

Checklist LID.06 Sheet Flow Dispersion

This checklist reflects most, but not necessarily all of the items that will be reviewed by the Development Review. It is intended to be used as an aid by us to provide a consistent review of development work in Thurston County. All items may not be applicable in the review of each project and all items of concern to this office may not be covered on this checklist.

Y	N	
		MODELING AND SIZING
		Where sheet flow dispersion is used to disperse runoff into an undisturbed native landscape area or an area that meets the requirements of LID.02: Post-Construction Soil Quality and Depth design criteria, the impervious should be modeled as a lateral flow impervious area.
		DESIGN CRITERIA
		The dispersion of runoff does not create flooding or erosion of downstream properties.
		Positive drainage for sheet flow runoff is achieved.
		Flow path is undisturbed native landscape, or well-established lawn, landscape, groundcover over soil.
		Natural resource protection areas and critical area buffers counted towards flow path lengths are permanently protected from modification through a covenant or easement, or a tract dedicated by the proposed project.
		Discharge towards landslide hazard areas or discharge point on or above slopes greater than 20% or above erosion hazard areas evaluated by a licensed engineer with geotechnical expertise or a licensed geologist, hydrogeologist, or engineering geologist, and with acceptance from the DDECM Administrator.
		Dispersion facility is setback a minimum of 50 feet from top of slopes steeper than 20% and greater than 10 feet high and a vegetated flow path is maintained between the outlet of the facility and the slope.
		Discharge point is a minimum of 10 feet downgradient of the drainfield primary and reserve areas. In addition, the flow path does not intersect with the drainfield primary and reserve area. These requirements can be waived if site topography will clearly prohibit flows from intersecting the drainfield or where site conditions (soil permeability, distance between systems, etc.) indicate that this is unnecessary.
		Flow path is not over contaminated sites or abandoned landfills.
		Contributing surfaces to dispersion areas are flat or moderately sloping (less than 15% slope) surfaces such as driveways, sport courts, patios, roofs without gutters, lawns, pastures, or any situation where concentration of flows can be avoided.
		The dispersion area is graded to avoid concentrating flows (if not, the project should be using Concentrated Flow Dispersion BMP)

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		Sheet flow dispersion is designed as shown in LID.06: Sheet Flow Dispersion.
		For Flat to Moderately Sloped Areas Only (less than 15% slope)
		The contributing area cross-slope is a maximum of 2%.
		A transition zone and vegetated buffer is provided.
		The transition zone is located at least 25 feet from the right-of-way if the contributing area slopes toward street.
		The transition zone is 2 feet wide and is between the edge of the contributing surface (or building eaves) and the downslope vegetation.
		The transition zone consists of subgrade material (crushed rock), modular pavement, drain rock, or other material approved by Thurston County.
		A 10-foot wide vegetated buffer for up to 20 feet of width of paved or surface, and an additional 10 feet of vegetated buffer width for each additional 20 feet of contributing area width or fraction thereof is provided.
		For Variable Sloped Areas Only (less than 15% slope overall, but variable in longitudinal and/or cross slope)
		Berms and dispersion trenches are provided.
		Berms are diagonal to the direction of surface flow to intercept and convey runoff to dispersion trenches.
		Berms are 6 inches wide and 2 to 4 inches high.
		Berms are placed such that there is no more than 700 square feet of contributing area between berms.
		A minimum vegetated flow path of 25 feet is provided between berms.
		The dispersion trench is located at least 25 feet from the right-of-way if the contributing area slopes toward street.
		CONSTRUCTION CRITERIA
		The dispersion area is clearly identified (e.g., using flagging or high visibility fencing) and protected prior to construction.
		A soil and vegetation management plan is provided showing areas to be protected and restoration methods for disturbed areas.
		Construction SWPPP sheets outline construction sequencing that will protect the dispersion area during construction.
		Construction SWPPP BMPs and protection techniques are implemented as applicable. The upslope of construction areas are stabilized and overland flow distances are minimized.

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		Operate machinery outside of dispersion area during construction.
		Excavate dispersion area to final grade only after all disturbed areas in the upgradient project drainage area have been permanently stabilized.
		The dispersion flow path is protected from sedimentation and compaction during construction.
		If the flow path area is disturbed during construction, the area is restored to meet LID.02: Post-Construction Soil Quality and Depth in Volume V, and a dense cover of lawn, landscape, or groundcover is established.
		INSPECTION CRITERIA
		The dispersion facility meets applicable design and construction criteria (see Design Criteria above).