

DCR Stormwater Design Checklist

This checklist outlines stormwater treatment requirements for DCR projects. **Designers should reference the DCR Stormwater Handbook for definitions of items below, additional details on the stormwater requirements, and to follow the steps detailed in the Handbook.** Designers shall submit this checklist to DCR to document that the project complies with the requirements during the design process. Enter project specific information to the green highlighted cells and the remaining cells will calculate based on those inputs. Grey cells do not need values based on input in other cells.

Project Information		
Project Name:		
Project Location:		
Designer:		
Checklist Completed By:		
Total Project Area		square feet
Existing Impervious Cover:		square feet
Proposed Impervious Cover:		square feet
New Impervious Cover:		square feet
Project Type (select from dropdown list):		
Is the project (or a portion of the project) within MS4 Jurisdiction as identified in the DCR Stewardship Map?		
Is the project (or a portion of the project) within WPA Jurisdiction?		
Is the project (or a portion of the project) within a DCR Priority Watershed as identified in the DCR Stewardship Map?		
If within a DCR Priority Watershed, list information from DCR Stewardship Map - Priority Watershed Layer regarding Coverage, WBID, TMDL ID, and Pollutant of Concern for each of the applicable Priority Watershed:		
	Coverage, WBID, TMDL ID, Pollutants of Concern - Watershed 1 (as applicable)	Coverage, WBID, TMDL ID, Pollutants of Concern - Watershed 2 (as applicable)
		Coverage, WBID, TMDL ID, Pollutants of Concern - Watershed 3 (as applicable)

Project Stormwater Requirements

Statewide (MS4)

DCR is implementing the MS4 water quality criteria statewide for Maintenance and Improvement & Capital Project types. If a project is outside the MS4 regulation area and can not meet the water quality criteria, the designer can discuss with DCR the possibility of meeting the criteria to the maximum extent practicable.

Step 1: Is the Project Site categorized as New or Redevelopment? (Per MS4 Definitions)

MS4 Development Category Definition:
 Treatment Requirement: #N/A

Step 2a: Identify MS4 Water Quality Treatment Requirements

Water quality treatment requirements may be met by one of the following methods (or a combination of the two):
 1) Installing SCMs that together meet the site TSS and TP pollutant removal requirements indicated in Row 24
 2) Retaining MS4 Runoff Volume: cubic feet

WPA Jurisdiction

The DCR Stormwater Handbook focuses on the differences between the MS4 and WPA water quality criteria and therefore goes into detail on MassDEP's Standard 4 (water quality standard) for WPA compliance. However, MassDEP's Standards 2 and 3 are also critical to the design of the stormwater system and should be carefully reviewed when designing the system. The designer should follow the MassDEP guidance provided in the Massachusetts Stormwater Handbook for the Stormwater Standards not addressed in the DCR Handbook.

MassDEP Stormwater Standard 4: Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).

Step 2b: Identify WPA Water Quality Treatment Requirements

Is the project site within WPA jurisdiction?
 Instructions: #N/A

Step 3: Setting the WPA Water Quality Treatment Requirements

Does the Project Site include one or more of the following MassDEP Standard 4 **higher treatment requirement situations**? LUHPPLs; Zone II or Interim Wellhead Protection Area; Near or Discharging to a Critical Area (ORWs, special resource waters, bathing beaches, shellfish growing areas, cold-water fisheries)

How much of the Project Site's impervious area is categorized as New or Redevelopment per WPA definitions?

	New Development	Redevelopment
Post Development Impervious Area within Higher Treatment Situations		
Remaining Post Development Impervious Area		

square feet
square feet

Step 4: Calculate WPA Water Quality Volume (WQV)

New Development WQV	-	cubic feet
Redevelopment WQV	-	cubic feet
Total WQV	-	cubic feet

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Review Requirements

Step 5: Review Water Quality Treatment Requirements

Regulation	Requirement
MS4: Water Quality Treatment	#N/A
and/or MS4: Retention	#N/A cubic feet retention
WPA	#N/A cubic feet WQV

Step 6: Determine if Project Site is in a DCR

Priority Watershed per Stewardship Map:

Project Stormwater Design

The design elements noted below follow the DCR Stormwater Handbook guidance. Designers should reference the handbook while completing this checklist.

Low Impact Development (Ch. 5)

Which **Low Impact Development (LID)** measures were incorporated? Add notes describing how each LID measure was incorporated into the project or why it was not.

LID Measure	Incorporated Into Design?	Notes
Preservation and enhancement of vegetation		
Reduction of impervious cover		
Disconnection of pavement		
Maintenance of predevelopment patterns		

Steps 7 and 8: Select SCMs and Calculate Design Storage Volume

Proposed Structural Controls: Add a row to the table for each individual SCM proposed. Numbers should align with the SCM number on the planset.

Grey text in table is an example of how to populate table. Replace grey text with project specific SCMs.

SCM Number	SCM Type	Pretreatment Proposed?	Design Storage Volume (cu. ft.)
1	Infiltration Basin	Yes	3,500
2	Leaching Catch Basins	Yes	450
Total Site DSV:			3,950

Step 9: Are Pollutant Reduction and WQV Criteria Met?

BATT Tool - <https://www.epa.gov/npdes-permits/stormwater-tools-new-england>

	MS4 Required	WPA Required	Provided (BATT Tool, EPA Curves)
TSS % reduction	#N/A	N/A	
TP % reduction	#N/A	N/A	
Water Quality Volume (cubic feet)	#N/A	N/A	3,950

Step 10: If the Project Site is within a Priority Watershed, describe how treatment is being maximized for nutrient removal.

Additional Stormwater Considerations (Ch. 8)

Does the project propose isolating DCR's stormwater drainage system from any interconnecting municipal drainage systems? If yes, explain how. If no, describe the limiting constraints.

What other stormwater design measures discussed in Chapter 8 were relevant for this project and incorporated into the design?

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Designers are required to submit GIS shapefiles with the proposed construction plans to DCR Stormwater Group. Designers should work with the DCR Stormwater Group to determine submittal requirements. This information will be used to document anticipated treatment achieved from the project in DCR's internal pollutant reduction tracking database.

DCR Review

This section should be left blank by the Designer. DCR will populate as staff reviews the checklist.

DCR Reviewer: _____

Review Date: _____

Reviewer Comments: _____
