

---

# LID on Construction Projects

---

Low Impact Development (LID) can be beneficial by retaining stormwater on a project site and promoting infiltration. LID techniques should be used whenever possible to the Maximum Extent Possible (MEP).

According to the DOT MS4 Permit:

- DOT, consultants, contractors, and any other entity that requests approval for discharging into the MS4, must consider the use of LID *PRIOR* to the consideration of other practices
- Redevelopment of sites which currently have Directly Connected Impervious Area (DCIA) of 40% or more should retain one half (1/2) the Water Quality Volume (WQV) on the site
- New development *AND* redevelopment of sites with Directly Connected Impervious Area (DCIA) of less than 40% should retain all of the Water Quality Volume (WQV) on the site
- DOT should implement practices which minimize thermal impacts to watercourses, including requiring vegetated buffers along waterways, and disconnecting discharges from impervious surfaces to surface waters
- Projects should preserve, protect, create, and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions, including, but not limited to: riparian corridors, headwaters, floodplains, and wetlands
- Hydromodification (channel modification, channelization, loss of floodplain, modifications that will impact stream velocities or flow, etc.) should be avoided
- Trees and other vegetation should be protected
- Policies to protect naïve soils, prevent topsoil stripping, and prevent compaction of soil should be implemented

The use of LID techniques is the most critical at locations that are classified as “priority areas” under the DOT MS4 Permit. Priority areas are:

- Impaired waters
- Urbanized areas (as defined by the U.S. Census Bureau for the 2000 or 2010 census)
- Drainage areas with Directly Connected Impervious Area (DCIA) of 11% or greater

## Types of LID:

### Disconnection

- No Curb/ Natural Dispersion
- Vegetative Filter Strip



Source: FHWA



Source: Oregon.gov

## Conveyance and Disconnection

- Grass Channel
- Water Quality Swale (Dry)



Source: NJ.gov

## Infiltration / Retention

- Infiltration Basin
- Infiltration Trench
- Underground Infiltration System
- Dry Well



Source: Vermont.gov



Source: NJ.gov

## Treatment

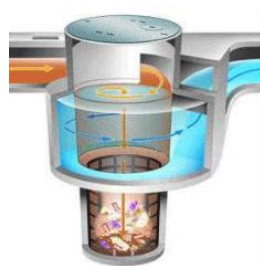
- Wet Basin / Wetland System
- Extended Dry Detention Basin
- Hydrodynamic Separator
- Bioretention With Underdrain



Source: Maryland.gov



Source: Delaware.gov



Source: US EPA



Source: Ohio.gov