets, and temporary or permanent seeding, while non-structural BMPs include picking up trash and debris, sweeping up nearby sidewalks and streets, maintaining equipment, and training site staff on erosion and sediment control practices. In this document, the term "BMPs" is used broadly and includes both structural and non-structural controls and practices.

A SWPPP is more than just a sediment and erosion control plan. Most SWPPPs are written documents that describe the pollution prevention practices and activities that will be implemented on the site. It includes descriptions of the site and of each major phase of the planned activity, the roles and responsibilities of contractors and subcontractors, and the inspection schedules and logs. It is also a place to document changes and modifications to the construction plans and associated stormwater pollution prevention activities.

Chapter 2: **Getting Started**

▶ **This chapter describes some of the basic things you'll want to determine (Do you need permit coverage? What permit applies to you?), as well as some of the materials and information you may need to develop your SWPPP. Collecting this information before you start will help you develop your SWPPP more efficiently. Keep in mind that you may also need to gather this information and develop your SWPPP before you complete your Notice of Intent (NOI) and file for permit coverage (note that filing an NOI is not discussed until Chapter 7).**

A. What Are the Federal Requirements for Stormwater Runoff from Construction Sites?

The Clean Water Act and associated federal regulations (Title 40 of the *Code of Federal Regulations* [CFR] 123.25(a)(9), 122.26(a), 122.26(b)(14)(x) and 122.26(b)(15)) require nearly all construction site operators engaged in clearing, grading, and excavating activities that **disturb one acre or more, including smaller sites in a larger common plan of development or sale**, to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit for their stormwater discharges. Under the NPDES program, the U.S. Environmental Protection Agency (EPA) can authorize states to implement the federal requirements and issue stormwater permits. Today, most states are authorized to implement the NPDES program and issue their own permits for stormwater discharges associated with construction activities.

SWPPP Tip!

Don't forget about "common plans of development or sale"

A *common plan of development or sale* includes larger-scale plans for land development to be carried out by one or more entities. Examples include housing developments and subdivisions, industrial parks, and commercial developments.

EPA has described this term in the fact sheet accompanying its Construction General Permit as including: any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.), or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. Each permitting authority may review documentation to determine if common plan requirements apply.

Each state (or EPA, in the case of states that are not authorized) issues one or more NPDES construction general permits. These permits, generally, can be thought of as umbrella permits that cover all stormwater discharges associated with construction activity in a given state for a designated time period, usually 5 years. Operators of individual constructions sites then apply for coverage under this permit. *Before applying for permit coverage, you should read and understand all the provisions of the appropriate construction general permit and develop a SWPPP.* **Because authorized states develop their own NPDES requirements, you should carefully read your state's construction general permit and follow the specific instructions it contains.**

Take a Closer Look…

EPA Permits vs. State-Issued Permits

At the time of publication, EPA was the NPDES permitting authority in Massachusetts, New Hampshire, New Mexico, Idaho, Alaska, the District of Columbia, Puerto Rico, the U.S. territories (except the Virgin Islands), most Indian country lands, and for federal facilities in four states. For an up-to-date list of NPDES permitting authorities, visit **www.epa.gov/npdes/stormwater/construction** or **www.cicacenter.org/swrl.html**

What does this mean to me?

Because EPA and state-issued permits can be different, you should make sure you read and apply for the correct permit. Use the links on either of the web sites listed to the left to determine which agency issues NPDES permits where your construction activity will occur.

Most construction general permits contain similar elements:

- Applicability—describes the geographic area covered and who is eligible to apply
- Authorization—describes the types of stormwater (and non-stormwater) discharges that are covered
- SWPPP requirements—outlines the elements that should to be addressed to prevent the contamination of stormwater runoff leaving the construction site
- Application—includes instructions for obtaining permit coverage, usually by filing an application or Notice of Intent (NOI) form
- Implementation—BMP installation, inspection, and maintenance requirements
- Other requirements—may include additional requirements such as spill prevention
- Standard conditions—list of conditions that are applicable to most NPDES permits
- Termination—lists conditions for terminating permit coverage after construction is complete

What Construction Activities Require NPDES Permit Coverage?

In this document, "*construction*" refers to actions that result in a disturbance of the land, including clearing, grading, excavating, and other similar activities. It also includes "*construction-related activities,*" areas that support the construction project such as stockpiles, borrow areas, concrete truck washouts, fueling areas, material storage areas and equipment storage areas.

Construction activities that do not disturb land, such as interior remodeling, generally do not require NPDES permit coverage.

Are There Situations Where a Permit Is Not Needed?

Generally, permit coverage is not required for activities that are considered routine maintenance, such as landscaping, road maintenance, and maintaining stormwater BMPs. Some states and EPA offer the option of a waiver for small sites (disturbing less than 5 acres) in areas and times of the year with low predicted rainfall. To be eligible for the waiver, you would have to meet the requirements specified in the regulations.

Local Requirements

Operators of construction sites should keep in mind that local governments (cities, towns, counties) often have their own requirements for construction sites (e.g., local permits for grading, sediment and erosion, utilities). **Compliance with local requirements does not mean compliance with federal NPDES requirements or vice versa, unless the authorized state agency or EPA has specifically designated the local program a *qualifying local program*.**

Qualifying Local Programs

In some states, the NPDES permitting agency has identified certain local construction stormwater control programs that have requirements that are equivalent or more protective than the state's requirements. If one of these local stormwater programs has been designated by the permitting agency as a *qualifying local program*, the construction site operator may simply read and follow the local requirements. The permitting agency (state or EPA) might choose to waive the requirement to file a Notice of Intent (NOI) or similar application form for small construction sites operating within the jurisdiction of a qualifying local program. If waived, these sites would be covered under the appropriate construction general permit automatically. Check your construction general permit carefully.

The NPDES permitting authority must identify any qualifying local programs in the construction general permit. Violations of the local requirements are also considered violations of the NPDES requirements and may be enforced accordingly.

SWPPP Tip!

Read Your General Permit!

You should thoroughly read and understand the requirements in your general permit. This includes requirements on eligibility (whether your site qualifies for the general permit), application (how to notify EPA or the state that you'd like to be covered by the general permit), SWPPPs, and termination (stabilizing your site and notifying EPA or the state that your project is complete). By applying for coverage under the general permit, you are telling EPA or your state that you will comply with the permit's requirements, so read your permit carefully!

B. Who Is Required to Get NPDES Permit Coverage?

Construction site *operators* are responsible for obtaining NPDES permit coverage for their stormwater discharges. Each state has its own definition of the term *operator*. Operators may include owners (e.g., developers), general contractors, independent subcontractors, government officials, companies, or corporations. This section reflects EPA's understanding of most NPDES permit requirements for stormwater discharges throughout the country. You should, of course, consult your construction general permit for the requirements that apply to you. In some cases, states have defined the operator as a single entity, usually the land owner or easement holder. In other states, several entities may meet the definition of operator. For instance, the owner may control the project's plans and specifications, and the general contractor may control the site's day-to-day operations. In such cases, both may be defined as operators. If a site has multiple operators, they may cooperate on the development and implementation of a single SWPPP. Operators generally obtain coverage under an NPDES permit, often by filing a form called a Notice of Intent (NOI).

Figure 4. Use signage to help educate construction staff.

EPA's Construction General Permit (which applies only where EPA is the permitting authority—see Chapter 2 Section A) defines operator as any party that:

- Has control over the construction plans and specifications

  and/or

- Has day-to-day operational control of the site, including activities necessary to implement the SWPPP

Regardless of whether or not the operator is a corporation or governmental entity, someone must direct the SWPPP's preparation and implementation and apply for NPDES permit coverage for the stormwater discharges. In most cases, this will be a high-level official, such as a corporate officer, manager or elected official, or a principal executive officer. For specific instructions, refer to the appropriate NPDES stormwater permit.

Multiple Operators

In many instances, there may be more than one party at a site performing tasks related to *operational control* and more than one operator may need to submit an NOI. Depending on the site and the relationship between the parties (e.g., owner, developer, general contractor), there can either be a single party acting as site operator and consequently responsible for obtaining permit coverage, or there can be two or more operators all needing permit coverage. Exactly who is considered an operator is largely controlled by how the *owner* of the project chooses to structure the contracts with the *contractors* hired to design and/or build the project. The following are three general operator scenarios (variations on any of these three are possible, especially as the number of owners and contractors increases):

- *Owner as sole permittee*. The property owner designs the structures for the site, develops and implements the SWPPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). The owner may be the only party that needs permit coverage under these circumstances. Everyone else on the site may be considered subcontractors and might not need permit coverage.

- *Contractor as sole permittee*. The property owner hires one company (i.e., a contractor) to design the project and oversee all aspects of the construction project, including preparation and implementation of the SWPPP and compliance with the permit (e.g., a *turnkey* project). Here, the contractor would likely be the only party needing a permit. It is under this scenario that an individual having a personal residence built for his own use (e.g., not those to be sold for profit or used as rental property) would not be considered an operator. However, individual property owners would meet the definition of *operator* and may require permit coverage if they perform general contracting duties for construction of their personal residences.
- *Owner and contractor as co-permittees*. The owner retains control over any changes to site plans, SWPPPs, or stormwater conveyance or control designs; but the contractor is responsible for overseeing actual earth disturbing activities and daily implementation of SWPPP and other permit conditions. In this case, which is the most common scenario, both parties may need to apply for permit coverage.

However, you are probably not an operator and subsequently would not need permit coverage if one of the following is true:

- You are a subcontractor hired by, and under the supervision of, the owner or a general contractor (i.e., if the contractor directs your activities on-site, you probably are not an operator)
- The operator of the site has indicated in the SWPPP that someone other than you (or your subcontractor) is reponsible for your activities as they relate to stormwater quality (i.e., another operator has assumed responsibility for the impacts of your construction activities). This is typically the case for many, if not most, utility service line installations.

In addition, *owner* typically refers to the party that owns the structure being built. Ownership of the land where construction is occurring does not necessarily imply the property owner is an operator (e.g., a landowner whose property is being disturbed by construction of a gas pipeline). Likewise, if the erection of a structure has been contracted for, but possession of the title or lease to the land or structure does not to occur until after construction, the would-be owner may not be considered an operator (e.g., having a house built by a residential homebuilder).

Transferring Ownership

In many residential developments, an overall developer applies for the stormwater permit coverage, conducts grading activities, and installs the basic infrastructure (e.g., utilities, roads). Individual lots are then sold to builders who then construct the houses. Unless the developer is still responsible for stormwater on these individual lots (which is typically not the case), it is likely that the builder will need to apply for NPDES permit coverage for stormwater discharges during home construction.

Subcontractors

It is typically a good idea to include specific contract language requiring subcontractors to implement appropriate stormwater controls. Subcontractors should be trained on appropriate BMPs and requirements in the SWPPP and should not disturb or remove BMPs. Some contractors will include specific penalties in subcontractor agreements to ensure subcontractors do not damage or remove BMPs.

Take a Closer Look…

Erosion Control vs. Sediment Control

When developing a SWPPP, it is important to understand the difference between erosion control and sediment control. Erosion control measures (e.g., mulch, blankets, mats, vegetative cover) protect the soil surface and prevent soil particles from being dislodged and carried away by wind or water. Sediment control measures remove soil particles after they have been dislodged (typically through settling or filtration). It is usually easier and less expensive to prevent erosion than it is to control sedimentation.

What does this mean to me?

You should try to use erosion control BMPs as the primary means of preventing stormwater contamination, and sediment control techniques to capture any soil that does get eroded. Because no one technique is 100 percent effective, a good SWPPP will use both kinds of BMPs in combination for the best results.

C. What Elements Are Required in a SWPPP?

The SWPPP lays out the steps and techniques you will use to reduce pollutants in stormwater runoff leaving your construction site. Therefore, proper development and implementation of your SWPPP is crucial. First and foremost, your SWPPP must be developed and implemented consistent with the requirements of the applicable NPDES stormwater construction permit. The following discussion describes requirements that are contained in most of these permits.

Your SWPPP is used to identify all potential pollution sources that could come into contact with stormwater leaving your site. It describes the BMPs you will use to reduce pollutants in your construction site's stormwater discharges, and it includes written records of your site inspections and the follow-up maintenance that is performed.

Your SWPPP should contain the following elements:

- Cover/title page
- Project and SWPPP contact information
- Site and activity description, including a site map
- Identification of potential pollutant sources
- Description of controls to reduce pollutants
- Maintenance/inspection procedures
- Records of inspections and follow-up maintenance of BMPs
- SWPPP amendments
- SWPPP certification

Chapters 3–6 of this guide describe how to develop a SWPPP—from site evaluation and data collection to selecting appropriate BMPs and assigning maintenance and inspection responsibilities.

D. SWPPP Roles and Responsibilities

The operator has the lead for developing and implementing the SWPPP and commiting resources to implement the BMPs. Stormwater pollution control is typically the job of more than a single person; the SWPPP development process provides a good opportunity to define roles and responsibilities of everyone involved. Roles and responsibilities are to be documented clearly in the SWPPP and subcontractor agreements as necessary. Your SWPPP should describe:

- Who is on the stormwater pollution prevention team?
- Who will install structural stormwater controls?
- Who will supervise and implement good housekeeping programs, such as site cleanup and disposal of trash and debris, hazardous material management and disposal, vehicle and equipment maintenance, and so on?
- Who will conduct routine inspections of the site to ensure all BMPs are being implemented and maintained?
- Who will maintain the BMPs?
- Who is responsible for documenting changes to the SWPPP?
- Who is responsible for communicating changes in the SWPPP to people working on the site?

When you apply for your stormwater permit, the application may ask for a SWPPP contact. This could be the construction site operator, but in many cases it's a staff person (e.g., project superintendent, field manager, construction manager, stormwater compliance officer) at the construction site who is responsible for conducting inspections, ensuring BMPs are installed and maintained, and updating the SWPPP when necessary.

SWPPP Tip!

Erosion Control Certification

Several programs promote the training and certification of individuals in erosion and sediment control. Some states have developed certification programs and require construction sites to have a certified individual on-site at all times. The Soil and Water Conservation Society and the International Erosion Control Association sponsor a national certification program, the Certified Professional in Erosion and Sediment Control (**www.cpesc.org**)

E. Common SWPPP Objectives

The SWPPP outlines the steps you will take to comply with the terms and conditions of your construction general permit. Keeping the following objectives in mind as you develop your SWPPP will help guide you in addressing your permit requirements and in protecting water quality.

- *Stabilize the site as soon as possible.* Get your site to final grade and either permanently or temporarily stabilize all bare soil areas as soon as possible. Take into consideration germination times for the grasses or other vegetation selected, and provide additional stabilization (mulches, matrices, blankets, soil binders) on erosion-prone areas such as slopes and drainage ways. Also consider seasonal limitations to plant establishment and growth, such as drought or cold temperatures, and make an effort to ensure that areas that are not showing adequate vegetation establishment are reseeded or mulched immediately. Areas needed for future roads, construction, or other purposes should be temporarily stabilized (see your permit for requirements related to areas of the site not currently under active construction). Establishing a vegetated cover on as much of the site as possible will help to minimize erosion and sediment problems. Perimeter controls should remain in place until final stabilization has been achieved.
- *Protect slopes and channels.* Convey concentrated stormwater runoff around the top of slopes and stabilize slopes as soon as possible. This can be accomplished using pipe slope drains or earthen berms that will convey runoff around the exposed slope. Avoid disturbing natural channels and the vegetation along natural channels, if possible.
- *Reduce impervious surfaces and promote infiltration.* Reducing impervious surfaces will ultimately reduce the amount of runoff leaving your site. Also, divert runoff from rooftops and other impervious surfaces to vegetated areas when possible to promote infiltration.
- *Control the perimeter of your site.* Divert stormwater coming on to your site by conveying it safely around, through, or under your site. Avoid allowing run-on to contact disturbed areas of the construction site. For the runoff from the disturbed areas of the site, install BMPs such as silt fences to capture sediment before it leaves your site. Remember—"Divert the clean water, trap the dirty water."
- *Protect receiving waters adjacent to your site.* Erosion and sediment controls are used around the entire site, but operators should consider additional controls on areas that are adjacent to receiving waters or other environmentally sensitive areas. **Remember, the primary purpose of erosion and sediment controls is to protect surface waters.**
- *Follow pollution prevention measures.* Provide proper containers for waste and garbage at your site. Store hazardous materials and chemicals so that they are not exposed to stormwater.
- *Minimize the area and duration of exposed soils.* Clearing only land that will be under construction in the near future, a practice known as construction phasing, can reduce off-site sediment loads by 36 percent for a typical subdivision (Claytor 2000). Additionally, minimizing the duration of soil exposure by stabilizing soils quickly can reduce erosion dramatically.

Take a Closer Look…

Incentives to preserve open space

It should be the goal of every construction project to, where possible, preserve open space and minimize impervious surfaces through practices such as clustering houses. Open space preservation can provide significant water quality and economic benefits to property owners.

What does this mean to me?

From a marketing perspective, studies have shown that lots abutting forested or other open space are initially valued higher than lots with no adjacent open space, and over time their value appreciates more than lots in conventional subdivisions (Arendt 1996). For example, lots in an open space subdivision in Amherst, Massachusetts, experienced a 13 percent greater appreciation in value over a comparable conventional development after 20 years even though the lots in the conventional development were twice as large (Arendt 1996).

Chapter 3: **SWPPP Development—Site Assessment and Planning**

▶ **The first step in developing a SWPPP is assessing the site and identifying measures to protect natural features.**

This chapter describes a number of steps that will help provide a good foundation for your SWPPP, including:

- Assessing current conditions at the site
- Establishing pollution prevention and water quality protection goals for your project
- Developing a framework to help you meet those goals

A. Assess Your Site and Proposed Project

The first step in developing your SWPPP is to evaluate your proposed construction site. Your SWPPP should describe the undeveloped site and identify features of the land that can be incorporated into the final plan and natural resources that should be protected. Understanding the hydrologic and other natural features of your site will help you develop a better SWPPP and, ultimately, to more effectively prevent stormwater pollution.

SWPPP Tip!

A SWPPP is a detailed plan that:

- Identifies potential sources of stormwater pollution
- Describes the practices that will be used to prevent stormwater pollution. These should include: erosion and sediment control practices, good housekeeping practices, conservation techniques, and infiltration practices (where appropriate), and
- Identifies procedures the operator will implement to comply with all requirements in the construction general permit

Visit the Site

The people responsible for site design and drafting the SWPPP should conduct a thorough walk-through of the entire construction site to assess site-specific conditions such as soil types, drainage patterns, existing vegetation, and topography. Avoid copying SWPPPs from other projects to save time or money. Each construction project and SWPPP is unique, and visiting the site is the only way to create a SWPPP that addresses the unique conditions at that site.

Assess Existing Construction Site Conditions

Assess the existing conditions at the construction site, including topography, drainage, and soil type. This assessment, sometimes called *fingerprinting* (see text box on page 11) is the foundation for building your SWPPP and for developing your final site plan. In this assessment, use or create a topographic drawing that:

- Indicates how stormwater currently drains from the site, and identify the location of discharge points or areas
- Identifies slopes and slope lengths. The topographic features of the site are a major factor affecting erosion from the site
- Identifies soil type(s) and any highly erodible soils and the soil's infiltration capacity
- Identifies any past soil contamination at the site
- Identifies natural features, including trees, streams, wetlands, slopes and other features to be protected

Take a Closer Look…

Fingerprinting Your Site

When you evaluate your construction site, you should clearly identify vegetation, trees, and sensitive areas, such as stream buffers, wetlands, highly erodible soils, and steep slopes at your site. You should protect these areas from disturbance. Inventorying a site's natural features is a technique called fingerprinting. Fingerprinting identifies natural features that you can protect from clearing and heavy equipment by signage or physical barriers.

What does this mean to me?

Fingerprinting your site will help ensure that you don't damage natural features such as waterways or wetlands. Conducting construction activity in a waterway or wetland without the proper permits can result in significant penalties.

In most cases, the site designer can compile all this information on a digitized drawing that can then be adapted to show the planned construction activity, the phases of construction, and the final site plan.

Topographic maps are readily available on the Internet (e.g., **www.terraserver.com** or **www.mapquest.com**) or by contacting the U.S. Geological Survey store (**http://store.usgs.gov**). If you need help determining your soil type, contact your local Natural Resource Conservation Service (NRCS) office or extension service office. To find the NRCS office nearest to your site, visit the U.S. Department of Agriculture's Service Center Locator website (**http://offices.sc.egov.usda.gov/locator/app**). Soil information is also available online from NRCS (**http://soils.usda.gov**).

Identify Receiving Waters, Storm Drains, and Other Stormwater Conveyance Systems

Your SWPPP should clearly identify the receiving waters and stormwater systems through which stormwater from your site could flow. Many states require planning for a specific storm event or storm events. These storm events are referred to by their recurrence interval and duration such as 1-year, 6-hour storm or a 100-year, 24-hour storm. These events then translate into a specific rainfall amount depending on average conditions in your area.

If your site's stormwater flows into a municipal storm drain system, you should determine the ultimate destination of that system's discharge. This may be obvious and easy to document. However, in some systems, you may have to consult with the local agency responsible for the storm drain system to determine the waterbody to which you are discharging.

If your site's stormwater runs off to areas not connected to the storm drain system, you should consider your land's topography and then identify the waterbodies that it could reach. Many sites will discharge some stormwater to a storm drain system and some to other areas not connected to the system. If your site's stormwater could potentially reach two or more waterbodies, note that in your SWPPP. Remember, stormwater can travel long distances over roads, parking lots, down slopes, across fields, and through storm sewers and drainage ditches.

Describe Your Construction Project

Your SWPPP should contain a brief description of the construction activity, including:

- Project type or function (for example, low-density residential, shopping mall, highway)
- Project location, including latitude and longitude
- Estimated project start and end dates
- Sequence and timing of activities that will disturb soils at the site
- Size of the project
- Estimated total area expected to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas
- Percentage of impervious area before and after construction

Construction Site Pollutants										
		Other Pollutants								
Areas of Consideration	Primary Pollutant: Sediment	Nutrients	Heavy metals	pH (acids & bases)	Pesticides & herbicides	Oil & grease	Bacteria & viruses	Trash, debris, solids	Other toxic chemicals
Clearing, grading, excavating, and unstabilized areas	✓							✓	
Paving operations	✓							✓	
Concrete washout and waste			✓	✓				✓	
Structure construction/ painting/cleaning		✓		✓				✓	✓
Demolition and debris disposal	✓							✓	
Dewatering operations	✓	✓							
Drilling and blasting operations	✓			✓				✓	
Material delivery and storage	✓	✓	✓	✓	✓	✓		✓	✓
Material use during building process		✓	✓	✓	✓	✓		✓	✓
Solid waste (trash and debris)								✓	✓
Hazardous waste			✓	✓	✓	✓			✓
Contaminated spills		✓	✓	✓	✓	✓			✓
Sanitary/septic waste		✓		✓			✓		✓
Vehicle/equipment fueling and maintenance						✓			✓
Vehicle/equipment use and storage						✓			✓
Landscaping operations	✓	✓						✓	

- Runoff coefficient[1] before and after construction
- Soil types
- Construction site location and any nearby waters or wetlands
- Describe and identify the location of other potential sources of stormwater contamination, such as asphalt and concrete plants, stucco operations, paint and concrete washout, and such

Identify Pollutants and Pollution Sources

Identify the pollutants and sources that are likely to be found on the site. The principle pollutant of concern, of course, is sediment. There are, however, other pollutants that may be found, usually in substantially smaller amounts, in stormwater runoff from construction sites. These can include nutrients, heavy metals, organic compounds, pesticides, oil and grease, bacteria and viruses, trash and debris, and other chemicals. After identifying the pollutants and sources, be as specific as possible in your SWPPP about the BMPs you will use to address them. The table at the left lists the sources of pollutants at construction sites, including sediment, the primary pollutant and other pollutants that may be present at construction sites.

Figure 5. Make sure storm drain inlets are protected.

[1] The runoff coefficient is the partial amount of the total rainfall which will become runoff. Runoff coefficients generally range from 0.95 (highly impervious) to 0.05 (vegetated surface that generates little runoff). For more information on calculating the runoff coefficient for your site, see Appendix C.

Non-Stormwater Discharges

Most permits will require you to identify any non-stormwater discharges in your SWPPP. Certain non-stormwater discharges may be allowed under the terms and conditions of your permit, however, you should make every effort to eliminate these discharges where possible. You should identify these sources in your SWPPP and identify pollution prevention measures to ensure that pollutants are not introduced to these discharges and carried to nearby waterbodies.

EPA's CGP identifies these allowable non-stormwater discharges: discharges from fire-fighting activities, fire hydrant flushings, waters used to wash vehicles, buildings, and pavements where detergents are not used, water used to control dust, potable water (including uncontaminated water line flushings), uncontaminated air conditioning condensate, uncontaminated ground water or spring water, among others. The permit goes on to say that non-stormwater discharges should be eliminated or reduced to the extent feasible and that the SWPPP should identify and ensure the implementation of appropriate pollution prevention measures for these discharges. More discussion of pollution prevention measures for some of these non-stormwater sources can be found in Chapter 5.

Permanent Stormwater Controls (Post-Construction)

The topic of designing, installing, and maintaining permanent or post-construction stormwater controls, although a requirement, is beyond the scope of this SWPPP guide. A SWPPP compiled in support of coverage under EPA's Construction General Permit, however, needs to include a description of all permanent stormwater controls that will be constructed along with the buildings, roads, parking lots, and other structures. You should incorporate sediment and erosion controls into your SWPPP for areas where permanent stormwater controls, such as wet ponds, swales, and bioretention cells are to be constructed.

Effectively managing stormwater over the long-term—long after the actual construction process is over—is a significant challenge. Many communities (and a few states) have or are developing comprehensive requirements to better manage permanent (or post-construction) stormwater runoff. To be most effective, you should consider integrating your design process for your permanent stormwater controls into your overall design for your site. Planning for your permanent stormwater controls could affect your decisions about site design, location of buildings and other structures, grading, and preserving natural features. By preserving natural drainage patterns, trees, native vegetation, riparian buffers, and wetlands, you might need to construct fewer or smaller structural storm-water controls to cope with runoff from your site. Permanent stormwater controls should be designed with two important goals in mind: (1) reduction of the volume and velocity of runoff, and (2) reduction of the pollutants in the stormwater that does leave your site.

Techniques, such as *Low Impact Development*, Better Site Design, or *Conservation Development*, which emphasize addressing stormwater where it falls, infiltrating it, preserving natural drainage patterns, and

Take a Closer Look…

Specimen Trees and Natural Vegetation

Before a site plan is prepared, identify and clearly mark existing trees and vegetation you want to preserve. Some communities have tree preservation ordinances, and local extension service offices and foresters will often provide free advice on tree and plant preservation. Remember to notify all employees and subcontractors about trees and areas you intend to preserve and mark them clearly.

What does this mean to me?

Large trees and other native vegetation can represent significant value in the long term to property owners and the community at large. Many studies document that the presence of trees on residential and commercial sites provide many benefits including improved aesthetics, habitat for birds and other wildlife, and energy savings (shade) that ultimately enhance the economic value of the site. Trees also provide shade and act as windbreaks, which can reduce energy costs over the long term. By protecting existing trees, you can reduce landscaping costs and improve the appearance of a newly developed property. According to the National Arbor Day Foundation, trees around a home can increase its value by 15 percent or more.

preserving natural vegetation offer the best opportunity to protect nearby rivers, lakes, wetlands, and coastal waters. **Incorporating these ideas and concepts into the design for your project before it is built also offers the opportunity to reduce capital infrastructure and long-term maintenance costs**.

At the neighborhood or even at the watershed scale, *Smart Growth* techniques can help us design neighborhoods that minimize impacts on water quality, reduce air pollution, and improve the general quality of life for residents. **In the *Resources* list in Appendix D, you will find a list of suggestions on this topic, including how to incorporate Smart Growth and Low Impact Development techniques into the design of your site.**

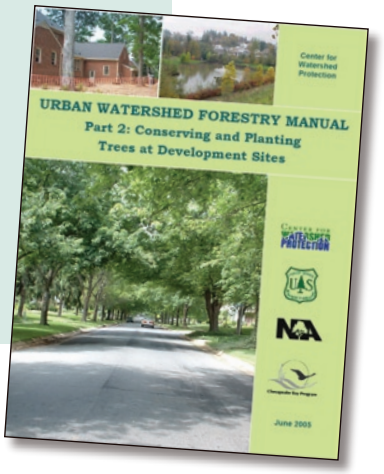
B. Identify Approaches to Protect Natural Resources

Preservation of natural areas, waterbodies, and open space has numerous economic, aesthetic, community, and environmental benefits. Preservation efforts also often increase the value of lots and homes and help to reduce overall expenditures on infrastructure. Specifically, these kinds of conservation efforts can help to significantly reduce the volume and velocity of stormwater runoff and the pollutants that may be carried with it.

SWPPP Tip!

Tree Preservation Resources

For more on tree preservation, contact your local extension service office or forester. Also, American Forests has useful information and tools at their website, **www.americanforests.org/resources/urbanforests**. The Center for Watershed Protection in cooperation with the U.S. Forest Service has developed a series of manuals on urban forestry. Part two, titled Conserving and Planting Trees at Development Sites will be of particular interest. You can find these manuals at **www.cwp.org**



Protect Nearby Waters

Your SWPPP should describe how you will protect and preserve any streams, wetlands, ponds or other waterbodies that are on your property or immediately adjoining it. Riparian areas around headwater streams are especially important to the overall health of the entire river system. Many states and communities have buffer or shoreline protection requirements to preserve sensitive areas around waterbodies.

Many states apply special designations to high-value or high-quality waters. Check with your state water pollution control agency to determine if your project could discharge to *outstanding* or special protection waters (such as wetlands, or salmon and trout streams). You might be subject to additional requirements to protect these waterbodies.

Wetland areas, including bogs, marshes, swamps, and prairie potholes may be found in areas adjacent to rivers, lakes, and coastal waters but may also be found in isolated places far from other surface waters. Many types of wetlands are protected under the Clean Water Act and construction activities in and around these areas may require an additional permit from the Army Corps of Engineers. Construction site operators should make every effort to preserve wetlands and must follow applicable local, state, and federal requirements before disturbing them or the areas around them.

To ensure the protection of natural areas during the construction period, you should use a combination of techniques, including temporary fencing, signage, and educating staff and subcontractors.

Assess Whether Your Project Impacts an Impaired Waterbody

Under the Clean Water Act, states are required to determine if rivers, lakes, and other waters are meeting water quality standards. When a waterbody does not meet water quality standards because of one or more sources of pollution, the state lists the water as impaired. When a water is determined to be impaired, the state or EPA develops a plan for correcting the situation. This plan is called a Total Maximum Daily Load (TMDL). If stormwater from your project could reach an impaired water with or without an approved TMDL (either directly or indirectly through a municipal storm drain system), your permit

may include additional requirements to ensure that your stormwater discharges do not contribute to that impairment and your stormwater controls are consistent with plans to restore that waterbody. Your SWPPP should describe the specific actions you will take to comply with these permit requirements for impaired waters.

You should determine, before you file for permit coverage, if the receiving waters for your project are impaired and if so, whether a TMDL has been developed for this waterbody. Visit EPA's Enviromapper website (**www.epa.gov/waters/enviromapper**) or contact your state environmental agency for more information.

Assess Whether You Have Endangered Plant or Animal Species in Your Area

The federal Endangered Species Act protects endangered and threatened species and their critical habitat areas. (States and tribes may have their own endangered species laws.) In developing the assessment of your site, you should determine whether listed endangered species are on or near your property. Critical habitat areas are often designated to support the continued existence of listed species. You should also determine whether critical habitat areas have been designated in the vicinity of your project. Contact your local offices of the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), or your state or tribal heritage centers. These organizations often maintain lists of federal and state listed endangered and threatened species on their Internet sites. For more information and to locate lists for your state, visit **www.epa.gov/npdes/endangeredspecies**

Additionally, your state's NPDES stormwater permit may specifically require that you address whether the activities and the stormwater discharged by your construction site have the potential to adversely affect threatened or endangered species or the critical habitat areas. You might need to conduct a biological investigation or assessment and document the results of the assessment in your SWPPP. The state may reference federal, state, or tribal endangered species protection laws or regulations.

EPA's Construction General Permit contains detailed procedures to assist construction site operators in determining the likely impact of their projects on any endangered species or critical habitat. Construction site operators in areas covered by EPA's Construction General Permit are required to assess the impact of their activities and associated stormwater discharges on species and habitat in the "project area" which may extend beyond the site's immediate footprint.

Assess Whether You Have Historic Sites that Require Protection

The National Historic Preservation Act, and any state, local and tribal historic preservation laws, apply to construction activities. As with endangered species, some permits may specifically require you to assess the potential impact of your stormwater discharges on historic properties. However, whether or not this is stated as a condition for permit coverage, the National Historic Preservation Act and any applicable state or tribal laws apply to you. Contact your State Historic Preservation Officer (**www.ncshpo.org/stateinfolist/fulllist.htm**) or your Tribal Historic Preservation Officer (**grants.cr.nps.gov/thpo/tribaloffices.cfm**).

C. Develop Site Maps

The final step in the site evaluation process is to document the results of your site assessment and your planned phases of construction activity on a detailed site map or maps. This includes developing site maps showing planned construction activities and stormwater practices for the various major stages of construction, protected areas, natural features, slopes, erodible soils, nearby waterbodies, permanent stormwater controls, and so on. You must keep your SWPPP and your site maps up-to-date to reflect changes at your site during the construction process.

Location Maps

A general location map is helpful to identify nearby, but not adjacent, waterbodies in proximity to other properties. You can use any easily available maps or mapping software to create a location map.

Site Maps

The detailed construction site maps should show the entire site and identify a number of features at the site related to construction activities and stormwater management practices.

Figure 6. Example site map.

Map of undeveloped or existing site. For many sites, a map of the undeveloped or existing site, noting the features that you identified in Section A of this Chapter, will help you develop your SWPPP and identify current site features that you want to preserve. On this map note current drainage patterns, storm drains, slopes, soil types, waters and other natural features. Also note any existing structures, roads, utilities, and other features.

Map or series of maps for construction plans. Site maps should show the construction activities and stormwater management practices for each major phase of construction (e.g., initial grading, infrastructure, construction, and stabilization). The site maps should legibly identify the following features:

- Stormwater flow and discharges. Indicate flow direction(s) and approximate slopes after grading activities, as well as locations of discharges to surface waters or municipal storm drain systems.
- Areas and features to be protected. Include wetlands, nearby streams, rivers, lakes, and coastal waters, mature trees and natural vegetation, steep slopes, highly erodible soils, etc.
- Disturbed areas. Indicate locations and timing of soil disturbing activities (e.g. grading). Mark clearing limits.
- BMPs. Identify locations of structural and non-structural BMPs identified in the SWPPP, as well as post-construction stormwater BMPs.
- Areas of stabilization. Identify locations where stabilization practices are expected to occur. Mark areas where final stabilization has been accomplished.
- Other areas and roads. Indicate locations of material, waste, borrow, or equipment storage.

You should complete your site maps after reviewing Chapters 4 and 5 and any applicable BMP design manual to select appropriate BMPs for your site.

Use Site Maps to Track Progress

Develop and keep up-to-date site maps showing non-structural BMPs that change frequently in location as the work on a construction site progresses. Your permit requires that you keep your SWPPP up-to-date, so mark up the site map with the location of these BMPs. Indicate the current location of the following:

- Portable toilets
- Material storage areas
- Vehicle and equipment fueling and maintenance areas
- Concrete washouts
- Paint and stucco washouts
- Dumpsters or other trash and debris containers
- Spill kits
- Stockpiles
- Any other non-structural non-stormwater management BMPs
- Any temporarily removed structural BMPs
- Any changes to the structural BMPs

If a marked-up site map is too full to be easily read, you should date and fold it, put it in the SWPPP for documentation, and start a new one. That way, there is a good hard copy record of what has occurred on-site.

Construction sites are dynamic. As conditions change at the construction site, such as the locations of BMPs, your SWPPP must reflect those changes.

Chapter 4: SWPPP Development—Selecting Erosion and Sediment Control BMPs

▶ **This chapter presents a brief discussion of erosion and sediment control principles and a discussion of some commonly used BMPs.**

This document is not intended as an engineering or design manual on BMPs. The engineer or other qualified person that develops the details of your sediment and erosion control plan should be using the appropriate state or local specifications. The descriptions below provide a kind of checklist of the things to look for and some helpful installation and maintenance hints.

Erosion and sediment controls are the structural and non-structural practices used during the construction process to keep sediment in place (erosion control) and to capture any sediment that is moved by stormwater before it leaves the site (sediment control). Erosion controls—keeping soil where it is—are the heart of any effective SWPPP. Your SWPPP should rely on erosion controls as the primary means of preventing stormwater pollution. Sediment controls provide a necessary second line of defense to properly designed and installed erosion controls.

The suite of BMPs that you include in your SWPPP should reflect the specific conditions at the site. The information that you collected in the previous steps should help you select the appropriate BMPs for your site. An effective SWPPP includes a combination or suite of BMPs that are designed to work together.

Ten Keys to Effective Erosion and Sediment Control (ESC)

The ultimate goal of any SWPPP is to protect rivers, lakes, wetlands, and coastal waters that could be affected by your construction project. The following principles and tips should help you build an effective SWPPP. **Keep in mind that there are many BMP options available to you. We have selected a few common BMPs to help illustrate the principles discussed in this chapter.**

Erosion Control (keeping the dirt in place) and Minimizing the Impact of Construction

1. **Minimize disturbed area and protect natural features and soil**
2. **Phase construction activity**
3. **Control stormwater flowing onto and through the project**
4. **Stabilize soils promptly**
5. **Protect slopes**

Sediment Controls (the second line of defense)

6. **Protect storm drain inlets**
7. **Establish perimeter controls**
8. **Retain sediment on-site and control dewatering practices**
9. **Establish stabilized construction exits**
10. **Inspect and maintain controls**

Take a Closer Look…

BMPs in Combination

BMPs work much better when they are used in combination. For instance, a silt fence should not be used alone to address a bare slope. An erosion control BMP should be used to stabilize the slope, and the silt fence should serve as the backup BMP.

What does this mean to me?

Wherever possible, rely on erosion controls to keep sediment in place. Back up those erosion controls with sediment controls to ensure that sediment doesn't leave your site. Continually evaluate your BMPs. Are they performing well? Could the addition of a supplemental BMP improve performance? Should you replace a BMP with another one that might work better? Using BMPs in series also gives you some protection in case one BMP should fail.

Erosion Control and Minimizing the Impact of Construction

ESC Principle 1: Minimize disturbed area and protect natural features and soil. As you put together your SWPPP, carefully consider the natural features of the site that you assessed in Chapter 3. By carefully delineating and controlling the area that will be disturbed by grading or construction activities, you can greatly reduce the potential for soil erosion and stormwater pollution problems. Limit disturbed areas to only those necessary for the construction of your project. Natural vegetation is your best and cheapest erosion control BMP.

Figure 7. Protect vegetated buffers by using silt fence or other sediment controls.

Protecting and preserving topsoil is also a good BMP. Removing topsoil exposes underlying layers that are often more prone to erosion and have less infiltration capacity. Keeping topsoil in place preserves the natural structure of the soils and aids the infiltration of stormwater.

ESC Principle 2: Phase construction activity. Another technique for minimizing the duration of exposed soil is phasing. By scheduling or sequencing your construction work and concentrating it in certain areas, you can minimize the amount of soil that is exposed to the elements at any given time. Limiting the area of disturbance to places where construction activities are underway and stabilizing them as quickly as possible can be one of your most effective BMPs.

ESC Principle 3: Control stormwater flowing onto and through your project. Plan for any potential stormwater flows coming onto the project area from upstream locations, and divert (and slow) flows to prevent erosion. Likewise, the volume and velocity of on-site stormwater runoff should be controlled to minimize soil erosion.

Example BMP: Diversion Ditches or Berms

Description: Diversion ditches or berms direct runoff away from unprotected slopes and may also direct sediment-laden runoff to a sediment-trapping structure. A diversion ditch can be located at the upslope side of a construction site to prevent surface runoff from entering the disturbed area. Ditches or berms on slopes need to be designed for erosive velocities. Also, ensure that the diverted water is released through a stable outlet and does not cause downslope or downstream erosion or flooding.

Installation Tips:

- Divert run-on and runoff away from disturbed areas
- Ensure that the diversion is protected from erosion, using vegetation, geotextiles, or other appropriate BMPs
- Divert sediment-laden water to a sediment-trapping structure
- Use practices that encourage infiltration of stormwater runoff wherever possible

Maintenance:

- Inspect diversions and berms, including any outlets, regularly and after each rainfall
- Remove any accumulated sediment

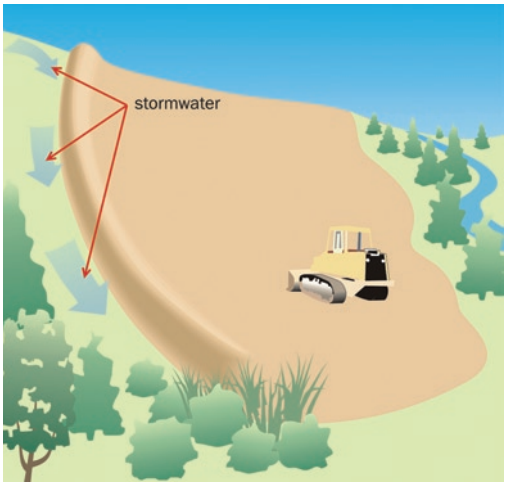


Figure 8. Illustration of a construction berm to divert stormwater away from the disturbed construction area.

ESC Principle 4: Stabilize soils promptly. Where construction activities have temporarily or permanently ceased, you should stabilize exposed soils to minimize erosion. You should have stabilization measures in place after grading activities have ceased (many permits require stabilization within a specified time frame). You can provide either temporary or permanent cover to protect exposed soils. Temporary measures are necessary when an area of a site is disturbed but where activities in that area are not completed or until permanent BMPs are established. Topsoil stockpiles should also be protected to minimize any erosion from these areas. Temporary-cover BMPs include temporary seeding, mulches, matrices, blankets and mats, and the use of soil binders (there may be additional state and local requirements for the use of chemical-based soil binders). Permanent-cover BMPs include permanent seeding and planting, sodding, channel stabilization, and vegetative buffer strips. Silt fence and other sediment control measures are not stabilization measures.

SWPPP Tip!

Final Stabilization

Once construction activity in an area is completed and the area is stabilized (typically by achieving 70 percent permanent vegetative cover), you can mark this area on your SWPPP and discontinue inspections in that area. By bringing areas of your site to final stabilization, you can reduce your workload associated with maintaining and inspecting BMPs. For more information on final stabilization, see Chapter 9.

Example BMP: Temporary Seeding

Description: Temporarily seeding an area to establish vegetative cover is one of the most effective, and least expensive, methods of reducing erosion. This approach, as a single BMP, might not be appropriate on steep slopes, when vegetation cannot be established quickly enough to control erosion during a storm event, or when additional activities might occur soon in the area.

Installation Tips:

- Seed and mulch area (the mulch provides temporary erosion protection by protecting the soil surface, moderating temperature, and retaining moisture while seeds germinate and grow)
- Water regularly, if needed, to ensure quick growth
- Maintain backup BMPs, such as silt fence or settling ponds

SWPPP Tip!

Wind Control BMPs

In areas where dust control is an issue, your SWPPP should include BMPs for wind-erosion control. These consist of mulching, wet suppression (watering), and other practices.

ESC Principle 5: Protect slopes. Protect all slopes with appropriate erosion controls. Steeper slopes, slopes with highly erodible soils, or long slopes require a more complex combination of controls. Erosion control blankets, bonded fiber matrices, or turf reinforcement mats are very effective options. Silt fence or fiber rolls may also be used to help control erosion on moderate slopes and should be installed on level contours spaced at 10- to 20-foot intervals. You can also use diversion channels and berms to keep stormwater off slopes.

Example BMP: Rolled erosion control products

Description: Erosion control products include mats, geotextiles, and erosion control blankets and products that provide temporary stabilization and help to establish vegetation on disturbed soils. Such products help control erosion and help establish vegetation and are often used on slopes, channels, or stream banks.

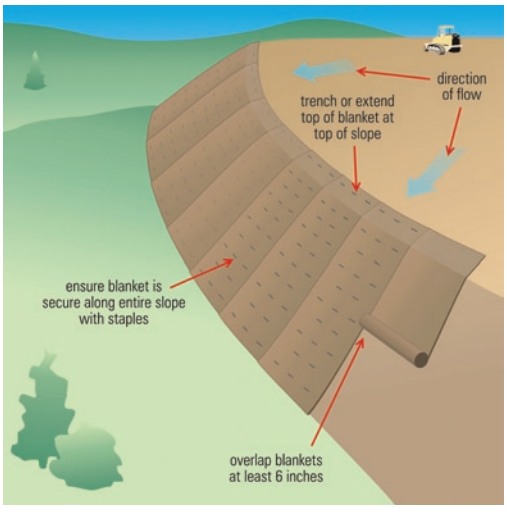


Figure 9. Illustration of erosion control blankets installed on slope.

Installation Tips:

- Use rolled erosion-control products on slopes steeper than 3 to 1 (horizontal to vertical) and in swales or long channels

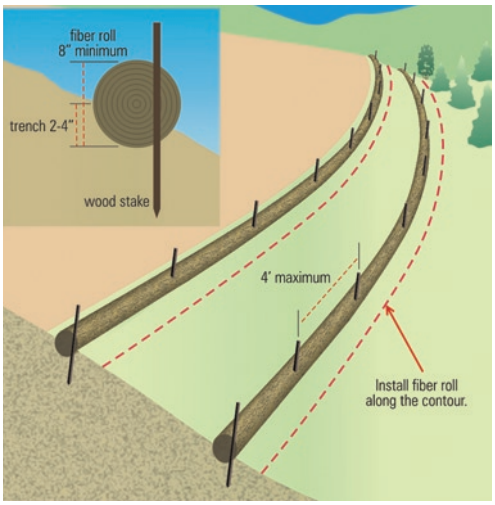


Figure 10. Illustration of a fiber roll installation along a slope.

- Trench the top of the blanket into the ground to prevent runoff from flowing under the blanket
- Overlap the lower end of the top mat over the top of the downslope mat to ensure that runoff stays on top of the blankets and mats
- Staple blankets and mats according to specifications

Maintenance:

- Periodically inspect for signs of erosion or failure
- Repair the blanket or mat if necessary
- Continue inspections until vegetation is established at the level required to qualify as final *stabilization*

ESC Principle 6: Protect storm drain inlets. Protect all inlets that could receive stormwater from the project until final stabilization of the site has been achieved. Install inlet protection before soil-disturbing activities begin. Maintenance throughout the construction process is important. Upon completion of the project, storm drain inlet protection is one of the temporary BMPs that should be removed. Storm drain inlet protection should be used not only for storm drains within the active construction project, but also for storm drains outside the project area that might receive stormwater discharges from the project. If there are storm drains on private property that could receive stormwater runoff from your project, coordinate with the owners of that property to ensure proper inlet protection.

Example BMP: Storm Drain Inlet Protection

Description: Storm drain inlet protection prevents sediment from entering a storm drain by surrounding or covering the inlet with a filtering material. Several types of filters are commonly used for inlet protection: silt fence, rock-filled bags, or block and gravel. The type of filter used depends on the inlet type (for example, curb inlet, drop inlet), slope, and volume of flow. Many different commercial inlet filters are also available. Some commercial inlet filters are placed in front of or on top of an inlet, while others are placed inside the inlet under the grate.

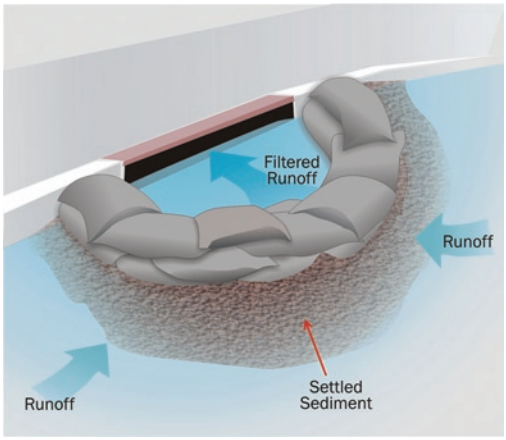


Figure 11. Illustration of a storm drain inlet with rock-filled bags filtering stormwater.

Installation Tips:

- Install inlet protection as soon as storm drain inlets are installed and before land-disturbance activities begin in areas with existing storm drain systems
- Protect all inlets that could receive stormwater from your construction project
- Use in conjunction with other erosion prevention and sediment control BMPs—remember, inlet protection is a secondary BMP!
- Design your inlet protection to handle the volume of water from the area being drained. Ensure that the design is sized appropriately.

Maintenance:

- Inspect inlets frequently and after each rainfall

- Remove accumulated sediment from around the device and check and remove any sediment that might have entered the inlet
- Replace or repair the inlet protection if it becomes damaged
- Sweep streets, sidewalks, and other paved areas regularly

SWPPP Tip!

Storm drain inlet protection should never be used as a primary BMP! Use erosion control techniques such as hydromulching or erosion-control blankets to prevent erosion. Use inlet protection and other sediment control BMPs as a *backup* or last line of defense.

ESC Principle 7: Establish perimeter controls. Maintain natural areas and supplement them with silt fence and fiber rolls around the perimeter of your site to help prevent soil erosion and stop sediment from leaving the site. Install controls on the downslope perimeter of your project (it is often unnecessary to surround the entire site with silt fence). Sediment barriers can be used to protect stream buffers, riparian areas, wetlands, or other waterways. They are effective only in small areas and should not be used in areas of concentrated flow.

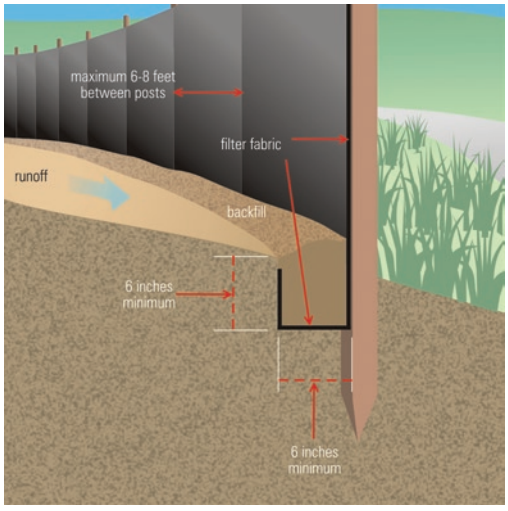


Figure 12. Illustration of proper techniques to use in installing silt fence.

Example BMP: Silt Fence and Fiber Rolls

Description: A silt fence is a temporary sediment barrier consisting of a geotextile attached to supporting posts and trenched into the ground. Silt fencing is intended to retain sediment that has been dislodged by stormwater. It is designed only for runoff from small areas and is not intended to handle flows from large slopes or in areas of concentrated flow. Fiber rolls serve the same purpose and consist of an open mesh tubular sleeve filled with a fibrous material which traps sediment. Fiber rolls are generally staked to the ground.

Installation Tips:

DO:

- Use silt fence or fiber rolls as perimeter controls, particularly at the lower or down slope edge of a disturbed area
- Leave space for maintenance between toe of slope and silt fence or roll
- Trench in the silt fence on the uphill side (6 inches deep by 6 inches wide)
- Install stakes on the downhill side of the fence or roll
- Curve the end of the silt fence or fiber roll up-gradient to help it contain runoff

DON'T:

- Install a silt fence or fiber rolls in ditches, channels, or areas of concentrated flow
- Install it running up and down a slope or hill
- Use silt fencing or fiber rolls alone in areas that drain more than a quarter-acre per 100 feet of fence

Maintenance:

- Remove sediment when it reaches one-third of the height of the fence or one-half the height of the fiber roll
- Replace the silt fence or roll where it is worn, torn, or otherwise damaged
- Retrench or replace any silt fence or roll that is not properly anchored to the ground

ESC Principle 8: Retain sediment on-site and control dewatering practices. Sediment barriers described in ESC Principle 7 can trap sediment from small areas, but when sediment retention from a larger area is required, consider using a temporary sediment trap or sediment basin. These practices detain sediment-laden runoff for a period of time, allowing sediment to settle before the runoff is discharged. Proper design and maintenance are essential to ensure that these practices are effective.

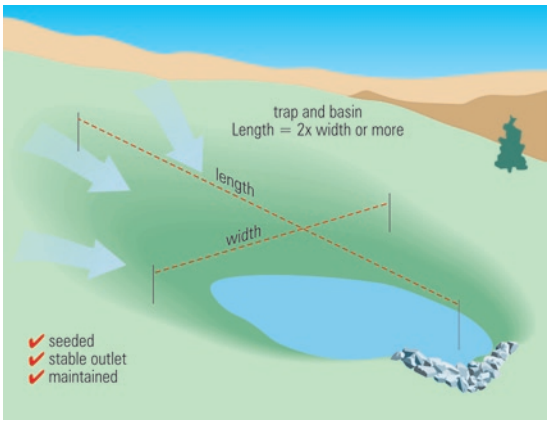


Figure 13. Illustration of a sediment basin.

You should use a sediment basin for common drainage locations that serve an area with 10 or more acres disturbed at any one time. The basin should be designed to provide storage for the volume of runoff from the drainage area for at least a 2-year, 24-hour storm (or 3,600 cubic feet of storage per acre drained, which is enough to contain 1 inch of runoff, if the 2-year, 24-hour calculation has not been performed). Check your permit for exact basin sizing requirements. Sediment basins should be located at low-lying areas of the site and on the down-gradient side of bare soil areas where flows converge. Do not put sediment traps or basins in or immediately adjacent to flowing streams or other waterways.

Where a large sediment basin is not practical, use smaller sediment basins or sediment traps (or both) where feasible. At a minimum, use silt fences, vegetative buffer strips, or equivalent sediment controls for all down-gradient boundaries (and for those side-slope boundaries deemed appropriate for individual site conditions).

Dewatering practices are used to remove ground water or accumulated rain water from excavated areas. Pump muddy water from these areas to a temporary or permanent sedimentation basin or to an area completely enclosed by silt fence in a flat vegetated area where discharges can infiltrate into the ground. Never discharge muddy water into storm drains, streams, lakes, or wetlands unless the sediment has been removed before discharge.

Keep in mind that some states and local jurisdictions require a separate permit for dewatering activities at a site.

ESC Principle 9: Establish stabilized construction exits. Vehicles entering and leaving the site have the potential to track significant amounts of sediment onto streets. Identify and clearly mark one or two locations where vehicles will enter and exit the site and focus stabilizing measures at those locations. Construction entrances are commonly made from large crushed rock. They can be further stabilized using stone pads or concrete. Also, steel wash racks and a hose-down system will remove even more mud and debris from vehicle tires. Divert runoff from wash areas to a sediment trap or basin. No system is perfect, so sweeping the street regularly completes this BMP.

Example BMP: Stabilized Construction Exit

Description: A rock construction exit can reduce the amount of mud transported onto paved roads by vehicles. The construction exit does this by removing mud from vehicle tires before the vehicle enters a public road.

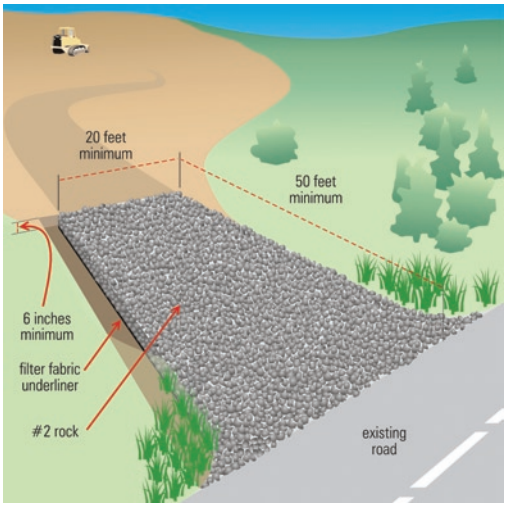


Figure 14. Illustration of a stabilized construction exit.

You might also want to install a wheel wash when mud is especially difficult to remove or space doesn't allow sufficient tire revolutions (four or five are needed) before exiting the site. Direct wash water to a suitable settling area—do not discharge wash water to a stream or storm drain!

Installation tips:

- Ensure that the exit is at least 50 feet long (generally, the length of two dump trucks) and graded so runoff does not enter the adjacent street
- Place a geotextile fabric under a layer of aggregate at least 6–12 inches thick. The stones or aggregate should be 3–6 inches in diameter
- Train employees and subcontractors to use the designated construction exits. Empower your employees to provide directions to subcontractors and others that are not on the site every day

Maintenance:

- Replenish or replace aggregate if it becomes clogged with sediment
- Sweep the street regularly

ESC Principle 10: Inspect and maintain controls. Inspection and maintenance is just as important as proper planning, design, and installation of controls. Without adequate maintenance, erosion and sediment controls will quickly fail, sometimes after just one rainfall, and cause significant water quality problems and potential violations of the NPDES construction general permit. Your permit likely requires you to maintain your BMPs at all times. To do this effectively, you should establish an inspection and maintenance approach or strategy that includes both regular and spot inspections. Inspecting both prior to predicted storm events and after will help ensure that controls are working effectively. Perform maintenance or corrective action as soon as problems are noted. **Inspection and maintenance of BMPs are addressed in more detail in Chapter 6.**

Other Sediment and Erosion Control Techniques

As mentioned at the beginning of this chapter, there are many other erosion and sediment control techniques that can be used effectively. The BMPs highlighted in this chapter are among those more commonly used and highlight many general erosion and sediment control principles for which other BMPs may be used effectively. Check to see if your state or local government has developed a BMP design manual for detailed information on any BMP you are considering. Appendix D lists several good BMP design manuals. You can also find out more about various BMPs by visiting EPA's Menu of BMPs at **www.epa.gov/npdes/menuofbmps**

The following BMPs are also commonly used at construction sites.

Erosion control measures:

- Surface roughening, trackwalking, scarifying, sheepsfoot rolling, imprinting
- Soil bioengineering techniques (e.g., live staking, fascines, brush wattles)
- Composting
- Sodding

Sediment control and runoff management measures:

- Gravel bag barrier
- Compost berm
- Rock or brush filters
- Baffles or skimmers in sediment basins to increase effectiveness
- Lowering soil levels near streets and sidewalks to prevent runoff
- Level spreaders
- Energy dissipaters
- Check dams

Chapter 5: SWPPP Development—Selecting Good Housekeeping BMPs

> This chapter presents a brief discussion of good housekeeping principles to consider to ensure your construction site does not contaminate stormwater runoff.
>
> As noted in Chapter 3, sediment is the principal pollutant of concern in stormwater discharges from construction sites. But, EPA's CGP and many state construction general permits require that the SWPPP describe good housekeeping measures for other pollutants that might be found on construction sites. This chapter discusses these measures.

Six Key Pollution Prevention Principles for Good Housekeeping

Construction projects generate large amounts of building-related waste, which can end up polluting stormwater runoff if not properly managed. The suite of BMPs that are described in your SWPPP must include pollution prevention (P2) or good housekeeping practices that are designed to prevent contamination of stormwater from a wide range of materials and wastes at your site. The six principles described below are designed to help you identify the pollution prevention practices that should be described in your SWPPP and implemented at your site.

1. Provide for waste management
2. Establish proper building material staging areas
3. Designate paint and concrete washout areas
4. Establish proper equipment/vehicle fueling and maintenance practices
5. Control equipment/vehicle washing and allowable non-stormwater discharges
6. Develop a spill prevention and response plan

P2 Principle 1: Provide for waste management. Design proper management procedures and practices to prevent or reduce the discharge of pollutants to stormwater from solid or liquid wastes that will be generated at your site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters.

Figure 15. Illustration showing construction materials with secondary containment and overhead cover to prevent stormwater contamination.

Provide convenient, well-maintained, and properly located toilet facilities. Provide for regular inspections, service, and disposal. Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater. Treat or dispose of sanitary and septic waste in accordance with state or local regulations.

Proper material use, storage, waste disposal, and training of employees and subcontractors can prevent or reduce the discharge of hazardous and toxic wastes to stormwater. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills (see the following P2 principles).

Waste Management Checklist

Solid or Construction Waste

- ✓ Designate trash and bulk waste-collection areas on-site
- ✓ Recycle materials whenever possible (e.g., paper, wood, concrete, oil)
- ✓ Segregate and provide proper disposal options for hazardous material wastes
- ✓ Clean up litter and debris from the construction site daily
- ✓ Locate waste-collection areas away from streets, gutters, watercourses, and storm drains. Waste-collection areas (dumpsters, and such) are often best located near construction site entrances to minimize traffic on disturbed soils. Consider secondary containment around waste collection areas to further minimize the likelihood of contaminated discharges.

Sanitary and Septic Waste

- ✓ Provide restroom facilities on-site
- ✓ Maintain clean restroom facilities and empty porta-johns regularly
- ✓ Provide secondary containment pans under porta-johns, where possible
- ✓ Provide tie-downs or stake downs for porta-johns in areas of high winds
- ✓ Educate employees, subcontractors, and suppliers on locations of facilities
- ✓ Do not discharge or bury wastewater at the construction site
- ✓ Inspect facilities for leaks, repair or replace immediately

Hazardous Materials and Wastes

- ✓ Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup
- ✓ Designate hazardous waste-collection areas on-site
- ✓ Place all hazardous and toxic material wastes in secondary containment
- ✓ Hazardous waste containers should be inspected to ensure that all containers are labeled properly and that no leaks are present

P2 Principle 2: Establish proper building material handling and staging areas.
Your SWPPP should include comprehensive handling and management procedures for building materials, especially those that are hazardous or toxic. Paints, solvents, pesticides, fuels and oils, other hazardous materials or any building materials that have the potential to contaminate stormwater should be stored indoors or under cover whenever possible or in areas with secondary containment. Secondary containment prevents a spill from spreading across the site and include dikes, berms, curbing, or other containment methods. Secondary containment techniques should also ensure the protection of ground water. Designate staging areas for activities such as fueling vehicles, mixing paints, plaster, mortar, and so on. Designated staging areas will help you to monitor the use of materials and to clean up any spills. Training employees and subcontractors is essential to the success of this pollution prevention principle.

SWPPP Tip!

Material Staging Area Measures

Your SWPPP should include procedures for storing materials that can contribute pollutants to stormwater. Consider the following:

- Train employees and subcontractors in proper handling and storage practices
- Designate site areas for storage. Provide storage in accordance with secondary containment regulations and provide cover for hazardous materials when necessary. Ensure that storage containers are regularly inspected for leaks, corrosion, support or foundation failure, or any other signs of deterioration and tested for soundness
- Reuse and recycle construction materials when possible

P2 Principle 3: Designate washout areas.
Concrete contractors should be encouraged, where possible, to use the washout facilities at their own plants or dispatch facilities. If it is necessary to provide for concrete washout areas on-site, designate specific washout areas and design facilities to handle anticipated washout water. Washout areas should also be provided for paint and stucco operations. Because washout areas can be a source of pollutants from leaks or spills,

EPA recommends that you locate them at least 50 yards away from storm drains and watercourses whenever possible.

Several companies rent or sell prefabricated washout containers, and some provide disposal of waste solids and liquids along with the containers. These prefabricated containers are sturdy and provide a more reliable option for preventing leaks and spills of wash water than self-constructed washouts. Alternatively, you can construct your own washout area, either by digging a pit and lining it with 10 mil plastic sheeting or creating an aboveground structure from straw bales or sandbags with a plastic liner. If you create your own structure, you should inspect it daily for leaks or tears in the plastic because these structures are prone to failure.

Regular inspection and maintenance are important for the success of this BMP. Both self-constructed and prefabricated washout containers can fill up quickly when concrete, paint, and stucco work are occurring on large portions of the site. You should also inspect for evidence that contractors are using the washout areas and not dumping materials onto the ground or into drainage facilities. If the washout areas are not being used regularly, consider posting additional signage, relocating the facilities to more convenient locations, or providing training to workers and contractors.

SWPPP Tip!

Washout Area Measures

When concrete, paint, or stucco is part of the construction process, consider these practices which will help prevent contamination of stormwater. Include the locations of these areas and your maintenance and inspection procedures in your SWPPP.

- Do not washout concrete trucks or equipment into storm drains, streets, gutters, uncontained areas, or streams
- Establish washout areas and advertise their locations with signs
- Provide adequate containment for the amount of wash water that will be used
- Inspect washout structures daily to detect leaks or tears and to identify when materials need to be removed
- Dispose of materials properly. The preferred method is to allow the water to evaporate and to recycle the hardened concrete. Full service companies may provide dewatering services and should dispose of wastewater properly. Concrete wash water can be highly polluted. It should not be discharged to any surface water, storm sewer system, or allowed to infiltrate into the ground. It should not be discharged to a sanitary sewer system without first receiving written permission from the system operator

P2 Principle 4: Establish proper equipment/vehicle fueling and maintenance practices. Performing equipment/vehicle fueling and maintenance at an off-site facility is preferred over performing these activities on the site, particularly for road vehicles (e.g., trucks, vans). For grading and excavating equipment, this is usually not possible or desirable. Create an on-site fueling and maintenance area that is clean and dry. The on-site fueling area should have a spill kit, and staff should know how to use it. If possible, conduct vehicle fueling and maintenance activities in a covered area; outdoor vehicle fueling and maintenance is a potentially significant source of stormwater pollution. Significant maintenance on vehicles and equipment should be conducted off-site.

SWPPP Tip!

Equipment/Vehicle Fueling and Maintenance Measures

Consider the following practices to help prevent the discharge of pollutants to stormwater from equipment/vehicle fueling and maintenance. Include the locations of these areas and your inspection and maintenance procedures in your SWPPP.

- Train employees and subcontractors in proper fueling procedures (stay with vehicles during fueling, proper use of pumps, emergency shut-off valves, and such)
- Inspect on-site vehicles and equipment daily for leaks, equipment damage, and other service problems
- Clearly designate vehicle/equipment service areas away from drainage facilities and water-courses to prevent stormwater run-on and runoff
- Use drip pans, drip cloths, or absorbent pads when replacing spent fluids
- Collect all spent fluids, store in appropriate labeled containers in the proper storage areas, and recycle fluids whenever possible

P2 Principle 5: Control equipment/vehicle washing and allowable non-stormwater discharges. Environmentally friendly washing practices can be practiced at every construction site to prevent contamination of surface and ground water from wash water. Procedures and practices include using off-site facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water or routing to the sanitary sewer; and training employees and subcontractors in proper cleaning procedures.

Take a Closer Look...

Non-Stormwater Runoff

A construction site might have sources of runoff that are not generated by stormwater. These non-stormwater discharges include fire hydrant flushing, vehicle or equipment wash water (no detergents!), water used to control dust, and landscape irrigation.

What does this mean to me?

Take steps to infiltrate these sources of uncontaminated water into the ground. You can also route these sources of water to sediment ponds or detention basins or otherwise treat them with appropriate BMPs.

SWPPP Tip!

Equipment/Vehicle Washing Measures

The following equipment/vehicle washing measures will help prevent stormwater pollution. Include the location of your washing facilities and your inspection and maintenance procedures in your SWPPP.

- Educate employees and subcontractors on proper washing procedures
- Clearly mark the washing areas and inform workers that all washing must occur in this area
- Contain wash water and treat and infiltrate it whenever possible
- Use high-pressure water spray at vehicle washing facilities without any detergents because water can remove most dirt adequately
- Do not conduct any other activities, such as vehicle repairs, in the wash area

P2 Principle 6: Develop a spill prevention and response plan. Most state and EPA construction general permits require the preparation of spill prevention and response plans. Generally, these plans can be included or incorporated into your SWPPP. The plan should clearly identify ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and response. The plan should also specify material handling procedures and storage requirements and ensure that clear and concise spill cleanup procedures are provided and posted for areas in which spills may potentially occur. When developing a spill prevention plan, include, at a minimum, the following:

- Note the locations of chemical storage areas, storm drains, tributary drainage areas, surface waterbodies on or near the site, and measures to stop spills from leaving the site
- Specify how to notify appropriate authorities, such as police and fire departments, hospitals, or municipal sewage treatment facilities to request assistance
- Describe the procedures for immediate cleanup of spills and proper disposal
- Identify personnel responsible for implementing the plan in the event of a spill

SWPPP Tip!

Spill Prevention Measures

Additional spill prevention measures that will help prevent spills and leaks include the following:

- Describe and list all types of equipment to be used to adequately clean up the spill
- Provide proper handling and safety procedures for each type of waste
- Establish an education program for employees and subcontractors on the potential hazards to humans and the environment from spills and leaks
- Update the spill prevention plan and clean up materials as changes occur to the types of chemicals stored and used at the facility

Take a Closer Look...

Spill Prevention, Control and Countermeasure (SPCC) Plan

Construction sites may be subject to 40 CFR Part 112 regulations that require the preparation and implementation of a SPCC Plan to prevent oil spills from aboveground and underground storage tanks. Your facility is subject to this rule if you are a nontransportation-related facility that:

- Has a total storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons and
- Could reasonably be expected to discharge oil in quantities that may be harmful to navigable waters of the United States and adjoining shorelines

Furthermore, if your facility is subject to 40 CFR Part 112, your SWPPP should reference the SPCC Plan. To find out more about SPCC Plans, see EPA's website on SPPC at **www.epa.gov/oilspill/spcc.htm**

What does this mean to me?

Reporting Oil Spills

In the event of an oil spill, you should contact the National Response Center toll free at 1-800-424-8802 for assistance, or for more details, visit their website: ***www.nrc.uscg.mil/nrchp.html***

Chapter 6: **SWPPP Development—Inspections, Maintenance, and Recordkeeping**

▶ **This chapter describes the inspection and maintenance procedures your SWPPP should include, as well as recordkeeping requirements.**

A. Describe Your Plans and Procedures for Inspecting BMPs

Earlier discussions in this manual pointed out that the effectiveness of erosion and sediment control BMPs and good housekeeping and pollution prevention measures depend on consistent and continual inspection and maintenance. This step focuses on developing a plan for BMP inspection and maintenance to ensure that a schedule and procedures are in place.

Inspections

Your responsibility does not stop after BMPs are installed. Your BMPs must be maintained in good working order at all times. Further, your permit requires that you conduct regular inspections and document the findings of those inspections in your SWPPP.

Your construction general permit describes the ***minimum*** frequency of inspections, which is typically weekly or bi-weekly and after each rainfall event exceeding one-half inch. To meet the requirement to maintain all BMPs in good working order, EPA recommends that you develop an inspection schedule that goes beyond these minimums and is customized for your site and the conditions affecting it.

In developing your inspection schedule consider the following:

- Consider using *spot* inspections. You may want to inspect certain parts of your site more frequently or even daily. Target places that need extra attention, such as areas around construction site entrances, check nearby streets for dirt, check inlet protection, and so on.
- Consider using informal inspections. Your permit outlines the minimum requirements for formal inspections that must be documented and included in your SWPPP. You can also add informal inspections that wouldn't require documentation, unless of course, a problem is identified. Always document any problems you find and those that are identified by staff.
- Consider adding inspections *before or even during* rain events. Many permits require inspections of BMPs after rain events. You should consider adding inspections ***before or during*** predicted rain events. Consult a local weather source and initiate inspections before predicted storm events as a way to ensure that controls are operational.
- Train staff and subcontractors. Use your staff and subcontractors to help identify any potential problems with your BMPs. Again, document any issues that are confirmed problems.

SWPPP Tip!

Inspection Guide

The State of Minnesota has developed a *Stormwater Construction Inspection Guide* to assist municipal site inspectors in procedures for conducting a compliance inspection at construction sites. This guide can also be useful for construction operators conducting self-inspections. Available at **www.pca.state.mn.us/water/stormwater/stormwatr-c.html**

EPA recommends that you develop an inspection schedule that meets the needs of your site. You'll probably also want to update and refine this schedule based on your experiences, the findings of your inspections, and the changing conditions at your site.

SWPPP Tip!

Selecting BMP Inspectors

A BMP inspection is only as good as the inspector. Therefore, it is important to select qualified personnel to conduct BMP inspections. The SWPPP should identify who has the responsibility for conducting inspections. Personnel selected to conduct inspections should be knowledgeable in the principles and practices of erosion and sediment controls, possess the technical skills to assess conditions at the construction site that could impact stormwater quality, and assess the effectiveness of any sediment and erosion control measures selected.

Several states and other organizations offer training that will help prepare inspectors to accurately evaluate BMPs, decide when maintenance is appropriate, or when a different BMP should be substituted. (Several states require that sites be inspected by someone that the state certifies as a qualified inspector.) One national organization offers two certification programs that would be useful for personnel who are developing and implementing SWPPPs and conducting inspections. These certification programs are called: "*Certified Professional in Erosion and Sediment Control (CPESC)*" and "*Certified Professional in Stormwater Quality (CPSWQ)*." You can find more information on these programs at **www.cpesc.org**

Inspection Reports

Complete an inspection report after each inspection. You should retain copies of all inspection reports and keep them with or in your SWPPP. Generally, the following information is required to be included in your inspection report:

- Inspection date
- Inspector information, including the names, titles, and qualifications of personnel conducting the inspection
- Weather information for the period since the last inspection (or for the first inspection since commencement of construction activity) including a best estimate of the beginning of each storm, its duration, approximate amount of rainfall for each storm (in inches), and whether any discharges occurred. You may create a log to record the basic weather information or you may keep copies of weather information from a reliable local source, such as the internet sites of local newspapers, TV stations, local universities, etc.
- Current weather information and a description of any discharges occurring at the time of the inspection
- Descriptions of evidence of previous or ongoing discharges of sediment or other pollutants from the site
- Location(s) of BMPs that need to be maintained
- Location(s) of BMPs that failed to operate as designed or proved inadequate for a location
- Location(s) where additional BMPs are needed but did not exist at the time of inspection
- Corrective action required, including any necessary changes to the SWPPP and implementation dates
- Reference to past corrective actions documenting follow-up actions taken

Consider taking digital photographs during inspections to document BMPs, problems identified, and progress in implementing the SWPPP.

Appendix B includes an example stormwater inspection report. You should use this report, or a similar report, to document your stormwater construction site inspections. Check to see if your state or local authority has developed an inspection checklist for your use. The inspection report is broken up into two main sections—site-specific BMPs and overall site issues. For the site-specific BMPs, you should number the structural and non-structural BMPs in your SWPPP on a copy of your site map (preferably in the order in which you would inspect them on the site). Then as you conduct your inspections, you can verify whether each BMP has been installed and maintained. If a BMP has not been installed or needs maintenance, describe this in the corrective action section and list a date for when the corrective action will be completed and who will be responsible for completing the action. The overall site issues section describes 11 common issues at construction sites you should inspect for. You can customize this form to meet the needs of your particular situation.

Make sure each inspection report is signed and certified consistent with your permit's requirements.

Chapter 8, Section D contains more information on implementing an inspection program. Also, see the suggested inspection report form in Appendix B.

SWPPP Tip!

Consider More Effective BMPs

During inspections, consider whether the installed BMPs are working effectively. If you find a BMP that is failing or overwhelmed by sediment, you should consider whether it needs to be replaced with a more effective BMP or enhanced by the addition of another, complimentary BMP. Ensure that you record such changes in your SWPPP and on your site map.

B. BMP Maintenance

Implementing a good BMP maintenance program is essential to the success of your SWPPP and to your efforts to protect nearby waterways. You should conduct maintenance of BMPs regularly and whenever an inspection (formal or informal) identifies a problem or potential issue. For instance, trash and debris should be cleaned up, dumpsters should be checked and covered, nearby streets and sidewalks should be swept daily, and so on. Maintenance on erosion and sediment controls should be performed as soon as site conditions allow. Consider the following points when conducting maintenance:

- Follow the designers or manufacturer's recommended maintenance procedures for all BMPs
- Maintenance of BMPs will vary according to the specific area and site conditions
- Remove sediment from BMPs as appropriate and properly dispose of sediment into controlled areas to prevent soil from returning to the BMP during subsequent rain events
- Remove sediment from paved roadways and from around BMPs protecting storm drain inlets
- Ensure that construction support activities, including borrow areas, waste areas, contractor work areas, and material storage areas and dedicated concrete and asphalt batch plants are cleaned and maintained
- Replace damaged BMPs, such as silt fences, that no longer operate effectively

You should keep a record of all maintenance activities, including the date, BMP, location, and maintenance performed in your SWPPP.

C. Recordkeeping

You must keep copies of the SWPPP, inspection records, copies of all reports required by the permit, and records of all data used to complete the NOI to be covered by the permit for a period of at least 3 years from the date that permit coverage expires or is terminated.

Records should include:

- A copy of the SWPPP, with any modifications
- A copy of the NOI and Notice of Termination (NOT) and any stormwater-related correspondence with federal, state, and local regulatory authorities
- Inspection forms, including the date, place, and time of BMP inspections
- Names of inspector(s)
- The date, time, exact location, and a characterization of significant observations, including spills and leaks
- Records of any non-stormwater discharges
- BMP maintenance and corrective actions taken at the site (Corrective Action Log)
- Any documentation and correspondence related to endangered species and historic preservation requirements
- Weather conditions (e.g., temperature, precipitation)
- Date(s) when major land disturbing (e.g. clearing, grading, and excavating) activities occur in an area
- Date(s) when construction activities are either temporarily or permanently ceased in an area
- Date(s) when an area is either temporarily or permanently stabilized

Chapter 7: **Certification and Notification**

▶ **This chapter describes how, after developing your SWPPP, you can obtain permit coverage for your stormwater discharges.**

A. Certification

Signature and Certification

The construction site operator must sign the permit application form, which is often called a *Notice of Intent* or *NOI*. (In some instances, the construction general permit may not require the submission of an NOI or application. Construction activities may be covered automatically.)

All reports, including SWPPPs and inspection reports, generally must be signed by the construction site operator or a duly authorized representative of that person. The authorized representative is typically someone who has direct responsibility for implementing the SWPPP. If the operator chooses to designate an authorized representative, a signed letter or statement to that effect must be included in the SWPPP. Check your permit for exact requirements.

Your SWPPP must include the signature of the construction site operator or authorized representative and the certification statement provided in the general permit. An example of the certification language from EPA's Construction General Permit follows:

> "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."

This ensures that the SWPPP was developed and reviewed by a responsible party with the ability to implement the BMPs and other commitments described in the SWPPP.

SWPPP Tip!

Posting a sign at the construction entrance

EPA and many state general permits require that you post a sign or other notice conspicuously near the main entrance of the construction site. EPA's permit requires that the sign contain a copy of the NOI, the location of the SWPPP, and a contact person for viewing the SWPPP.

Copy of Permit Requirements

Most general permits require you to keep a copy of the permit and your NOI with your SWPPP. This allows you to quickly check the permit if a question arises about a permit requirement.

Other State, Tribal, and Local Programs

Include in your SWPPP a description of any other federal, state, tribal, or local requirements for erosion and sediment control and stormwater management that apply to your site. Many local governments also impose erosion and sediment control requirements; your SWPPP should comply with both the general permit and any applicable local requirements.

SWPPP Tip!

Making your SWPPP available

While EPA and most states do not require you to submit a copy of your SWPPP for review, your SWPPP must be available to these and other government agencies for inspection. Your permit may also require you to make your SWPPP available to the public, if requested. If you have the ability, you should consider posting your SWPPP on the Internet and publicizing the URL. Check your permit for exact requirements.

B. Notification

Now that you have developed your SWPPP and before you begin construction, you must begin the process of obtaining permit coverage from your authorized state or EPA. Authorized states and EPA use *general* permits to cover all construction sites. These broadly written general or *umbrella* permits apply to all construction activities in a given state.

Obtaining Coverage Under a General Permit

Important! Before obtaining permit coverage, you should read a copy of the appropriate construction general permit *and* develop your SWPPP.

To obtain coverage under a state or EPA construction general permit, you will typically need to fill out and submit an application form, often called a Notice of Intent or NOI. Submitting this form to the permitting authority indicates your *intent* to be authorized to discharge stormwater under the appropriate general permit for construction activities. Depending on the permit, you may be authorized to discharge immediately or at some later time. In some cases, you are not authorized to discharge until the state has notified you accordingly. EPA's Construction General Permit requires a 7-day waiting period after a complete NOI is received and posted on EPA's website (**www.epa.gov/npdes/noisearch**). The waiting period expires when the permit's status changes from *waiting* to *active*.

Take a Closer Look...

Information on the Application or Notice of Intent (NOI)

The NOI provides the permitting authority with pertinent information about your construction site, such as owner/operator information, site location, estimated project start and completion dates, approximate area to be disturbed, information about your SWPPP, receiving waters, and endangered species review certification. An appropriate person who is authorized to represent your organization must sign and verify that the facts contained in the NOI are true and accurate. For businesses, a certifying official is typically a corporate officer, such as a president, vice president, or manager of operations. For municipalities, it's typically a principal executive officer or ranking elected official. Check your permit for exact signature requirements.

In general, the only information you need to submit to the permitting authority is the NOI. EPA and most authorized state agencies do not require you to submit your SWPPP for approval. However, many local governments review and approve at least the erosion and sediment control component of your SWPPP.

What does this mean to me?

There are significant penalties for failing to obtain authorization to discharge or for submitting inaccurate information. If you are the certifying official, make sure you are authorized to discharge before construction activities begin.

SWPPP Tip!

Deadline for submitting NOIs under EPA's Construction General Permit

For EPA's construction general permit, the fastest and easiest way to obtain permit coverage is to use EPA's electronic permit application system, called "eNOI" at **www.epa.gov/npdes/stormwater/enoi**. Using this approach, you may be authorized to discharge in as little as 7 days after submission of your electronic NOI. If you choose to submit your NOI by mail, EPA recommends that you send it at least one month before you need permit coverage.

Chapter 8: **SWPPP Implementation**

Your SWPPP is your guide to preventing stormwater pollution. However, it is just a plan. Implementing your SWPPP, maintaining your BMPs, and then constantly reevaluating and revising your BMPs and your SWPPP are the keys to protecting your local waterways.

A. Train Your Staff and Subcontractors

Your site's construction workers and subcontractors might not be familiar with stormwater BMPs, and they might not understand their role in protecting local rivers, lakes and coastal waters. Training your staff and subcontractors in the basics of erosion control, good housekeeping, and pollution prevention is one of the most effective BMPs you can institute at your site.

Basic training should include

- Spill prevention and cleanup measures, including the prohibition of dumping any material into storm drains or waterways
- An understanding of the basic purpose of stormwater BMPs, including what common BMPs are on-site, what they should look like, and how to avoid damaging them
- Potential penalties associated with stormwater noncompliance

Staff directly responsible for implementing the SWPPP should receive comprehensive stormwater training, including

- The location and type of BMPs being implemented
- The installation requirements and water quality purpose for each BMP
- Maintenance procedures for each of the BMPs being implemented
- Spill prevention and cleanup measures
- Inspection and maintenance recordkeeping requirements

You can train staff and subcontractors in several ways: short training sessions (food and refreshments will help increase attendance), posters and displays explaining your site's various BMPs, written agreements with subcontractors to educate their staff members, signs pointing out BMPs and reminders to keep clear of them. Every construction site operator should try to train staff and subcontractors to avoid damaging BMPs. By doing so, operators can avoid the added expense of repairs.

SWPPP Tip!

Train your staff and subcontractors!

Here are a few key things you will want to cover with each person working on your site:

- Use only designated construction site entrances
- Keep equipment away from silt fences, fiber rolls, and other sediment barriers
- Know the locations of disposal areas, and know the proper practices for trash, concrete and paint washout, hazardous chemicals, and so on
- Keep soil, materials, and liquids away from paved areas and storm drain inlets. Never sweep or wash anything into a storm drain
- Know the location and understand the proper use of spill kits
- Know the locations of your site's designated protection areas. Keep equipment away from stream banks, valuable trees and shrubs, and steep slopes. Clearly mark these areas with signs
- Keep equipment off mulched, seeded, or stabilized areas. Post signs on these areas, too
- Know who to contact when problems are identified!

B. Ensure Responsibility—Subcontractor Agreements

At any given site, there might be multiple parties (developer, general contractor, builders, subcontractors) that have roles and responsibilities for carrying out or maintaining stormwater BMPs at a given site. These roles and responsibilities should be documented clearly in the SWPPP (see Chapter 2, Section D). In some cases (state requirements vary), there may be one entity that has developed the SWPPP and filed for permit coverage and, therefore, is designated as the *operator*. When other parties at a site are not officially designated as operators, many operators are incorporating the roles and responsibilities of these *non-operators* in the agreements and contracts they have with these companies and individuals. This contract language should spell out responsibilities implementing and maintaining stormwater BMPs, for training staff, and for correcting damage to stormwater BMPs on the site. Several states have stormwater regulations that hold other parties liable even if they are not identified as the *operator*.

C. Implement Your SWPPP Before Construction Starts

Once you have obtained permit coverage and you are ready to begin construction, it is time to implement your SWPPP. You must implement appropriate parts of your SWPPP before construction activity begins. This generally involves installing storm drain inlet protection, construction entrances, sediment basins, and perimeter silt fences before clearing, grading, and excavating activities begin.

After construction activities begin, your SWPPP should describe when additional erosion and sediment controls will be installed (generally after initial clearing and grading activities are complete). You should also begin BMP inspections once clearing and grading activities begin.

SWPPP Tip!

Take Photographs During Inspections

Taking photographs can help you document areas that need maintenance and can help identify areas where subcontractors might need to conduct maintenance. Photographs can also help provide documentation to EPA or state inspectors that maintenance is being performed.

SWPPP Tip!

Prepare for the rain and snowmelt!

In some areas of the country, construction site operators are required to develop *weather triggered* action plans that describe additional activities the operator will conduct 48 hours before a predicted storm (at least a 50 percent forecasted chance of rain). It is also a good idea to stockpile additional erosion and sediment control BMPs (such as silt fencing, and fiber rolls) at the site for use when necessary.

D. Conduct Inspections and Maintain BMPs

As mentioned earlier (Chapter 6), EPA recommends that you develop an inspection schedule for your site that considers the size, complexity, and other conditions at your site. This should include regularly scheduled inspections and less formal inspections. EPA recommends that you develop a plan that includes inspections before and after anticipated rain events. You might also want to inspect some BMPs during rain events to see if they are actually keeping sediment on site! Conducting inspections during rain events also allows a construction site operator to address minor problems before they turn into major problems.

Temporarily Removed BMPs

BMPs sometimes need to be temporarily removed to conduct work in an area of the site. These temporarily removed BMPs should be noted on the site plan and replaced as soon as possible after the completion of the activity requiring their removal. If a rain is forecast, the BMPs should be replaced as soon as possible before the rain event.

Recommended Inspection Sequence

You should conduct thorough inspections of your site, making sure to inspect all areas and BMPs. The seven activities listed below are a recommended inspection sequence that will help you conduct a thorough inspection (adapted from MPCA 2004).

1. Plan your inspection

- ☑ Create a checklist to use during the inspection (see Appendix B)
- ☑ Obtain a copy of the site map with BMP locations marked
- ☑ Plan to walk the entire site, including discharge points from the site and any off-site support activities such as concrete batch plants should also be inspected
- ☑ Follow a consistent pattern each time to ensure you inspect all areas (for example, starting at the lowest point and working uphill)

2. Inspect discharge points and downstream, off-site areas

- ☑ Inspect discharge locations to determine whether erosion and sediment control measures are effective
- ☑ Inspect nearby downstream locations, if feasible
- ☑ Walk *down the street* to inspect off-site areas for signs of discharge. This is important in areas with existing curbs and gutters
- ☑ Inspect downslope municipal catch basin inlets to ensure that they are adequately protected

3. Inspect perimeter controls and slopes

- ☑ Inspect perimeter controls such as silt fences to determine if sediment should be removed
- ☑ Check the structural integrity of the BMP to determine if portions of the BMP need to be replaced
- ☑ Inspect slopes and temporary stockpiles to determine if erosion controls are effective

4. Compare BMPs in the site plan with the construction site conditions

- ☑ Determine whether BMPs are in place as required by the site plan
- ☑ Evaluate whether BMPs have been adequately installed and maintained
- ☑ Look for areas where BMPs are needed but are missing and are not in the SWPPP

5. Inspect construction site entrances

- ☑ Inspect the construction exits to determine if there is tracking of sediment from the site onto the street
- ☑ Refresh or replace the rock in designated entrances
- ☑ Look for evidence of additional construction exits being used that are not in the SWPPP or are not stabilized
- ☑ Sweep the street if there is evidence of sediment accumulation

6. Inspect sediment controls

- ☑ Inspect any sediment basins for sediment accumulation
- ☑ Remove sediment when it reduces the capacity of the basin by the specified amount (many permits have specific requirements for sediment basin maintenance. Check the appropriate permit for requirements and include those in your SWPPP)

7. Inspect pollution prevention and good housekeeping practices

- ☑ Inspect trash areas to ensure that waste is properly contained
- ☑ Inspect material storage and staging areas to verify that potential pollutant sources are not exposed to stormwater runoff
- ☑ Verify that concrete, paint, and stucco washouts are being used properly and are correctly sized for the volume of wash water
- ☑ Inspect vehicle/equipment fueling and maintenance areas for signs of stormwater pollutant exposure

Common Compliance Problems During Inspections

The following are problems commonly found at construction sites. As you conduct your inspections, look for these problems on your site (adapted from MPCA 2004).

Problem #1—Not using phased grading or providing temporary or permanent cover (i.e., soil stabilization)

In general, construction sites should phase their grading activities so that only a portion of the site is exposed at any one time. Also, disturbed areas that are not being actively worked should have temporary cover. Areas that are at final grade should receive permanent cover as soon as possible.

Problem #2—No sediment controls on-site

Sediment controls such as silt fences, sediment barriers, sediment traps and basins must be in place before soil-disturbance activities begin. Don't proceed with grading work out-of-phase.

Problem #3—No sediment control for temporary stockpiles

Temporary stockpiles must be seeded, covered, or surrounded by properly installed silt fence. Stockpiles should never be placed on paved surfaces.

Problem #4—No inlet protection

All storm drain inlets that could receive a discharge from the construction site must be protected before construction begins and must be maintained until the site is finally stabilized.

Problem #5—No BMPs to minimize vehicle tracking onto the road

Vehicle exits must use BMPs such as stone pads, concrete or steel wash racks, or equivalent systems to prevent vehicle tracking of sediment.

Problem #6—Improper solid waste or hazardous waste management

Solid waste (including trash and debris) must be disposed of properly, and hazardous materials (including oil, gasoline, and paint) must be properly stored (which includes secondary containment). Properly manage portable sanitary facilities.

Problem #7—Dewatering and other pollutant discharges at the construction site

Construction site dewatering from building footings or other sources should not be discharged without treatment. Turbid water should be filtered or allowed to settle.

Problem #8—Poorly managed washouts (concrete, paint, stucco)

Water from washouts must not enter the storm drain system or a nearby receiving water. Make sure washouts are clearly marked, sized adequately, and frequently maintained.

Problem #9—Inadequate BMP maintenance

BMPs must be frequently inspected and maintained if necessary. Maintenance should occur for BMPs that have reduced capacity to treat stormwater (construction general permits or state design manuals often contain information on when BMPs should be maintained), or BMPs that have been damaged and need to be repaired or replaced (such as storm drain inlet protection that has been damaged by trucks).

Problem #10—Inadequate documentation or training

Failing to develop a SWPPP, keep it up-to-date, or keep it on-site, are permit violations. You should also ensure that SWPPP documentation such as a copy of the NOI, inspection reports and updates to the SWPPP are also kept on-site. Likewise, personnel working on-site must be trained on the basics of stormwater pollution prevention and BMP installation/maintenance.

E. Update and Evaluate Your SWPPP

Like your construction site, your SWPPP is dynamic. It is a document that must be amended to reflect changes occurring at the site. As plans and specifications change, those changes should be reflected in your SWPPP. If you find that a BMP is not working and you decide to replace it with another, you must reflect that change in your SWPPP. Document in your SWPPP transitions from one phase of construction to the next, and make sure you implement new BMPs required for that next phase.

Are Your BMPs Working?

You should evaluate the effectiveness of your BMPs as part of your routine inspection process. An informal analysis of both your inspection's findings and your list of BMP repairs will often reveal an inadequately performing BMP. An inspection immediately after a rain event can indicate whether another approach is needed.

You may decide to remove an existing BMP and replace it with another, or you may add another BMP in that area to lessen the impact of stormwater on the original installation.

When you update your SWPPP, you can simply mark it up, particularly for relatively simple changes and alterations. More significant changes might require a rewriting of portions of the SWPPP. The site map should also be updated as necessary.

Chapter 9: **Final Stabilization and Permit Termination**

▶ **This chapter describes what you must do to stabilize your construction site and end permit coverage.**

Stabilize Disturbed Areas

As your construction project progresses, you must stabilize areas not under construction. EPA and most states have specific requirements and time frames that must be followed. Generally, it is a wise management practice to stabilize areas as quickly as possible to avoid erosion problems that could overwhelm silt fences, sediment basins, and other sediment control devices.

SWPPP Tip!

Stabilize as soon as practicable

EPA's Construction General Permit states that, "stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased."

Temporary stabilization can be achieved through a variety of BMPs, including mulching, seeding, erosion control blankets, hydroseeding, and other measures.

Permanent or final stabilization of areas on your site is generally accomplished by installing the final landscape requirements (e.g., trees, grass, gardens, or permanent stormwater controls). Once the site has been stabilized, you can terminate your permit coverage.

Sediment controls, such as silt fence, berms, sediment ponds or traps, alone, are not stabilization measures. You should continue to use these kinds of measures (e.g., silt fence around an area that has been seeded) until full stabilization is achieved.

A. Final Stabilization

When you have completed your construction project or an area within the overall project, you must take steps to permanently and finally stabilize it. Check your permit for the specific requirements you must meet. After a project or an area in the project has been fully stabilized, you should remove temporary sediment and erosion control devices (such as silt fences). You might also be able to stop routine inspections in these stabilized areas. However, in some states such as Colorado, inspections are required every 30 days (after the construction has been completed and the site is stabilized) until permit coverage has been terminated. In general, you should be aware that

Figure 16. Seeding is an effective BMP that can be used to temporarily or permanently stabilize disturbed areas.

final stabilization often takes time (weeks or even months), especially during times of low rainfall or during the colder months of the year. You should not discontinue routine inspections until you have met the final stabilization requirements in your permit.

EPA and many states define final stabilization as occurring when a uniform, evenly distributed perennial vegetative cover with a density of 70 percent of the native background cover has been established on all unpaved areas and areas not covered by permanent structures. Some states have a higher percentage of vegetative cover required (e.g., New York requires 80 percent). Please review your state's construction general permit for specific requirements.

Native vegetation must be established uniformly over each disturbed area on the site. Stabilizing seven of ten slopes, or leaving an area equivalent to 30 percent of the disturbed area completely unstabilized will not satisfy the *uniform vegetative cover* standard.

The contractor must establish vegetation over the entire disturbed soil area at a minimum density of 70 percent of the native vegetative coverage. For example, if native vegetation covers 50 percent of the undisturbed ground surface (e.g., in an arid or semi-arid area), the contractor must establish 35 percent vegetative coverage uniformly over the entire disturbed soil area ($0.70 \times 0.50 = 0.35$ or 35 percent). Several states require perennial native vegetative cover that is *self-sustaining* and capable of providing *erosion control equivalent to preexisting conditions* to satisfy the 70 percent coverage requirement.

In lieu of vegetative cover, you can apply alternate measures that provide equivalent soil stabilization to the disturbed soil area. Such equivalent measures include blankets, reinforced channel liners, soil cement, fiber matrices, geotextiles, or other erosion-resistant soil covering or treatments. Your construction general permit might allow all or some of these alternate measures for equivalent soil stabilization for final stabilization; check your general permit.

B. Permit Termination

Once construction activity has been completed and disturbed areas are finally stabilized, review your general permit for specific steps to end your coverage under that permit. EPA and many states require you to submit a form, often called a notice of termination (NOT), to end your coverage under that construction general permit. Before terminating permit coverage, make sure you have accomplished the following:

- Remove any construction debris and trash
- Remove temporary BMPs (such as silt fence). Remove any residual sediment as needed. Seed and mulch any small bare spots. BMPs that will decompose, including some fiber rolls and blankets, may be left in place
- Check areas where erosion-control blankets or matting were installed. Cut away and remove all loose, exposed material, especially in areas where walking or mowing will occur. Reseed all bare soil areas
- Ensure that 70 percent of background native vegetation coverage or equivalent stabilization measures have been applied for final soil stabilization of disturbed areas
- Repair any remaining signs of erosion
- Ensure that post-construction BMPs are in place and operational. Provide written maintenance requirements for all post-construction BMPs to the appropriate party
- Check all drainage conveyances and outlets to ensure they were installed correctly and are operational. Inspect inlet areas to ensure complete stabilization and remove any brush or debris that could clog inlets. Ensure banks and ditch bottoms are well vegetated. Reseed bare areas and replace rock that has become dislodged
- Seed and mulch or otherwise stabilize any areas where runoff flows might converge or high velocity flows are expected
- Remove temporary stream crossings. Grade, seed, or re-plant vegetation damaged or removed
- Ensure subcontractors have repaired their work areas before final closeout

You might also be required to file an NOT if you transfer operational control to another

Take a Closer Look…

Is there a deadline to submit an NOT?

Many states require a Notice of Termination (NOT) or similar form to indicate that the construction phase of a project is completed and that all the terms and conditions have been met. This notification informs the permitting authority that coverage under the construction general permit is no longer needed. If your permitting authority requires such a notification, check to see what conditions must be met in order to submit it and check to see if there is a deadline for submission. EPA's Construction General Permit requires that you submit an NOT when you have met all your permit requirements. The NOT is due no later than 30 days after meeting these requirements.

What does this mean to me?

Check your permit carefully for details and conditions relating to terminating your permit coverage.

party before the project is complete. The new operator would be required to develop and implement a SWPPP and to obtain permit coverage as described above.

EPA and most states allow homebuilders to terminate permit coverage when the property has been transferred to the homeowner with temporary or final stabilization measures in place. If the transfer is made with temporary stabilization measures in place, EPA expects the homeowner to complete the final landscaping. Under these circumstances, EPA and most states do not require homeowners to develop SWPPPs and apply for permit coverage.

C. Record Retention

EPA's regulations specifies that you must retain records and reports required in the permit, including SWPPPs and information used to complete the NOI, for at least 3 years from the termination of coverage or expiration of the permit. You should also keep maintenance and inspection records related to the SWPPP for this same time frame. General permits issued by states may have a longer period for retention.

Figure 17. Make sure inlets, outlets, and slopes are well stabilized before leaving the site and filing your "Notice of Termination" for ending permit coverage.

References

American Society of Civil Engineers (ASCE) and Water Environment Federation (WEF). 1992. *Design and Construction of Urban Stormwater Management Systems*

Arendt, R. 1996. *Conservation Design for Subdivisons: A Practical Guide to Creating Open Space Networks*. American Planning Association Planners Book Service. Chicago, IL.

Claytor, R. 2000. Practical tips for construction site phasing. Article 54 in *The Practice of Watershed Protection*. Center for Watershed Protection, Ellicott City, MD, pp. 317–322.

Dunne, T. and L. Leopold. 1978. *Water and Environmental Planning.*

Environmental Protection Agency (EPA). 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. 840-B-92-002. Office of Water. Washington, DC.

Maryland Department of the Environment (MDE). 2000. *Maryland Stormwater Design Manual: Volumes 1 and 2*. Maryland Department of the Environment, Baltimore, MD. <**www.mde.state.md.us/environment/wma/stormwatermanual**>

Minnesota Pollution Control Agency (MPCA). 2004. *Stormwater Construction Inspection Guide*. <**www.pca.state.mn.us/publications/wq-strm2-10.pdf**>

National Arbor Day Foundation. No date. *The Value of Trees to a Community*. <**www.arborday.org/trees/Benefits.cfm**>

Natural Resources Conservation Service (NRCS). 2000. *1997 National Resources Inventory Summary Report.* <**http://www.nrcs.usda.gov/TECHNICAL/NRI/1997/summary_report/**>

Natural Resources Conservation Service (NRCS). 2006. *National Resources Inventory 2003 Annual NRI - Soil Erosion.* <**http://www.nrcs.usda.gov/Technical/land/nri03/SoilErosion-mrb.pdf**>

Robertson, B., R. Pitt, A. Ayyoubi, and R. Field. 1995. A Multi-Chambered Stormwater Treatment Train. In *Proceedings of the Engineering Foundation Conference:*

Stormwater NPDES-Related Monitoring Needs, Mt. Crested Butte, Colorado, August 7–12, 1994, American Society of Civil Engineers, New York, NY.

Terrene Institute. 2001. Landscaped rain gardens offer stormwater control. *Nonpoint Source News-Notes* 66:18–20.

Acknowledgements

The graphics used in this guide were developed by Tetra Tech, Inc. for the Kentucky Divison of Water's Erosion and Sediment Control Field Guide.

Appendix A: **SWPPP Template**

An electronic copy of the SWPPP template is available on EPA's web site at:
http://www.epa.gov/npdes/swpppguide

Appendix B: **Sample Inspection Report**

An electronic copy of the sample inspection report is available on EPA's web site at:
http://www.epa.gov/npdes/swpppguide

Appendix C: **Calculating the Runoff Coefficient**

The following information is largely taken from EPA's 1992 guidance *Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-005).

It is important to estimate your development's impact on runoff after construction is complete. This can be done by estimating the runoff coefficient for pre- and post-construction conditions. The runoff coefficient ("C" value) is the partial amount of the total rainfall which will be come runoff. The runoff coefficient is used in the "rational method" which is:

$$Q = CiA,$$

Where Q = the rate of runoff from an area,
i = rainfall intensity, and
A = the area of the drainage basin.

There are many methods which can be used to estimate the amount of runoff from a construction site. You are not required to use the rationale method to design stormwater conveyances or BMPs. Consult your State/local design guides to determine what methods to use for estimating design flow rates from your development.

The less rainfall that is absorbed (infiltrates) into the ground, evaporates, or is otherwise absorbed on site, the higher the "C" value. For example, the "C" value of a lawn area is 0.2, which means that only 20 percent of the rainfall landing on that area will run off, the rest will be absorbed or evaporate. A paved parking area would have a "C" value of 0.9, which means that 90 percent of the rainfall landing on that area will become runoff. You should calculate the runoff coefficient for conditions before construction and after construction is complete. It is suggested that a runoff coefficient be calculated for each drainage basin on the site. The following is an example of how to calculate the "C" value.

The runoff coefficient or "C" value for a variety of land uses may be found in Table C-1 (NOTE: Consult your State/local design guide, if available, to determine if specific "C" values are specified for your area). The "C" values provide an estimate of anticipated runoff for particular land uses. Most sites have more than one type of land use and therefore more than one "C" value will apply. To have a "C" value that represents your site you will need to calculate a "weighted C value."

Calculating a "Weighted C value"

When a drainage area contains more than one type of surface material with more than one runoff coefficient a "weighted C" must be calculated. This "weighted C" will take into account the amount of runoff from all the various parts of the site. A formula used to determine the "weighted C" is as follows:

$$C = \frac{A_1C_1 + A_2C_2 + \ldots + A_xC_x}{(A_1 + A_2 + \ldots + A_x)}$$

Where A = acres and C = coefficient.

Therefore, if a drainage area has 15 acres (ac.) with 5 paved acres ($C = 0.9$), 5 grassed acres ($C = 0.2$), and 5 acres in natural vegetation ($C = 0.1$), a "weighted C" would be calculated as follows:

$$C = \frac{(5 \text{ ac} \times 0.9) + (5 \text{ ac} \times 0.2) + (5 \text{ ac} \times 0.1)}{(5 \text{ ac} + 5 \text{ ac} + 5 \text{ ac})} = 0.4$$

Table C-1. Typical "C" Values

Description of Area	Runoff Coefficients
Business	
Downtown Areas	0.70 – 0.95
Neighborhood Areas	0.50 – 0.70
Residential	
Single-family areas	0.30 – 0.50
Multi-units, detached	0.40 – 0.60
Multi-units, attached	0.60 – 0.75
Residential (suburban)	0.25 – 0.40
Apartment dwelling areas	0.50 – 0.70
Industrial	
Light Areas	0.50 – 0.80
Heavy Areas	0.60 – 0.90
Parks, cemeteries	0.10 – 0.25
Playgrounds	0.20 – 0.35
Railroad yard areas	0.20 – 0.40
Unimproved areas	0.10 – 0.30
Streets	
Asphalt	0.70 – 0.95
Concrete	0.80 – 0.95
Brick	0.70 – 0.85
Drives and Walks	0.75 – 0.85
Roofs	0.75 – 0.95
Lawns – course textured soil (greater than 85% sand)	
Slope: Flat, 2%	0.05 – 0.10
Average, 2-7%	0.10 – 0.15
Steep, 7%	0.15 – 0.20
Lawns – fine textured soil (greater than 40% clay)	
Slope: Flat, 2%	0.13 – 0.17
Average, 2-7%	0.18 – 0.22
Steep, 7%	0.25 – 0.35

Appendix D: **Resources List**

The following are just a few of the many resources available to assist you in developing your SWPPP. The inclusion of these resources does not constitute an endorsement by EPA.

EPA Resources

EPA Stormwater Construction Website
http://www.epa.gov/npdes/stormwater/construction

- EPA's Construction General Permit (**http://www.epa.gov/npdes/stormwater/cgp**)
  EPA's general permit that applies to all construction activity disturbing greater than one acre in the states and territories where EPA is the permitting authority.
- Construction SWPPP Guide, SWPPP Template and inspection form (**www.epa.gov/npdes/swpppguide**)
  A downloadable copy of this guide, the SWPPP template and inspection form.
- Menu of BMPs (**http://www.epa.gov/npdes/stormwater/menuofbmps**)
  Site containing over 40 construction BMP fact sheets. Also contains fact sheets on other stormwater program areas, and case studies organized by program area.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas
http://www.epa.gov/owow/nps/urbanmm/index.html

Managing Your Environmental Responsibilities: A Planning Guide for Construction and Development
http://www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/index.html

Expedited Settlement Offer Program for Stormwater (Construction)
http://www.epa.gov/Compliance/resources/policies/civil/cwa/esoprogstormwater.pdf
A supplemental program to ensure consistent EPA enforcement of stormwater requirements at construction sites for relatively minor violations.

Construction Industry Compliance Assistance
http://www.cicacenter.org
Plain language explanations of environmental rules for the construction industry. Links to stormwater permits and technical manuals for all 50 states.

Smart Growth and Low Impact Development Resources

Using Smart Growth Techniques as Stormwater Best Management Practices
http://www.epa.gov/livablecommunities/pdf/sg_stormwater_BMP.pdf

Stormwater Guidelines for Green, Dense Development
http://www.epa.gov/smartgrowth/pdf/Stormwater_Guidelines.pdf

Protecting Water Resources with Smart Growth
http://www.epa.gov/smartgrowth/pdf/waterresources_with_sg.pdf

Parking Spaces / Community Places: Finding the Balance Through Smart Growth Solutions
http://www.epa.gov/smartgrowth/parking.htm

EPA Nonpoint Source Low Impact Development site
http://www.epa.gov/owow/nps/lid/

Better Site Design: A Handbook for Changing Development Rules in Your Community
Available from **http://www.cwp.org**

State BMP/Guidance Manuals

Kentucky Erosion Prevention and Sediment Control Field Guide
http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/
Easy to read field guide describing erosion and sediment control BMP selection, installation and maintenance.

Minnesota Stormwater Construction Inspection Guide
http://www.pca.state.mn.us/publications/wq-strm2-10.pdf
A manual designed to assist municipal construction inspectors in the procedures for conducting a compliance inspection at construction sites.

California Stormwater Quality Association's Construction Handbook
http://www.cabmphandbooks.org/Construction.asp

Delaware Erosion and Sediment Control Handbook
http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/Stormwater/StormWater.htm

Western Washington Stormwater Management Manual – Volume II – Construction Stormwater Pollution Prevention
http://www.ecy.wa.gov/programs/wq/stormwater/manual.html

Eastern Washington Stormwater Management Manual
http://www.ecy.wa.gov/biblio/0410076.html
A guidance document addressing stormwater design and management in more arid climates.

Certification Programs

Certified Professional in Erosion and Sediment Control
http://www.cpesc.org

Virginia Erosion and Sediment Control Certification Program
http://www.dcr.virginia.gov/sw/estr&crt2.htm

Florida Stormwater, Erosion and Sedimentation Control Inspector Certification
http://www.dep.state.fl.us/water/nonpoint/erosion.htm

Other Resources

International Erosion Control Association
http://www.ieca.org
A non-profit organization helping members solve the problems caused by erosion and its byproduct—sediment.

Erosion Control Magazine
http://www.erosioncontrol.com
A journal for erosion and sediment control professionals.

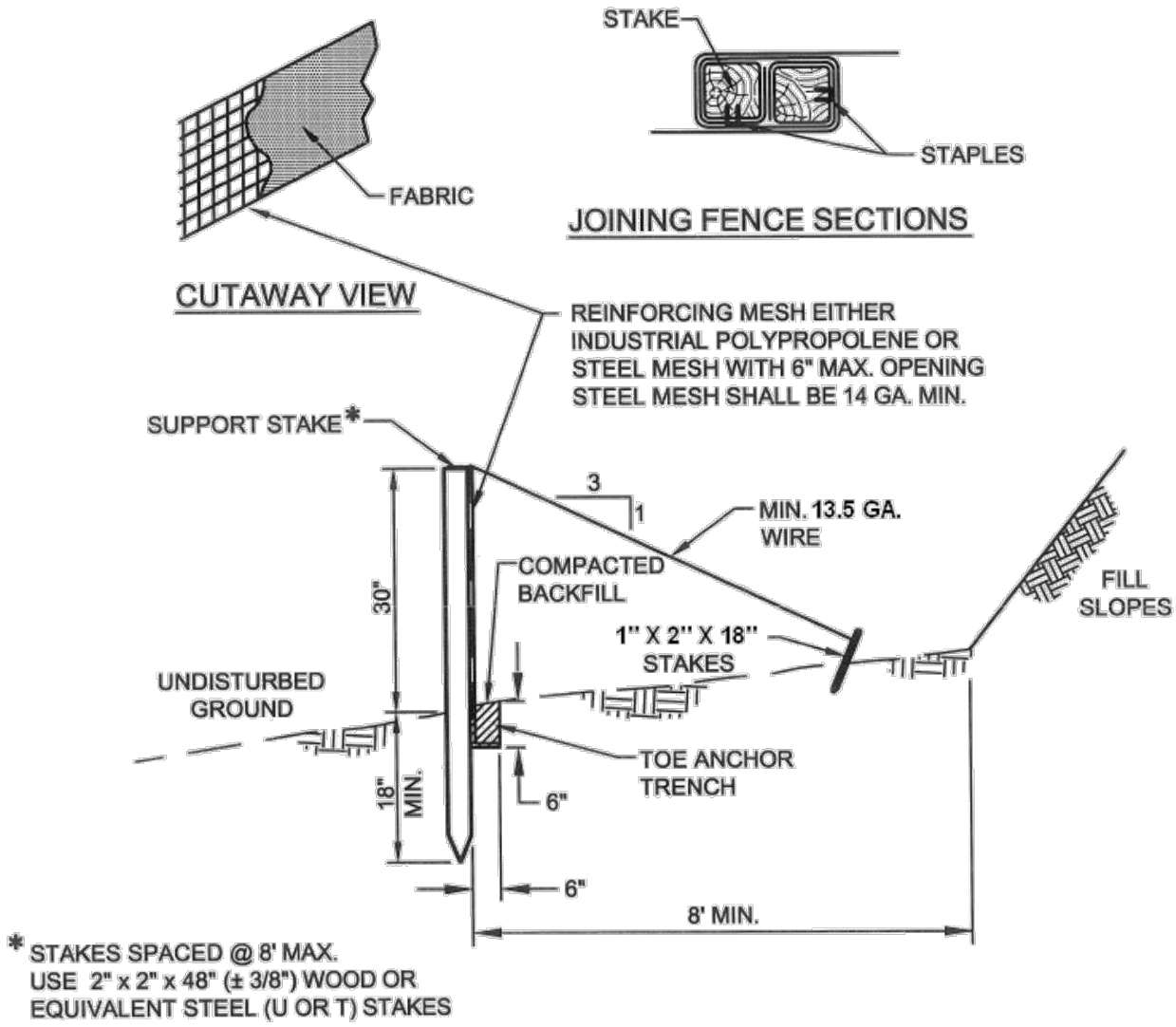
Designing for Effective Sediment & Erosion Control on Construction Sites by Jerald S. Fifield, PH.D., CPESC. Available from Forester Press
http://www.foresterpress.com
Book describing proven and practical methods for minimizing erosion and sedimentation on construction sites.

Stormwater Permitting: A Guide for Builders and Developers by National Association of Home Builders (NAHB). Available from NAHB **http://www.nahb.org**

APPENDIX J

TYPICAL STORMWATER POLLUTION PREVENTION STRUCTURAL CONTROLS

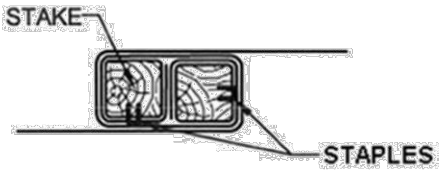
STANDARD FILTER FABRICFENCE (30" HIGH)



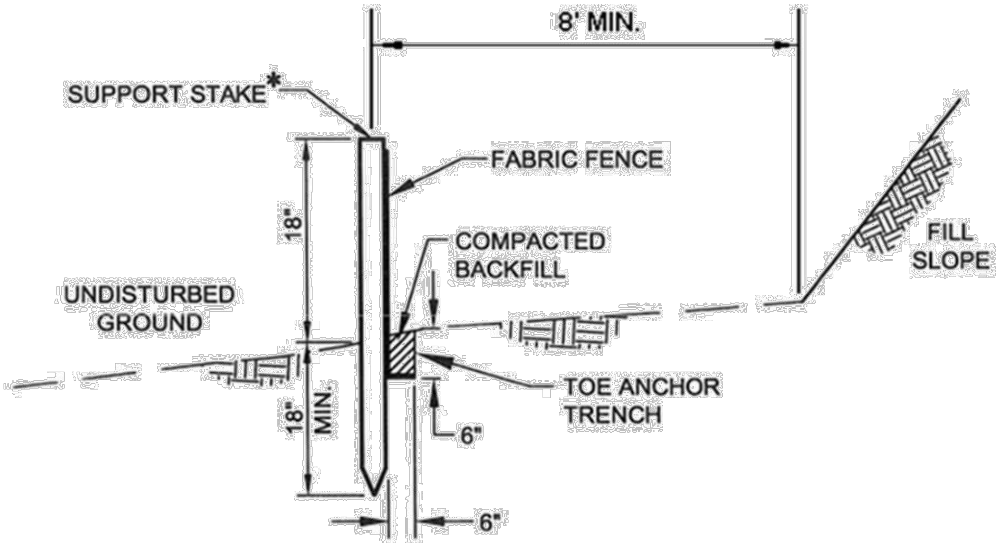
ELEVATION VIEW

STANDARD CONSTRUCTION DETAIL
Standard Filter Fabric Fence (18" High)

*STAKES SPACED @ 8' MAX.
USE 2" x 2" (± 3/8") WOOD
OR EQUIVALENT STEEL
(U OR T) STAKES

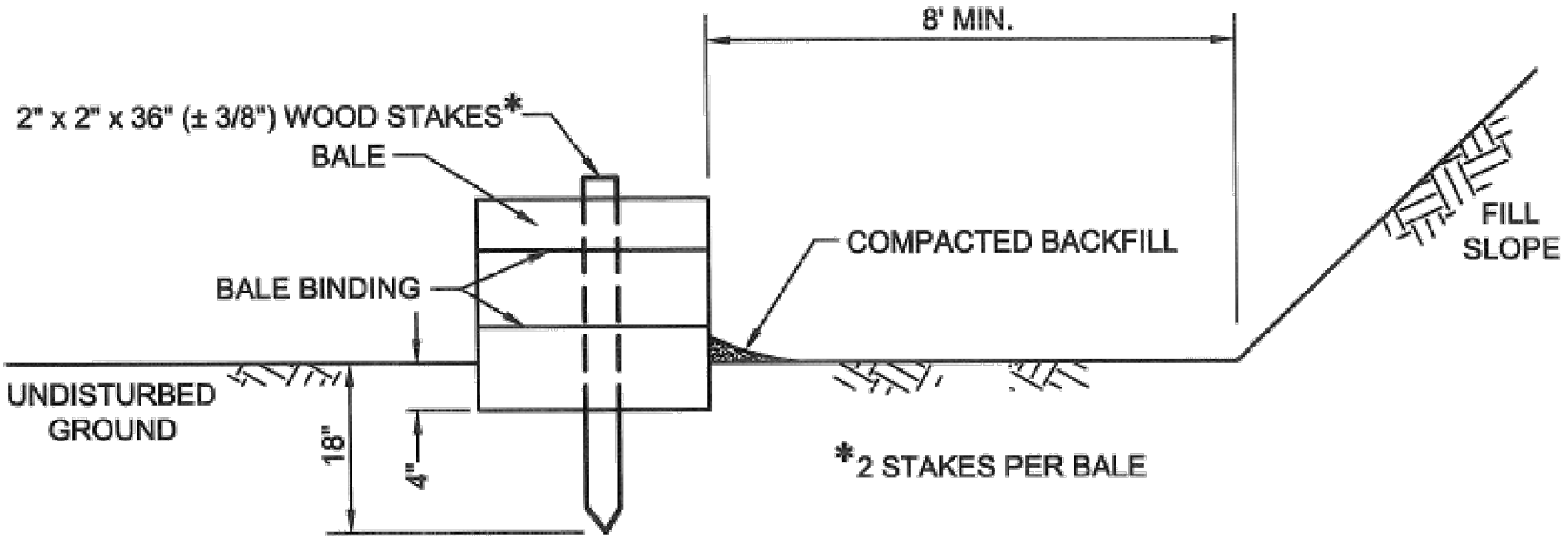


JOINING FENCE SECTIONS

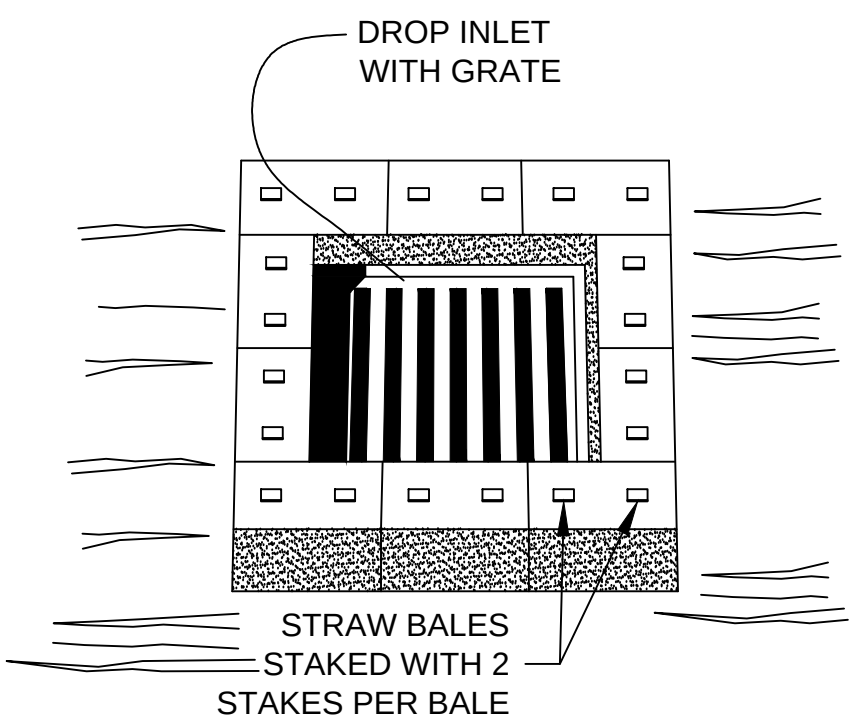


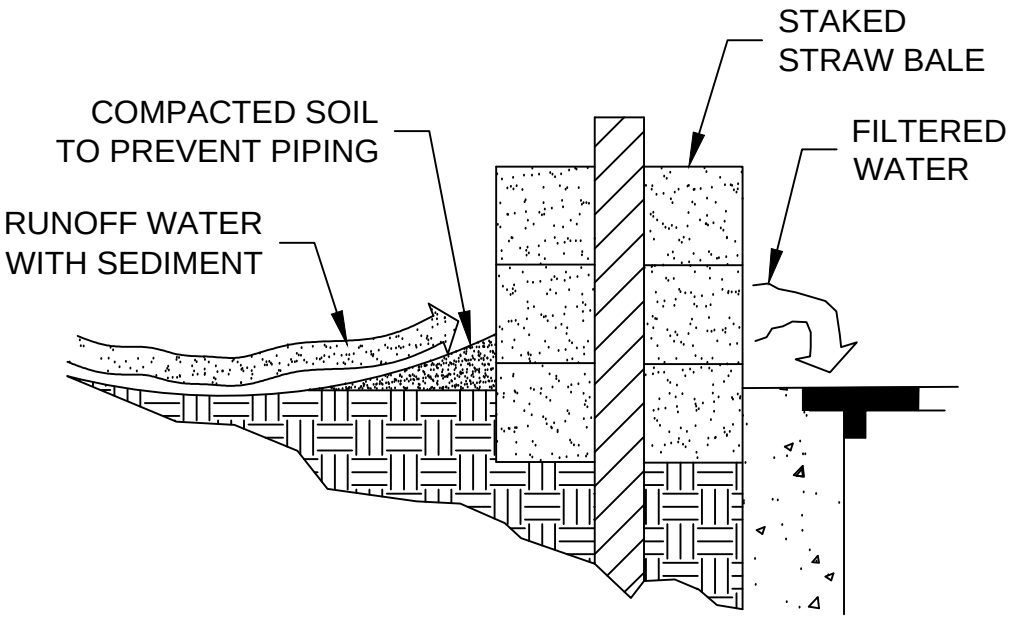
ELEVATION VIEW

CONSTRUCTION DETAIL
Straw Bale Barrier



ELEVATION VIEW


DROP INLET
WITH GRATE
STRAW BALES
STAKED WITH 2
STAKES PER BALE


STAKED
STRAW BALE
COMPACTED SOIL
TO PREVENT PIPING
FILTERED
WATER
RUNOFF WATER
WITH SEDIMENT