

Emergent Plants for Retention Basins

A critical portion of our [Lake Edge Enhancement System](#) is the installation of shallow water emergent plugs along the shore of a lake or pond. These emergent plants have several important benefits, including absorption of nutrients, dissipation of wave action, and sediment stabilization.

Emergent plants for this application need to be tolerant of the many challenges of growing in a retention basin including fluctuating water levels, high nutrient and sediment content, and winter deicing salt. Not all emergent plants deal well with these challenges, but many tough species will tolerate these conditions.

Several species of bulrushes thrive in retention basins. Among these are softstem bulrush (*Schoenoplectus tabernaemontani*), dark green bulrush (*Scirpus atrovirens*), three-square bulrush (*Schoenoplectus pungens*), and reddish bulrush (*Scirpus pendulus*). Softstem bulrush inhabits water up to a foot deep, while dark green bulrush and three-square bulrush perform best in just a few inches of water. Reddish bulrush is ideal for the wet soil above the normal waterline.

Several species of sedges will perform well in the shallow water of retention basins including riverbank tussock sedge (*Carex emoryi*), lake sedge (*Carex lacustris*), and bristly sedge (*Carex comosa*). In addition, a large variety of sedges will grow in the saturated soil above the mean water line including the species in our Early Successional Wetland Mix.

Other species recommended for the emergent zone of retention basins include giant burreed (*Sparganium eurycarpum*), soft rush (*Juncus effusus*), arrow arum (*Peltandra virginica*) and sweet flag (*Acorus americanus*). Some species with showy flowers that perform well in retention basins include blue flag (*Iris virginica* var *shrevei*), swamp loosestrife (*Decodon verticillatus*), and Common Arrowhead (*Sagittaria latifolia*).

Plant Feature - Downy Skullcap (*Scutellaria incana*)

Downy Skullcap (*Scutellaria incana*) is a very attractive species native to mesic woodlands in the Ohio and Tennessee valleys. Reaching about 2 feet in height, downy skullcap thrives in filtered shade and well-drained soil. The showy blue flowers occur in clusters held above the foliage from late June to early August. Downy skullcap is an excellent addition to a shady perennial border or woodland edge where it may form a delightful floral hedge.

In a restoration, downy skullcap may be planted in mesic uplands woods with associates from our [Upland Woodland Mix](#).

