



## Centralized Stormwater Structural Best Management Practices

### Centralized Stormwater Structural Best Management Practices (BMP)

Description: Stormwater system is moderate to large in size, accepts runoff from mixed land use drainage areas greater than 1.0 acres.

BMP Type	Description
<p><b>Bed Filter</b></p> <p><i>(Examples: Underground Sand Filter, Surface Sand Filter, Perimeter Sand Filter, Organic Media Filter)</i></p>	<ul style="list-style-type: none"> <li>• A flow-through structure that uses granular media (e.g. sand or activated alumina) to actively filter stormwater to remove pollutants.</li> <li>• Little to no volume loss occurs through filtration process.</li> <li>• Filtration is controlled by flow rate through media, runoff discharged via outlet or underdrain.</li> <li>• Typically, moderate sized centralized BMPs but can be designed as small decentralized BMPs to treat small areas of imperviousness.</li> <li>• Treatment Process: Media Filtration.</li> <li>• Vegetation: No.</li> <li>• Location: Above ground or below ground.</li> <li>• Type: Centralized</li> </ul>
<p><b>Detention Basin</b></p> <p><i>(Examples: Detention Pond)</i></p>	<ul style="list-style-type: none"> <li>• A flow through basin with discrete inlets and outlets to detain stormwater runoff for some minimum time to reduce peak flows.</li> <li>• Must include at least one outlet at base of basin to allow complete draining between storms.</li> <li>• Little to no volume loss via infiltration.</li> <li>• Treatment Process: Particle Capture by settling.</li> <li>• Vegetation: Optional</li> <li>• Location: Above Ground</li> <li>• Type: Centralized</li> </ul>
<p><b>Dry Basin</b></p> <p><i>(Examples: Extended Detention, Basin Dry Pond)</i></p>	<ul style="list-style-type: none"> <li>• A flow through basin with discrete inlets and outlets to detain stormwater runoff for some minimum time to reduce peak flows.</li> <li>• Must include at least one outlet at base of basin to allow draining between storms.</li> <li>• Footprint is pervious and infiltration capacity of base is maintained to consistently infiltrate some fraction of volumes to unsaturated zone.</li> <li>• Moderate distribution of grass and/or tree species in basin likely and acceptable. No wetland/riparian vegetation.</li> <li>• Treatment Process: Infiltration, Particle Capture</li> <li>• Vegetation: Yes</li> <li>• Location: Above Ground</li> <li>• Type: Centralized</li> </ul>



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<p><b>Infiltration Basin</b></p> <p><i>(Examples: Extended Detention, Basin Dry Pond)</i></p>	<ul style="list-style-type: none"> <li>• A flow through BMP with highly permeable substrate (aggregate or rock) designed to store and infiltrate significant volumes of stormwater into unsaturated zone.</li> <li>• Little to no surface detainment storage</li> <li>• Vegetation distribution should be minimal (&lt;10%)</li> <li>• Treatment Process: Infiltration</li> <li>• Vegetation: Yes, Minimal (&lt;10%)</li> <li>• Location: Above Ground</li> <li>• Type: Centralized</li> </ul>
<p><b>Wet Basin</b></p> <p><i>(Examples: Wet Pond, Retention Pond, Wetland Swale, Wet Extended Retention Pond, Stormwater Wetlands, Constructed Wetlands)</i></p>	<ul style="list-style-type: none"> <li>• A flow through basin with discrete inlets and outlets to detain storm water runoff for some minimum time to reduce peak flows.</li> <li>• One or more outflow offices may exist at different elevations. Lowest outlet elevation sets wet pool capacity.</li> <li>• Dense vegetation is common, specifically wetland species or riparian species with very high densities.</li> <li>• Treatment Process: Bio-Chemical Cycling</li> <li>• Vegetation: Yes, dense wetland/riparian species.</li> <li>• Location: Above Ground</li> <li>• Type: Centralized</li> </ul>
<p><b>Media Filter</b></p> <p><i>(Examples: Proprietary Subsurface Filtration Systems: Stormfilter® Perk Filter™ Jellyfish® Tree Box Biofilter (TreePod™), FloGard® Downspout Filter)</i></p>	<ul style="list-style-type: none"> <li>• A proprietary subsurface flow-through structure that uses a membrane to actively filter stormwater pollutants.</li> <li>• Proprietary models may be selected to target the specific removal of the pollutants of concern.</li> <li>• Pollutant load reductions achieved but no stormwater volume reduction occurs (no infiltration).</li> <li>• May be within a confined space.</li> <li>• Treatment Process: Media Filtration</li> <li>• Vegetation: No</li> <li>• Location: Primarily Below Ground, some Above Ground.</li> <li>• Type: Centralized</li> </ul>



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Structural BMP Type	Description
<p><b>Treatment Vault</b></p> <p><i>(Examples: Hydrodynamic Separator (e.g. Vortechs, CDS®, DVS) Wet Vault Detention, Vault Flow Separation, Vault Gross Solids Retention Devices.)</i></p>	<ul style="list-style-type: none"> <li>• A subsurface flow-through structure that physically separates sediment, trash, leaf litter, debris and other particulate pollutants from stormwater.</li> <li>• Pollutant load reductions achieved but no stormwater volume reduction or infiltration occurs within treatment vaults.</li> <li>• Accumulation of material at base of BMP can be observed and measured via manhole access.</li> <li>• Treatment Process: Particle Capture</li> <li>• Vegetation: No</li> <li>• Location: Below Ground</li> <li>• Type: Centralized</li> </ul>