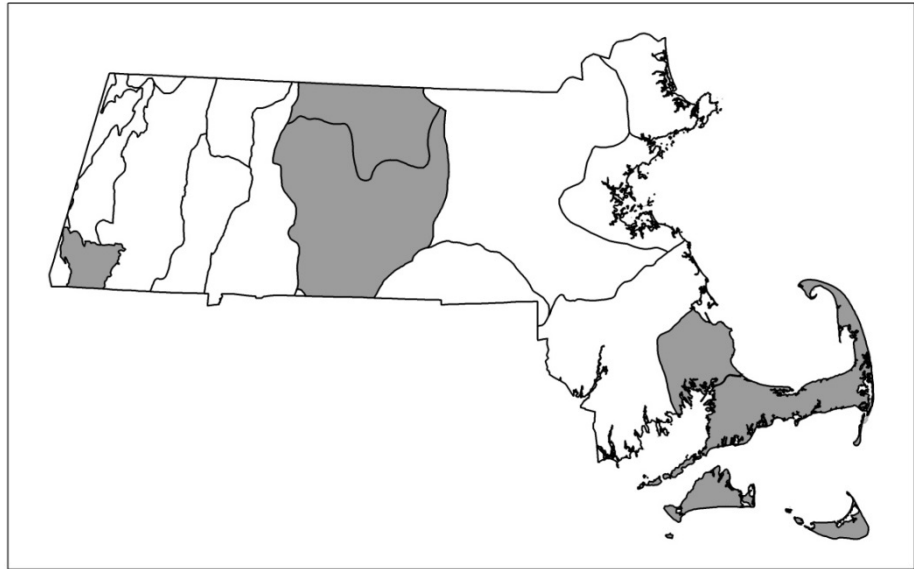




## Shallow Emergent Marsh

**Community Code:** CP2A0A1300

**State Rank:** S4



**Concept:** Grass-, sedge-, and/or rush-dominated wetlands on mucky mineral soils that are seasonally inundated and permanently saturated.

**Environmental Setting:** Shallow Emergent Marshes occur in broad, flat areas bordering low-energy rivers and streams (often in backwater sloughs), or along pond and lake margins. There is standing or running water during the growing season and throughout much of the year, with water depth averaging less than about 15 cm (~6 in.). Shallow marshes commonly occur in abandoned beaver flowages, and in some states they are named abandoned beaver meadows or beaver flowage communities. The substrate is typically a layer of well-decomposed organic muck overlying mineral material.

**Vegetation Description:** Short grasses, sedges, and rushes mixed with scattered forbs (broad-leaved herbaceous plants) dominate Shallow Emergent Marshes. Tussock-forming species such as tussock sedge (*Carex stricta*) and Canada bluejoint (*Calamagrostis canadensis* var. *canadensis*) may form a hummock-hollow topography over broad areas. Forbs often include sensitive fern (*Onoclea sensibilis*), marsh fern (*Thelypteris palustris*), swamp-candles (*Lysimachia terrestris*), marsh St. John's-wort (*Triadenum virginicum*), Joe-Pye-weeds (*Eutrochium* spp.), bonesets (*Eupatorium* spp.), and water-horehound (*Lycopus* spp.). Low shrubs such as spiraea (*Spiraea* spp.), red osier dogwood (*Swida sericea*), leatherleaf (*Chamaedaphne calyculata*), and sweet gale (*Myrica gale*) may be present with <25% coverage. Areas with shallow water between or instead of tussocks typically have a mixture of bur-reeds (*Sparganium* spp.), sedges (*Carex* spp.), and rice cut-grass (*Leersia oryzoides*). Areas with more permanent open water often support floating-leaved plants like water-lilies (*Nymphaea odorata* and *Nuphar* spp.) and submerged plants like pondweeds



(*Potamogeton* spp.). Duckweed (*Lemna* spp.) is abundant in still water. It is common to see tussock sedge-dominated marshes in old beaver flowages mixed with scattered alder (*Eupatorium* spp.) and spiraea (*Spiraea* spp.). Sites with a history of severe disturbance may be dominated by or include an abundance of exotic species including purple loosestrife (*Lythrum salicaria*), reed canary-grass (*Phalaris arundinacea*), phragmites (*Phragmites australis*), or Japanese knotweed (*Fallopia japonica*). Cattails (*Typha* spp.), phragmites (*Phragmites australis*), and wool-grass (*Scirpus cyperinus*) (the dominants of Deep Emergent Marshes) often occur, but do not dominate. Tall shrubs and tree saplings are uncommon and when present are often clustered together.

**Differentiating Occurrences:** The physical and biological characteristics of emergent marsh, wet meadow, and shoreline communities overlap and intergrade. The vegetation for all these types is broadly defined and understudied: focused surveys might establish which dominant species and hydrological situations define identifiable community types, or might determine that there is a continuum of types that require arbitrary separation. Shallow Emergent Marshes are graminoid/herbaceous wetlands and usually have shallow (averaging <6 in deep) surface water all year. Shallow Emergent Marsh vegetation composition is similar to Deep Emergent Marsh except that shorter grasses, sedges and rushes dominate. Cattails, phragmites, and wool-grass (the dominants of Deep Emergent Marshes) can occur but never dominate Shallow Emergent Marshes. Deep Emergent Marshes are tall graminoid wetlands that are usually flooded with deeper water (averaging 6 in to 3 ft.). Shrub Swamps have >25% cover of shrubs. Wet Meadows are graminoid wetland subtypes of Shallow Emergent Marshes, typically with a single sedge or grass species dominating. Standing water is not present throughout the growing season as in emergent marshes. Kettlehole Wet Meadows occur in small basins on mucky peat. Coastal Plain Pondshore Communities and Coastal Plain Pondshores - Inland Variant are generally on sand in closed basins that intersect groundwater. The exposed shoreline supports herbaceous species not generally dominated by dense graminoids. Acidic Pondshores/ Lakeshores are broadly defined, variable shorelines around open water not explicitly included in calcareous or coastal plain pondshores. The shoreline is often not distinct, merging into marsh or other wetlands. Bogs and Fens are peatlands and have peat instead of mucky mineral soil; however, gradations do exist.

**Associated Fauna:** Shallow Emergent Marshes are excellent habitat for muskrats. Shallow Emergent Marsh habitat supports many species of frogs and salamanders, especially leopard, pickerel, green, and bull frogs, and some vernal pool obligate species, such as wood frogs and spotted salamanders, may use areas of Shallow Emergent Marsh for egg-laying if they are fish free.

**Public Access:** Wolf Swamp WMA, Brookfield/Sturbridge; Warwick State Forest, Warwick; Great Meadows National Wildlife Refuge, Concord area; Charles River Watershed (US Army Corps of Engineers), Dedham area; Neponset River Reservation, Canton area.



- Threats:** Shallow Emergent Marshes are threatened by filling and dredging, impoundments that alter natural water-level fluctuations, and nutrient inputs from adjacent roads, fields, or septic systems. The invasion and spread of purple loosestrife (*Lythrum salicaria*) alters natural community structure and composition.
- Management Needs:** Efforts are needed to control the spread of purple loosestrife.
- USNVC/NatureServe:** G125. Eastern North American Freshwater Marsh: and G556. Northern and Central Ruderal Wet Meadow and Marsh.