

Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire

Final Advance Copy

NOTICE: This is the final advanced copy of the Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire. This version is for viewing purposes only. If you are selected to answer this survey, you will receive a letter from EPA with directions describing where to obtain the official survey and how to submit it to EPA. It is important that you do not send any paper copies of this document to EPA and that the directions in the letter are followed.

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Survey ID: Insert Survey ID



Stormwater Management Including Discharges from Developed Sites

Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire

Table of Contents

Section Title

General Instructions
Survey Definitions
Technical Information Part 1
Technical Information Part 2
Technical Information Part 3
Technical Information Part 4
Technical Information Part 5
Financial Information
Questionnaire Comments

Tab Name

Instructions
Definitions
Section A.1
Section A.2
Section A.3
Section A.4
Section A.5
Section B
Comments

Survey ID: **Insert Survey ID**

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INSTRUCTIONS

Complete the questionnaire considering the following instructions:

- Personnel most knowledgeable about the subject areas covered by a specific section should complete that section of the questionnaire.
- For all questions and sections, read all instructions and definitions carefully.
- Do not leave any entry blank. If the answer is zero, write "0" or "zero". If a question is not applicable, write "NA."
- Answer all of the questions in sequence unless you are directed to SKIP forward in the questionnaire. This is important since some questions and/or sections are only applicable to some respondents.
- Use the units specified when responding to questions requesting measurement data (e.g., acres). If not specified and applicable, include units in your response.
- The period of interest for the questionnaire is your fiscal years (FY) 2005 - 2009 unless indicated otherwise.
- Provide the requested information based on data you currently have. EPA is not requesting or recommending that respondents collect new data to provide information for this questionnaire.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Construction	The period of time during which construction activity (clearing, grading, and excavation) and other earth-disturbing activities are occurring on a site and prior to the time that disturbed portions of the site are considered stabilized.
Bioretention	Landscaping features adapted to provide on-site removal of pollutants from stormwater discharges. Surface discharges are directed into shallow, landscape depressions, which are designed to incorporate many of the pollutant removal mechanisms that operate in forested or other natural (prairies, wetlands, etc) ecosystems. Includes rain gardens, sidewalk planters, curb extensions and other plant or soil systems designed to infiltrate or evapotranspire stormwater.
Capacity	Describes the hydraulic capacity that the storm sewer system is designed for in terms of the volume of stormwater that it can convey without flooding beyond design.
Capacity Expansion	Describes capital improvements to the current storm sewer system to address the need to manage a larger volume of stormwater. This covers increasing the hydraulic capacity of the storm sewer system to accommodate a larger volume of stormwater coming from areas already served by the system. It also covers increasing the hydraulic capacity of the storm sewer system to accommodate new stormwater from areas that were previously not served by the storm sewer system.
Catch Basin	An inlet to the storm sewer system, which typically includes a grate or curb inlet, and a sump, to capture sediment, debris, and other pollutants. Also known as “storm drain inlets” or “curb inlets.”
Catch Basin Insert	Retractable or non-retractable devices inserted into catch basins to provide removal of oil and grease, trash, and sediments from stormwater discharge, and to improve the efficiency of the catch basin. Inserts can either be dropped directly into the catch basin, or may require retrofit construction. Examples include filter fabrics and a system of trays with media filters.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Cistern	Large storage devices that are often built below ground, at ground level, or on rooftops, for storing captured stormwater and can be integrated with more sophisticated pumping devices. For example, some cisterns collect stormwater that is subsequently used for non-potable plumbing, such as flushing of toilets, or irrigation applications.
Combined Sewer System (CSS)	A publicly owned conveyance system that conveys stormwater discharges combined with municipal sewage (domestic, commercial and industrial wastewater) through a single pipe system to a publicly owned treatment works.
Constructed Wetland	A man-made basin that contains water, a substrate (soil, gravel, rock, organic materials, etc.), plants (vascular and non-vascular), and organisms similar to those usually found in natural wetlands. The number of plants and the biodiversity of a constructed wetland are greater than that of wet retention pond. Constructed wetlands usually use a relatively impermeable subsurface layer to prevent water from seeping into the ground.
Co-Permittee	A permitting arrangement under which two or more MS4s are covered under the same NPDES permit. Responsibilities under the permit may be divided among the different MS4 co-permittees in accordance with jurisdictional boundaries.
Curb and Gutter	An engineering approach to convey stormwater through the use of a raised, concrete or stone border along a roadside (curb) and a channel (gutter) that directs stormwater discharge to a storm sewer system.
Detention/ Extended Detention Practices	Practices which hold stormwater temporarily and discharge the stormwater over an extended period of time (hours to days) generally by controlling the size of the discharge volume and flow rate. Also known as "wet/dry ponds," "extended detention basins," "detention ponds," and "extended detention ponds."

Survey ID: Insert Survey ID**Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Directly Connected Impervious Area	Any impervious surface which drains into a storm drain, catch basin, area drain, or other conveyance structure without first flowing across permeable land area.
Dry Well	A well, other than an improved sinkhole, or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.
Enterprise Communities / Empowerment Zones	A program of the U.S. Department of Housing and Urban Development (HUD) and the U.S. Department of Agriculture (USDA) to bring together public and private partnerships to attract the investment necessary in distressed communities for sustainable and community development.
Filter Strip / Vegetated Buffer	Vegetated surfaces used to reduce stormwater velocity from nearby less pervious surfaces, and to filter out pollutants from stormwater and allow infiltration into the underlying soil. Also referred to as "riparian buffer" if established around streams, lakes, and/or wetlands.
Full Time Equivalent (FTE)	The number of full-time employees that could have been employed if the reported number of hours worked by part-time employees had been worked by full-time employees. This statistic is calculated separately for each function of a government by dividing the "part-time hours paid" by the standard number of hours for full-time employees in the particular government and then adding the resulting quotient to the number of full-time employees.
Green Roof	A vegetative system installed on top of and in addition to the traditional roof system. A green roof includes engineered soil layers (e.g., a waterproof membrane, drainage, high inorganic growing media), and appropriate plant species. Green roofs reduce surface discharge from the rooftop by absorbing stormwater and slowing stormwater flow rates, and provide ancillary benefits such as summer cooling, lowered urban heat island effect, and improved air quality.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Green Infrastructure	Wet weather management approaches and technologies that infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrology.
Impervious Area	The total area of a parcel or right-of-way that consists of buildings and associated constructed facilities; areas that are covered with a low-permeability material such as asphalt or concrete; or areas such as gravel roads and unpaved parking areas that are compacted through design or use to reduce their permeability. Common impervious areas include, but are not limited to, roads, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, packed earthen materials, and macadam or other surfaces which similarly impede the natural infiltration of storm water.
Industrial Facility	A facility engaged in any of the industrial activities specifically listed in 40 CFR 122.26(b)(14).
Infill Development	Describes development activity that occurs on a generally undeveloped lot/parcel that is situated in an area in which most lots/parcels have already been developed.
Infiltration Basins and Trenches/Dry Well	A shallow rock-filled trench or depression with no outlet intended to detain and then infiltrate stormwater into the underlying soil. Typically stormwater first passes through a swale or other stormwater control before reaching this device.
Linear Development	Development that results from the installation, placement, or assembly of linear structures, such as highways, bridges, or other transportation-related structures; oil or gas pipelines; wastewater and stormwater sewers, pipes, or other conveyances; or similar structures.
Low Impact Development (LID)	Development that is designed to be hydrologically functional by mimicking pre-development hydrology conditions. This is achieved by using design techniques that infiltrate, filter, evaporate, and store discharge close to its source.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Major Outfall	A municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activities (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).
Media Filters	Filters that stormwater passes through for removal of solids. Filters can be made out of sand, peat, foam, crushed glass, textile, or other suitable material.
Mixed Use Development	Development that includes a combination of residential, commercial, industrial, office, institutional, or other land uses.
Municipal Separate Storm Sewer System (MS4)	A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned by a state, city, town, village, or other public entity having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the U.S., which is not a combined sewer, and which is not part of a Publicly Owned Treatment Works (sewage treatment plant).
MS4 operator	Owner or operator of MS4 who holds the NPDES MS4 permit.
MS4 Service Area	Area over which an MS4 operator has jurisdiction to collect and dispose of stormwater.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
New Development	Development that occurs on land where generally no or minimal structures and other impervious surfaces, such as buildings, parking lots, and roads, exist. This includes agricultural, forested and open/barren land. These sites are commonly referred to as greenfield sites.
NPDES	EPA's or a State's "National Pollutant Discharge Elimination System" program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits under the authority of the Clean Water Act.
Outfall	Outfall means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
Phase I MS4	A "large" (population of 250,000 or more) or "medium" (population of 100,000 or more) sized MS4, as defined in 40 CFR 122.26(b)(4) and (7).
Phase II MS4	A "small" MS4, defined by 40 CFR 122.26(b)(16), not defined as "large" or "medium", that is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census, or designated for regulation, and therefore required to obtain an EPA or State NPDES permit. Small MS4s include non-traditional systems, for example: universities and systems maintained by transportation authorities such as a state's department of transportation.
Permeable Pavement	Pavement composed of a permeable pavement material, which allows distributed infiltration into the underlying soil. There may also be an underlying stone reservoir that temporarily stores the surface discharge before it infiltrates into the underlying soil. Examples include pervious concrete, porous asphalt, permeable pavers.

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Post Construction	Describes the phase of a site immediately following the termination of construction activities. "Post-construction discharges" are discharges of stormwater from developed sites after construction is complete. Post-construction controls are those stormwater controls that are installed and maintained to permanently manage stormwater discharged from the developed sites.
Public Entity	A public agency or body of a state, city, town, village or other municipal entity. Includes 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.
Private Entity	A non-public body or institution, such as a private university.
Redevelopment	Development of a site with existing structures or impervious surfaces. Redevelopment does not include projects that are solely remodeling or alterations to the interior of a structure.
Retention Practices	Stormwater techniques that manage stormwater through infiltration, evapotranspiration, or harvesting. Commonly referred to as Low Impact Development or Green Infrastructure practices.
Retrofit	The installation or modification of stormwater control measures on sites with existing development (including existing storm sewers) to enhance the reduction of stormwater pollutants or the discharge volume or flow rates.
Riparian Buffer	An area surrounding a shoreline, wetland, or stream within which development is restricted or prohibited. The primary function of aquatic buffers is to physically protect and separate a stream, lake, or wetland from future disturbance or encroachment. These areas are also called "resource protection areas."

Survey ID: **Insert Survey ID****Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Site Plan Review	A procedure used by MS4s and other entities for conducting a review of development site plans for conformance with stormwater control requirements, such as sediment and erosion controls, and post-construction controls.
Soil Amendments	Material(s) added to the soil to enhance one or more of its attributes in order to improve the control of stormwater (e.g., drainage, water retention).
State-Defined Source Water Protection Area For Public Water Supplies	The area delineated by the state for a public water system or including numerous public water systems, whether the source is ground water or surface water or both, as part of the state Source Water Assessment Program approved by EPA under section 1453 of the Safe Drinking Water Act. For ground water sources of drinking water, this is the surface and subsurface area surrounding a well or well field, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or well field. For surface water sources of drinking water, it is the topographic boundary, up to the state's border, that is the perimeter of the catchment basin that provides water to the intake structure of a public water system.
Storm Sewer System	A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater.
Stormwater	Runoff, snow melt runoff, and surface runoff and drainage.
Stormwater Control	Practices that are installed and maintained to control stormwater discharges.
Stormwater Quality Control	Stormwater control used to reduce or eliminate pollutants carried in stormwater discharges.
Stormwater Quantity Control	Stormwater control used to control or convey the volume of water being discharged during storm conditions.

Survey ID: Insert Survey ID**Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Subsurface Fluid Distribution System	An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground. This could include a seepage pit, infiltration trench, or commercially manufactured stormwater infiltration device if it has a subsurface fluid distribution system.
Swales: Grassed	A broad, shallow channel used for conveying and managing stormwater discharges. Grass on the side slopes and bottom acts to slow discharge velocity, trap particulates, and promote infiltration. Grassed swales are often referred to as bio-swales, enhanced swales, or water quality swales and can be classified as wet swales, dry swales, and grassed channels. See <i>Swales: Other Vegetation</i> .
Swales: Other Vegetation	<p>A broad, shallow channel used for conveying stormwater discharge. Vegetation on the side slopes and bottom acts to slow discharge velocity, trap particulates, and promote infiltration. Vegetated swales are often referred to as bio-swales, enhanced swales, or water quality swales and can be classified as wet swales, dry swales, and grassed channels.</p> <p>A <i>dry swale</i> (bio-swale) incorporates additional elements with the vegetated swale design. Infiltration is aided by a soil bed (not necessarily natural soil) with an underdrain system composed of a perforated pipe surrounded by gravel. Check dams may be used to temporarily retain stormwater discharge.</p> <p>A <i>wet swale</i> is capable of temporarily retaining stormwater discharge, but, unlike the dry swale, lacks an underdrain system. The wet swale is marshlike and relies on and supports wetland vegetation.</p>
Tree Box	Stormwater controls that direct stormwater discharges to a treebox, where it can be filtered by the soil and vegetation. Some tree boxes may drain to a channel below, which conveys stormwater to the selected collection system.

Survey ID: Insert Survey ID**Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Term	Definition
Underground Detention	Underground vaults, storage cells, or water piping systems used for stormwater flow rate and volume control. This is an alternative to storage above ground (e.g., pond).
Underground Infiltration	Underground storage cells or water piping systems that infiltrate stormwater into the underlying soil. For example a perforated pipe under a parking lot.
Undeveloped	Describes land that has not been subject to prior development. See “ <i>new development</i> .”
Urbanized Area	A land area comprising one or more places — central place(s) — and the adjacent densely settled surrounding area — urban fringe — that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. Any MS4 located within a 2000 Census-defined “urbanized area” is required to obtain an NPDES permit for discharges from its storm sewer system.
Wetland Basin (Permanent Pool and No Permanent Pool)	Similar to wet and dry ponds, stormwater control structures that incorporate wetland plants. Storm discharge is directed into the basin to control both water quality and quantity. Basin outlets are designed to detain and treat the stormwater discharge: 1) for a minimum duration (e.g., 24 hours) for no permanent pool and 2) until the water is displaced by discharge from a later storm (permanent pool).

Section: A.1
Section Title: Technical Information

Instructions: Throughout Section A.1 (Questions A-1 to A-30), provide the technical information requested. Please provide all free response answers in the yellow highlighted areas. **Red** words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

A-1. Fill in the following identifying and contact information.

Your Name and Title: [Redacted]

Agency: [Redacted]

Street Address: [Redacted]

City: [Redacted]

State: Select Zip Code: [Redacted]

Telephone Number: [Redacted]

Email Address: [Redacted]

Best Time to Contact (Eastern Time): [Redacted] Select

to [Redacted] Select

A-2. MS4 owner and operator department/agency:

[Redacted]

Copy

Survey ID: Insert Survey ID

A-3. Is the **MS4 owner/operator** a:

- City
- Township
- Town
- Village
- County
- Borough
- Municipal utility district
- Drainage district
- Sewer district
- Irrigation district
- Flood control district
- Watershed district
- Other, describe:

A-4. Are you subject to more than one MS4 permit?

Yes, describe:

No

EPA recognizes that some MS4 operators may have coverage under multiple permits. For example, a county may be covered as a **co-permittee** with various municipalities. However, EPA expects that most of the time these permits will have similar provisions. Fill out the information requested for the questions in this survey for the main permit your discharges have coverage under. Unless specified, EPA will assume that your answer is the same for all permits. If an answer is supplied based on a particular permit that has a special provision or requirement not indicative of the MS4 operators general practices, then indicate it at in the space provided either at the end of the question or at the end of Section A.

Copy

Survey ID: Insert Survey ID

A-5. Which best describes your MS4 permit?

Under a large/medium MS4 permit (Phase I)

Specify any co-permittees:

Under a small MS4 permit (Phase II)

Specify any co-permittees, if this permit is not statewide:

A-6. Are you an individual or general MS4 permit? Check all that apply.

Individual MS4 permit

General MS4 permit

A-7. How many permit terms have you completed under the federal MS4 stormwater program (usually MS4 permits are issued every 5 years, however some permits may have been administratively extended beyond 5 years)?

None, we have not yet completed our first permit term

1 permit term – we are currently covered under our second MS4 permit

2 permit terms – we are currently covered under our third MS4 permit

3 permit terms – we are currently covered under our fourth MS4 permit

4 or more permit terms – we are currently covered under our fifth or more permit

A-8. How is stormwater conveyed in your jurisdiction?

Entirely by the MS4

If not entirely by the MS4, what are the other means of stormwater conveyance in your jurisdiction? Check all that apply.

Combined (storm and sanitary) sewer system

Privately-owned and operated storm sewer system (e.g., industrial park, subdivision/homeowners association)

Individual direct stormwater discharges (e.g., private home, business or industry discharges directly to a waterbody)

Other, describe:

Extent of Coverage

EPA is obtaining information about the extent that your MS4 is covered by an NPDES permit. Under the Phase II stormwater regulations, small MS4s located within a Census-defined urbanized area are required to be regulated. Some permitting authorities, however, have extended permit coverage beyond the urbanized area to cover the entire jurisdiction if only part of an MS4 is located within an urbanized area. In addition, permitting authorities have extended coverage to other small MS4s outside of the urbanized area. The following questions are focused on determining the extent to which your MS4 is regulated under an NPDES permit. The questions collect information about three areas:

1. MS4 permitted area – Area over which an MS4 operator has jurisdiction to collect and dispose of stormwater and is covered by a Phase I/II MS4 permit (for example, this could be only the urbanized area portion of your jurisdiction).
2. MS4 service area – Area over which an MS4 operator has jurisdiction to collect and dispose of stormwater. This area may extend beyond the permitted area. Also synonymous with MS4 collection area.
3. Jurisdiction – The geographical area within the boundaries the municipality, town, country, etc. where the MS4 is located.

Copy

Survey ID: Insert Survey ID

A-9. Which of the following best describes the basis for the geographical extent of your MS4 permitted area?

- Based on the urbanized area boundary (as defined by the U.S. Census)
- Based on my jurisdictional boundary (city, town, county, etc.)
- Based on sewer, irrigation, drainage, flood control district
- Based on watershed boundaries
- Based on watershed districts (or other watershed entity)
- Other, describe:

A-10. Does your entire jurisdiction fall within an urbanized area (as defined by the U.S. Census)?

- Yes
- No

A-11. Does your stormwater MS4 permit cover stormwater discharges outside the Census-defined urbanized area?

- Yes
- No

A-12. What are the population, total area, and estimated percent **directly connected impervious area** of both the permitted MS4 area and the entire jurisdiction as of 2009? If your jurisdictional boundary falls entirely within an permitted MS4 area fill out only the "jurisdiction" column. Provide your best estimate.

	Permitted MS4 Area		Jurisdiction	
Population				
Total area (include units)				
Percent directly connected impervious area				
	<input type="checkbox"/> Unknown		<input type="checkbox"/> Unknown	

If applicable, describe how the percent directly connected impervious cover in your jurisdiction was estimated?

A-13. If your permitted MS4 area is less than the jurisdictional area, which of these MS4 stormwater program activities are implemented within your entire jurisdiction? Check all that apply.

- Public education and outreach
- Public involvement
- Illicit discharge and elimination
- Pollution prevention/good housekeeping (includes street sweeping)
- Record keeping
- Erosion and sediment controls for construction activities
- Post construction stormwater requirements for new and redevelopment
- Industrial stormwater inspections
- Stormwater monitoring, describe:

Other controls, describe:

- None
- Not applicable

A-14. Which of the following activities apply to stormwater discharges within your jurisdiction which do not discharge to the MS4 but discharge to a private system or directly to a receiving waterbody? Check all that apply.

- MS4 operator regulates these discharges through local ordinance or other regulatory mechanism
- MS4 operator reviews site plans (grading and/or land use) for these developments
- MS4 operator reviews building permits for these developments
- Other, describe:

MS4 operator does not regulate these direct discharges

Specific Stormwater Program Components

The following section collects information on the activities that you are currently doing as part of your MS4 stormwater program.

Survey ID: **Insert Survey ID**

A-15. Which of the following activities were parts of the public education and outreach component of your MS4 stormwater program from FY 2005 - 2009? Check all that apply.

- Brochures, fact sheets, guides, or similar documents
- Radio features
- Television advertisements or programs
- Educational programs (for the general public, school children, teachers, etc.)
- Event participation (conference participation, earth day events, fairs, etc.)
- Staff training
- Contractor training
- Storm drain labeling (stenciling or marking)
- Stormwater hotlines
- Direct mail
- Surveys
- Tributary signage
- Watershed or floodway signage
- Website
- Car washing public program
- Other, describe:

None

A-16. Which of the following activities were parts of the public involvement component of your MS4 stormwater program from FY 2005 - 2009? Check all that apply.

- Public meetings/citizen panels
- Volunteer water quality monitoring
- Volunteer educators/speakers
- Storm drain labeling (stenciling or marking)
- Community clean-ups
- Voluntary stormwater retrofitting
- Community grant programs
- Tree planting
- Citizen watch groups
- "Adopt A Storm Drain" programs
- Other, describe:

None

A-17. Which of the following activities were parts of the illicit discharge component of your MS4 stormwater program from FY 2005 - 2009? Check all that apply.

- Paper tracking/inventory of outfalls
- Database tracking/inventory of outfalls
- Storm sewer system mapping
- Outfall inspections
- Stream inspections
- Field staff training to identify and eliminate illicit discharges
- Correcting cross connections
- Retrofitting for spill prevention
- Field/indicator sampling
- Laboratory analyses
- Priority area identification (i.e. prioritizing specific areas of your system where the probability of illicit discharges may be higher)
- Public reporting (i.e. hotline for reporting illicit discharges)
- Other, describe:

None

A-18. Which of the following activities were parts of the pollution prevention/good housekeeping/pollution minimization component of your MS4 stormwater program from FY 2005 - 2009? Check all that apply.

- Inventory of municipal facilities
- Municipal facility assessment (to determine the facility's potential to discharge pollutants)
- Outdoor vehicle washing
- Outdoor fueling operations
- Outdoor vehicle maintenance
- Outdoor de-icing/anti-icing material storage
- Periodic municipal facility inspections for stormwater controls
- Storm sewer system maintenance activities (includes inspections and cleaning)
- Street sweeping activities

Survey ID: Insert Survey ID

Pesticide/herbicide application and management requirements, describe:

Fertilizer application and management requirements, describe:

Pet waste cleanup or collection ordinance or other regulatory requirements

Turf management requirements, describe:

Field staff pollution prevention training

Contractor pollution prevention training

Other, describe:

None

A-19. Do you have ordinances or other regulatory mechanisms that prohibit/ban or limit/restrict the sale or use of nitrogen or phosphorus fertilizers, phosphorus detergents or specific pesticides as a source control measure for stormwater?

	Prohibit Sale	Prohibit Usage	Limit Usage	No Prohibition/ Not Applicable
Nitrogen fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phosphorus fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phosphorus detergents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specific pesticides, describe:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, describe:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Not applicable

Survey ID: **Insert Survey ID**

A-20. If you answered yes to A-19, does the ordinances or other regulatory mechanisms that prohibits or restricts the sale or use of nitrogen or phosphorus fertilizers, detergents or specific pesticides apply to residential, commercial or municipal or public areas? Check all that apply.

- Residential areas
- Commercial areas
- Municipal or other public areas
- Other, describe:

Not applicable

A-21. If you answered yes to A-19, do you have data indicating water quality improvements as a result of the ban or limit on usage of nitrogen or phosphorus fertilizers, detergents or specific pesticides as a source control measure for stormwater discharge?

Yes, describe:

No

Not applicable, the MS4 permittee has no such ban or usage restriction

A-22. For which of the following activities were MS4 stormwater program records or reports kept from FY 2005 - 2009? Check all that apply.

- Spill response
- Construction inspection
- Industrial inspection
- Illicit discharge detection and elimination
- Monitoring/program assessment
- Stormwater control inspection, operation and maintenance activities
- Stormwater program activity prioritization
- Other, describe:

None

Survey ID: Insert Survey ID

A-23. Provide a description of any data (may include water quality or water quantity monitoring) that has shown the effectiveness of any component of your MS4 stormwater program in protecting waterbodies from stormwater impacts. Include references to any data or other information you may have.

Data not available

A-24. Provide a description of any data (may include water quality or water quantity monitoring) that has shown how any component of your MS4 stormwater program has **NOT been effective** in protecting waterbodies from stormwater impacts. Include references to any data or other information you may have.

Data not available

Industrial

A-25. Which of the following industrial stormwater activities have you carried out from FY 2005 - 2009? Check all that apply.

Inventory of industrial facilities

Survey ID: Insert Survey ID

- Inventory of industrial facilities
- Education of industrial operators about stormwater requirements and/or controls
- Site inspection of industrial facilities
- Site inspection of commercial facilities
- Training of inspectors
- Other, describe:

None

A-26. Were the stormwater industrial activities that you carried out as described in A-25 requirements of:

- Phase II MS4 permit requirement
- Industrial stormwater permit requirement (multi-sector general permit)
- Local ordinance requirement
- Other, describe:

Not applicable

A-27. What is the number of the **industrial facilities** within your MS4 service area that are included in the sectors classified for **NPDES** coverage under 40 CFR 122.26(b)(14)? How many of those facilities have you inspected in the last 5 years through your MS4 stormwater program?

Inspection of Industrial Facilities, FY 2005-2009					
	Fiscal year				
	2005	2006	2007	2008	2009
Number of industrial sites					
Number of inspections conducted through your MS4 program					

- My MS4 program does not track industrial facilities
- My MS4 program does not perform industrial site inspections

Construction Program

A-28. Which of the following **construction** stormwater activities have you carried out from FY 2005 - 2009? (Check all that apply.)

- Review site plans
- Tracking/ inventory of sites or stormwater management practices
- Inspections
- Field staff training
- Contractor training
- Enforcement
- Complaint response
- Other, describe:

None

Post Construction

A-29. Which of the following **post construction** stormwater activities have you carried out from FY 2005 - 2009? Check all that apply.

- Review construction site plans for post construction stormwater water quality requirements
- Review construction site plans for post construction stormwater water quantity requirements
- Tracking/inventory of sites and/or post construction stormwater management controls on those sites
- Inspections of post construction stormwater management controls
- Maintenance of post construction stormwater management controls
- Training of field inspections staff
- Contractor training
- Other, describe:

None

A-30. For your MS4 stormwater program, what is the threshold that a development project requires site plan review for stormwater quality or quantity control structures? Indicate the threshold for both **new development** and **redevelopment** projects.

For new development projects:

 sq ft of disturbed area

Survey ID:

acres of disturbed area
 cubic feet of disturbed area/volume

Type of facility usage, specify:

Specific location/watershed priority, specify:

Type of activity (i.e. fueling, storage of materials), specify:

New MS4 system connections, specify:

Other, specify:

- Unknown
- Not applicable

For redevelopment projects:

The threshold that requires site plan review for stormwater control structures is identical for redevelopment and new development

[\(Skip to Question A-31\)](#)

Type of facility usage, specify:

Specify location/watershed priority, specify:

Type of activity (i.e. fueling, storage of materials), specify:

New MS4 system connections, specify:

Other, specify:

- Unknown
- Not applicable

Section: A.2**Section Title:** Technical Information

Instructions: Throughout Section A.2 (Questions A-31 to A-59), provide the technical information requested. Please provide all free response answers in the yellow highlighted areas. **Red** words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

A-31. For post construction **stormwater controls** located on public property within your MS4 service area do you track, inspect and/or maintain these controls? Check all that apply.

- MS4 operators tracks post construction controls on public property
- MS4 operator inspects post construction controls on public property
- MS4 operator maintains post construction controls on public property
- Other, describe:

No, stormwater controls are not tracked, inspected or maintained

A-32. For post construction stormwater controls located on private property within your MS4 service area do you track, inspect and/or maintain these controls? Check all that apply.

- MS4 operators tracks post construction controls on private property
- MS4 operator inspects post construction controls on private property
- MS4 operator maintains post construction controls on private property
- Other, describe:

No

A-33. Does your jurisdiction have an ordinance or other regulatory mechanism that gives you authority to inspect, operate and maintain stormwater control practices on privately-owned properties? Check all that apply.

- Yes, MS4 operator has authority to inspect controls on private property
- Yes, MS4 operator has authority to operate and maintain controls on private property
- Yes, MS4 operator has authority to compel private owners to operate and maintain controls on their private property
- No, specify specific barriers or local issues prevent you from having such authority? Describe:

Not applicable, describe:

Survey ID: **Insert Survey ID**

A-34. Is your basis for inspection of post construction stormwater controls their location on public or private property or their specific type of control (do not include inspections of construction sites)? Check all that apply.

- MS4 operator inspects controls on public property
- MS4 operator inspects controls on private residential property (may include those owned by a homeowner association)
- MS4 operator inspects controls on private commercial property
- MS4 operator inspects specific types of controls, describe:

Other, describe:

Not applicable

A-35. Does your jurisdiction have legal authority to require private property owners to maintain post construction stormwater controls on their property?

- Yes
- No, specify why not:

Not applicable, specify:

Don't know

A-36. Does your jurisdiction require private property owners to maintain post construction stormwater controls on their property through an ordinance or other regulatory mechanism?

Yes, describe:

No, specify why not:

Not applicable, specify:

Survey ID: **Insert Survey ID**

A-37. What type of private property owners must maintain post construction stormwater controls on their property? Check all that apply.

- Private homeowners
- Homeowner associations
- Homebuilders
- Commercial entities
- Private institutions
- Other, describe:

Not applicable

A-38. Does your jurisdiction have legal authority to require private property owners (for example, homeowner associations) to include stormwater maintenance obligations or rights of inspection in recorded covenants, deeds, conditions and restrictions or equivalent documents that are binding on privately owned properties?

Yes, describe:

No

Not applicable, specify:

Don't know

Survey ID: Insert Survey ID

New Development and Redevelopment

A-39. Do you consider the following part of new development or redevelopment?

Infill projects on existing undeveloped parcels	Select ▼
Projects involving the conversion from one land use type to another, with no change in impervious area (e.g. a commercial property is converted into townhouses)	Select ▼
Development extensions that add imperviousness onto previously undeveloped land, but are part of the same plot/parcel (e.g. a commercial parking lot is extended into an adjoining forested area)	Select ▼
Road widening projects (e.g. adding a lane)	Select ▼
Replacement of impervious surfaces (road resurfacing, sidewalk replacement, etc)	Select ▼
Other, describe:	Select ▼

If you have defined new development and redevelopment, provide the citation of the regulation, statute, or guidance where the definition is located. Provide the URL if the criteria is posted on the web.

Copy

Survey ID: **Insert Survey ID**

A-40. What is the size threshold for coverage of construction sites under your erosion control/construction site management program?

_____ acre(s)

Other, describe: **_____**

A-41. How many construction projects (at the size threshold described in Question A-40) were initiated in your MS4 in the last 5 years? Estimate the number of construction projects that are new development and redevelopment. If your MS4 program does not distinguish between new and redevelopment for construction projects, compete only the first

Number of Construction Projects, FY 2005 - 2009					
	Fiscal year				
	2005	2006	2007	2008	2009
Number of construction projects that are (new) development					
Number of construction projects that are redevelopment					

My MS4 program does not track construction projects

My MS4 program does not distinguish between new development and redevelopment in our tracking of construction projects

Survey ID: **Insert Survey ID**

A-42. How many acres of new development have occurred in the last 5 years in your jurisdiction? Provide if readily available. Provide your best estimate.

Acres of New Development					
	Fiscal year				
	2005	2006	2007	2008	2009
Acres of new development					

Unknown

A-43. How many acres of redevelopment have occurred in the last 5 years in your jurisdiction? Provide if readily available. Provide your best estimate.

Acres of Redevelopment					
	Fiscal year				
	2005	2006	2007	2008	2009
Acres of redevelopment					

Unknown

Performance Standard or Design Criteria for Discharges from Development

A-44. Are new development or redevelopment activities in your MS4 service area subject to a post construction standard that includes either numeric or specific stormwater performance standards or design criteria for stormwater control?

Yes

No [Skip to Question A-60](#)

A-45. Who determined your MS4's stormwater performance standard or design criteria for post construction controls for new or redevelopment activities? Check all that apply.

- The state (or EPA if they are the NPDES permitting authority in your state) enacted these requirements that are implemented through the MS4 permit
- The state enacted these requirements that are implemented through the state construction stormwater permit
- The state enacted these requirements that are implemented through the state stormwater permit
- The county enacted these regulations that the MS4 is required to implement
- The requirement was enacted by a local governmental body, describe:

Other, describe:

Survey ID: **Insert Survey ID**

A-46. Is your post construction standard for redevelopment projects different than for new development projects?

- Yes (Answer questions A-47 to A-49 regarding your standard for new development, answer questions A-50 to A-52 regarding your standard for redevelopment)
- No (Answer questions A-47 to A-49 regarding your standard for development, skip A-50 to A-52)

Performance Standard or Design Criteria for Discharges from (New) Development Projects

A-47. For **(new) development** projects, what is the threshold to which the post construction stormwater performance standards or design criteria apply?

- sq ft of disturbed area
- acres of disturbed land
- cubic feet of disturbed land
- area of impervious surface (indicate units)

Type of facility usage, describe:

[Redacted]

Specify location/watershed priority, describe:

[Redacted]

Type of activity (i.e. fueling, storage of materials), describe:

[Redacted]

New MS4 system connections, describe:

[Redacted]

Other, describe:

[Redacted]

Unknown

Not applicable

Survey ID: **Insert Survey ID**

A-48. Indicate which specific or numeric stormwater performance standards or design criteria requirements apply to **(new) development** projects. Provide your standard in the "specify" blank. Check all that apply.

Attach copies and/or citations for the relevant standards and criteria (such as a copy of your municipal stormwater design requirements or a citation to the state law or a web page link to the design manual that contains the information).

Note: The options for standards that require **detention or extended detention** are those which hold stormwater temporarily and discharge the stormwater over an extended period of time (hours to days) generally by controlling

Post-development peak runoff/discharge rate must match pre-development peak runoff/discharge rate for a specified storm return interval or intervals

- 1 year storm
- 2 year storm
- 5 year storm
- 10 year storm
- 25 year storm
- 100 year storm
- Other, specify:

Detention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre), specify:

- All areas
- Only certain areas, specify:

Detention of a specified storm volume (such as 1,800 cubic feet per acre or 3,600 cubic feet per impervious acre), specify:

- All areas
- Only certain areas, specify:

Detention of a specified percentile storm event (such as the 80th percentile storm), specify:

- All areas
- Only certain areas, specify:

Retention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre), specify:

- All areas
- Only certain areas, specify:

Retention of a specified storm volume (such as 1,800 cubic feet per acre or 3,600 cubic feet per impervious acre), specify:

Survey ID: **Insert Survey ID**

Retention of a specified storm volume (such as 1,800 cubic feet per acre or 3,600 cubic feet per impervious acre), specify:

- All areas
- Only certain areas, specify:

Retention of a specified percentile storm event (such as the 80th percentile storm), specify:

- All areas
- Only certain areas, specify:

Pollutant reduction requirement (for example, stormwater control practices must be installed to remove 80% of the post-construction TSS loading and 40% of the post-construction nitrogen loading), specify:

- All areas
- Only certain areas, specify:

Channel protection measures/ hydromodification controls (such as a maximum allowable discharge velocity or other metric), specify:

- All areas
- Only certain areas, specify:

Infiltration/groundwater recharge requirement (for example, maintain predevelopment groundwater recharge levels or infiltrate the first 0.5 inch of runoff), specify:

- All areas
- Only certain areas, specify:

Limits for effluent concentrations of specific pollutants measured at the stormwater control, specify:

- All areas
- Only certain areas, specify:

Survey ID: **Insert Survey ID**

Limits for effluent concentrations of specific pollutants in receiving waters, specify:

- All areas
- Only certain areas, specify:

Requirements for control of temperature, specify:

- All areas
- Only certain areas, specify:

Flood control requirements other than the peak discharge rate control and on-site detention/retention requirements specified above, specify:

- All areas
- Only certain areas, specify:

Stream buffer requirements (for example, a 50 foot vegetated buffer must be maintained/implemented adjacent to waters of the state), specify:

- All areas
- Only certain areas, specify:

Limits on the maximum percent imperviousness for the site, or maximum effective (commonly called directly connected) impervious surface or other limits on impervious surfaces, specify:

- All areas
- Only certain areas, specify:

Other standards not identified above, specify:

- All areas
- Only certain areas, specify:

Survey ID: **Insert Survey ID**

A-49. To which type of (new) development do your stormwater performance or design standards (as described in Question A-48) apply? Check all that apply.

- Requirements are the same for all types of new development
- Residential
- Commercial
- Industrial
- Institutional
- Mixed use
- Other, describe:

[Redacted]

Performance Standards or Design Criteria for Stormwater Discharges from Redevelopment Projects (if different from new development standards, otherwise skip to A-53)

A-50. For **redevelopment** projects, what is the threshold to which the post construction stormwater performance standards or design criteria apply?

- sq ft of disturbed land
- acre(s) of disturbed land
- cubic feet of disturbed land
- area of impervious surface (indicate units)

Type of facility usage, specify:

[Redacted]

Specify location/watershed priority, specify:

[Redacted]

Type of activity (i.e. fueling, storage of materials), specify:

[Redacted]

New MS4 system connections, specify:

[Redacted]

Other, specify:

[Redacted]

Unknown

Not applicable

Copy

Survey ID: **Insert Survey ID**

A-51. Indicate which specific or numeric stormwater performance standards or design criteria requirements apply to redevelopment projects. Provide your standard in the “specify” blank. Check all that apply.

Post-development peak runoff/discharge rate must match pre-development peak runoff/discharge rate for a specified storm return interval or intervals

- 1 year storm
- 2 year storm
- 5 year storm
- 10 year storm
- 25 year storm
- 100 year storm
- Other, describe:

Detention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre), specify:

- All areas
- Only certain areas, specify:

Detention of a specified storm volume (such as 1,800 cubic feet per acre or 3,600 cubic feet per impervious acre), specify:

- All areas
- Only certain areas, specify:

Detention of a specified percentile storm event (such as the 80th percentile storm), specify:

- All areas
- Only certain areas, specify:

Retention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre), specify:

- All areas
- Only certain areas, specify:

Retention of a specified storm volume (such as 1,800 cubic feet per acre or 3,600 cubic feet per impervious acre), specify:

- All areas
- Only certain areas, specify:

Retention of a specified percentile storm event (such as the 80th percentile storm), specify:

- All areas
- Only certain areas, specify:

Pollutant reduction requirement (for example, stormwater control practices must be installed to remove 80% of the post-construction TSS loading and 40%

Survey ID: **Insert Survey ID**

Pollutant reduction requirement (for example, stormwater control practices must be installed to remove 80% of the post-construction TSS loading and 40% of the post-construction nitrogen loading), specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Channel protection measures/ hydromodification controls (such as a maximum allowable discharge velocity or other metric), specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Infiltration/groundwater recharge requirement (for example, maintain predevelopment groundwater recharge levels or infiltrate the first 0.5 inch of runoff), specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Limits for effluent concentrations of specific pollutants measured at the stormwater control, specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Limits for effluent concentrations of specific pollutants in receiving waters, specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Requirements for control of temperature, specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Flood control requirements other than the peak discharge rate control and on-site detention/retention requirements specified above, specify:

- All areas
- Only certain areas, specify:

[Redacted area]

Copy

Survey ID: **Insert Survey ID**

Stream buffer requirements (for example, a 50 foot vegetated buffer must be maintained/implemented adjacent to waters of the state), specify:

- All areas
- Only certain areas, specify:

Limits on the maximum percent imperviousness for the site, or maximum effective (commonly called directly connected) impervious surface or other limits on impervious surfaces, specify:

- All areas
- Only certain areas, specify:

Other standards not identified above, specify:

- All areas
- Only certain areas, specify:

A-52. To which type of redevelopment does your stormwater performance and/or design standards (described in Question A-51) apply?

- Requirements are the same for all types of new development
- Residential
- Commercial
- Industrial
- Institutional
- Mixed use
- Other, describe:

Follow-up questions for post construction standard for new or redevelopment

Survey ID: **Insert Survey ID**

A-53. What is the enforcement mechanism to assure that post construction program requirements are met? Check all that

- Site inspection during construction
- Site inspection post development
- Site plan review/approval/acceptance
- Review of self-reporting/self-certification database
- Other, describe:

[Redacted]

A-54. To comply with the performance standard or design criteria specified in Question A-48 and/or A-51, is the use of specific post-construction stormwater controls measures, or choosing from a menu of such controls, a requirement?

Yes, specific controls are specified to meet the standard, describe:

[Redacted]

Yes, choosing specific controls from a menu is specified to meet the standard

No, specific controls are not required to meet the standard

Other, describe:

[Redacted]

A-55. Is the standard (performance standard or design standard), specified in Question A-48 and/or A-51, required to be met through mandatory onsite stormwater management or is a combination of on-site and regional/community/neighborhood scale management allowed (do not include off-site mitigation)? Check all that apply.

Onsite management required, describe:

[Redacted]

Community or neighborhood scale management allowed, describe:

[Redacted]

Regional management scale allowed, describe:

[Redacted]

Other, describe:

[Redacted]

Survey ID: **Insert Survey ID**

A-56. Do you offer an alternative to compliance with your performance standard or design standard for New Development?

Yes, we have a waiver process, describe:

[Redacted]

Yes, we have an appeal process, describe:

[Redacted]

Yes, it is a stormwater mitigation program, describe:

[Redacted]

Yes, it is a payment in lieu program, describe:

Yes, there is another type of alternative compliance program, describe:

[Redacted]

No, but there is an alternative compliance program offer by another level of government (state, county, etc), describe:

[Redacted]

No, an alternative compliance program does not exist

A-57. Do you offer an alternative to compliance with your performance standard or design standard for Redevelopment?

Alternatives to compliance are the same for new development and redevelopment (skip remaining options)

Yes, we have a waiver process, describe:

[Redacted]

Yes, we have an appeal process, describe:

[Redacted]

Yes, it is a stormwater mitigation program, describe:

[Redacted]

Yes, it is a payment in lieu program

Yes, there is another type of alternative compliance program, describe:

[Redacted]

No, but there is an alternative compliance program offer by another level of government (state, county, etc), describe:

[Redacted]

No, an alternative compliance program does not exist

Copy

Survey ID: **Insert Survey ID**

A-58. If options for alternative to compliance with your performance standard or design standard are offered, what are the criteria for use of the compliance alternative?

- Infiltration cannot be achieved: lot size too small outside of the footprint to create the necessary infiltration capacity (even with amended soils), shallow groundwater or other infiltration issues
- Soil instability as documented by geotechnical analysis
- Capture or reuse of stormwater cannot be achieved on the property
- Cost constraints
- Other, describe:

An alternative compliance program does not exist

A-59. Describe who is responsible for determining whether compliance with the alternative is allowed and whether

- MS4 operator staff
- Contractor employed by MS4 operator
- Owner or operator of the developed site
- Other, describe:

An alternative compliance program does not exist

Section: A.3

Section Title: Technical Information

Instructions: Throughout Section A.3 (Questions A-60 to A-67), provide the technical information requested. Please provide all free response answers in the yellow highlighted areas. **Red** words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

Retrofit of Stormwater Management Practices

The following questions collect information about **retrofit** practices in your MS4 service area. Retrofit is the installation or modification of structural control measures on sites with existing development (including existing storm sewers) to enhance the reduction of stormwater pollutants, or runoff volume or flow rates.

A-60. Have any stormwater retrofit projects been initiated or completed as part of your MS4 stormwater program to enhance the reduction of stormwater pollutants or runoff volume or flow rates?

Yes, describe:

No

A-61. Do you have a stormwater retrofit program for the MS4 (may be voluntary)?

Yes

No [Skip to Question A-67](#)

Survey ID: Insert Survey ID

A-62. Which of the following are true for your retrofit program? Check all that apply.

- MS4 operator requires retrofits through regulation (local ordinance or other legal mechanism)
- MS4 operator provides incentives for retrofits
- MS4 operator implements retrofits on public property
- MS4 operator implements retrofits on private property
- MS4 operator promotes tree planting on private property
- Stream restoration is part of our retrofit plan
- Other, describe:

A-63. Who is responsible for paying for the retrofit projects? Check all that apply.

- MS4 operator pays for retrofits only on public property
- MS4 operator pays for all retrofits on public and private property
- MS4 operator offers grants/incentives for retrofits on private property
- Private entities are required to pay for retrofits on their property
- Other, describe:

Not applicable

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Survey ID:

Insert Survey ID

A-64. What is the purpose of the stormwater retrofit program in your MS4 service area? Check all that apply.

To comply with stormwater permit requirements, describe:

As a demonstration site or training opportunity

To comply with CSO long term control plan

To address flooding

To address wetlands mitigation

To comply with Total Maximum Daily Load (TMDL) or other Clean Water Act water quality requirement(s)

To comply with Safe Drinking Water Act (SDWA) wellhead protection or UIC regulations

To comply with other federal regulations (ESA, CERCLA, WRDA, etc.)

Other requirements, such as state requirements, describe:

To address watershed plan or local water quality, habitat or stream stability or geomorphology concerns

Other, describe:

Not applicable

Advanced Copy

Survey ID: Insert Survey ID

A-65. What, if any, incentives are provided for stormwater retrofits?

Reduced stormwater utility fees, specify:

Development incentives (e.g., zoning upgrades, expedited permitting, reduced stormwater requirements, increases in floor area ratios, etc.), specify:

Grants: provide direct funding to property owners and/or community groups for implementing a range of green infrastructure projects and practices, specify:

Rebates and installation financing (e.g., provide funding, tax credits or reimbursements to property owners who install specific practices), specify:

Awards and recognition programs (e.g., provide marketing opportunities and public outreach for exemplary projects), specify:

Technical or resource assistance, specify:

Other, specify:

None

Not Applicable

A-66. Provide a description of your retrofit program.

A-67. What kind of retrofit projects could make the most effective difference in terms of restoring water quality in your area?

Section: A.4

Section Title: Technical Information

Instructions: Throughout Section A.4 (Questions A-68 to A-79), provide the information requested. Please provide all free response answers in the yellow highlighted areas. Red words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

Specific Stormwater Controls

In this section EPA is obtaining information about specific stormwater practices that exist in your MS4 including both detention and retention practices.

Detention or extended detention practices are those which hold stormwater temporarily and discharge the stormwater over an extended period of time (hours to days) generally by controlling the size of the discharge volume and flow rate. Also known as wet/dry ponds, extended detention basins, detention ponds, extended detention ponds.

Questions in this section also refer to the implementation of retention stormwater practices. These are practices are those in which stormwater is infiltrated, evapotranspired, or harvested. Examples include bioretention (includes rain gardens, sidewalk planters, curb extensions and other plant or soil systems designed to infiltrate or evapotranspire stormwater), porous pavement, green roofs, vegetated swales, cisterns and other practices. These practices are commonly referred to as Low Impact Development (LID) or Green Infrastructure (GI) practices.

- A-68.** (a) Which of the following stormwater controls are installed/applied within your jurisdiction (includes those controls located on both public and private property)?
 (b) For which stormwater controls is the MS4 operator responsible for maintaining on public and private property (at any level of service)?
 (c) For which practices do you have available cost information, including either capital cost or operation and maintenance cost or both?
 (d) For which stormwater controls do you have monitoring data showing the performance of the control?
 (Note: An EPA representative may contact you at a later date in order to get more detailed information about this cost and performance data.)

	(a) Installed/applied in MS4	(b) Maintain		(c) Available Cost Information	(d) Performance Data
		Public	Private		
Extended Detention Basin (wet or dry)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retention Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curb and Gutter/Storm Sewer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Catch Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Catch Basin Insert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underground Detention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underground Infiltration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infiltration Trench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dry Well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sand Filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Media Filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil/water Separators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetated Swale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructed Wetland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filter Strip/Vegetated Buffer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wetland Basin/Channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bioretention cells (includes rain gardens, sidewalk planters, curb extensions and other plant or soil systems designed to infiltrate or evapotranspire stormwater)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trees/Tree Box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green Roof/Ecoroof	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riparian Buffers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Amendment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permeable Concrete/Permeable Asphalt/Pavers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cistern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rain Barrel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Downspout Disconnection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Native Vegetation/Landscaping Planting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufactured Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe Manufactured Devices:					
Other Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe Other Controls:					

A-69. Have you done a cost comparison between traditional stormwater practices (such as stormwater detention ponds) and stormwater retention practices (i.e. LID or green infrastructure practices that infiltrate, evapotranspire or reuse stormwater) for any public projects?

Yes, describe:

No

If so, are the cost data available?

Yes

No

A-70. What is the driver for implementation of stormwater retention practices (i.e. LID or green infrastructure practices that infiltrate, evapotranspire or reuse stormwater) in your MS4 service area? Check all that apply.

Stormwater management requirement, describe:

CSO long term control plan requirement

To address flooding

TMDL or other water quality requirement

Safe Drinking Water Act requirement

Other federal regulation requirement, describe:

Other, describe:

Unknown

Not applicable

A-71. In your jurisdiction, which of the following ordinances or other types of regulations may **prevent** stormwater retention practices (i.e. LID or green infrastructure practices that infiltrate, evapotranspire or reuse stormwater) from being implemented? This question should be answered regardless of the level of government that imposes the requirement. Check all that apply.

Specific Water Requirements

Standing water restrictions which may prevent the use of extended detention, water reuse or other practices.

Water rights issues which may prevent water harvesting or reuse (rain barrels, cisterns)

Water rights issues which may prevent stormwater infiltration

Restrictions related to groundwater contamination potential

Restrictions related to sole source aquifer limitations

Restrictions on tree/wetland protection requirements

Site Design/Infrastructure Practices

Curb and gutter requirements which may restrict roadside infiltrations practices

Maximum/minimum parking lot size requirements

Maximum/minimum roadway widths

Requirements setting minimum/maximum cul-de-sac radius

Restrictions on the width of rights-of-way

Setbacks from public or private infrastructure

Conflicts in obtaining private land (e.g., for use as a public right-of-way)

Building/Structure Requirements

- Restrictions on setbacks/frontages
- Restrictions related to plumbing codes (e.g., prohibitions on stormwater reuse for toilet flushing)

Vegetation Requirements

- Restriction on height of vegetation (e.g., wetland vegetation or grasses)
- Restriction related to tree placement (e.g., restricting the places where trees may be planted, such as near sidewalks, utility poles, along certain stretches of roads)
- Aesthetic requirements for plantings

Other Requirements

- Requirements that may restrict the use of pervious concrete, porous asphalt, modular block pavers, or other alternatives to conventional/impermeable paving materials
- Limited mixed use/compact development
- Restrictions related to deeds
- Restrictions on stormwater reuse for irrigation (e.g., health code restrictions)
- Solar access ordinances
- Other, describe:

- No requirements

A-72. Do you have any maintenance concerns that may prevent stormwater retention practices (i.e. LID or green infrastructure practices that infiltrate, evapotranspire or reuse stormwater) from being implemented in your jurisdiction? Describe:

- No maintenance concerns

A-73. In your jurisdiction, are there categories or areas excluded from stormwater infiltration due to concerns for groundwater contamination or mobilization of contaminated sediments?

Yes, describe:

[Redacted]

No

Not applicable, describe:

[Redacted]

A-74. Are there stormwater discharges from your jurisdiction to a **state-defined source water protection area for public water supplies**?

Yes

No

Not applicable, describe:

[Redacted]

A-75. Are any of the following requirements or programs implemented in your jurisdiction? Check all that apply.

- Open space program or requirements
- Urban growth boundaries
- Natural resource area protection
- Reduce lot/parcel size requirements
- Reduce street width requirements
- Stream restoration/remediation program
- Incentives for infill/redevelopment
- Incentives for Brownfield development
- Incentives for mixed use
- Enterprise communities or empowerment zones
- Buffer/riparian corridor requirements
- Restrictions on the amount of impervious surfaces (e.g., caps on the amount of impervious surfaces)
- Other, describe:

[Redacted]

None

Not applicable

Not Applicable

A-76. Do you have any of the following ordinances, other regulatory mechanisms or policies specific to parking lots in your jurisdiction? Check all that apply.

- Reduced parking lot size requirements
- Pervious material requirements
- Design standards that require retention practices such as rain gardens, infiltration islands, or others
- Design standards that require curb cuts or other flow requirements
- Other, describe:

No

A-77. What, if any, incentives are provided to use stormwater retention practices (i.e. LID or green infrastructure practices that infiltrate, evapotranspire or reuse stormwater) in **new development and redevelopment** projects (commercial, residential, **mixed use**, and/or institutional) in your jurisdiction? Check all that apply.

New Development

Reduced stormwater utility fees, specify:

Development incentives: (e.g. zoning upgrades, expedited permitting, reduced stormwater requirements, increases in floor area ratios, etc.), specify:

Reduction in the volume of stormwater required to be managed, specify:

Grants: Provide direct funding to property owners and/or community groups for implementing a range of green infrastructure projects and practices, specify:

Rebates & installation financing: (e.g. provide funding, tax credits or reimbursements to property owners who install specific practices) , specify:

Awards & recognition programs (e.g. provide marketing opportunities and public outreach for exemplary projects) , specify:

Other, specify:

- None
- Unknown
- Not Applicable

Redevelopment

Reduced stormwater utility fees, specify:

Development incentives: (e.g. zoning upgrades, expedited permitting, reduced stormwater requirements, increases in floor area ratios, etc.), specify:

Reduction in the volume of stormwater required to be managed, specify:

Grants: Provide direct funding to property owners and/or community groups for implementing a range of green infrastructure projects and practices, specify:

Rebates & installation financing: (e.g. provide funding, tax credits or reimbursements to property owners who install specific practices) , specify:

Awards & recognition programs (e.g. provide marketing opportunities and public outreach for exemplary projects), specify:

Other, specify:

None

Unknown

Not Applicable

A-78. Does your jurisdiction have a master plan or other planning process that projects development over a certain time period (may be done by other departments or agency in your jurisdiction)?

Yes

No [Skip to Question A-80](#)

A-79. Is one of the purposes of this planning process to direct development towards specific area, such as infill areas, high density or compact development, brownfield development, or proximity to mass-transit?

Yes

No

Section: A.5
Section Title: Technical Information

Instructions: Throughout Section A.4 (Questions A-80 to A-88), provide the information requested. Please provide all free response answers in the yellow highlighted areas. Red words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

A-80. What, if any, incentives are provided in your jurisdiction for infill, high density or compact development, brownfield development, or proximity to mass-transit?

Reduced stormwater utility fees, specify:

Development incentives: (e.g. zoning upgrades, expedited permitting, reduced stormwater requirements, increases in floor area ratios, etc.), specify:

Reduction in the volume of stormwater required to be managed (e.g., development projects must manage the first 1/2" of rainfall on-site while redevelopment projects must manage less rainfall), specify:

Grants: Provide direct funding to property owners and/or community groups for implementing a range of green infrastructure projects and practices, specify:

Rebates & installation financing: (e.g., provide funding, tax credits or reimbursements to property owners who install specific practices), specify:

Awards & recognition programs (e.g., provide marketing opportunities and public outreach for exemplary projects), specify:

Other, specify:

None

Unknown

Not Applicable

Monitoring

A-81. What is the total number of stormwater outfalls in your MS4 service area that are covered by either a Phase I or Phase II MS4 stormwater permit?

of outfalls

Unknown

Check if the total number of outfalls includes outfalls smaller than major outfalls as defined in 40 CFR122.26(b)(5) and Schedule F of the NPDES MS permits

Survey ID: Insert Survey ID

A-82. Do you, or a partner organization, perform any of the following types of monitoring as part of your MS4 stormwater program? May include volunteer monitoring. Check all that apply.

- Stormwater outfall monitoring – dry weather (do not include visual inspections as part of the Illicit Discharge and Detection Elimination (IDDE) program)
- Stormwater outfall monitoring – wet weather
- Stormwater monitoring of specific stormwater controls – dry weather
- Stormwater monitoring of specific stormwater controls – wet weather
- In-stream monitoring for water quality parameters
- In-stream monitoring for biological parameters
- In-stream monitoring for geomorphology or physical habitat
- Other, describe:

No

A-83. Are you required to perform any type of monitoring of any outfalls as part of your stormwater MS4 permit (do not include visual inspections as part of the Illicit Discharge and Detection Elimination (IDDE) program)?

Yes, describe:

No, however we conduct monitoring to meet other obligations

No, we do not conduct monitoring of outfalls

A-84. How many outfalls did you, or a partner organization, monitor in the last 5 years (do not include visual inspections as part of the Illicit Discharge and Detection Elimination (IDDE) program)?

Outfall Monitoring, FY 2005-2009					
	Fiscal year				
	2005	2006	2007	2008	2009
Number of outfalls monitored					

Survey ID: Insert Survey ID

A-85. Do you, or a partner organization, conduct monitoring of outfalls or specific stormwater controls for pollutant levels (e.g., pH, metals, nutrients, suspended solids, etc.) or flow-related parameters (e.g., flow rate, volume, etc.)?

Outfalls

- Pollutant levels
- Flow-related parameters
- Both
- No

Specific stormwater controls

- Pollutant levels
- Flow-related parameters
- Both
- No

A-86. Do you, or a partner organization, have data or modeling information indicating any chemical, biological, and/or physical changes in the receiving waters to which you discharge stormwater that you can attribute to implementation of your stormwater program (e.g., we saw a reduction in total nitrogen and an increase in sensitive stream macroinvertebrates)?

Yes, describe:

- No
- Unknown
- Not Applicable

A-87. Provide the citation or URL for the data described in Question A-86.

A-88. Provide any additional comments for Section A, Technical Information, in the space provided below.

Survey ID: Insert Survey ID

Section: B
Section Title: Financial Information

Instructions: Throughout Section B (Questions B-1 to B-30), provide the information requested. Please provide all free response answers in the yellow highlighted areas. **Red** words/terms are defined in the definitions tab, please refer to the definition to ensure your understanding of how the terms are used in the questionnaire.

B-1. Select the month that begins your fiscal year

Select ▼

B-2. Indicate your jurisdiction's total operating budget and stormwater related annual operating budget.

	Annual Budget (\$)				
	Fiscal Year				
	2005	2006	2007	2008	2009
Total Operating Budget					
Stormwater Related Budget					

B-3. Describe the activities included in your FY 2009 budget and percent (or actual dollar amount if available) of the total stormwater budget that you approximately spend on the activities. Many of your stormwater activities may not fall distinctly in these categories. Describe your particular activities that generally fall within these categories in the comment filed. The percent should add up to 100% and include all activities. The total dollar amount should equal the 2009 stormwater budget provided in B-2. Provide your best estimate.

Activity	%	Actual Amount	Describe Your Specific Activity Under This Category
Program administration (e.g., clerical activities, financial management)			
Developing annual report			
Developing stormwater management plan (SWMP)			
Capital expenses for new stormwater sewers, capital for facility replacement, maintenance cost for cleaning sewers, maintenance cost for repairing sewers			
Planning and engineering for capital improvement projects, such as capacity expansion, capital construction, stream restoration, land acquisition or retrofits (e.g., surveying and document existing conditions, GIS development and operations, master planning)			

Survey ID: Insert Survey ID

Planning and engineering for other MS4 activities			
Industrial component of MS4 program (inventory of facilities or inspections)			
Monitoring			
Public education and outreach			
Public involvement and participation			
Illicit discharge detection and elimination			
Construction site runoff control program for construction activities that disturb one or more acres (tracking, inspections, etc.)			
Post-construction discharge control program for new and redeveloped areas (tracking, inspections, operation and maintenance)			
Street sweeping			
Other pollution prevention/good housekeeping for municipal operations (operation and maintenance, developing stormwater pollution prevent plan (SWPPP), training for municipal staff on pollution prevention measures and techniques, regular street sweeping, reducing the use of pesticides or street salt, or frequent catch-basin cleaning)			
Inspection and enforcement (if not tracked in the activities above)			
Incentives and rebates for privately initiated stormwater control measures			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
Other, specify:			
SUM	0	0	
	Total must be equal to 100%	Total must be equal to B-2	

Survey ID: **Insert Survey ID**

B-4. What is the estimated cost of your industrial component of your stormwater program?

\$

Not applicable

B-5. What is the estimated cost of your monitoring component of your stormwater program?

\$

Not applicable

B-6. What is the estimated number of full time equivalents (FTEs) that your organization has devoted to stormwater related activities over the past five years (corresponds to the budget in Question B-2)? In the first row, enter hours worked by staff who work directly for the stormwater management program. If there are municipal staff whose primary responsibility is to non-stormwater programs, yet still contribute to the work of the stormwater program, please estimate the hours in FTEs they contribute in the second row. EPA recognizes that this second category may not be routinely tracked, and is only asking for a best estimate.

Full Time Equivalents (FTEs)					
	Fiscal Year				
	2005	2006	2007	2008	2009
Stormwater Staff (FTE)	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>
Non-stormwater Staff (FTE)	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>	<input style="background-color: yellow;" type="text"/>

Funding Questions

The following three questions request information on the sources of revenue for your stormwater related activities. This information is requested for three different categories – revenue sources, revenue uses, and capital debt financing.

B-7. What percentage of your stormwater program revenue comes from the following sources. (Total must equal 100%)

<input checked="" type="checkbox"/> Stormwater utility or user fee	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Ad valorem taxes	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Permitting and other fees	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Sales taxes	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Special tax districts	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> New development impact fees	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Grants	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Intergovernmental and/or state shared revenue	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Revenue from the sale of bonds	<input style="background-color: yellow;" type="text"/>	%
<input checked="" type="checkbox"/> Other	<input style="background-color: yellow;" type="text"/>	%
Sum	<input style="background-color: yellow;" type="text"/>	0 %

Survey ID: Insert Survey ID

B-8. What percentage of your stormwater program revenue goes to fund the following activities. (Total must equal 100%)

<input checked="" type="checkbox"/> Operations and maintenance funding		%
<input checked="" type="checkbox"/> Directly funded capital improvements		%
<input checked="" type="checkbox"/> Capital debt service (payment of interest and repayment of principle)		%
<input checked="" type="checkbox"/> Other		%
Sum		0 %

B-9. If capital improvements are funded in part by **capital debt financing**, what percentage of your stormwater **capital debt financing** comes from the following sources. (Total must equal 100%)

<input checked="" type="checkbox"/> General obligation (tax) bonds		%
<input checked="" type="checkbox"/> Stormwater revenue bonds		%
<input checked="" type="checkbox"/> Sales tax bonds		%
<input checked="" type="checkbox"/> Combined stormwater/other bonds		%
<input checked="" type="checkbox"/> Benefit district bonds		%
<input checked="" type="checkbox"/> State revolving fund loans		%
<input checked="" type="checkbox"/> Other		%
Sum		0 %

Stormwater Fee Questions

B-10. Does your jurisdiction have the authority to charge and/or increase stormwater fees?

- Yes
- No

B-11. Does your jurisdiction charge one time stormwater inspection or plan review fees for property development?

- Stormwater inspection
- Stormwater plan review
- Both
- None

The following five questions pertain to one time, development impact fees charged for property development. These fees are also known as system development charges.

Survey ID: Insert Survey ID

B-12. Do you charge a one-time development fee for new stormwater permit applications?

- Yes
- No [Skip to Question B-15](#)

B-13. What is the basis for this one-time development fee for new, **single-family residential** stormwater permit applications?

- Flat fee: \$
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
- None

B-14. What is the basis for this one-time development fee for new, **multi-family residential** stormwater permit applications?

- Flat fee: \$
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
- None

B-15. What is the basis for this one-time development fee for new, **non-residential** stormwater permit applications?

- Flat fee: \$
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
- None

Survey ID: **Insert Survey ID**

B-16. Approximately what percent of your costs that are associated with new development are covered by these one-time development fees (e.g., construction of additional infrastructure to service a new development)?

[Redacted] %

- Unknown
- Not applicable

The following five questions pertain to recurring stormwater fees charged to property owners.

B-17. Do you charge recurring stormwater fees to property owners?

- Yes
- No [Skip to Question B-20](#)
- Not applicable, specify: [Skip to Question B-20](#)

[Redacted]

B-18. What is the basis for the recurring stormwater fees for **single-family** residential properties?

- Flat fee: \$ **[Redacted]**
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per acre of gross area with runoff factor
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
[Redacted]
- None

B-19. What is the basis for the recurring stormwater fees for **multi-family residential** properties?

- Flat fee: \$ **[Redacted]**
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per acre of gross area with runoff factor
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
[Redacted]
- None

Survey ID: Insert Survey ID

B-20. What is the basis for the recurring stormwater fees for **non-residential** properties?

- Flat fee: \$
- \$ per \$1000 of property value
- \$ per acre of gross area
- \$ per acre of gross area with runoff factor
- \$ per square foot of impervious area
- \$ per square foot of total floor area
- Other, describe:
- None

B-21. Approximately what percent of the costs incurred by your organization associated with the operations and maintenance of long-term stormwater controls and services do these recurring fees cover?

%

Not applicable, specify:

Capital Improvement Project Questions

B-22. Did your jurisdiction initiate capacity expansion projects to address inadequate stormwater system capacity anytime in the period of FY 2005 through FY 2009?

- Yes
- No [Skip to Question B-24](#)

B-23. What was the annual budget for capacity expansion? What percentage of your total stormwater system service area was addressed by the capacity expansion? If not applicable, write "NA". If unknown write "UK".

Capacity Expansion Activity and Budget, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
Dollars					
% of service area					

Survey ID: Insert Survey ID

B-24. Did your jurisdiction initiate retrofit projects anytime in the period of FY 2005 through FY 2009? (Check the answer that best applies.)

- Yes
- Yes, only on public property
- No [Skip to Question B-26](#)

B-25. What was the annual retrofit budget and number of projects completed? If not applicable, write "NA". If unknown write "UK".

Retrofit Projects and Budget, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
Dollars					
Number of projects					

B-26. Did your jurisdiction initiate projects for stream restoration associated with correcting or mitigating impairment from urban runoff anytime in the period of FY 2005 through FY 2009?

- Yes
- No [Skip to Question B-30](#)

B-27. What was the annual budget and miles of stream restored that was associated with urban runoff? If not applicable, write "NA". If unknown, write "UK".

Stream Restoration and Budget, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
Dollars					
Stream miles					

B-28. What was the purpose or goal of stream restoration? (Check all the answers that apply.)

- Erosion control to reduce sedimentation of downstream reservoir
- Stream bank stabilization to reduce scouring of infrastructure
- Stream bank stabilization to reduce property loss due to erosion
- Flood control
- Habitat protection, fisheries concerns
- Aesthetics
- Other, describe:

Survey ID: Insert Survey ID

B-29. Indicate the type of stabilization measures that were used?

- Vegetative stabilization
- Non-vegetative stabilization such as concreting, installing riprap, etc.
- Combination of vegetative and non-vegetative measures
- Not applicable, describe:

B-30. Provide any additional comments for Section B in the space provided below.

**You have completed the questionnaire. Refer to the instructions for mailing the questionnaire back to the United States Environmental Protection Agency.
Thank you.**

Advanced Copy

Survey ID: Insert Survey ID

Section Title: Regulated Municipal Separate Storm Sewer Systems (MS4s) Questionnaire Comments

Instructions: Cross reference your comments by question number.

Question Number	Comment

Final Advanced Copy