

# **Transportation-Related Municipal Separate Storm Sewer Systems (MS4s) Questionnaire**

## **Final Advance Copy**

NOTICE: This is the final advanced copy of the Transportation-Related 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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## Storm Water Management Including Discharges from Developed Sites

### Transportation-Related Municipal Separate Storm Sewer Systems (MS4s) Questionnaire

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Survey ID: Insert Survey ID**Transportation-Related Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****INSTRUCTIONS**

Complete the questionnaire considering the following instructions:

- This questionnaire is available at the following link:  
<http://app6.erg.com/stormwatersurvey/>
- Personnel most knowledgeable about the subject areas covered by a specific section should complete that section of the questionnaire.
- EPA recognizes that some DOTs may have coverage under multiple permits. However, EPA expects that most of the time these permits will have similar provisions. Fill out the information requested for the questions in this Section for the main permit your discharges have coverage under. For example, if most of your DOT's discharges are covered under an individual permit, but the DOT is also a co-permittee with municipalities on separate permits, then you would answer the questions based on your individual permit. 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 DOT's general practices, then indicate it at in the space provided either at the end of the question or at the end of Section A (Question A-69).
- 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 survey is your fiscal year (FY) 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**Transportation-Related Municipal Separate Storm Sewer Systems (MS4s) Questionnaire****DEFINITIONS**

Note that the following terms are defined for the purposes of this questionnaire only.

These definitions were written as broadly as possible, relying on our regulations, guidance, fact sheets, etc. We acknowledge that there are likely local or regional differences in the meanings of some of these terms. Where those differences will affect their answer to the questions, respondents should provide information on those differences in the survey blanks provided.

<b>Term</b>	<b>Definition</b>
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.
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 prior to stormwater discharge, and to improve the pollutant removal 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.

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.
Dedicated Funding Source	A source of monies which by law is available for use only to support a specific purpose, and cannot be diverted to other uses.
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,” “extended detention ponds.”
Discretionary Funding Source	Any funds whose distribution is not automatic. Discretionary funding is typically subject to larger budgetary considerations where funding is allocated to programs based on an assessment of priorities.
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.

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.
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 section of 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).
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. This does not include commercial development that is aligned alongside of roadways.
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.
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.
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 Service Area	Area over which an MS4 operator has jurisdiction to collect and dispose of stormwater.
New Development	Development that occurs on land where generally no or minimal structures and other impervious surfaces, such as buildings, parking lots, and roads. This includes agricultural, forested and open/barren land. These sites are commonly referred to as greenfield sites. Respondents should use the definition they provided in response to Question A-37 when responding to questions that refer to new development.
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) 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.
Post Construction	Describes the phase of a site following the termination of construction activities on a site. “Post-construction discharges” are discharges of stormwater from developed sites. 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 at 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. Respondents should use the definition they provided in response to Question A-37 when responding to questions that refer to redevelopment.
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 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.”
Site plan review	A procedure used by MS4s operators 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.
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	<p>A broad, shallow channel used for conveying and management stormwater discharge. 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 Swales: Other Vegetation.</p>
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 dry swale (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 wet swale 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	<p>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.</p>
Underground Detention	<p>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).</p>
Undeveloped	<p>Describes land that has not been subject to prior development. See “new development.”</p>
Urbanized Area	<p>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.</p>

Wetland Basin (Permanent Pool and No Permanent Pool)	Similar to wet and dry ponds, stormwater control structure that incorporates 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).
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**A-3.** Which of the following roads does the DOT own, operate, and/or maintain? (Checking the box indicates that you do own, operate, and/or maintain the roads in that category. Check all that apply.)

	Own	Operate	Maintain
<b>All roads that are in the state</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>State level highways/interstates/expressways/principal arterials</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>County level roads/minor arterials</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Municipal/local roads/collectors</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Private roads</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Specify:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**A-4.** Which example best describes your agency’s administrative approach to stormwater management under the MS4 permit(s)?

- The headquarters office has sole responsibility for stormwater management and centralizes the corresponding policies and implementation of the entire program
- The headquarters office and division/regional offices share responsibility for stormwater management and the corresponding policies and implementation of stormwater management
- The division/regional offices share responsibility for various components of stormwater management and the corresponding policies and implementation of stormwater management
- Other, specify:

**A-5.** How Many MS4 permits is your DOT subject to?

- 1 Permit
- 2 Permit
- 3 Permit
- More than 3 permits, describe: (e.g. the DOT is covered as a co-permittee with various municipalities):

**A-6.** Which best describes your MS4 permit? (Check all that apply. Includes permits that have been administratively extended by the permitting authority.)

Individual Permits:

Large/Medium MS4 permit (Phase I)

Specify any co-permittees:

[Redacted]

Small MS4 permit (Phase II)

Specify any co-permittees:

[Redacted]

General Permits:

Large/Medium MS4 permit (Phase I) that is not written specifically for transportation (i.e. it's a traditional MS4 permit)

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

[Redacted]

Large/Medium MS4 permit (Phase I) that is written specifically for transportation

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

[Redacted]

Small MS4 permit (Phase II) that is not written specifically for transportation (i.e. it's a traditional MS4 permit)

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

[Redacted]

Additional Information (if necessary):

[Redacted]

**A-7.** What is the permit number of the permit under which your agency does the most activities? (Note: EPA will assume this permit is the basis for the majority of the answers provided in this questionnaire unless otherwise specified.)

Permit Number:

[Redacted]

**A-8.** Which of the following best describe(s) the basis for how stormwater discharges from your MS4 are permitted? (Check all that apply.)

- Based on the urbanized area boundary (as defined by the U.S. Census)
- All roads in the state (includes those roads inside and outside of the urbanized area)
- All county roads (includes those roads inside and outside of the urbanized area)
- All local roads (includes those roads inside and outside of the urbanized area)
- Based on sewer, irrigation, drainage, flood control district
- Based on watershed boundaries
- Based on watershed districts (or other watershed entity)
- Other, Specify: \_\_\_\_\_

**A-9.** How many permit terms have you completed under the stormwater program? (Usually MS4 permits are issued every 5 years. If your permit has been administratively extended after it expired then indicate that along with the number of months it's been extended for in the "comments" field.)

- 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

Comments (use this space if you need to describe multiple permits, if your permit has been administratively extended, etc.):

\_\_\_\_\_

**A-10.** Does your MS4 permit specify different requirements for linear and non-linear transportation facilities (e.g. rest stops, maintenance yards, administrative buildings)?

- Yes  
 No

**A-11.** Which of the following locations are covered under your MS4 permit(s)?

- Maintenance yards  
 Rest Stops  
 Roadways, including shoulders  
 Administrative Buildings

### 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 area under your control if only part of an MS4 was located within an urbanized area. In addition permitting authorities have extended coverage to other small MS4s outside of the urbanized area. Also, EPA would like to understand the extent to which DOTs are conducting stormwater management activities in areas not covered by an NPDES permit, either voluntarily or through some other mechanism. The following questions are focused on determining the extent to which your transportation system and facilities are regulated under an NPDES permit and stormwater management activities being conducted outside of permitted areas. The questions collect information about three areas:

1. MS4 permitted area – DOT area covered by MS4 permit(s)
2. MS4 service area – area over which the DOT is the owner and operator of the municipal separate storm sewer system and has the authority to collect and discharge stormwater. This may extend beyond the permitted area into un-permitted areas.
3. Area under your control – details on the area which you control/operate irregardless of whether it's inside or outside the MS4

**A-12.** For State DOTs, do you have a GIS layer that shows the extent of the transportation network under your control? If you are not a state DOT, answer "N/A".

- Yes  
 No  
 N/A

**A-13.** Do you have a GIS layer that shows the area covered by your MS4 permit (or permits, if you are subject to multiple permits)?

- Yes, a GIS layer is available for the entire area subject to MS4 permitting
- Yes, a GIS layer is available for part of the area subject to MS4 permitting
- No

**A-14.** Which of the following stormwater management activities do you conduct within the area subject to your MS4 permit(s)?

- Public education and outreach
- Public involvement
- Illicit discharge detection and elimination
- Pollution prevention/good housekeeping (includes street sweeping)
- Record keeping
- Erosion and sediment controls for construction activities
- Post Construction stormwater management for new development and redevelopment
- Industrial stormwater inspections
- Stormwater monitoring
- Other categories of stormwater management activities, Specify:

**A-15.** Do you conduct stormwater management activities outside of the area covered by your MS4 permit(s)?

- Yes
- No [\(Skip to Question A-17\)](#)
- N/A – The entire area under my control is subject to an NPDES MS4 stormwater permit [\(Skip to Question A-17\)](#)

**A-16.** Do you conduct any of the following stormwater management activities outside of the area subject to your MS4 permit(s)?

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

**A-17.** Do you allow any entities to reside in your right of way/area under your control where you apply the components of your stormwater program?

- Yes, utilities supporting roadway construction
- Yes, utilities such as pipes and power lines
- Yes, private developers such as cell phone towers, etc
- Yes, other categories of entities, please specify: \_\_\_\_\_
- We do not allow any entities to reside within our right of way or area under control of the DOT
- Unknown

[\(Skip to Question A-19\)](#)

**A-18.** Do you oversee any stormwater requirements for those entities you allow to reside in your right of way/area under your control?

- Yes
- No
- Unknown

**Specific Stormwater Program**

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

**A-19.** Do you have data or other information collected by you or collected on your behalf that show the effectiveness of any of the following components of your stormwater program to protect waterbodies from stormwater impacts? (This data could be part of annual reports, studies, and other documents/reports. Check all that apply.)

- Public education and outreach
- Public participation/involvement
- Illicit discharge detection and elimination
- Construction site discharge control (including erosion/sediment control)
- Post construction discharge control (including detention, retention and treatment) practices
- Pollution prevention/good housekeeping (including street sweeping)
- Industrial inspections
- Wet weather outfall monitoring
- Monitoring to measure the performance of specific stormwater controls
- Instream monitoring
- Implementation of watershed management plans
- MS4 training programs
- Source control (limits on fertilizer or pesticides)
- Other, describe: \_\_\_\_\_

- None

**A-20.** Do you have data or other information collected by you or collected on your behalf that show the ineffectiveness of any of the following components of your stormwater program to protect waterbodies from stormwater impacts? (Check all that apply.)

- Public education and outreach
- Public participation/involvement
- Illicit discharge detection and elimination
- Construction site discharge control (including erosion/sediment control)
- Post construction discharge control (including detention, retention and treatment) practices
- Pollution prevention/good housekeeping (including street sweeping)
- Industrial inspections
- Wet weather outfall monitoring
- Monitoring to measure the performance of specific stormwater controls
- Instream monitoring
- Implementation of watershed management plans
- MS4 training programs
- Source control (limits on fertilizer or pesticides)
- Other, describe:

None

**A-21.** What parts of your stormwater management program are carried out by other departments in your organization, other transportation divisions, or other governmental agencies (for example some departments of transportation may combine their efforts for public education with a city)?

- Public education and outreach
- Public involvement
- Illicit discharge detection and elimination
- Pollution prevention/good housekeeping
- Construction stormwater program
- Post construction stormwater program
- Record keeping/ annual reporting
- Other, please describe

None

**A-22.** Does your agency have oversight over those departments or governmental agency's stormwater management activities referenced in Question A-21?

- Yes
- No
- Not applicable
- Not all activities

**A-23.** For those parts of your stormwater program that are performed by other departments in your organization, other transportation divisions, governmental agencies, or contractors, do you include any specific stormwater requirements in your contracts or other binding agreements for the following activities? (These stormwater requirements are specific requirements that are associated with an activity. Check all that apply.)

	<b>Yes</b>	<b>N/A</b>
<b>Designing stormwater controls</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Constructing stormwater controls</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Maintaining stormwater controls</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Inspecting construction stormwater controls</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Inspecting post-construction stormwater controls</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other, Specify:</b>		

**A-24.** Which of the following activities have been part of the public education and outreach component of your stormwater program from 2005 - 2009? Check all that apply.

- Brochures, fact sheets, guides, or similar documents for the general public
- Brochures, fact sheets, guides, or similar documents for your agency's staff
- Radio features
- Television advertisements
- Newspaper advertisements
- Educational programs (for the general public, school children, teachers, etc.)
- Event participation (conference participation, earth day events, fairs, etc.)
- Staff training
- Contractor/consultant training
- Municipality training
- Storm drain stenciling
- Stormwater hotlines
- Tributary signage
- Website
- Informational briefings for public officials (politicians, managers, etc.)
- Volunteer educators/speakers
- Other, describe:

None

**A-25.** Which of the following activities have been part of the public involvement component of your stormwater program from 2005 - 2009? (Check all that apply.)

- Public meetings/citizen panels
- Public notification and review of stormwater program elements
- Volunteer water quality monitoring
- Storm drain stenciling
- Public reporting of litter/pollution (telephone hotline or website)
- Stream clean-ups
- Citizen watch groups
- Coordination with highway patrol (or similar entity) and/or governmental entities regarding stormwater complaints
- "Adopt A Highway" programs
- Other, describe:

None

**A-26.** Which of the following activities have been part of the illicit discharge detection and elimination component of your stormwater program from 2005 - 2009? (Check all that apply.)

- Paper tracking/inventory of outfalls
- Database tracking/inventory of outfalls
- Outfalls that drain to sensitive watersheds are tracked separately/differently
- Storm sewer system mapping
- Field staff training (to identify and eliminate illicit discharges/connections)
- Field analyses/indicator tracing/lab 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 spills and illicit discharges)
- Adoption of ordinances/codes/policies established by local jurisdictions
- Other, describe:

None

**A-27.** Which of the following activities have been part of the pollution prevention/good housekeeping component of your stormwater program from 2005 - 2009? Check all that apply.

- Inventory of your facilities
- Facility assessment (to determine the facility's potential to discharge pollutants)
- Vehicle washing requirements
- Fueling operations requirements
- Vehicle maintenance requirements
- De-icing/Anti-icing material storage
- Tracking the amount of de-icing/anti-icing materials used
- Tracking the amount of fertilizers used
- Tracking the amount of pesticides used
- Tracking the amount of herbicides used
- Facility inspections
- Storm sewer system maintenance activities (includes inspections and cleaning)
- Street sweeping/vacuuming activities
- Pesticide/herbicide application and management requirements
- Fertilizer application and management requirements
- Field staff training
- Contractor/consultant training
- Other, describe:

None

**A-28.** Which of the following activities has been part of the record keeping component of your stormwater program from 2005 - 2009? Check all that apply.

- Spill response
- Construction inspection
- Industrial inspection
- Illicit discharge detection and elimination
- Annual reporting costs
- Permit implementation costs
- Outfall inspection
- Inspection of specific stormwater controls
- Staff training
- Other, describe:

None

**A-29.** What mechanisms other than ordinances do you use to implement your stormwater program and ensure compliance? (Check all that

- Internal policies/guidelines
- Cooperative agreements
- Third party construction contracts contain stormwater requirements
- Third party contracts related to operating and/or maintaining stormwater control measures contain stormwater requirements
- Other, Specify:

**A-30.** Which of the following activities have been part of the industrial component of your stormwater program from 2005 - 2009? Check all that apply.

- Inventory of industrial facilities (i.e. a list of the facilities themselves)
- Education of industrial operators about stormwater requirements and/or controls
- Site inspection of industrial facilities for stormwater
- Site inspection of commercial facilities for stormwater
- Training of inspectors
- Other, specify:

None, there is no industrial component in the MS4 stormwater program

**A-31.** Which of the following activities have been part of the construction component of your stormwater program from 2005 - 2009? Check all that apply.

- Review site plans
- Tracking/ inventory of construction sites
- Construction site inspections
- Approved construction control manual
- Field staff training
- Contractor training
- Other, describe:

None, there is no construction component in the MS4 stormwater program

**A-32.** Does your agency have GIS data for ongoing and future transportation projects?

- Yes
- No
- Unknown

If you answered yes to this question please provide a point of contact and/or website address where this information can be obtained.

Point of Contact:  
Phone Number:  
Email Address  
Website Address:

Survey ID: Insert Survey ID

**Section:** A.2  
**Section Title:** Post Construction

**Instructions:** Throughout Section A.4 (Questions A-33 to A-55), provide the information requested. **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-33.** Which of the following activities have been part of the post construction component of your stormwater program from 2005 - 2009? (Check all that apply.)

- Review site plans for post construction stormwater water quality and/or water quantity requirements for the DOT's discharges from new construction projects.
- Review site plans for post construction stormwater water quality and/or water quantity requirements for discharges from new construction projects on adjacent properties that discharge into the DOT's MS4
- Tracking/inventory of sites with post-construction controls
- Tracking/inventory of post-construction stormwater controls
- Inspections related to post-construction controls
- Field staff training
- Contractor training
- Inspection and maintenance of post-construction stormwater controls
- Other, specify:

None

**A-34.** What mechanism(s) does the DOT use to ensure that continued operation and maintenance of post construction stormwater controls is performed?

- Tracking database of post construction stormwater controls
- Standardized prioritization of activities based on the severity of operation and maintenance required
- Standardized schedule for conducting inspections of post construction stormwater controls
- None, the DOT is not responsible for the operation and maintenance of post construction stormwater controls
- Other, specify:

**A-35.** Who typically reviews your site plans for stormwater post-construction control structures? Includes reviews for both water quality and quantity concerns. (Check all that apply.)

- State regulatory agency
- County
- Municipality
- EPA
- Self-review
- Third party contractor/entity
- Other, specify:

**A-36.** Do you have any stormwater controls located on the following types of property? Shared control means that the DOT installs, operates, or maintains the control (e.g., it is a joint-use stormwater facility/control).

	Shared Control	DOT-owned Control	Other
Privately owned properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State properties not owned by the DOT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
County properties not owned by the DOT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local properties not owned by the DOT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Not applicable, specify:			

**New Development, Redevelopment, and Maintenance**

The following series of questions are intended to collect information about how the DOT characterizes different types of projects and what post-construction stormwater standards are applied to different types of projects. EPA recognizes that the terms “new development” and “redevelopment” may not be common terminology in the context of construction projects undertaken by DOTs. These questions are designed to help EPA determine how your particular agency characterizes different types of projects for purposes of your MS4 permit(s) and how your agency applies post construction stormwater management requirements to various types of projects. In addition to the following questions, EPA has included a question (A-69) where you can describe in narrative terms how your agency characterizes different types of projects and the types of post construction stormwater standards your agency applies to different types of projects if you believe additional description is required.

**A-37.** Which of the following activities are considered by the DOT to be new development, redevelopment, or **maintenance/repair**?

*Bridges*

Bridge deck replacement	Select	▼
Bridge girders and substructures	Select	▼

*Additional Surfaces*

Extensions/expansions that add imperviousness onto previously undeveloped land, but are part of the same plot/parcel (e.g. a rest stop parking lot is extended into an adjoining forested area)	Select	▼
Road and/or shoulder widening projects (e.g. adding a lane or widening an older roadway to improve safety)	Select	▼
Reconstruction projects	Select	▼
Pavement structural and joint repair (e.g. pothole and square cut patching, crack sealing, etc.)	Select	▼
Realignment (moving the location of an existing highway, curve corrections, intersection realignment, etc.)	Select	▼
Addition of new sidewalks or bike paths	Select	▼

*Other*

Road resurfacing	Select	▼
Road repaving	Select	▼
Sidewalk replacement	Select	▼
Culvert replacement and repair	Select	▼
Removal or protection of roadside objects which pose a safety hazard to the traveling public	Select	▼
Other, specify:		

**A-38.** In areas subject to MS4 permits, indicate if post construction stormwater management requirements are typically applied to the following activities:

Standards for drainage are those that are primarily intended to convey stormwater (such as culvert sizing requirements) while standards for water quality are those that are primarily intended to remove pollutants or otherwise address water quality concerns.

Activity	Postconstruction Stormwater Standards for Drainage Typically Apply	Postconstruction Stormwater Standards for Water Quality Typically Apply	Postconstruction Stormwater Standards Typically Do Not Apply	Varies Based on the Nature of the Project	The DOT Does not Typically Conduct This Activity
Road and/or shoulder widening*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adding a lane to an existing road or highway**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a roadway bypass or a new road or highway where one does not currently exist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road reconstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Realignment***	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of new sidewalks, bike paths or other pedestrian facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction or expansion of a parking lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a maintenance facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a rest stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Includes widening an existing lane or adding or widening a shoulder to an existing lane, but does not include adding a new lane.

\*\*An example would be converting a two-lane road into a four-lane divided highway.

\*\*\*Includes moving the location of a section of an existing highway, curve corrections, intersection realignment, etc.

**A-39.** In areas NOT subject to MS4 permits, indicate if the DOT typically applies post construction stormwater management requirements to the following activities:

Activity	Postconstruction Stormwater Standards for Drainage Typically Apply	Postconstruction Stormwater Standards for Water Quality Typically Apply	Postconstruction Stormwater Standards Typically Do Not Apply	Varies Based on the Nature of the Project	The DOT Does not Typically Conduct This Activity
Road and/or shoulder widening*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adding a lane to an existing road or highway**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a roadway bypass or a new road or highway where one does not currently exist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road reconstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Realignment***	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of new sidewalks, bike paths or other pedestrian facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction or expansion of a parking lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a maintenance facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of a rest stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Includes widening an existing lane or adding or widening a shoulder to an existing lane, but does not include adding a new lane.

\*\*An example would be converting a two-lane road into a four-lane divided highway.

\*\*\*Includes moving the location of a section of an existing highway, curve corrections, intersection realignment, etc.

**Stormwater Management: Specific or Numeric Performance Standard and/or Design Criteria for Post Construction Controls**

**A-40.** How do you ensure that post construction standards or design criteria are met? (Check all that apply.)

- Site inspection to ensure designs for post construction are followed
- Operation & maintenance inspection of post construction stormwater controls to ensure controls are working as designed
- Site plan review/approval acceptance
- Review self-reporting/self-certification database
- Other, specify:

[Redacted area]

**A-41.** Do you participate in an alternative program to comply with your performance standard or design standard?

Yes, it is a stormwater off-site mitigation program, specify:

[Redacted area]

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

[Redacted area]

Yes, it is a stormwater crediting program, specify:

[Redacted area]

Yes, it is a mitigation banking system, specify:

[Redacted area]

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

[Redacted area]

No, I do not participate in any alternative compliance programs, but they do exist

No, an alternative compliance program does not exist

**A-42.** Who determined your MS4's stormwater performance standards and/or design criteria requirements for post construction controls for new or redevelopment activities? (Check all that apply.)

- The 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 County enacted these regulations that the MS4 is required to implement
- Local governments enacted these requirements
- The DOT has self-imposed requirements
- Other, describe:

[Redacted area]

**A-43.** Is your post construction standard for redevelopment projects different than for new development projects?

- Yes (Answer questions A-46 – A-47 regarding your standard for new development, answer questions A-48 – A-50 regarding your standard for redevelopment)
- No (Answer question A-46 – A-47 regarding your standard for development, skip questions A-48 – A-50)

**A-44.** For new development projects, do you have different post construction stormwater performance standards and/or design criteria that apply in different locations within your service area?

No, a single standard applies to all the DOT's post-construction activities. Specify if it's an internal standard or if the State determined the standard:

[Redacted area]

- Yes, multiple standards/criteria which vary depending on the municipal government
- Yes, multiple standards/criteria which vary depending on the county government
- Yes, multiple standards/criteria which vary depending on the geographic location
- Yes, multiple standards/criteria which vary by location depending on whether it is for treatment of stormwater or attenuation of stormwater discharge volume/flow

**A-45.** Does your DOT have a statewide standard (for state DOTs) or countywide standard (for county DOTs), for stormwater management for new development? (Check all that apply.)

- Yes, there is a standard for water quality (e.g., treatment of first 1" of runoff)
- Yes, there is a standard for water quantity (e.g., peak discharge rate control for the 2-year, 24-hour storm)
- Yes, there is a standard for retention (e.g., infiltration of first 0.5" or runoff)
- No

If you answered yes to any of the above, provide a narrative description of the standard or attach copies and/or citations for the relevant standards and criteria (such as a copy of your design requirements for stormwater controls or a citation to the state law or a web page link to the design manual that contains the information).

[Redacted area]

## Stormwater Performance Standards and/or Design Criteria for Redevelopment Projects

**A-46.** For redevelopment projects in your MS4, what is the threshold to which post construction stormwater performance standards and/or design criteria apply?

No, a single standard applies to all the DOT's post-construction activities. Specify if it is an internal standard or if the State determined the standard:

[Redacted area]

- Yes, multiple standards/criteria which vary depending on the municipal government
- Yes, multiple standards/criteria which vary depending on the county government
- Yes, multiple standards/criteria which vary depending on the geographic location
- Yes, multiple standards/criteria which vary by location depending on whether it is for treatment of stormwater or attenuation of stormwater discharge volume/flow

**A-47.** Does your DOT have a statewide standard (for state DOTs) or countywide standard (for county DOTs), for stormwater management for redevelopment? (Check all that apply.)

- Yes, there is a standard for redevelopment that is the same as the standard for new development [\(Skip to Question A-48\)](#)
- Yes, there is a standard for water quality (e.g., treatment of first 1" of runoff)
- Yes, there is a standard for water quantity (e.g., peak discharge rate control for the 2-year, 24-hour storm)
- Yes, there is a standard for retention (e.g., infiltration of first 0.5" of runoff)
- No

If you answered yes to any of the above, and your standard is different from the new development standard, provide a narrative description of the standard or attach copies and/or citations for the relevant standards and criteria (such as a copy of your design requirements for stormwater controls or a citation to the state law or a web page link to the design manual that contains the information).

[Redacted area]

**A-48.** Provide any additional information you would like regarding how your agency characterizes different types of projects and the types of post-construction stormwater standards your agency applies to different types of projects if you believe additional description is necessary.

[Redacted area]

## Retrofit of Stormwater Management Practices

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

**A-49.** Does your DOT have a stormwater retrofit program?

- Yes, we have a stand alone retrofit program specifically for stormwater
- Yes, we have a retrofit program that is part of some larger program or in combination with other environmental programs
- No [\(Skip to Question A-58\)](#)

**A-50.** Which of the following statements best describes your stormwater retrofit program? (Check all that apply.)

- We are required to retrofit
- We have a voluntary retrofit program
- We receive incentives for retrofits
- We initiate retrofits on public property
- We initiate retrofits on private property
- Stream restoration is part of our retrofit plan
- Other, specify:

**A-51.** How does the DOT pay for the stormwater retrofit projects? (Check all that apply.)

- State Transportation Improvement Program (STIP)
- We have a dedicated fund
- Other, specify:

- None

**A-52.** What is the purpose of your stormwater retrofit program? (Check all that apply.)

- To comply with stormwater permit requirements
- To address flood control
- To comply with total maximum daily load (TMDL) or other water quality requirement(s)
- Other requirements, such as state requirements, please describe:

- Not to meet a requirement listed above, but to address watershed plan or local water quality, habitat or stream stability or geomorphology concerns
- Other, specify:

- Not applicable

**A-53.** Does your retrofit program apply to all areas under your control, or only in areas subject to MS4 permitting?

- Yes, it is a system-wide program
- No, it only applies in areas subject to MS4 permitting

**A-54.** Provide any additional details of your stormwater retrofit program, for example detailed costs, technical details, etc.

**A-55.** What kind of stormwater retrofit projects could make the most effective difference in terms of restoring water quality and other beneficial uses and flood protection in your area? Are these projects also the most cost effective?

Survey ID: Insert Survey ID**Section:** A.3**Section Title:** Specific Stormwater Controls**Instructions:** Throughout Section A.3 (Questions A-56 to A-69), provide the information requested.

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

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 that do not discharge stormwater off-site or to surface water below a certain design capacity (design volume, stormwater size, etc.). The stormwater is infiltrated, evapotranspired, or harvested. Examples are bioretention cells (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-56.** What process do you have for determining which stormwater controls are eligible/approved for use on any of your projects? (Check all that apply.)

- We have a stormwater control testing program
  - We consult with the permitting authority for an approved list of stormwater controls
  - The state has a testing program that we reference
  - We have a process that is part of our retrofit program
  - We do not have a formal process for approving particular stormwater controls for use on our projects
  - We have specific design standards that we created and follow
  - Other, Specify:
-

- A-57.** (a) Which of the following stormwater controls are installed within your MS4 (includes those controls located on both public and private property)?  
 (b) Which stormwater controls is the MS4 responsible for maintaining (at any level of service)?  
 (c) For which practices do you have available cost information, including both capital cost and operation and maintenance cost?  
 (d) For which stormwater controls do you have performance data that you have collected or that have been collected on your system?  
 (Note: An EPA representative may contact you at a later date in order to get more detailed information about this cost and performance data. If you have additional comments on the utility of any of these practices you may include it at the end of this section.)

<b>Stormwater Controls</b>	<b>(a) Installed/Applied</b>	<b>(b) Maintain</b>	<b>(c) Available Cost Information</b>	<b>(d) Performance Data</b>
Extended Detention Basin (wet or dry)	<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"/>
Underground detention	<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"/>
Infiltration trench	<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"/>
Sand or other media filters	<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"/>
Vegetated swale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructed Wetland (including basins, channels, or gravel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetated filter strip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bioretention (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"/>
Trees/Tree Box	<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"/>
Riparian Buffers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Permeable concrete/permeable asphalt/ permeable pavers	<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"/>
Rain barrel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Native vegetation/landscaping planting requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Xeriscaping or water efficient planting designs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conservation/protection of green open space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced impervious surface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open graded friction course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Controls:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Controls:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**A-58.** For any construction projects that you have initiated within the past 5 years have you completed a cost comparison between traditional stormwater practices (such as stormwater ponds) and practices that retain stormwater on-site (also known as low impact development or green infrastructure)?

- Yes  
 No

If so, is the cost data available? (Includes costs that you collected yourself or were collected on your behalf)

- Yes  
 No

**A-59.** What were the drivers for implementation of the low impact development or green infrastructure practices? (Check all that apply.)

- Stormwater management requirement  
 To address flooding  
 TMDL or other water quality requirement  
 Other:

- Unknown  
 Not Applicable

Not Applicable

**A-60.** In your service area, which of the following ordinances or other types of regulations, policies, or guidelines may prevent stormwater retention practices (as described at the beginning of this section) from being implemented? Check all that apply. This question should be answered regardless of entity (e.g., state, county, or city) that imposes the requirement.

**Specific Water Requirements**

- Standing water restrictions which may prevent the use of practices that impound stormwater.
- Water rights issues
- Restrictions related to groundwater contamination potential
- Restrictions related to sole source aquifer limitations
- Restrictions on tree/wetland protection requirements
- Depth to water table/groundwater
- Other:

---

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

---

**Building/Structure Requirements, Policies, or Guidelines**

- Restrictions on setbacks/frontages (e.g., for metro stations or rest stop buildings)
- Restrictions related to plumbing codes (e.g., prohibitions on stormwater reuse for toilet flushing)
- Other:

---

Vegetation Requirements, Policies or Guidelines

- 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:

---

Other Requirements

- Requirements that may restrict the use of pervious concrete, porous asphalt, modular block pavers, or other alternatives to conventional/impermeable paving materials
- Restrictions on stormwater reuse for irrigation (e.g., health code restrictions)
- Restrictions related to vector (e.g., mosquito) controls
- Restrictions related to concerns related to clear zones, site distance, geometry, etc.
- Concerns related to the structural integrity of roadway facilities
- Concerns related to maintenance access
- Concerns related to traffic handling
- Concerns related to highway workers safety
- Requirements for mandatory treatment of discharges
- Other:

---

**A-61.** Do you have any of the following maintenance concerns that may prevent stormwater retention practices (as described at the beginning of this section) from being implemented in your MS4?

- Safety of highway workers
- Safety related to clear zones, site distance, emergency access, geometry, etc.
- Disease vector (e.g., mosquitoes)
- Space availability
- Ease of access
- Endangered/threatened species (e.g., concerns related to inadvertently impacting endangered/threatened species and/or their habitat)
- Other, Specify:

---

- None

**A-62.** Has stormwater infiltration ever been prohibited on your sites due to concerns related to groundwater contamination, drinking water reservoirs, and/or sole source aquifers?

- Yes
- No
- Not applicable, Specify:

Unknown

**A-63.** Does your DOT's stormwater discharge to a state-defined source water protection area for public water supplies?

**Discharges from your MS4**

**Discharges from the total area  
under your control**

- Yes
- No
- Unknown

- Yes
- No
- Unknown

Not applicable, Specify:

**A-64.** Are any of the following implemented in your MS4 service area? (Check all that apply. The list includes self-imposed requirements, DOT MS4 permit requirements, and externally imposed requirements (local/county requirements)).

- Requirements limiting the amount of land that can be disturbed at any given time (e.g. only 20 percent of the land can be disturbed for any project at any given time)
- Natural area protection
- Stream restoration/remediation program
- Buffer/riparian corridor requirements
- Incentives for green infrastructure/low impact development practices
- Restrictions on the amount of impervious surfaces (e.g., caps on the amount of impervious surfaces)
- Other, describe:

- None
- Not Applicable

**A-65.** Do you have a program or plan for future capital improvements to address lack of capacity in your stormwater conveyance system/MS4?

- Yes
- No
- Not applicable, Specify:

---

**MONITORING**

**A-66.** Have you performed any of the following types of monitoring? (This question includes laboratory analyses, field analyses, and visual surveys that the DOTs performed themselves or in coordination with other entities. Check all that apply.)

- Stormwater outfall monitoring
- Stormwater monitoring of specific stormwater controls
- Edge of pavement monitoring or other characterization of roadway stormwater discharges
- In-stream monitoring for water quality parameters
- In-stream monitoring for biological parameters
- In-stream monitoring for geomorphology or physical habitat

**A-67.** Do you conduct monitoring for pollutant levels (e.g., pH, metals, nutrients, suspended solids, etc.) or flow-related parameters (e.g., flow rate, volume, etc.) at the following locations?

	Outfalls	Stormwater Controls	Edge of pavement
<b>Pollutant levels</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Flow-related parameters</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Toxicity</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sediment</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other, specify:

---

Not applicable, the DOT doesn't have any monitoring requirements

**A-68.** Do you have data that you have collected or that have been collected on your behalf indicating any chemical, biological, and/or physical changes in the receiving waters to which you discharge stormwater that you can attribute to your stormwater program (e.g., we saw a reduction in total nitrogen and an increase in sensitive stream microinvertebrates)?

Yes, describe:

[Redacted area]

No

Unknown

Not Applicable

**A-69.** Provide any additional comments for Section A in the space provided below.

[Redacted area]

Final Advanced Copy

Survey ID: Insert Survey ID

**Section: B**  
**Section Title:** Financial Information  
**Instructions:** Throughout Section B (Questions B-1 to B-20), provide the information requested. **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.** Indicate your agency/department's total operating budget and stormwater related annual operating budget.

Annual Budget (\$)					
	Fiscal Year				
	2005	2006	2007	2008	2009
<b>Total Operating Cost</b>					
<b>Stormwater Related Cost</b>					

**B-2.** Select the month that begins your fiscal year?

Select

**B-3.** For the five year period from 2005 to 2009, on average, what percent of the stormwater budget did you approximately spend on the following activities? Total must equal 100%.

Activity	%	Actual Amount (\$)	Describe Your Specific Activity Under This Category
Program administration (e.g., clerical activities, financial management, NPDES compliance and reporting)			
Planning and engineering (e.g., surveying and document existing conditions, GIS development and operations, master planning)			
Capital improvements (e.g., capacity expansion, capital construction, stream restoration, land acquisition, retrofits). Includes servicing of any capital debt (i.e., payment of interest and repayment of principle.)			

Pollution prevention/good housekeeping for agency operations (training for agency staff on pollution prevention measures and techniques, regular street sweeping, reducing the use of pesticides or street salt, or frequent catch-basin cleaning)			
Other operations and maintenance (e.g., remedial maintenance, emergency response operations)			
Illicit discharge detection and elimination			
Other inspection and enforcement			
Public education and outreach			
Public involvement and participation			
Construction site runoff control program for construction activities that disturb one or more acres			
Post-construction runoff control program			
Other, specify:			

Total Should Equal 100%: 0

Additional Comments on Annual Stormwater Costs (Optional):

**Funding and Employment Questions**

The following two questions request information on the sources of revenue for your stormwater related activities. These are meant to be general approximations based on the years 2005 through 2009.

**B-4.** What percentage of your stormwater program revenue comes from the following sources? (Total must equal 100%)

Motor Fuels Taxes (e.g. gas tax)		%
Toll Road Revenue		%
Federal Highway Administration Transportation Enhancement Activity		%
State Transportation Funds		%
State General Fund		%
Grants (EPA 319 Funds, etc.)		%
Other, Specify:		%
		0 % SUM

**B-5.** Which stormwater program revenue sources are dedicated and which are discretionary sources?

	Dedicated	Discretionary	Not a Source
<b>Motor Fuels Taxes (e.g., gas tax)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Toll Road Revenue</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Federal Highway Administration Transportation Enhancement Activity</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>State Transportation Funds</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>State General Fund</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Grants (EPA 319 Funds, etc.)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**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 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
<b>Stormwater Staff (FTE)</b>					
<b>Non-stormwater Staff (FTE)</b>					

**Mitigation Questions**

**B-7.** Is there an off-site mitigation program available to you for mitigating the impacts of changes to site hydrology?

- Yes
- No

Comments:

[Redacted comment area]

**B-8.** Do you have the option available for payment-in-lieu of mitigation?

- Yes
- No

Comments:

[Redacted comment area]

**B-9.** Do you have the authority to require adjacent properties discharging to your system to manage or treat their stormwater?

- Yes
- No

Comments:

[Redacted comment area]

**Stormwater Fee Questions**

**B-10.** Do you have the authority to charge and/or increase stormwater fees?

- Yes
- No

**B-11.** Are you subject to stormwater fees in jurisdictions that you operate in?

- Yes
- No

**Capital Improvement Project Questions**

**B-12.** Did you initiate stormwater capital projects to address inadequate stormwater system capacity anytime in the period of FY 2005 through FY 2009?

- Yes
- No

**B-13.** What was the approximate annual cost and percentage of your total stormwater system addressed by the capacity expansion? If not applicable, write NA. If unknown write UK.

Stormwater Capacity Expansion Activity and Cost, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
<b>Dollars</b>					
<b>% of service area</b>					

**B-14.** Did your jurisdiction initiate stormwater retrofit projects to address water quality anytime in the period of FY 2005 through FY 2009? (Check the answer that best applies.)

- Yes
- Yes, only on public property
- No [\(Skip to Question B-16\)](#)

**B-15.** What was the approximate annual stormwater retrofit cost and number of projects completed? If not applicable, write NA. If unknown write UK.

Stormwater Retrofit Projects and Cost, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
<b>Dollars</b>					
<b>Number of projects</b>					

**B-16.** Did you initiate projects for stream restoration associated with correcting or mitigating impairment from stormwater discharges anytime in the period of FY 2005 through FY 2009?

- Yes
- No [\(Skip to Question B-20\)](#)

**B-17.** What was the approximate annual cost and miles of stream restored that was associated with stormwater discharges? If not applicable, write NA. If unknown write UK.

Stream Restoration and Cost, FY 2005-2009					
	Fiscal Year				
	2005	2006	2007	2008	2009
<b>Dollars</b>					
<b>Stream Miles</b>					

**B-18.** 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:

**B-19.** Indicate the type of stabilization measures that were done?

- Vegetative stabilization
- Non-vegetative stabilization such as concreting, installing riprap, etc.
- Combination of vegetative and non-vegetative measures

**B-20.** Provide any additional comments for Section B in the space provided below.

Survey ID: **Insert Survey ID**

**Section: C**

**Section Title:** Contact Information

**Instructions:** 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.

**C-1** Provide the contact information for the person who would be able to answer questions regarding this information that was requested in this questionnaire.

Name

Title

Phone/Fax Number

Email

Best Time to Contact

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



