

Applicability of Permanent, Post-Construction Storm Water BMP Requirements		Form I-1
Project Identification		
Project Name:		
Permit Application Number:		Date:
Determination of Requirements		
<p>The purpose of this form is to identify permanent, post-construction requirements that apply to the project. This form serves as a short <u>summary</u> of applicable requirements, in some cases referencing separate forms that will serve as the backup for the determination of requirements.</p> <p>Answer each step below, starting with Step 1 and progressing through each step until reaching "Stop". Refer to the manual sections and/or separate forms referenced in each step below.</p>		
Step	Answer	Progression
Step 1: Is the project a "development project"? See Section 1.3 of the manual (Part 1 of Storm Water Standards) for guidance.	<input type="checkbox"/> Yes	Go to Step 2 .
	<input type="checkbox"/> No	Stop. Permanent BMP requirements do not apply. No SWQMP will be required. Provide discussion below.
Discussion / justification if the project is <u>not</u> a "development project" (e.g., the project includes <i>only</i> interior remodels within an existing building):		
Step 2: Is the project a Standard Project, PDP, or PDP Exempt? To answer this item, see Section 1.4 of the manual in its entirety for guidance AND complete Form DS-560, Storm Water Requirements Applicability Checklist.	<input type="checkbox"/> Standard Project	Stop. Standard Project requirements apply
	<input type="checkbox"/> PDP	PDP requirements apply, including PDP SWQMP. Go to Step 3 .
	PDP Exempt	Stop. Standard Project requirements apply. Provide discussion and list any additional requirements below.
Discussion / justification, and additional requirements for exceptions to PDP definitions, if applicable:		



Form I-1 Page 2 of 2

Step	Answer	Progression
Step 3. Is the project subject to earlier PDP requirements due to a prior lawful approval? See Section 1.10 of the manual (Part 1 of Storm Water Standards) for guidance.	<input type="checkbox"/> Yes	Consult the City Engineer to determine requirements. Provide discussion and identify requirements below. Go to Step 4.
	<input type="checkbox"/> No	BMP Design Manual PDP requirements apply. Go to Step 4.
Discussion / justification of prior lawful approval, and identify requirements (<u>not required if prior lawful approval does not apply</u>):		
Step 4. Do hydromodification control requirements apply? See Section 1.6 of the manual (Part 1 of Storm Water Standards) for guidance.	<input type="checkbox"/> Yes	PDP structural BMPs required for pollutant control (Chapter 5) and hydromodification control (Chapter 6). Go to Step 5.
	<input type="checkbox"/> No	Stop. PDP structural BMPs required for pollutant control (Chapter 5) only. Provide brief discussion of exemption to hydromodification control below.
Discussion / justification if hydromodification control requirements do <u>not</u> apply:		
Step 5. Does protection of critical coarse sediment yield areas apply? See Section 6.2 of the manual (Part 1 of Storm Water Standards) for guidance.	<input type="checkbox"/> Yes	Management measures required for protection of critical coarse sediment yield areas (Chapter 6.2). Stop.
	<input type="checkbox"/> No	Management measures not required for protection of critical coarse sediment yield areas. Provide brief discussion below. Stop.
Discussion / justification if protection of critical coarse sediment yield areas does <u>not</u> apply:		



Site Information Checklist For Standard Projects		Form I-3A
Project Summary Information		
Project Name		
Project Address		
Assessor's Parcel Number(s) (APN(s))		
Permit Application Number		
Project Watershed	Select One: <input type="checkbox"/> San Dieguito River <input type="checkbox"/> Penasquitos <input type="checkbox"/> Mission Bay <input type="checkbox"/> San Diego River <input type="checkbox"/> San Diego Bay <input type="checkbox"/> Tijuana River	
Hydrologic subarea name with Numeric Identifier up to two decimal places (9XX.XX)		
Project Area (total area of Assessor's Parcel(s) associated with the project or total area of the right-of-way)	_____ Acres (_____ Square Feet)	
Area to be disturbed by the project (Project Footprint)	_____ Acres (_____ Square Feet)	
Project Proposed Impervious Area (subset of Project Footprint)	_____ Acres (_____ Square Feet)	
Project Proposed Pervious Area (subset of Project Footprint)	_____ Acres (_____ Square Feet)	
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Project Area.		



Description of Existing Site Condition and Drainage Patterns

Current Status of the Site (select all that apply)

- Existing development
- Previously graded but not built out
- Agricultural or other non-impervious use
- Vacant, undeveloped/natural

Description / Additional Information

Existing Land Cover Includes (select all that apply)

- Vegetative Cover
- Non-Vegetated Pervious Areas
- Impervious Areas

Description / Additional Information

Underlying Soil belongs to Hydrologic Soil Group (select all that apply):

- NRCS Type A
- NRCS Type B
- NRCS Type C
- NRCS Type D

Existing Natural Hydrologic Features (select all that apply)

- Watercourses
- Seeps
- Springs
- Wetlands
- None

Description / Additional Information

Description of Existing Site Drainage:



Description of Proposed Site Development and Drainage Patterns

Project Description / Proposed Land Use and/or Activities

List proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features)

List proposed pervious features of the project (e.g., landscape areas)

Does the project include grading and changes to site topography?

- Yes
- No

Description / Additional Information

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

- Yes
- No

Description / Additional Information



Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply)

- Onsite storm drain inlets
- Interior floor drains and elevator shaft sump pumps
- Interior parking garages
- Need for future indoor & structural pest control
- Landscape/outdoor pesticide use
- Pools, spas, ponds, decorative fountains, and other water features
- Food service
- Refuse areas
- Industrial processes
- Outdoor storage of equipment or materials
- Vehicle and equipment cleaning
- Vehicle/equipment repair and maintenance
- Fuel dispensing areas
- Loading docks
- Fire sprinkler test water
- Miscellaneous drain or wash water
- Plazas, sidewalks, and parking lots

Description / Additional Information

Site Information Checklist For PDPs		Form I-3B
Project Summary Information		
Project Name		
Project Address		
Assessor's Parcel Number(s) (APN(s))		
Permit Application Number		
Project Watershed	Select One: <input type="checkbox"/> San Dieguito River <input type="checkbox"/> Penasquitos <input type="checkbox"/> Mission Bay <input type="checkbox"/> San Diego River <input type="checkbox"/> San Diego Bay <input type="checkbox"/> Tijuana River	
Hydrologic subarea name with Numeric Identifier up to two decimal places (9XX.XX)		
Project Area (total area of Assessor's Parcel(s) associated with the project or total area of the right-of-way)	_____ Acres (_____ Square Feet)	
Area to be disturbed by the project (Project Footprint)	_____ Acres (_____ Square Feet)	
Project Proposed Impervious Area (subset of Project Footprint)	_____ Acres (_____ Square Feet)	
Project Proposed Pervious Area (subset of Project Footprint)	_____ Acres (_____ Square Feet)	
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Project Area.		
The proposed increase or decrease in impervious area in the proposed condition as compared to the pre-project condition	_____ %	



Description of Existing Site Condition and Drainage Patterns

Current Status of the Site (select all that apply):

- Existing development
- Previously graded but not built out
- Agricultural or other non-impervious use
- Vacant, undeveloped/natural

Description / Additional Information:

Existing Land Cover Includes (select all that apply):

- Vegetative Cover
- Non-Vegetated Pervious Areas
- Impervious Areas

Description / Additional Information:

Underlying Soil belongs to Hydrologic Soil Group (select all that apply):

- NRCS Type A
- NRCS Type B
- NRCS Type C
- NRCS Type D

Approximate Depth to Groundwater:

- Groundwater Depth < 5 feet
- 5 feet < Groundwater Depth < 10 feet
- 10 feet < Groundwater Depth < 20 feet
- Groundwater Depth > 20 feet

Existing Natural Hydrologic Features (select all that apply):

- Watercourses
- Seeps
- Springs
- Wetlands
- None

Description / Additional Information:

Description of Existing Site Topography and Drainage

How is storm water runoff conveyed from the site? At a minimum, this description should answer:

1. Whether existing drainage conveyance is natural or urban;
2. If runoff from offsite is conveyed through the site? If yes, quantification of all offsite drainage areas, design flows, and locations where offsite flows enter the project site and summarize how such flows are conveyed through the site;
3. Provide details regarding existing project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, and natural and constructed channels;
4. Identify all discharge locations from the existing project along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide summary of the pre-project drainage areas and design flows to each of the existing runoff discharge locations.

Descriptions/Additional Information



Description of Proposed Site Development and Drainage Patterns

Project Description / Proposed Land Use and/or Activities:

List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features):

List/describe proposed pervious features of the project (e.g., landscape areas):

Does the project include grading and changes to site topography?

Yes

No

Description / Additional Information:



Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

- Yes
- No

If yes, provide details regarding the proposed project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural and constructed channels, and the method for conveying offsite flows through or around the proposed project site. Identify all discharge locations from the proposed project site along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide a summary of pre and post-project drainage areas and design flows to each of the runoff discharge locations. Reference the drainage study for detailed calculations.

Description / Additional Information:

Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply):

- Onsite storm drain inlets
- Interior floor drains and elevator shaft sump pumps
- Interior parking garages
- Need for future indoor & structural pest control
- Landscape/outdoor pesticide use
- Pools, spas, ponds, decorative fountains, and other water features
- Food service
- Refuse areas
- Industrial processes
- Outdoor storage of equipment or materials
- Vehicle and equipment cleaning
- Vehicle/equipment repair and maintenance
- Fuel dispensing areas
- Loading docks
- Fire sprinkler test water
- Miscellaneous drain or wash water
- Plazas, sidewalks, and parking lots

Description/Additional Information:

Identification and Narrative of Receiving Water

Narrative describing flow path from discharge location(s), through urban storm conveyance system, to receiving creeks, rivers, and lagoons and ultimate discharge location to Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable)

Provide a summary of all beneficial uses of receiving waters downstream of the project discharge locations

Identify all ASBS (areas of special biological significance) receiving waters downstream of the project discharge locations

Provide distance from project outfall location to impaired or sensitive receiving waters

Summarize information regarding the proximity of the permanent, post-construction storm water BMPs to the City's Multi-Habitat Planning Area and environmentally sensitive lands



Identification of Receiving Water Pollutants of Concern

List any 303(d) impaired water bodies within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:

303(d) Impaired Water Body (Refer to Appendix K)	Pollutant(s)/Stressor(s) (Refer to Appendix K)	TMDLs/WQIP Highest Priority Pollutant (Refer to Table 1-4 in Chapter 1)

Identification of Project Site Pollutants*

*Identification of project site pollutants is only required if flow-thru treatment BMPs are implemented onsite in lieu of retention or biofiltration BMPs (note the project must also participate in an alternative compliance program unless prior lawful approval to meet earlier PDP requirements is demonstrated)

Identify pollutants anticipated from the project site based on all proposed use(s) of the site (see Appendix B.6):

Pollutant	Not Applicable to the Project Site	Anticipated from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment			
Nutrients			
Heavy Metals			
Organic Compounds			
Trash & Debris			
Oxygen Demanding Substances			
Oil & Grease			
Bacteria & Viruses			
Pesticides			



Hydromodification Management Requirements

Do hydromodification management requirements apply (see Section 1.6)?

- Yes, hydromodification management flow control structural BMPs required.
- No, the project will discharge runoff directly to existing underground storm drains discharging directly to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- No, the project will discharge runoff directly to conveyance channels whose bed and bank are concrete-lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- No, the project will discharge runoff directly to an area identified as appropriate for an exemption by the WMAA for the watershed in which the project resides.

Description / Additional Information (to be provided if a 'No' answer has been selected above):

Note: If "No" answer has been selected the SWQMP must include an exhibit that shows the storm water conveyance system from the project site to an exempt water body. The exhibit should include details about the conveyance system and the outfall to the exempt water body.

Critical Coarse Sediment Yield Areas*

***This Section only required if hydromodification management requirements apply**

Based on Section 6.2 and Appendix H does CCSYA exist on the project footprint or in the upstream area draining through the project footprint?

- Yes
- No

Discussion / Additional Information:



Flow Control for Post-Project Runoff*

***This Section only required if hydromodification management requirements apply**

List and describe point(s) of compliance (POCs) for flow control for hydromodification management (see Section 6.3.1). For each POC, provide a POC identification name or number correlating to the project's HMP Exhibit and a receiving channel identification name or number correlating to the project's HMP Exhibit.

Has a geomorphic assessment been performed for the receiving channel(s)?

- No, the low flow threshold is $0.1Q_2$ (default low flow threshold)
- Yes, the result is the low flow threshold is $0.1Q_2$
- Yes, the result is the low flow threshold is $0.3Q_2$
- Yes, the result is the low flow threshold is $0.5Q_2$

If a geomorphic assessment has been performed, provide title, date, and preparer:

Discussion / Additional Information: (optional)

Other Site Requirements and Constraints

When applicable, list other site requirements or constraints that will influence storm water management design, such as zoning requirements including setbacks and open space, or local codes governing minimum street width, sidewalk construction, allowable pavement types, and drainage requirements.

Optional Additional Information or Continuation of Previous Sections As Needed

This space provided for additional information or continuation of information from previous sections as needed.



**Source Control BMP Checklist
for Standard Projects**

Form I-4A

All development projects must implement source control BMPs. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist.
Note: All selected BMPs must be shown on the construction plans.

Source Control Requirement	Applied ⁽¹⁾ ?		
4.2.1 Prevention of Illicit Discharges into the MS4	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.2.2 Storm Drain Stenciling or Signage	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.2.3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.2.4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.2.5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.2.6 BMPs based on Potential Sources of Runoff Pollutants			
On-site storm drain inlets	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Interior floor drains and elevator shaft sump pumps	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Interior parking garages	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Need for future indoor & structural pest control	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Landscape/Outdoor Pesticide Use	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Pools, spas, ponds, decorative fountains, and other water features	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Food service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Refuse areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Industrial processes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Outdoor storage of equipment or materials	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Vehicle/Equipment Repair and Maintenance	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Fuel Dispensing Areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Loading Docks	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Fire Sprinkler Test Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Miscellaneous Drain or Wash Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Plazas, sidewalks, and parking lots	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6A: Large Trash Generating Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6B: Animal Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6C: Plant Nurseries and Garden Centers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6D: Automotive Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification for all "No" answers shown above:			



**Source Control BMP Checklist
for PDPs**

Form I-4B

Source Control BMPs

All development projects must implement source control BMPs where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual (Part 1 of the Storm Water Standards) for information to implement source control BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the source control BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Source Control Requirement	Applied?		
4.2.1 Prevention of Illicit Discharges into the MS4	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.1 not implemented:			
4.2.2 Storm Drain Stenciling or Signage	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.2 not implemented:			
4.2.3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.3 not implemented:			
4.2.4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.4 not implemented:			
4.2.5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.5 not implemented:			



Form I-4B Page 2 of 2

Source Control Requirement	Applied?		
4.2.6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below)			
On-site storm drain inlets	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Interior floor drains and elevator shaft sump pumps	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Interior parking garages	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Need for future indoor & structural pest control	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Landscape/Outdoor Pesticide Use	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Pools, spas, ponds, decorative fountains, and other water features	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Food service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Refuse areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Industrial processes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Outdoor storage of equipment or materials	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Vehicle/Equipment Repair and Maintenance	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Fuel Dispensing Areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Loading Docks	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Fire Sprinkler Test Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Miscellaneous Drain or Wash Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Plazas, sidewalks, and parking lots	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6A: Large Trash Generating Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6B: Animal Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6C: Plant Nurseries and Garden Centers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6D: Automotive Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.2.6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for <u>all</u> "No" answers shown above.			



Site Design BMP Checklist for Standard Projects	Form I-5A
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All development projects must implement site design BMPs. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist.
Note: All selected BMPs must be shown on the construction plans.

Site Design Requirement	Applied ⁽¹⁾ ?		
4.3.1 Maintain Natural Drainage Pathways and Hydrologic Features	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.2 Conserve Natural Areas, Soils, and Vegetation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.3 Minimize Impervious Area	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.4 Minimize Soil Compaction	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.5 Impervious Area Dispersion	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.6 Runoff Collection	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.7 Landscaping with Native or Drought Tolerant Species	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.8 Harvest and Use Precipitation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Discussion / justification for **all** "No" answers shown above:

⁽¹⁾ Answer for each source control and site design category shall be pursuant to the following:

- "Yes" means the project will implement the BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.



Site Design BMP Checklist for PDPs		Form I-5B	
Site Design BMPs			
<p>All development projects must implement site design BMPs where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual (Part 1 of Storm Water Standards) for information to implement site design BMPs shown in this checklist.</p> <p>Answer each category below pursuant to the following.</p> <ul style="list-style-type: none"> • "Yes" means the project will implement the site design BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required. • "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided. • "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project site has no existing natural areas to conserve). Discussion / justification may be provided. <p>A site map with implemented site design BMPs must be included at the end of this checklist.</p>			
Site Design Requirement		Applied?	
4.3.1 Maintain Natural Drainage Pathways and Hydrologic Features		<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
Discussion / justification if 4.3.1 not implemented:			
1-1	Are existing natural drainage pathways and hydrologic features mapped on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
1-2	Are trees implemented? If yes, are they shown on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
1-3	Implemented trees meet the design criteria in 4.3.1 Fact Sheet (e.g. soil volume, maximum credit, etc.)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
1-4	Is tree credit volume calculated using Appendix B.2.2.1 and SD-1 Fact Sheet in Appendix E?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
4.3.2 Have natural areas, soils and vegetation been conserved?		<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
Discussion / justification if 4.3.2 not implemented:			



Form I-5B Page 2 of 4

Site Design Requirement	Applied?		
4.3.3 Minimize Impervious Area	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.3 not implemented:			
4.3.4 Minimize Soil Compaction	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.4 not implemented:			
4.3.5 Impervious Area Dispersion	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.5 not implemented:			
5-1 Is the pervious area receiving runoff from impervious area identified on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
5-2 Does the pervious area satisfy the design criteria in 4.3.5 Fact Sheet in Appendix E (e.g. maximum slope, minimum length, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
5-3 Is impervious area dispersion credit volume calculated using Appendix B.2.1.1 and 4.3.5 Fact Sheet in Appendix E?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

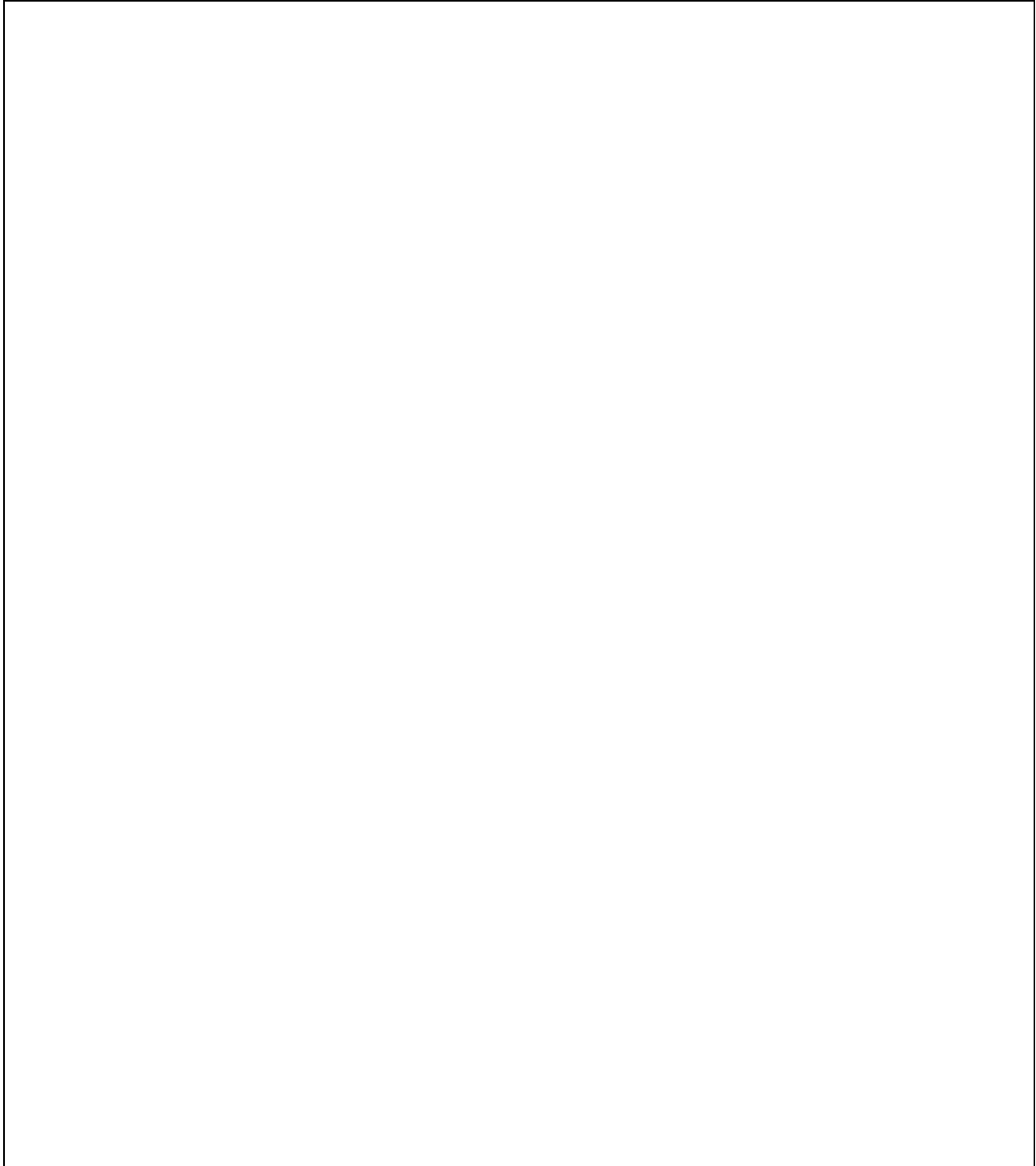


Form I-5B Page 3 of 4

Site Design Requirement		Applied?		
4.3.6 Runoff Collection		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.6 not implemented:				
6a-1	Are green roofs implemented in accordance with design criteria in 4.3.6A Fact Sheet? If yes, are they shown on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6a-2	Is the green roof credit volume calculated using Appendix B.2.1.2 and 4.3.6A Fact Sheet in Appendix E?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6b-1	Are permeable pavements implemented in accordance with design criteria in 4.3.6B Fact Sheet? If yes, are they shown on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6b-2	Is the permeable pavement credit volume calculated using Appendix B.2.1.3 and 4.3.6B Fact Sheet in Appendix E?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4.3.7 Landscaping with Native or Drought Tolerant Species		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.7 not implemented:				
4.3.8 Harvest and Use Precipitation		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if 4.3.8 not implemented:				
8-1	Are rain barrels implemented in accordance with design criteria in 4.3.8 Fact Sheet? If yes, are they shown on the site map?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
8-2	Is the rain barrel credit volume calculated using Appendix B.2.2.2 and 4.3.8 Fact Sheet in Appendix E?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A



Insert Site Map with all site design BMPs identified:

A large, empty rectangular box with a black border, intended for the user to insert a site map and identify all site design BMPs.

PDP Structural BMPs

All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual, Part 1 of Storm Water Standards). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). Both storm water pollutant control and flow control for hydromodification management can be achieved within the same structural BMP(s).

PDP structural BMPs must be verified by the City at the completion of construction. This includes requiring the project owner or project owner's representative to certify construction of the structural BMPs (complete Form DS-563). PDP structural BMPs must be maintained into perpetuity (see Chapter 7 of the BMP Design Manual).

Use this form to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (page 3 of this form) for each structural BMP within the project (copy the BMP summary information page as many times as needed to provide summary information for each individual structural BMP).

Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate.

(Continue on page 2 as necessary.)

(Continued from page 1)



Structural BMP Summary Information

Structural BMP ID No.	
Construction Plan Sheet No.	
<p>Type of Structural BMP:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Retention by harvest and use (e.g. HU-1, cistern) <input type="checkbox"/> Retention by infiltration basin (INF-1) <input type="checkbox"/> Retention by bioretention (INF-2) <input type="checkbox"/> Retention by permeable pavement (INF-3) <input type="checkbox"/> Partial retention by biofiltration with partial retention (PR-1) <input type="checkbox"/> Biofiltration (BF-1) <input type="checkbox"/> Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) <input type="checkbox"/> Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) <input type="checkbox"/> Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) <input type="checkbox"/> Detention pond or vault for hydromodification management <input type="checkbox"/> Other (describe in discussion section below) 	
<p>Purpose:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Pollutant control only <input type="checkbox"/> Hydromodification control only <input type="checkbox"/> Combined pollutant control and hydromodification control <input type="checkbox"/> Pre-treatment/forebay for another structural BMP <input type="checkbox"/> Other (describe in discussion section below) 	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification form DS-563	
Who will be the final owner of this BMP?	
Who will maintain this BMP into perpetuity?	
What is the funding mechanism for maintenance?	



Structural BMP ID No.

Construction Plan Sheet No.

Discussion (as needed; must include worksheets showing BMP sizing calculations in the SWQMPs):

Large empty rectangular area for discussion and calculations.



1. Is there a demand for harvested water (check all that apply) at the project site that is reliably present during the wet season?

Toilet and urinal flushing

Landscape irrigation

Other: _____

2. If there is a demand; estimate the anticipated average wet season demand over a period of 36 hours. Guidance for planning level demand calculations for toilet/urinal flushing and landscape irrigation is provided in Section B.3.2.
[Provide a summary of calculations here]

3. Calculate the DCV using worksheet B-2.1.
DCV = _____ (cubic feet)
[Provide a summary of calculations here]

<p>3a. Is the 36-hour demand greater than or equal to the DCV?</p> <p style="text-align: center;">Yes / No ⇒</p> <p style="text-align: center;">↓</p>	<p>3b. Is the 36-hour demand greater than 0.25DCV but less than the full DCV?</p> <p style="text-align: center;"><input type="checkbox"/> Yes / No ⇒</p> <p style="text-align: center;">↓</p>	<p>3c. Is the 36-hour demand less than 0.25DCV?</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">↓</p>
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<p>Harvest and use appears to be feasible. Conduct more detailed evaluation and sizing calculations to confirm that DCV can be used at an adequate rate to meet drawdown criteria.</p>	<p>Harvest and use may be feasible. Conduct more detailed evaluation and sizing calculations to determine feasibility. Harvest and use may only be able to be used for a portion of the site, or (optionally) the storage may need to be upsized to meet long term capture targets while draining in longer than 36 hours.</p>	<p>Harvest and use is considered to be infeasible.</p>
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Is harvest and use feasible based on further evaluation?
 Yes, refer to Appendix E to select and size harvest and use BMPs.
 No, select alternate BMPs.

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions ¹		Worksheet C.4-1: Form I-8A ²
Part 1 - Full Infiltration Feasibility Screening Criteria		
DMA(s) Being Analyzed:		Project Phase:
Criteria 1: Infiltration Rate Screening		
1A	<p>Is the mapped hydrologic soil group according to the NRCS Web Soil Survey or UC Davis Soil Web Mapper Type A or B and corroborated by available site soil data³?</p> <p><input type="checkbox"/> Yes; the DMA may feasibly support full infiltration. Answer “Yes” to Criteria 1 Result or continue to Step 1B if the applicant elects to perform infiltration testing.</p> <p><input type="checkbox"/> No; the mapped soil types are A or B but is not corroborated by available site soil data (continue to Step 1B).</p> <p><input type="checkbox"/> No; the mapped soil types are C, D, or “urban/unclassified” and is corroborated by available site soil data. Answer “No” to Criteria 1 Result.</p> <p><input type="checkbox"/> No; the mapped soil types are C, D, or “urban/unclassified” but is not corroborated by available site soil data (continue to Step 1B).</p>	
1B	<p>Is the reliable infiltration rate calculated using planning phase methods from Table D.3-1?</p> <p><input type="checkbox"/> Yes; Continue to Step 1C.</p> <p><input type="checkbox"/> No; Skip to Step 1D.</p>	
1C	<p>Is the reliable infiltration rate calculated using planning phase methods from Table D.3-1 greater than 0.5 inches per hour?</p> <p><input type="checkbox"/> Yes; the DMA may feasibly support full infiltration. Answer “Yes” to Criteria 1 Result.</p> <p><input type="checkbox"/> No; full infiltration is not required. Answer “No” to Criteria 1 Result.</p>	
1D	<p>Infiltration Testing Method. Is the selected infiltration testing method suitable during the design phase (see Appendix D.3)? Note: Alternative testing standards may be allowed with appropriate rationales and documentation.</p> <p><input type="checkbox"/> Yes; continue to Step 1E.</p> <p><input type="checkbox"/> No; select an appropriate infiltration testing method.</p>	

¹ Note that it is not required to investigate each and every criterion in the worksheet, a single “no” answer in Part 1, Part 2, Part 3, or Part 4 determines a full, partial, or no infiltration condition.

² This form must be completed each time there is a change to the site layout that would affect the infiltration feasibility condition. Previously completed forms shall be retained to document the evolution of the site storm water design.

³ Available data includes site-specific sampling or observation of soil types or texture classes, such as obtained from borings or test pits necessary to support other design elements.



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²
1E	<p>Number of Percolation/Infiltration Tests. Does the infiltration testing method performed satisfy the minimum number of tests specified in Table D.3-2?</p> <input type="checkbox"/> Yes; continue to Step 1F. <input type="checkbox"/> No; conduct appropriate number of tests.	
1F	<p>Factor of Safety. Is the suitable Factor of Safety selected for full infiltration design? See guidance in D.5; Tables D.5-1 and D.5-2; and Worksheet D.5-1 (Form I-9).</p> <input type="checkbox"/> Yes; continue to Step 1G. <input type="checkbox"/> No; select appropriate factor of safety.	
1G	<p>Full Infiltration Feasibility. Is the average measured infiltration rate divided by the Factor of Safety greater than 0.5 inches per hour?</p> <input type="checkbox"/> Yes; answer “Yes” to Criteria 1 Result. <input type="checkbox"/> No; answer “No” to Criteria 1 Result.	
Criteria 1 Result	<p>Is the estimated reliable infiltration rate greater than 0.5 inches per hour within the DMA where runoff can reasonably be routed to a BMP?</p> <input type="checkbox"/> Yes; the DMA may feasibly support full infiltration. Continue to Criteria 2. <input type="checkbox"/> No; full infiltration is not required. Skip to Part 1 Result.	
<p>Summarize infiltration testing methods, testing locations, replicates, and results and summarize estimates of reliable infiltration rates according to procedures outlined in D.5. Documentation should be included in project geotechnical report.</p>		



Criteria 2: Geologic/Geotechnical Screening

2A	<p>If all questions in Step 2A are answered “Yes,” continue to Step 2B.</p> <p>For any “No” answer in Step 2A answer “No” to Criteria 2, and submit an “Infiltration Feasibility Condition Letter” that meets the requirements in Appendix C.1.1. The geologic/geotechnical analyses listed in Appendix C.2.1 do not apply to the DMA because one of the following setbacks cannot be avoided and therefore result in the DMA being in a no infiltration condition. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.</p>		
2A-1	Can the proposed full infiltration BMP(s) avoid areas with existing fill materials greater than 5 feet thick below the infiltrating surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2A-2	Can the proposed full infiltration BMP(s) avoid placement within 10 feet of existing underground utilities, structures, or retaining walls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2A-3	Can the proposed full infiltration BMP(s) avoid placement within 50 feet of a natural slope (>25%) or within a distance of 1.5H from fill slopes where H is the height of the fill slope?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2B	<p>When full infiltration is determined to be feasible, a geotechnical investigation report must be prepared that considers the relevant factors identified in Appendix C.2.1.</p> <p>If all questions in Step 2B are answered “Yes,” then answer “Yes” to Criteria 2 Result. If there are “No” answers continue to Step 2C.</p>		
2B-1	<p>Hydroconsolidation. Analyze hydroconsolidation potential per approved ASTM standard due to a proposed full infiltration BMP.</p> <p>Can full infiltration BMPs be proposed within the DMA without increasing hydroconsolidation risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2B-2	<p>Expansive Soils. Identify expansive soils (soils with an expansion index greater than 20) and the extent of such soils due to proposed full infiltration BMPs.</p> <p>Can full infiltration BMPs be proposed within the DMA without increasing expansive soil risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²	
2B-3	<p>Liquefaction. If applicable, identify mapped liquefaction areas. Evaluate liquefaction hazards in accordance with Section 6.4.2 of the City of San Diego's Guidelines for Geotechnical Reports (2011 or most recent edition). Liquefaction hazard assessment shall take into account any increase in groundwater elevation or groundwater mounding that could occur as a result of proposed infiltration or percolation facilities.</p> <p>Can full infiltration BMPs be proposed within the DMA without increasing liquefaction risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2B-4	<p>Slope Stability. If applicable, perform a slope stability analysis in accordance with the ASCE and Southern California Earthquake Center (2002) Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California to determine minimum slope setbacks for full infiltration BMPs. See the City of San Diego's Guidelines for Geotechnical Reports (2011) to determine which type of slope stability analysis is required.</p> <p>Can full infiltration BMPs be proposed within the DMA without increasing slope stability risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2B-5	<p>Other Geotechnical Hazards. Identify site-specific geotechnical hazards not already mentioned (refer to Appendix C.2.1).</p> <p>Can full infiltration BMPs be proposed within the DMA without increasing risk of geologic or geotechnical hazards not already mentioned?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2B-6	<p>Setbacks. Establish setbacks from underground utilities, structures, and/or retaining walls. Reference applicable ASTM or other recognized standard in the geotechnical report.</p> <p>Can full infiltration BMPs be proposed within the DMA using established setbacks from underground utilities, structures, and/or retaining walls?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²	
2C	<p>Mitigation Measures. Propose mitigation measures for each geologic/geotechnical hazard identified in Step 2B. Provide a discussion of geologic/geotechnical hazards that would prevent full infiltration BMPs that cannot be reasonably mitigated in the geotechnical report. See Appendix C.2.1.8 for a list of typically reasonable and typically unreasonable mitigation measures.</p> <p>Can mitigation measures be proposed to allow for full infiltration BMPs? If the question in Step 2 is answered “Yes,” then answer “Yes” to Criteria 2 Result.</p> <p>If the question in Step 2C is answered “No,” then answer “No” to Criteria 2 Result.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Criteria 2 Result	Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geologic or geotechnical hazards that cannot be reasonably mitigated to an acceptable level?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Summarize findings and basis; provide references to related reports or exhibits.			
Part 1 Result – Full Infiltration Geotechnical Screening⁴		Result	
<p>If answers to both Criteria 1 and Criteria 2 are “Yes”, a full infiltration design is potentially feasible based on Geotechnical conditions only.</p> <p>If either answer to Criteria 1 or Criteria 2 is “No”, a full infiltration design is not required.</p>		<input type="checkbox"/> Full infiltration Condition <input type="checkbox"/> Complete Part 2	

⁴ To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²
Part 2 – Partial vs. No Infiltration Feasibility Screening Criteria		
DMA(s) Being Analyzed:		Project Phase:
Criteria 3 : Infiltration Rate Screening		
3A	<p>NRCS Type C, D, or “urban/unclassified”: Is the mapped hydrologic soil group according to the NRCS Web Soil Survey or UC Davis Soil Web Mapper is Type C, D, or “urban/unclassified” and corroborated by available site soil data?</p> <p><input type="checkbox"/> Yes; the site is mapped as C soils and a reliable infiltration rate of 0.15 in/hr. is used to size partial infiltration BMPS. Answer “Yes” to Criteria 3 Result.</p> <p><input type="checkbox"/> Yes; the site is mapped as D soils or “urban/unclassified” and a reliable infiltration rate of 0.05 in/hr. is used to size partial infiltration BMPS. Answer “Yes” to Criteria 3 Result.</p> <p><input type="checkbox"/> No; infiltration testing is conducted (refer to Table D.3-1), continue to Step 3B.</p>	
3B	<p>Infiltration Testing Result: Is the reliable infiltration rate (i.e. average measured infiltration rate/2) greater than 0.05 in/hr. and less than or equal to 0.5 in/hr?</p> <p><input type="checkbox"/> Yes; the site may support partial infiltration. Answer “Yes” to Criteria 3 Result.</p> <p><input type="checkbox"/> No; the reliable infiltration rate (i.e. average measured rate/2) is less than 0.05 in/hr., partial infiltration is not required. Answer “No” to Criteria 3 Result.</p>	
Criteria 3 Result	<p>Is the estimated reliable infiltration rate (i.e., average measured infiltration rate/2) greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour at any location within each DMA where runoff can reasonably be routed to a BMP?</p> <p><input type="checkbox"/> Yes; Continue to Criteria 4.</p> <p><input type="checkbox"/> No: Skip to Part 2 Result.</p>	
<p>Summarize infiltration testing and/or mapping results (i.e. soil maps and series description used for infiltration rate).</p>		



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²	
Criteria 4: Geologic/Geotechnical Screening			
4A	<p>If all questions in Step 4A are answered “Yes,” continue to Step 2B.</p> <p>For any “No” answer in Step 4A answer “No” to Criteria 4 Result, and submit an “Infiltration Feasibility Condition Letter” that meets the requirements in Appendix C.1.1. The geologic/geotechnical analyses listed in Appendix C.2.1 do not apply to the DMA because one of the following setbacks cannot be avoided and therefore result in the DMA being in a no infiltration condition. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.</p>		
4A-1	Can the proposed partial infiltration BMP(s) avoid areas with existing fill materials greater than 5 feet thick?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4A-2	Can the proposed partial infiltration BMP(s) avoid placement within 10 feet of existing underground utilities, structures, or retaining walls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4A-3	Can the proposed partial infiltration BMP(s) avoid placement within 50 feet of a natural slope (>25%) or within a distance of 1.5H from fill slopes where H is the height of the fill slope?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4B	<p>When full infiltration is determined to be feasible, a geotechnical investigation report must be prepared that considers the relevant factors identified in Appendix C.2.1.</p> <p>If all questions in Step 4B are answered “Yes,” then answer “Yes” to Criteria 4 Result. If there are any “No” answers continue to Step 4C.</p>		
4B-1	<p>Hydroconsolidation. Analyze hydroconsolidation potential per approved ASTM standard due to a proposed full infiltration BMP.</p> <p>Can partial infiltration BMPs be proposed within the DMA without increasing hydroconsolidation risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4B-2	<p>Expansive Soils. Identify expansive soils (soils with an expansion index greater than 20) and the extent of such soils due to proposed full infiltration BMPs.</p> <p>Can partial infiltration BMPs be proposed within the DMA without increasing expansive soil risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4B-3	<p>Liquefaction. If applicable, identify mapped liquefaction areas. Evaluate liquefaction hazards in accordance with Section 6.4.2 of the City of San Diego's Guidelines for Geotechnical Reports (2011). Liquefaction hazard assessment shall take into account any increase in groundwater elevation or groundwater mounding that could occur as a result of proposed infiltration or percolation facilities.</p> <p>Can partial infiltration BMPs be proposed within the DMA without increasing liquefaction risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A ²	
4B-4	<p>Slope Stability. If applicable, perform a slope stability analysis in accordance with the ASCE and Southern California Earthquake Center (2002) Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California to determine minimum slope setbacks for full infiltration BMPs. See the City of San Diego's Guidelines for Geotechnical Reports (2011) to determine which type of slope stability analysis is required.</p> <p>Can partial infiltration BMPs be proposed within the DMA without increasing slope stability risks?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4B-5	<p>Other Geotechnical Hazards. Identify site-specific geotechnical hazards not already mentioned (refer to Appendix C.2.1).</p> <p>Can partial infiltration BMPs be proposed within the DMA without increasing risk of geologic or geotechnical hazards not already mentioned?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4B-6	<p>Setbacks. Establish setbacks from underground utilities, structures, and/or retaining walls. Reference applicable ASTM or other recognized standard in the geotechnical report.</p> <p>Can partial infiltration BMPs be proposed within the DMA using recommended setbacks from underground utilities, structures, and/or retaining walls?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4C	<p>Mitigation Measures. Propose mitigation measures for each geologic/geotechnical hazard identified in Step 4B. Provide a discussion on geologic/geotechnical hazards that would prevent partial infiltration BMPs that cannot be reasonably mitigated in the geotechnical report. See Appendix C.2.1.8 for a list of typically reasonable and typically unreasonable mitigation measures.</p> <p>Can mitigation measures be proposed to allow for partial infiltration BMPs? If the question in Step 4C is answered "Yes," then answer "Yes" to Criteria 4 Result. If the question in Step 4C is answered "No," then answer "No" to Criteria 4 Result.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Criteria 4 Result	<p>Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without increasing the risk of geologic or geotechnical hazards that cannot be reasonably mitigated to an acceptable level?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions

Worksheet C.4-1: Form I-8A²

Summarize findings and basis; provide references to related reports or exhibits.

Part 2 – Partial Infiltration Geotechnical Screening Result⁵

Result

If answers to both Criteria 3 and Criteria 4 are “Yes”, a partial infiltration design is potentially feasible based on geotechnical conditions only.

If answers to either Criteria 3 or Criteria 4 is “No”, then infiltration of any volume is considered to be infeasible within the site.

Partial Infiltration Condition

No Infiltration Condition

⁵ To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.



Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions		Worksheet C.4-2: Form I-8B ²
Part 1 - Full Infiltration Feasibility Screening Criteria		
DMA(s) Being Analyzed:		Project Phase:
Criteria 1: Groundwater Screening		
1A	<p>Groundwater Depth. Is the depth to seasonally high groundwater tables (normal high depth during the wet season) beneath the base of any full infiltration BMP greater than 10 feet?</p> <p><input type="checkbox"/> Yes; continue to Step 1B.</p> <p><input type="checkbox"/> No; The depth to groundwater is less than or equal to 10 feet, but site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to step 1B.</p> <p><input type="checkbox"/> No; The depth to groundwater is less than or equal to 10 feet and site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” for Criteria 1 Result.</p>	
1B	<p>Contaminated Soil/Groundwater. Are proposed full infiltration BMPs at least 250 feet away from contaminated soil or groundwater sites? This can be confirmed using GeoTracker (geotracker.waterboards.ca.gov) to identify open contaminated sites. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.</p> <p><input type="checkbox"/> Yes; continue to Step 1C.</p> <p><input type="checkbox"/> No; However, site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to Step 1C.</p> <p><input type="checkbox"/> No; Site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” to Criteria 1 Result.</p>	

¹ Note that it is not required to investigate each and every criterion in the worksheet, a single “no” answer in Part 1, Part 2, part 3, or Part 4 determines a full, partial, or no infiltration condition.

² This form must be completed each time there is a change to the site layout that would affect the infiltration feasibility condition. Previously completed forms shall be retained to document the evolution of the site storm water design.



Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions		Worksheet C.4-2: Form I-8B ²
1C	<p>Inadequate Soil Treatment Capacity. Are full infiltration BMPs proposed in DMA soils that have adequate soil treatment capacity?</p> <p>The DMA has adequate soil treatment capacity if ALL of the following criteria (detailed in C.2.2.1) for all soil layers beneath the infiltrating surface are met:</p> <ul style="list-style-type: none"> • USDA texture class is sandy loam or loam or silt loam or silt or sandy clay loam or clay loam or silty clay loam or sandy clay or silty clay or clay; and • Cation Exchange Capacity (CEC) greater than 5 milliequivalents/100g; and • Soil organic matter is greater than 1%; and • Groundwater table is equal to or greater than 10 feet beneath the base of the full infiltration BMP. <p><input type="checkbox"/> Yes; continue to Step 1D.</p> <p><input type="checkbox"/> No; However, site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to Step 1D.</p> <p><input type="checkbox"/> No; Site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” to Criteria 1 Result.</p>	
1D	<p>Other Groundwater Contamination Hazards. Are there site-specific groundwater contamination hazards not already mentioned (refer to Appendix C.2.2) that can be reasonably mitigated to support full infiltration BMPs?</p> <p><input type="checkbox"/> Yes; there are other contamination hazards identified that can be mitigated. Answer “Yes” to Criteria 1 Result.</p> <p><input type="checkbox"/> No; there are other contamination hazards identified that cannot be mitigated. Answer “No” to Criteria 1 Result.</p> <p><input type="checkbox"/> N/A; no contamination hazards are identified. Answer “Yes” to Criteria 1 Result.</p>	
Criteria 1 Result	<p>Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination that cannot be reasonably mitigated to an acceptable level? See Appendix C.2.2.8 for a list of typically reasonable and typically unreasonable mitigation measures.</p> <p><input type="checkbox"/> Yes; Continue to Part 1, Criteria 2.</p> <p><input type="checkbox"/> No; Continue to Part 1 Result.</p>	



Summarize groundwater quality and any mitigation measures proposed. Documentation should focus on groundwater table, mapped soil types and contaminated site locations.



Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions		Worksheet C.4-2: Form I-8B ²
Criteria 2: Water Balance Screening		
2A	<p>Ephemeral Stream Setback. Does the proposed full infiltration BMP meet both the following?</p> <ul style="list-style-type: none"> The full infiltration BMP is located at least 250 feet away from an ephemeral stream; AND The bottom surface of the full infiltration BMP is at a depth 20 feet or greater from seasonally high groundwater tables. <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; Continue to Step 2B.</p>	
2B	<p>Mitigation Measures. Can site layout changes be proposed to support full infiltration BMPs?</p> <p><input type="checkbox"/> Yes; the site can be reconfigured to mitigate potential water balance issues. Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; the site cannot be reconfigured to mitigate potential water balance issues. Continue to Step 2C and provide discussion.</p>	
2C	<p>Additional studies. Do additional studies support full infiltration BMPs?</p> <p>In the event that water balance effects are used to reject full infiltration (anticipated to be rare), additional analysis shall be completed and documented by a qualified professional indicating the site-specific information evaluated and the technical basis for this finding.</p> <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; Answer “No” to Criteria 2 Result.</p>	
Criteria 2 Result	<p>Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams?</p> <p><input type="checkbox"/> Yes; Continue to Part 1 Result.</p> <p><input type="checkbox"/> No; Continue to Part 1 Result.</p>	



Summarize potential water balance effects. Documentation should focus on mapping and soil data regarding proximity to ephemeral streams and groundwater depth.

Part 1 – Full Infiltration Groundwater and Water Balance Screening Result³

Result

If answers to Criteria 1 and 2 are “Yes”, a full infiltration design is potentially feasible. The feasibility screening category is Full Infiltration based on groundwater conditions.

If answer to Criteria 1 or Criteria 2 is “No”, infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a “full infiltration” design based on groundwater conditions. Proceed to Part 2.

- Full Infiltration
- Complete Part 2

³ To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.



Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions	Worksheet C.4-2: Form I-8B ²
Part 2 – Partial vs. No Infiltration Feasibility Screening Criteria	
DMA(s) Being Analyzed:	Project Phase:
Criteria 3: Groundwater Screening	
<p>Contaminated Soil/Groundwater. Are partial infiltration BMPs proposed at least 100 feet away from contaminated soil or groundwater sites? This can be confirmed using GeoTracker (geotracker.waterboards.ca.gov) to identify open contaminated sites. This criterion is intentionally a smaller radius than full infiltration, as the potential quantity of infiltration from partial infiltration BMPs is smaller.</p> <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 3 Result.</p> <p><input type="checkbox"/> No; However, site layout changes can be proposed to avoid contaminated soils or soils that lack adequate treatment capacity. Select “Yes” to Criteria 3 Result. It is a requirement for the SWQMP preparer to identify potential mitigation measures.</p> <p><input type="checkbox"/> No; Contaminated soils or soils that lack adequate treatment capacity cannot be avoided and partial infiltration BMPs are not feasible. Select “No” to Criteria 3 Result.</p>	
<p>Criteria 3 Result: Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without increasing risk of groundwater contamination that cannot be reasonably mitigated to an acceptable level?</p> <p><input type="checkbox"/> Yes; Continue to Part 2, Criteria 4.</p> <p><input type="checkbox"/> No; Skip to Part 2 Result.</p>	
<p>Summarize findings and basis. Documentation should focus on mapped soil types and contaminated site locations.</p>	



Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions	Worksheet C.4-2: Form I-8B ²
Criteria 4: Water Balance Screening	
<p>Additional studies. In the event that water balance effects are used to reject partial infiltration (anticipated to be rare), a qualified professional must provide an analysis of the incremental effects of partial infiltration BMPs on the water balance compared to incidental infiltration under a no infiltration scenario (e.g. precipitation, irrigation, etc.).</p>	
<p>Criteria 4 Result: Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams?</p> <p><input type="checkbox"/> Yes: Continue to Part 2 Result.</p> <p><input type="checkbox"/> No: Continue to Part 2 Result.</p>	
<p>Summarize potential water balance effects. Documentation should focus on mapping and soil data regarding proximity to ephemeral streams and groundwater depth.</p>	
Part 2 – Partial Infiltration Groundwater and Water Balance Screening Result ⁴	Result
<p>If answers to Criteria 3 and Criteria 4 are “Yes”, a partial infiltration design is potentially feasible. The feasibility screening category is Partial Infiltration based on groundwater and water balance conditions.</p> <p>If answer to Criteria 3 or Criteria 4 is “No”, then infiltration of any volume is considered to be infeasible within the site. The feasibility screening category is No Infiltration based on groundwater or water balance condition.</p>	<p><input type="checkbox"/> Partial Infiltration Condition</p> <p><input type="checkbox"/> No Infiltration Condition</p>

⁴ To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.



Factor of Safety and Design Infiltration Rate Worksheet			Worksheet D.5-1: Form I-9		
Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) $p = w \times v$
A	Suitability Assessment	Soil assessment methods	0.25		
		Predominant soil texture	0.25		
		Site soil variability	0.25		
		Depth to groundwater / impervious layer	0.25		
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			
B	Design	Level of pretreatment/ expected sediment loads	0.5		
		Redundancy/resiliency	0.25		
		Compaction during construction	0.25		
		Design Safety Factor, $S_B = \Sigma p$			
Combined Safety Factor, $S_{total} = S_A \times S_B$ [Minimum of 2 and Maximum of 9]					
Observed Infiltration Rate, inch/hr., $K_{observed}$ (corrected for test-specific bias) Note: This worksheet is only applicable when the observed infiltration rate is greater than or equal to 1 inch/hr.					
Design Infiltration Rate, in/hr., $K_{design} = K_{observed} / S_{total}$ Note: If the estimated design infiltration rate is less than or equal to 0.5 inch/hr. then the applicant may choose to implement partial infiltration BMPs.					
Supporting Data					
Briefly describe infiltration test and provide reference to test forms:					

Note: Worksheet D.5-1: Form I-9 is only applicable to design BMPs in “full infiltration condition”. This form is not applicable for categorization of infiltration feasibility (Worksheet C.4-1: Form I-8) and/or for designing BMPs in “partial infiltration condition” or “no infiltration condition”.

Factor of Safety and Design Infiltration Rate Worksheet			Worksheet D.5-1: Form I-9		
Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) $p = w \times v$
A	Suitability Assessment	Soil assessment methods	0.25		
		Predominant soil texture	0.25		
		Site soil variability	0.25		
		Depth to groundwater / impervious layer	0.25		
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			
B	Design	Level of pretreatment/ expected sediment loads	0.5		
		Redundancy/resiliency	0.25		
		Compaction during construction	0.25		
		Design Safety Factor, $S_B = \Sigma p$			
Combined Safety Factor, $S_{total} = S_A \times S_B$ [Minimum of 2 and Maximum of 9]					
Observed Infiltration Rate, inch/hr., $K_{observed}$ (corrected for test-specific bias) Note: This worksheet is only applicable when the observed infiltration rate is greater than or equal to 1 inch/hr.					
Design Infiltration Rate, in/hr., $K_{design} = K_{observed} / S_{total}$ Note: If the estimated design infiltration rate is less than or equal to 0.5 inch/hr. then the applicant may choose to implement partial infiltration BMPs.					
Supporting Data					
Briefly describe infiltration test and provide reference to test forms:					

Note: Worksheet D.5-1: Form I-9 is only applicable to design BMPs in “full infiltration condition”. This form is not applicable for categorization of infiltration feasibility (Worksheet C.4-1: Form I-8) and/or for designing BMPs in “partial infiltration condition” or “no infiltration condition”.

Compact (high rate) Biofiltration BMP Checklist		Form I-10
<p>Compact (high rate) biofiltration BMPs have a media filtration rate greater than 5 in/hr. and a media surface area smaller than 3% of contributing area times adjusted runoff factor. Compact biofiltration BMPs are typically proprietary BMPs that may qualify as biofiltration.</p> <p>A compact biofiltration BMP may satisfy the pollutant control requirements for a DMA onsite in some cases. This depends on the characteristics of the DMA and the performance certification/data of the BMP. If the pollutant control requirements for a DMA are met onsite, then the DMA is not required to participate in an offsite storm water alternative compliance program to meet its pollutant control obligations.</p> <p>An applicant using a compact biofiltration BMP to meet the pollutant control requirements onsite must complete Section 1 of this form and include it in the PDP SWQMP. A separate form must be completed for each DMA. In instances where the City Engineer does not agree with the applicant's determination, Section 2 of this form will be completed by the City and returned to the applicant.</p>		
<p>Section 1: Biofiltration Criteria Checklist (Appendix F)</p> <p>Refer to Part 1 of the Storm Water Standards to complete this section. When separate forms/worksheets are referenced below, the applicant must also complete these separate forms/worksheets (as applicable) and include in the PDP SWQMP. The criteria numbers below correspond to the criteria numbers in Appendix F.</p>		
Criteria	Answer	Progression
<p>Criteria 1 and 3:</p> <p>What is the infiltration condition of the DMA?</p> <p>Refer to Section 5.4.2 and Appendix C of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.</p> <p>Applicant must complete and include the following in the PDP SWQMP submittal to support the feasibility determination:</p> <ul style="list-style-type: none"> • Infiltration Feasibility Condition Letter; or • Worksheet C.4-1: Form I-8A and Worksheet C.4-2: Form I-8B. <p>Applicant must complete and include all applicable sizing worksheets in the SWQMP submittal</p>	<input type="checkbox"/> Full Infiltration Condition	<p>Stop. Compact biofiltration BMP is not allowed.</p>
	<input type="checkbox"/> Partial Infiltration Condition	<p>Compact biofiltration BMP is only allowed, if the target volume retention is met onsite (Refer to Table B.5-1 in Appendix B.5). Use Worksheet B.5-2 in Appendix B.5 to estimate the target volume retention (Note: retention in this context means reduction).</p> <p>If the required volume reduction is achieved proceed to Criteria 2.</p> <p>If the required volume reduction is not achieved, compact biofiltration BMP is not allowed. Stop.</p>
	<input type="checkbox"/> No Infiltration Condition	<p>Compact biofiltration BMP is allowed if volume retention criteria in Table B.5-1 in Appendix B.5 for the no infiltration condition is met. Compliance with this criterion must be documented in the PDP SWQMP.</p> <p>If the criteria in Table B.5-1 is met proceed to Criteria 2.</p> <p>If the criteria in Table B.5-1 is not met, compact biofiltration BMP is not allowed. Stop.</p>



Provide basis for Criteria 1 and 3:

Feasibility Analysis:

Summarize findings and include either infiltration feasibility condition letter or Worksheet C.4-1: Form I-8A and Worksheet C.4-2: Form I-8B in the PDP SWQMP submittal.

If Partial Infiltration Condition:

Provide documentation that target volume retention is met (include Worksheet B.5-2 in the PDP SWQMP submittal). Worksheet B.5-7 in Appendix B.5 can be used to estimate volume retention benefits from landscape areas.

If No Infiltration Condition:

Provide documentation that the volume retention performance standard is met (include Worksheet B.5-2 in the PDP SWQMP submittal) in the PDP SWQMP submittal. Worksheet B.5-6 in Appendix B.5 can be used to document that the performance standard is met.

Criteria	Answer	Progression
<p>Criteria 2: Is the compact biofiltration BMP sized to meet the performance standard from the MS4 Permit?</p> <p>Refer to Appendix B.5 and Appendix F.2 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.</p>	<input type="checkbox"/> Meets Flow based Criteria	<p>Use guidance from Appendix F.2.2 to size the compact biofiltration BMP to meet the flow based criteria. Include the calculations in the PDP SWQMP.</p> <p>Use parameters for sizing consistent with manufacturer guidelines and conditions of its third party certifications (i.e. a BMP certified at a loading rate of 1 gpm/sq. ft. cannot be designed using a loading rate of 1.5 gpm/sq. ft.)</p> <p>Proceed to Criteria 4.</p>
	<input type="checkbox"/> Meets Volume based Criteria	<p>Provide documentation that the compact biofiltration BMP has a total static (i.e. non-routed) storage volume, including pore-spaces and pre-filter detention volume (Refer to Appendix B.5 for a schematic) of at least 0.75 times the portion of the DCV not reliably retained onsite.</p> <p>Proceed to Criteria 4.</p>
	<input type="checkbox"/> Does not Meet either criteria	<p>Stop. Compact biofiltration BMP is not allowed.</p>



Provide basis for Criteria 2:

Provide documentation that the BMP meets the numeric criteria and is designed consistent with the manufacturer guidelines and conditions of its third-party certification (i.e., loading rate, etc., as applicable).

Criteria	Answer	Progression
<p>Criteria 4:</p> <p>Does the compact biofiltration BMP meet the pollutant treatment performance standard for the projects most significant pollutants of concern?</p> <p>Refer to Appendix B.6 and Appendix F.1 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.</p>	<input type="checkbox"/> Yes, meets the TAPE certification.	<p>Provide documentation that the compact BMP has an appropriate TAPE certification for the projects most significant pollutants of concern.</p> <p>Proceed to Criteria 5.</p>
	<input type="checkbox"/> Yes, through other third-party documentation	<p>Acceptance of third-party documentation is at the discretion of the City Engineer. The City engineer will consider, (a) the data submitted; (b) representativeness of the data submitted; and (c) consistency of the BMP performance claims with pollutant control objectives in Table F.1-2 and Table F.1-1 while making this determination. If a compact biofiltration BMP is not accepted, a written explanation/ reason will be provided in Section 2.</p> <p>Proceed to Criteria 5.</p>
	<input type="checkbox"/> No	<p>Stop. Compact biofiltration BMP is not allowed.</p>

Provide basis for Criteria 4:

Provide documentation that identifies the projects most significant pollutants of concern and TAPE certification or other third party documentation that shows that the compact biofiltration BMP meets the pollutant treatment performance standard for the projects most significant pollutants of concern.



Compact (high rate) Biofiltration BMP Checklist		Form I-10
Criteria	Answer	Progression
<p>Criteria 5: Is the compact biofiltration BMP designed to promote appropriate biological activity to support and maintain treatment process? Refer to Appendix F of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.</p>	<input type="checkbox"/> Yes	Provide documentation that the compact biofiltration BMP support appropriate biological activity. Refer to Appendix F for guidance. Proceed to Criteria 6.
	<input type="checkbox"/> No	Stop. Compact biofiltration BMP is not allowed.
<p>Provide basis for Criteria 5:</p> <p>Provide documentation that appropriate biological activity is supported by the compact biofiltration BMP to maintain treatment process.</p>		
Criteria	Answer	Progression
<p>Criteria 6: Is the compact biofiltration BMP designed with a hydraulic loading rate to prevent erosion, scour and channeling within the BMP?</p>	<input type="checkbox"/> Yes	Provide documentation that the compact biofiltration BMP is used in a manner consistent with manufacturer guidelines and conditions of its third-party certification. Proceed to Criteria 7.
	<input type="checkbox"/> No	Stop. Compact biofiltration BMP is not allowed.
<p>Provide basis for Criteria 6:</p> <p>Provide documentation that the BMP meets the numeric criteria and is designed consistent with the manufacturer guidelines and conditions of its third-party certification (i.e., maximum tributary area, maximum inflow velocities, etc., as applicable).</p>		



Compact (high rate) Biofiltration BMP Checklist		Form I-10
Criteria	Answer	Progression
<p>Criteria 7: Is the compact biofiltration BMP maintenance plan consistent with manufacturer guidelines and conditions of its third-party certification (i.e., maintenance activities, frequencies)?</p>	<input type="checkbox"/> Yes, and the compact BMP is privately owned, operated and not in the public right of way.	<p>Submit a maintenance agreement that will also include a statement that the BMP will be maintained in accordance with manufacturer guidelines and conditions of third-party certification.</p> <p>Stop. The compact biofiltration BMP meets the required criteria.</p>
	<input type="checkbox"/> Yes, and the BMP is either owned or operated by the City or in the public right of way.	<p>Approval is at the discretion of the City Engineer. The city engineer will consider maintenance requirements, cost of maintenance activities, relevant previous local experience with operation and maintenance of the BMP type, ability to continue to operate the system in event that the vending company is no longer operating as a business or other relevant factors while making the determination.</p> <p>Stop. Consult the City Engineer for a determination.</p>
	<input type="checkbox"/> No	<p>Stop. Compact biofiltration BMP is not allowed.</p>
<p>Provide basis for Criteria 7:</p> <p>Include copy of manufacturer guidelines and conditions of third-party certification in the maintenance agreement. PDP SWQMP must include a statement that the compact BMP will be maintained in accordance with manufacturer guidelines and conditions of third-party certification.</p>		



Compact (high rate) Biofiltration BMP Checklist		Form I-10
Section 2: Verification (For City Use Only)		
Is the proposed compact BMP accepted by the City Engineer for onsite pollutant control compliance for the DMA?	<input type="checkbox"/> Yes <input type="checkbox"/> No, See explanation below	
Explanation/reason if the compact BMP is not accepted by the City for onsite pollutant control compliance:		

