

NPDES Permitting Authority Questionnaire

Final Advance Copy

NOTICE: This is the final advanced copy of the NPDES Permitting Authority 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
NPDES Permit Authority: Insert NPDES Permit Authority



Stormwater Management Including Discharges from Developed Sites

NPDES Permitting Authority Questionnaire

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Survey ID: **Insert Survey ID****NPDES Permitting Authority Questionnaire****INSTRUCTIONS**

Complete the questionnaire considering the following instructions:

- This questionnaire is available at the following link: _____.
- 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 empty 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).
- The period of interest for the questionnaire 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**

NPDES Permitting Authority 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.

Term	Definition
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.
Cistern	Large storage devices that are often built below ground, at ground level, or on rooftops, for storing captured storm water 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.
Detention/ Extended Detention Practices	Practices which hold stormwater temporarily and discharge the stormwater over an expended 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.”
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 discharges 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 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.
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.

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 discharges close to its source.
Mixed Use	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).
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 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 to 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.
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.
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, evaporation, 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.
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.
Storm Sewer System	A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, pipes, 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.
Undeveloped	Describes land that has not been subject to prior development. See "new development."
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.
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.
Vegetated Swales	<p>A broad, shallow channel used for conveying stormwater discharges. 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 discharges, but, unlike the dry swale, lacks an underdrain system. The wet swale is marshlike and relies on and supports wetland vegetation.</p>

Survey ID: **Insert Survey ID**

Section: A
Section Title: General Information

Instructions: Throughout Section A (Questions A-1 to A-10), provide the general 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.

Name:

Title:

Agency/Department:

Street Address:

City:

State: Zip Code:

Telephone Number: () - ext.

Email:

Convenient time to call between (Eastern Time): am to pm

A-2. Name of the stormwater program permitting authority's department or agency.

A-3. What was your state's annual operating budget for your stormwater program for the last five years? Include all parts of your stormwater program (MS4, construction and industrial).

Table A-1. Annual Budget (\$)

	Fiscal Year				
	2005	2006	2007	2008	2009
NPDES Budget	<input type="text"/>				
Stormwater Operating Budget	<input type="text"/>				

A-4. Indicate what activities are included in your state's stormwater budget for FY 2009 and indicate what percentage of total budget is allocated to those activities. The percent should add up to 100% and include all activities. The total dollar amount should equal the 2009 stormwater budget provided in A-3. 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 field. Provide your best estimate. Provide your best estimate of the distribution of the budget among these activities.

Those activities may include:

- Management/administration
- Regulation/rule/policy development
- Permitting
- Construction site inspections/enforcement
- Industrial site inspections/enforcement
- MS4 inspections/enforcement/audits
- Outreach
- Installation/maintenance of stormwater control measures
- Funding of local government stormwater projects

Percent	Actual Amount	Activity	Comments
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Total should add up to 100%:

A-5. What is the expected state's annual operating budget for stormwater for FY2010?

\$

A-6. How many full time equivalent (FTE) staff were dedicated to the stormwater program in the last five years, on average?

Total FTEs

Provide your best estimate of the distribution of FTEs among these activities.

Management/administration

Regulation/rule/policy development

Permitting

Construction site inspections/enforcement

Industrial site inspections/enforcement

MS4 inspections/enforcement/audits

Outreach

Installation/maintenance of stormwater control measures

Funding local government stormwater projects

Other, specify:

A-7. Is any part of your state's stormwater budget used to support MS4s to implement their program (for example through grants or other funding mechanisms)?

- Yes, specify: _____
- No

A-8. Provide any additional budget information for Section A in the space provided below (e.g., funding decreases, furloughs).

Source Control

A-9. Does your state prohibit/ban or limit/restrict the use or sale of nitrogen or phosphorus fertilizers, phosphorus detergents or specific pesticides as a source control measure for stormwater discharge?

	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, specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A-10. If applicable, does your state have data indicating water quality improvements as a result of the ban or limits on usage of nitrogen or phosphorus fertilizers, detergents or specific pesticides as a source control measure for stormwater discharge?

- Yes, specify: _____
- No
- Not applicable, the state has no such ban or usage restriction

Extent of Coverage

B-7. Are there Phase II permits in your state in which coverage is extended beyond that required by the Phase II regulation (i.e., based on a boundary other than an urbanized area boundary (as defined by the U.S. Census and automatically designated under the Phase II regulations (CFR 122.32))?)

Yes, specify:

[Redacted]

No, all Phase II permits are based on urbanized area boundary

B-8. How much of the land area of your state is covered by stormwater MS4 permits (including any areas regulated beyond minimum federal criteria - Phase I and Phase II in urbanized area)?

[Redacted] acres

[Redacted] %

B-9. Do you have a GIS map of Phase I and II MS4 coverage for your state?

Yes, GIS map includes Phase I and II MS4 coverage

Yes, GIS map only includes Phase I MS4 coverage

Yes, GIS map only includes Phase II MS4 coverage

No

Provide the citation of the location of the GIS information. Provide the URL if the GIS information is posted on the web.

[Redacted]

B-10. What is your state's criteria for designating small MS4s, other than those located in an urbanized area, as described in the Phase II regulations (CFR123.35(b))? Check all that apply.

Discharge to sensitive waters

Population or population density

High growth or growth potential

Contiguity to an urbanized area

Significant contributor of pollutants to waters of the United States

Ineffective protection of water quality concerns by other programs

Other, specify:

[Redacted]

None

Provide the citation of the regulation, statute, or guidance where your state's MS4 designation criterion (developed under 40 CFR 123.35) is located. Provide the URL if the criterion is posted on the web.

[Redacted]

B-11. Has your state stormwater program used its designation authority to regulate small MS4s other than those located in an urbanized as described in the Phase II regulations (CFR 123.35(b))? Include designation of entire counties which contain urbanized area.

Yes, specify:

[Redacted]

No

B-12. Has your state stormwater program used its residual designation authority (CFR 122.26 (a)(9)(i)(C) or (D)) to regulate discharges or category of discharges within a geographic area because controls were needed based on wasteload allocations that are part of TMDLs or because the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the U.S.?

Yes, specify:

No

B-13. Has your state identified any stormwater discharges or classes of stormwater discharges for regulation/permitting under **state law** that are not currently subject to regulation/permitting under the federal Clean Water Act stormwater program?

Yes, describe those discharges:

No, my state regulates only those discharges subject to the Phase I and Phase II stormwater regulations

B-14. In your state, how many stormwater permits have you issued which are based on watershed or watershed district boundaries?

MS4 watershed permits, specify:

None of the MS4 permits are based on watershed-based boundaries

B-15. In your state, what is the percent of MS4s regulated as a permittee or copermittee under a stormwater permit which is based on watershed boundaries/watershed districts boundaries?

% MS4 permittees covered under a watershed permit

No MS4s are covered under a watershed permit

B-16. In your state, what is the percent of MS4s whose stormwater permit requires or encourages implementation of components of a watershed management plan (not including TMDL implementation)?

% MS4s, specify:

None

Survey ID: Insert Survey ID**Section: B.2****Section Title: Municipal Stormwater Program - Specific Stormwater Program Components**

Instructions: Throughout Section B.2 (Questions B-17 to B-26), 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-17. Do you require Phase I MS4s in your state to implement the six minimum control measures as described in the Phase II stormwater regulations?

- Yes, this is true for all Phase I MS4s in my state
 This is true for some Phase I MS4s in my state
 No, Phase I requirements do not go beyond what is described in the Phase I regulations
 Not applicable, my state does not have any Phase I MS4s

If yes, check all of the minimum controls measures (as described in the Phase II) that are required of Phase I permittees.

- Public education and outreach
 Public participation/involvement
 Illicit discharge detection and elimination
 Construction site discharge control
 Post construction discharge control
 Pollution prevention/good housekeeping

B-18. Do you require Phase II MS4s to implement an industrial program similar to that required for Phase I MS4s?

- Yes
 Some Phase II MS4s
 No

B-19. Do you require Phase II MS4s to conduct monitoring similar to that required for Phase I MS4s?

- Yes
 Some Phase II MS4s
 No

B-20. Does your state collect annual reports through electronic submission for Phase I and Phase II MS4s? Check all that apply.

- Phase I MS4s submit electronic annual reports
 Phase II MS4s submit electronic annual reports
 Some Phase I MS4s submit electronic annual reports
 Some Phase II MS4s submit electronic annual reports
 No

B-21. Does your state require Phase I and Phase II MS4s to report their stormwater operating budget in their annual report? Check all that apply.

- Phase I MS4s must report their budget in their annual report
 Phase II MS4s must report their budget in their annual report
 No

B-22. Does your state require Phase I and Phase II MS4s to report their monitoring results in their annual report? Check all that apply.

- Phase I MS4s must report their monitoring results in their annual report
 Phase II MS4s must report their monitoring results in their annual report
 No

B-23. Has your state done an analysis of the MS4 annual reports. Check all that apply.

- Yes, we have analyzed Phase I MS4 annual reports
- Yes, we have analyzed Phase II MS4 annual reports
- No

B-24. Does the state's MS4 general permit require the review of ordinances?

- Yes
- No

B-25. Provide a description of any data (may include water quality/water quantity monitoring) that has shown the effectiveness of any component of your stormwater program in protecting waterbodies from stormwater impacts. Include references to any data or other information you may have.

B-26. Provide a description of any data (may include water quality/water quantity monitoring) that has shown any component of your stormwater program has **NOT been effective** in protecting waterbodies from stormwater impacts. Include references to any data or other information you may have.

Survey ID: Insert Survey ID

Section: B.3
Section Title: Municipal Stormwater Program - **Retrofit** of Stormwater Management Practices, Monitoring

Instructions: Throughout Section B.3 (Questions B-27 to B-34), 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-27. Are there currently stormwater retrofit requirements in any MS4 permits (or other regulation) in your state to reduce the water quantity and quality impacts from existing developed areas?

- Yes, in the MS4 general permit, specify:
- Yes, in the MS4 individual permits, specify:
- Yes, there are retrofit requirements in some MS4 permits which a TMDL implementation plan necessitates such practices
- There are no retrofit requirements in MS4 permits, but there are retrofit requirements in another regulation, specify:
- No [Skip to Question B-30](#)

B-28. What is the driver of the stormwater retrofit requirement? Check all that apply.

- To strengthen MS4 stormwater permit requirements
- To address wetlands mitigation
- To address flooding
- Total Maximum Daily Load (TMDL) or other Clean Water Act water quality requirement(s)
- Safe Drinking Water Act (SDWA) wellhead protection or UIC regulations
- To comply with other federal regulations (ESA, CERCLA, WRDA, etc.)
- To strengthen local watershed plan or local water quality, habitat or stream stability or geomorphology concerns
- Other, specify:
- Not applicable

B-29. Provide any additional details of a retrofit program in your state.

Monitoring

B-30. Do you require any of the following types of monitoring in your Phase I and Phase II MS4 permits? Do not include visual inspections as part of the Illicit Discharge and Detection Elimination (IDDE) program. Check all that apply.

Phase I MS4 permits

- Stormwater outfall monitoring - dry weather
- Stormwater outfall monitoring - wet weather
- Stormwater monitoring of specific stormwater controls
- In-stream monitoring for water quality parameters
- In-stream monitoring for biological parameters
- In-stream monitoring for geomorphology or physical habitat
- No Phase I monitoring

Phase II MS4 permits

- Stormwater outfall monitoring - dry weather
- Stormwater outfall monitoring - wet weather
- Stormwater monitoring of specific stormwater controls
- In-stream monitoring for water quality parameters
- In-stream monitoring for biological parameters
- In-stream monitoring for geomorphology or physical habitat
- No Phase II monitoring

B-31. Does your state collect data on the performance effectiveness of stormwater practices for water quality or volume control or sustainability? If yes, can you share such data?

- Yes, my state has measured effectiveness data and we have data to share
- Yes, my state has measured effectiveness data but we don't have data to share
- No, my state has not collected effectiveness data

B-32. Has your state documented any chemical, biological, and/or physical improvements in waters of the U.S. and/or waters of the state that can be attributed to your stormwater program?

- Yes
- No
- Unknown

B-33. Has your state measured improvements in water quality resulting specifically from the implementation of stormwater performance standards and/or design criteria? If yes, can you share such data?

- Yes, my state has measured such water quality improvement and we have data to share
- Yes, my state has measured such water quality improvement but we don't have data to share
- My state has implemented such standards but we have not measured water quality improvements
- My state has not implemented such standards

B-34. Provide any additional information for this Section B in the space provided below.



Section: D.1
Section Title: Standards for Stormwater Discharges from **New Development** and **Redevelopment** & Specific Stormwater Practices
Instructions: Throughout Section D.1 (Questions D-1 to D-9), 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.

D-1. Does your state define the following as new development or redevelopment?

Type of Project	Definition
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 ▼
Replacement of impervious surfaces (road resurfacing, sidewalk replacement, etc.)	Select ▼

If your state has 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.

D-2. Does your state define the following roadway activities as new development, redevelopment or maintenance?

Type of Project	Definition
Bridges	
Bridge deck replacement	Select ▼
Repairing bridge girders and substructures	Select ▼
Other, specify: 	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, specify: 	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: 	Select ▼

D-3. Does your state have a planning process, program or other mechanism that projects how much or where new development may occur over a certain time period?

- Yes, specify:
- No

D-4. Has your state determined impervious coverage statewide or for any certain regions of your state?

- Yes
- No

Describe the method used to determine impervious cover.

Performance Standard or Design Criteria for Stormwater Discharges from New Development or Redevelopment

D-5. In your state, is there a **post construction** standard that includes either numeric or specific stormwater performance standards or design criteria for stormwater control that applies to discharges from new development or redevelopment?

- Yes, there is a standard for post-construction discharges from new development or redevelopment in the MS4 general permit
- Yes, there is a standard for post-construction discharges from new development or redevelopment in the state construction general permit and/or individual state construction permits
- Yes, some MS4 or construction permits have such standard, but it's not in a state general stormwater permit
- Yes, there is a standard for post-construction discharges from new development or redevelopment in state regulations, but not in a federal NPDES permit
- Yes, other, specify:
- No, there are no standards for post-construction discharges from new development or redevelopment in my state

[Skip to Question D-18](#)

D-6. Is your post construction standard for redevelopment projects different than that for new development projects?

- Yes (Answer questions D-7 – D-9 regarding your standard for new development, answer questions D-10 – D-12 regarding your standard for redevelopment)
- No (Answer questions D-7 – D-9 regarding your standard for development, skip questions D-10 – D-12)

Stormwater Performance Standard or Design Criteria for (New) Development Projects

D-7. 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
- acre(s) of disturbed land
- cubic feet of disturbed land
- area of impervious surface (indicate units)

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

D-8. Indicate which specific or numeric stormwater performance standards or design criteria requirements apply to **new development** projects. Please 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: 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 the size of the discharge volume and flow rate. The options for standards that require retention are those in which the stormwater is infiltrated, evapotranspired, or harvested.

- 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: _____
 - Applies to all areas
 - Applies only to certain areas, specify: _____
- Detention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre)

Specify: _____

 - Applies to all areas
 - Applies only to 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: _____

 - Applies to all areas
 - Applies only to certain areas, specify: _____
- Detention of a specified percentile storm event (such as the 80th percentile storm)

Specify: _____

 - Applies to all areas
 - Applies only to 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: _____

 - Applies to all areas
 - Applies only to 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: _____

 - Applies to all areas
 - Applies only to certain areas, specify: _____
- Retention of a specified percentile storm event (such as the 80th percentile storm)

Specify: _____

 - Applies to all areas
 - Applies only to 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: _____

 - Applies to all areas
 - Applies only to certain areas, specify: _____

- Channel protection measures/ hydromodification controls (such as a maximum allowable discharge velocity or other metric)
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Infiltration/groundwater recharge requirement (for example, maintain predevelopment groundwater recharge levels or infiltrate the first 0.5 inch of runoff)
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Limits for effluent concentrations of specific pollutants measured at the stormwater control
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Limits for effluent concentrations of specific pollutants in receiving waters
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Requirements for control of temperature
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Flood control requirements other than the peak discharge rate control and on-site detention/retention requirements specified above
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Stream buffer requirements (for example, a 50 foot vegetated buffer must be maintained/implemented adjacent to waters of the state)
Specify: _____
 Applies to all areas
 Applies only to 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: _____
 Applies to all areas
 Applies only to certain areas, specify: _____
- Other standards not identified above
Specify: _____
 Applies to all areas
 Applies only to certain areas, specify: _____

D-9. Which land use types do the stormwater performance or design standards for **new development projects** (described in Question D-8) apply? Check all that apply.

- Requirements are the same for all land use types
- Residential
- Commercial
- Industrial
- Institutional
- Mixed use
- Other, specify: _____

Survey ID: Insert Survey ID

Section: D.2

Section Title: Stormwater Performance Standards or Design Criteria for Redevelopment Projects

Instructions: Throughout Section D.2 (Questions D-10 to D-22), 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.

If your redevelopment standards are different from those for new development, please answer questions D-10 to D-12. If they are not different: [Skip to Question D-13](#)

D-10 For **redevelopment** projects, what is the threshold to which the post construction stormwater performance standards or design criteria apply?

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

- 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

D-11. Indicate which specific or numeric stormwater performance standards or design criteria requirements apply to **redevelopment** projects. Please 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).

- 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: _____
 - Applies to all areas
 - Applies only to certain areas, specify: _____
- Detention of a specified storm depth or volume (such as 0.5 inch per acre or 1 inch per impervious acre)

Specify: _____

 - Applies to all areas
 - Applies only to 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: _____

 - Applies to all areas
 - Applies only to certain areas, specify: _____
- Detention of a specified percentile storm event (such as the 80th percentile storm)

Specify: _____

 - Applies to all areas
 - Applies only to 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: _____
 - Applies to all areas
 - Applies only to 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: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Retention of a specified percentile storm event (such as the 80th percentile storm)
Specify: _____
 - Applies to all areas
 - Applies only to 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: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Channel protection measures (such as a maximum allowable discharge velocity or other metric)
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Infiltration/groundwater recharge requirement (for example, maintain predevelopment groundwater recharge levels or infiltrate the first 0.5 inch of runoff)
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Limits for effluent concentrations of specific pollutants measured at the stormwater control
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Limits for effluent concentrations of specific pollutants in receiving waters
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Requirements for control of temperature
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

- Flood control requirements other than the peak discharge rate control and on-site detention/retention requirements specified above.
Specify: _____
 - Applies to all areas
 - Applies only to certain areas, specify:

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

Specify: _____

- Applies to all areas
- Applies only to 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: _____

- Applies to all areas
- Applies only to certain areas, specify:

Other standards not identified above

Specify: _____

- Applies to all areas
- Applies only to certain areas, specify:

D-12. Which land use types do the stormwater performance or design standards for **redevelopment projects** (described in Question D-11) apply? Check all that apply.

- Requirements are the same for all land use types
- Residential
- Commercial
- Industrial
- Institutional
- Mixed use
- Other, specify:

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

D-13 To comply with the performance standard or design criteria specified in Question D-8 and/or D-11, is the use of specific stormwater controls measures, or choosing from a menu of such controls, a requirement?

- Yes, specific controls are specified to meet the standard, specify: _____
- Yes, choosing specific controls from a menu is specified to meet the standard
- No, specific controls are not required to meet the standard

D-14. What is your state's role in ensuring that post construction standards are implemented?

- Site inspection
- Site plan review/approval acceptance
- Review self-reporting/self-certification database
- MS4 audit/inspection
- Other, specify: _____
- None
- There are no post construction standards in my state.

D-15. Does your state offer an alternative to compliance with your performance standard or design standard for **new development**?

- Yes, it is a stormwater mitigation program, specify: _____
- Yes, it is a payment in lieu program
- Yes, there is another type of alternative compliance program, specify: _____
- No, but there is an alternative compliance program offered by another level of government (MS4, county, etc.), specify: _____
- No, an alternative compliance program does not exist for new development
- There are no post construction standards in my state

D-16. Does your state 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
- Yes, it is a stormwater mitigation program, specify: _____
- Yes, it is a payment in lieu program
- Yes, there is another type of alternative compliance program, specify: _____
- No, but there is an alternative compliance program offered by another level of government (MS4, county, etc.), specify: _____
- No, an alternative compliance program does not exist for new development
- There are no post construction standards in my state

D-17. 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
- Soil instability as documented by geotechnical analysis
- Capture or reuse of stormwater cannot be achieved on the property
- Cost constraints
- Other, specify: _____

D-18. Indicate who is responsible for determining whether compliance with the standard can be achieved?

- MS4 permittee staff
- Owner or operator of the developed site
- Other, specify: _____

D-19. Are there any prohibitions in your state, through permit, policy or guidance that would preclude the use of offsite stormwater

- Yes, specify: _____
- No
- Not applicable, my state does not have a policy on offsite stormwater mitigation

D-20. Are there any provisions in your state, through permit, policy or guidance that would preclude the use of payment-in-lieu programs, in which in select circumstances, a fee is furnished in place of meeting stormwater management requirements?

- Yes; specify, including fees: _____
- No

D-21. Has your state developed a state-wide stormwater manual that addresses stormwater requirements for new development and redevelopment?

- Yes, provide the internet URL where manual can be found: _____
- Development in progress
- No

[Skip to Question D-22](#)

D-22. Does the stormwater manual include specification for retention practices that infiltrate, evapotranspire or harvest stormwater for

- Yes
- Development in progress
- No

Section: D.4

Section Title: Implementation of Stormwater Retention Practices

Instructions: Throughout Section D.4 (Questions D-23 to D-29), provide the information requested. Please provide all free response answers in the yellow highlighted areas.

In this section EPA is obtaining information about drivers, incentives and obstacles to the implementation of stormwater retention practices in the state. These 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. 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.

D-23. Indicate the driver for implementation of stormwater retention practices in your state. Check all that apply.

- Meet post construction performance standards or other requirements in the state's stormwater program
- Local watershed plan or considerations involving storm drainage issues
- NPDES WQ protection objectives (i.e., TMDL, impaired water, etc.)
- CSO Long Term Control Plan requirement
- To address flooding
- Other, specify: _____
- Unknown
- Not applicable

D-24. What, if any, incentives are provided to implement stormwater retention practices in your state? Check all that apply.

- Clean Water State Revolving Fund (SRF) for green projects
- Supplement Environmental Project (SEP) funding
- Grants: provide direct funding to municipalities or others for implementing a range of green infrastructure projects and practices
- 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: _____
- Development incentives
Specify: _____
- Local jurisdiction incentives
Specify: _____
- Other, specify: _____
- None
- Unknown
- Not applicable

D-25. In your state, are there any water rights issues that may prevent stormwater retention practices (as described at the beginning of this section) from being implemented? This could include restrictions of state authority in that only local governments can decide how discharges are controlled.

- Yes: describe the state constitutional, statutory and/or regulatory basis for any restriction on the prevention of stormwater retention practices:

- No

D-26. In your state, which of the following types of regulations 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 the level of government that imposes the regulation.

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
- 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)
- Flooding requirements
- Other, specify: _____

D-27. Does your state require post construction stormwater management practices on private property?

- Yes
- No

D-28. Does your state allow third parties to be responsible for operation and maintenance of the post construction stormwater management practices?

- Yes
- No

D-29. In your state, are there categories or areas excluded from stormwater infiltration due to concerns for groundwater contamination?

- Yes, specify: _____
- No
- Not applicable, specify: _____

Section: E

Section Title: Industrial Stormwater Program

Instructions: Throughout Section E (Questions E-1 to E-5), 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.

E-1. What is the number of permittees currently covered under the industrial stormwater general permit(s) in your state as of FY2009?

[Yellow Box] # Industrial stormwater permittees

E-2. How many industrial permittees subject to the industrial stormwater general permit(s) are within regulated Phase I or Phase II MS4 permit boundaries as of FY2009? Provide best estimate.

[Yellow Box] # Industrial stormwater permittees within Phase I MS4s

[Yellow Box] # Industrial stormwater permittees within Phase II MS4s

Cannot answer this question based on state's current data system.

E-3. Do(es) the industrial stormwater permit(s) in your state have numeric limits?

- Yes, specify: **[Yellow Box]**
- No
- Unknown
- Not applicable

E-4. Do(es) the industrial stormwater permit(s) in your state have benchmarks?

- Yes, specify: **[Yellow Box]**
- No
- Unknown
- Not applicable

E-5. Provide any additional information for this Section E in the space provided below.

[Large Yellow Box for Additional Information]

