

Figure A-1. Planting Palette Example A











Location Suitability		Legend					
		 Sunny	 Partly Shaded	 Directly Adjacent to Roadways	 Wet Areas		
BMP Suitability	Dry Water Quality Swale	Dry Extended Detention Basin	Stormwater Pond	Bioretention	Infiltration Trench	Infiltration Basin	Filter Strip
Plant Photo	Name	Attributes				Notes	
	<i>Ceanothus americanus</i> , New Jersey Tea	<ul style="list-style-type: none"> <li>Nitrogen fixing</li> <li>Can grow nutritionally poor soils</li> <li>Beneficial for pollinators &amp; wildlife</li> <li>Quick to establish</li> </ul>	<ul style="list-style-type: none"> <li>Salt tolerant</li> <li>Deep roots provide good erosion control</li> <li>Drought tolerant</li> <li>Best for upland zone</li> <li>Prefers well drained soils</li> </ul>	Spacing 4-5 Feet			
	<i>Lobelia cardinalis</i> , Cardinal Flower	<ul style="list-style-type: none"> <li>Prefers Wet to Moist Soil</li> <li>Best for Wet meadow, Emergent or Submergent Zones</li> </ul>	<ul style="list-style-type: none"> <li>Somewhat tolerant of salt and urban pollution</li> </ul>	Spacing 18- 24 inches			
	<i>Juncus tenuis</i> , Path Rush	<ul style="list-style-type: none"> <li>Drought and flooding tolerant</li> <li>Tolerant of compacted soils</li> <li>Moderately tolerant of salt</li> <li>Nitrogen fixing</li> </ul>	<ul style="list-style-type: none"> <li>Good for nesting birds</li> <li>Good cover crop to reduce weeding needs</li> <li>Deer Resistant</li> </ul>	Spacing 12 inches			
	<i>Asclepias tuberosa</i> , Butterfly Weed	<ul style="list-style-type: none"> <li>Beneficial for pollinators</li> <li>Drought tolerant</li> <li>Best for upland zone</li> <li>Moderate salt tolerance</li> </ul>	<ul style="list-style-type: none"> <li>Deer resistant</li> <li>Best to seed in fall</li> </ul>	Spacing 18-24 inches			
	<i>Coreopsis tinctoria</i> Nutt, Golden Tickseed	<ul style="list-style-type: none"> <li>Beneficial for Pollinators</li> <li>Flooding tolerant prefers moist soil</li> <li>Best for wet meadow and emergent zones</li> </ul>	<ul style="list-style-type: none"> <li>Moderate salt tolerance</li> </ul>	Sow at least 2 lb of pure live seed per acre			

Figure A-2. Planting Palette Example B

Location Suitability		Legend			
		Sunny	Partly Shaded	Directly Adjacent to Roadways	Wet Areas
BMP Suitability	Stormwater Pond	Bioretention	Infiltration Trench	Infiltration Basin	Filter Strip
Plant Photo	Name	Attributes		Notes	
	<i>Verbena hastata</i> , Swamp Verbena	<ul style="list-style-type: none"> <li>• Livestock will not eat</li> <li>• Beneficial for pollinators</li> <li>• Quick to establish</li> <li>• Prefers wet to moist soil</li> </ul>	<ul style="list-style-type: none"> <li>• Best for wet meadow, emergent or submergent zones</li> <li>• Moderate salt tolerance</li> <li>• Nitrogen fixing</li> </ul>	Spacing 12-24 inches	
	<i>Eupatorium maculatum</i> , Spotted Joe Pye Weed	<ul style="list-style-type: none"> <li>• Prefers wet to moist soil</li> <li>• Best for wet meadow, emergent or submergent zones</li> <li>• Prefers sandy soils but will grow in non-sandy wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• Beneficial for pollinators</li> <li>• Drought tolerant</li> <li>• Fibrous roots can make it ideal for erosion control</li> </ul>	Spacing: 4-5 feet on center	
	<i>Iris versicolor</i> , Harlequin Blueflag	<ul style="list-style-type: none"> <li>• Preference for acidic soils</li> <li>• Good filter of excess nutrients</li> <li>• Deer resistant</li> <li>• In wet soils will thrive without fertilizer</li> <li>• Wet to moist soils</li> </ul>	<ul style="list-style-type: none"> <li>• Best for wet meadow, emergent or submergent zones</li> <li>• Roots can be good erosion control</li> </ul>	Spacing 2-3 Feet	
	<i>Carex stricta</i> , Tussock Sedge	<ul style="list-style-type: none"> <li>• Drought tolerant for short periods</li> <li>• Prefers standing water or moist soils</li> <li>• Deer resistant</li> </ul>	<ul style="list-style-type: none"> <li>• Nitrogen Fixing</li> <li>• Best for wet meadow, emergent or submergent zones</li> <li>• Good filter for water clarity</li> </ul>	Spacing 1-3 Feet	
	<i>Caltha palustris</i> , Marsh Marigold	<ul style="list-style-type: none"> <li>• Beneficial for pollinators</li> <li>• Flooding tolerant, prefers moist soil</li> <li>• Best for wet meadow and emergent zones</li> <li>• Deer resistant</li> </ul>	<ul style="list-style-type: none"> <li>• High salt tolerance</li> <li>• Alkaline tolerant</li> <li>• Beneficial for wood ducks</li> <li>• Good ground cover</li> </ul>	Spacing 12 inches	

Figure A-3. Planting Palette Example C









Location Suitability		Legend			
		 Sunny	 Partly Shaded	 Directly Adjacent to Roadways	 Wet Areas
BMP Suitability		Bioretention			
		Dry Extended Detention Basin			
Plant Photo	Name	Attributes		Notes	
	<i>Cercis canadensis L.</i> Eastern Redbud	<ul style="list-style-type: none"> <li>Provides flowers in early spring</li> <li>Tolerates a wide range of pH but will grow best in alkaline soils</li> <li>Grows deep tap root in first few years if conditions are conducive</li> </ul>	<ul style="list-style-type: none"> <li>Rounded vase shape provides good summer shade</li> <li>Known to be wind and ice tolerant</li> <li>Not salt tolerant</li> <li>Drought tolerant</li> </ul>	Spacing 20-30 Feet	
	<i>Phlox divaricata L.</i> Wild Blue Phlox	<ul style="list-style-type: none"> <li>Beneficial for pollinators</li> <li>Good ground cover</li> <li>Tolerant of wide range of soil types and pH</li> <li>Shade tolerant, good for beneath trees</li> </ul>	<ul style="list-style-type: none"> <li>Drought tolerant</li> <li>Deer resistant</li> </ul>	Spacing 12 inches	
	<i>Phlox subulata,</i> Moss Phlox	<ul style="list-style-type: none"> <li>Beneficial for Pollinators</li> <li>Drought tolerant</li> <li>Deer resistant</li> <li>Prefers sun</li> <li>Tolerant of nutrient poor soils</li> </ul>	<ul style="list-style-type: none"> <li>Moderately salt tolerant</li> <li>Mildly alkaline tolerant</li> <li>Good ground cover</li> </ul>	Spacing 12-24 inches	

Photo Sources:

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<https://www.conservect.org/product/crccd-butterfly-weed/>, [https://www.fs.fed.us/wildflowers/plant-of-the-week/coreopsis\\_tinctoria.shtml](https://www.fs.fed.us/wildflowers/plant-of-the-week/coreopsis_tinctoria.shtml)

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**Table 13-7. Water Quality Volume Distribution in Stormwater Pond Designs**

Design Variant	Percent of Water Quality Volume (WQV)		
	Sediment Forebay	Permanent Pool	Extended Detention
Wet Pond	10%	90%	0%
Micropool Extended Detention Pond	10%	10%	80%
Wet Extended Detention Pond	10%	40%	50%
Multiple Pond System	10%	40%	50%
Pocket Pond	10%	40%	50%

Source: NYDEC, 2001.

- Water quality storage can be provided in multiple cells. Performance is enhanced when multiple treatment pathways are provided by using multiple cells, longer flow paths, high surface area to volume ratios, complex microtopography, and/or redundant treatment methods (combinations of pool, extended detention, and marsh).
- The extended detention storage volume (storage volume above the permanent pool provided for additional water quality and stormwater quantity control) should drain out of the pond over a minimum of 24 hours, after which the water surface elevation in the pond will return to the permanent pool elevation.
- Underwater or marsh berms may be incorporated in the design to lengthen the flow path through the pond.
- Thermal impacts of stormwater ponds may be mitigated by implementing one or more of the following design measures:
  - Use of a smaller permanent pool with more extended detention storage and an extended detention time of 24 hours or less
  - Planting of shade trees around the perimeter of the pond (but at least 25 feet away from inlet/outlet structures and the pond embankment) to reduce solar warming of the pool
  - Designing the pond with a series of pools, as opposed to a single pool, to allow cooling prior to discharge
  - Use of an outlet structure designed to draw water from near the bottom of the pond where water temperatures may be cooler
  - Use of an underdrained gravel trench outlet.
- The pond should have a curvilinear shape and a minimum length: width ratio of 3:1 from the pond inlet to outlet.