

Worksheet B2

Full Dispersion (BMP T5.30)



Full dispersion should be the first LID technology used for both roof and hard surface drainage if feasible. Applicants must submit this completed worksheet and an accompanying site plan if selecting this technology. To complete this worksheet, applicant must:

1. Review infeasibility criteria to ensure that none of the criteria are met
2. Check that applicable design criteria is met
3. Select dispersion method
4. Review Native Landscape Specifications



{ Step 1: Review Infeasibility Criteria }

If any of the following infeasibility criteria are met, this technology is considered infeasible. Applicant must list the specific infeasibility criteria below on the Stormwater Site Plan (Worksheet A1) and move on to the next BMP technology.

Infeasibility Criteria
The area of preserved forested of native condition is less than 65% of the total site area (The preserved area may be a previously cleared area that has been replanted in accordance with the native vegetation specifications as described below)
The area of impervious area draining to the native vegetation is greater than 10% of the total site area
The preserved area cannot feasibly be located downslope of the drain field area of a septic system.
A minimum vegetation path of 100 feet is not feasible.
The preserved area contains a septic system.
The dispersion device would have to be located in a critical area buffer or on slopes steeper than 15%.



{ Step 2: Review Applicable Design Criteria }

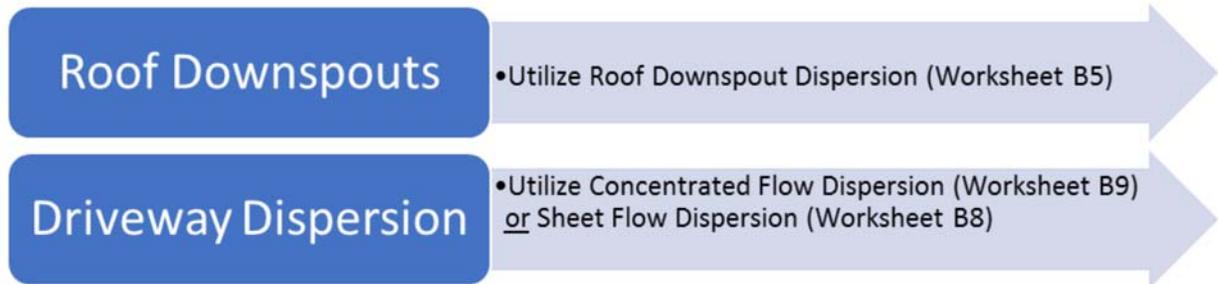
Complete the following checklist (list "N/A" where design criteria does not apply)

Design Criteria for Full Dispersion		
Applicant	Reviewer	Criteria
		Project does not trigger any of the infeasibility requirements above
		The preserved area is placed in a separate tract or protected through a recorded easement
		The preserved area will be clearly marked during construction (Show limits of area on plan and how the area will be marked)
		All trees within the preserved area at the time of permit application are to remain, with the exception of dangerous or diseased trees
		The preserved area may be used for passive recreational activities that do not require permanent structures, so long as the cleared areas and areas of compacted soil do not exceed 8% of the preserved area
		The preserved area may contain utilities and utility easements
		Lawn and landscape areas meeting BMP T5.13 (post-construction soil quality) may drain to the preserved area
		The preserved area must minimize the clearing of existing forest cover, preserve wetland vegetation, and provide a buffer for stream corridors where applicable
Criteria for Native Vegetation Flowpath		
		Must be located over native surface
		Must be in an on-site or off-site tract or easement area reserved for dispersion
		The slope of the flow path must be no steeper than 15% for any 20-foot reach of the flowpath. Slopes up to 33% are allowed where level spreaders are located upstream of the dispersion area and at sites where vegetation can be established
		The flowpath must be located between the dispersion device and any downstream drainage feature such as a pipe, ditch, stream, river, pond, lake, or wetland
		The flowpaths for adjacent dispersion devices must be sufficiently spaced to prevent overlap of flows in the flowpath areas



{ Step 3: Select Dispersion Method }

Applicants must select one of the following dispersion methods and submit a completed worksheet for the design of the selected method(s).





{ Step 4: Review Native Landscape Specifications}

The following specifications are provided for the applicant's use. No action is required for this portion

Note: refer to stormwater manual V-5.3.1 for additional requirements if you intend to convert cultivated area to a vegetated buffer.

1. Existing impervious surface and any underlying base course (e.g., crushed rock, gravel) must be completely removed from the conversion area(s).
2. Underlying soils must be broken up to a depth of 18 inches. This can be accomplished by excavation or ripping with either a backhoe equipped with a bucket with teeth, or a ripper towed behind a tractor.
3. At least 4 inches of well-decomposed compost must be tilled into the broken up soil as deeply as possible. The finished surface should be gently undulating and must be only lightly compacted.
4. The area of native vegetated landscape must be planted with native species trees, shrubs, and ground cover. Species must be selected as appropriate for site shade and moisture conditions, and in accordance with the following requirements.
 - A. Trees: a minimum of two species of trees must be planted, one of which is a conifer. Conifer and other tree species must cover the entire landscape area at a spacing recommended by a professional landscaper or in accordance with local requirements.
 - B. Shrubs: a minimum of two species of shrubs should be planted. Space plants to cover the entire landscape area, excluding points where trees are planted.
 - C. Groundcover: a minimum of two species of ground cover should be planted. Space plants so as to cover the entire landscape area, excluding points where trees or shrubs are planted.

Note: for landscape areas larger than 10,000 square feet, planting a greater variety of species than the minimum suggested above is strongly encouraged. For example, an acre could easily accommodate three tree species, three species of shrubs, and two or three species of groundcover.

5. At least 4 inches of hog fuel or other suitable mulch must be placed between plants as mulch for weed control. It is also possible to mulch the entire area before planting; however, an 18-inch diameter circle must be cleared for each plant when it is planted in the underlying amended soil.

Note: plants and their root systems that come in contact with hog fuel or raw bark have a poor chance of survival.

6. Plantings must be watered consistently once per week during the dry season for the first two years.
7. The plantings must be well established on at least 90% of the converted area. A minimum of 90% plant survival is required after 3 years.