

PD-08: Stormwater Quality and Flow Control

1-6 points

Goal: Improve stormwater quality from the impacts of the project and control flow to minimize their erosive effects on receiving water bodies and related water resources, using management methods and practices that reduce the impacts associated with development and redevelopment.



Affected Triple Bottom Line Principles

Sustainability Linkage

Implementing more sustainable stormwater management practices supports the environmental principle by improving water quality, managing runoff, and using technology that mimics natural hydrology.

Background and Scoring Requirements

Background

See PD-30: Low Impact Development for scoring of BMPs used on the project.

Scoring Requirements

To calculate the total number of points achieved for this criterion, follow the directions in each of the scoring sections below for Water Quality, Flow Control, and Low-Impact Development (LID), and add the points achieved in each of the three areas up to a maximum of six points total.

Requirement PD-08.1

1-3 points. Water Quality Treatment

Treat target pollutants from at least 80 percent of the total annual runoff volume. To calculate the points earned for this scoring requirement, follow Steps 1 through 4 below:

- Step 1** Calculate the Amount of Runoff Treated (as a percentage of annual volume).
- Step 2** Determine which target pollutants the project's water quality treatment system is designed to treat (sediments or sediments, metals and other basin-specific pollutants).
- Step 3** Calculate the Target Impervious Surface Area Treated as a percentage of added impervious surface area). For retrofit projects, use Table PD-08.1.A on the next page to calculate the equivalent value to use for Target Impervious Surface Area.

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TABLE PD-08.1.A. RETROFIT PROJECTS – CALCULATING EQUIVALENT TARGET IMPERVIOUS SURFACE AREA

Existing Impervious on Project (acres)	% of Existing Impervious Area Treated	Equivalent Target Impervious Surface Area Treated (% of Added)
0–1.0	0–50%	101%–125%
	50.1%–100%	>125%
1.1–5.0	0–40%	101%–125%
	40.1%–100%	>125%
5.1–10.0	0–30%	101%–125%
	30.1%–100%	>125%
>10.0	0–20%	101%–125%
	20.1%–100%	>125%

Step 4 Use the Amount of Runoff Treated from Step 1, the Target Pollutants from Step 2, and the Target Impervious Surface Area Treated from Step 3 in Table PD-08.1.B to calculate the points earned for water quality treatment.

TABLE PD-08.1.B. POINTS EARNED FOR WATER QUALITY TREATMENT

(Step 1) Amount of Runoff Treated (% of Annual Volume)	(Step 2) Target Pollutant	(Step 3) Target Imp. Surface Area Treated (% of Added)	Step (4) Points Earned
80–89%	Sediment	101%–125%	0
		>125%	1
	Sediment, and Metals or Other ¹	101%–125%	1
		>125%	2
90% +	Sediment	101%–125%	1
		>125%	2
	Sediment, and Metals or Other ¹	101%–125%	2
		>125%	3

¹ – Other basin-specific pollutant of concern is targeted

Requirement PD-08.2

1-3 points. Flow Control

Manage the flow from at least 80 percent of the total annual runoff volume. To calculate the points earned for this scoring requirement, follow Steps 5 through 8 below (the steps for this scoring requirement start at 5 to avoid confusion with scoring requirement PD-08.1).

Step 5 Calculate the Amount of Runoff Managed through flow control (as a percentage of total volume).

Step 6 Determine if the flow control standard used is based on peak rates or flow durations.

Step 7 Calculate the Target Impervious Surface Area Managed (as a percent of Added Impervious Surface Area). For retrofit projects, use Table PD-08.2.A to calculate the equivalent value to use for Target Impervious Surface Area.

TABLE PD-08.2.A. RETROFIT PROJECTS – CALCULATING EQUIVALENT TARGET IMPERVIOUS SURFACE AREA

Existing Impervious on Project (acres)	% of Existing Impervious Area Managed	Equivalent Target Impervious Surface Area Managed (% of Added)
0–1.0	0–50%	101%–125%
	50.1%–100%	>125%
1.1–5.0	0–40%	101%–125%
	40.1%–100%	>125%
5.1–10.0	0–30%	101%–125%
	30.1%–100%	>125%
>10.0	0–20%	101%–125%
	20.1%–100%	>125%

Step 8 Use the Amount of Runoff Managed from Step 5, the Flow Control Standard Used from Step 6, and the Target Impervious Surface Area Treated from Step 7 in Table PD-08.2.B to calculate the points earned for flow control management.

TABLE PD-08.2.B. POINTS EARNED FOR FLOW CONTROL MANAGED

(Step 5)	(Step 6)	(Step 7)	(Step 8)
Amount of Runoff Managed (% of Total Volume)	Flow Control Standard Used	Target Imp. Surface Area Managed (% of Added)	Points
80–89%	Peak Rate	101%–125%	0
		>125%	1
	Flow Durations	101%–125%	1
		>125%	2
90% +	Peak Rate	101%–125%	1
		>125%	2
	Flow Durations	101%–125%	2
		>125%	3

Resources

None referenced.

Scoring Sources

The project is considered to have met this criterion if the requirements above can be reasonably substantiated through the existence of one or more of the following documentation sources (or equal where not available):

1. Project Drainage Report or other relevant calculations and studies.
2. Project Contract Documents.