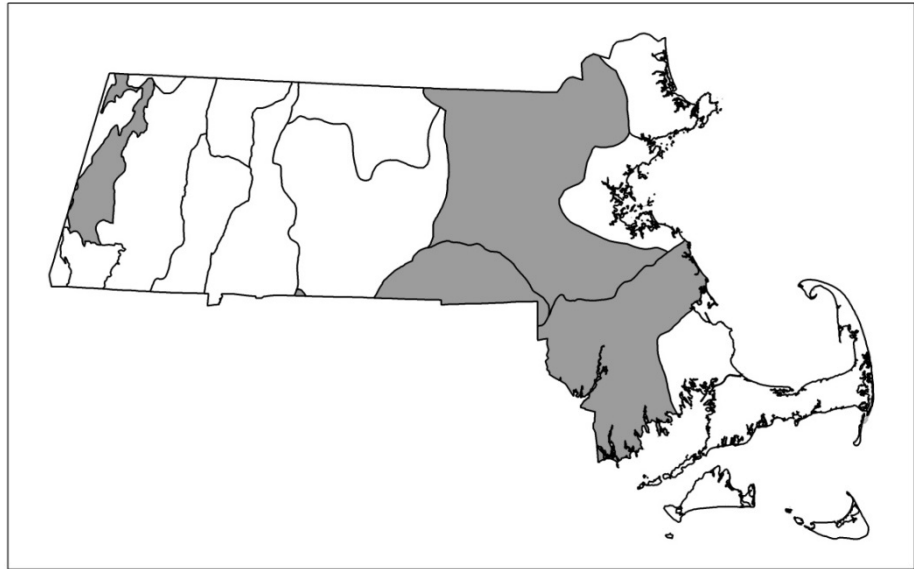




## Alluvial Red Maple Swamp

**Community Code:** CP1A2A1A00

**State Rank:** S3



**Concept:** A rich variant of Red Maple Swamp, that occurs in low areas along rivers and streams that experience overbank flooding.

**Environmental Setting:** Alluvial Red Maple Swamps occur along mainstem sections of low-gradient rivers and streams that flood periodically, primarily in the eastern part of the state. They experience overbank flooding, but they appear to be more poorly drained than true floodplain forests. Soils are typically silt loams with pronounced soil mottling and a surface organic layer. Alluvial Red Maple Swamps may occur as parts of wetland mosaics with other types of floodplain forests, shrub swamps, and other wetland communities. Groundwater from uplands and surrounding wetlands may maintain soil moisture over the growing season.

**Vegetation Description:** The overstory of Alluvial Red Maple Swamps is a mixture of red maple (*Acer rubrum*) and, usually, silver maple (*A. saccharinum*) along riverbanks, with lesser amounts of American elm (*Ulmus americana*), sugar maple (*A. saccharum*), green ash (*Fraxinus pennsylvanica*), shagbark hickory (*Carya ovata*), and/or swamp white oak (*Quercus bicolor*). Red oak (*Q. rubra*), white pine (*Pinus strobus*), and black cherry (*Prunus serotina*) occur in elevated sections. A subcanopy includes the canopy dominants along with hornbeam (*Carpinus caroliniana*). Unlike true floodplain forests, Alluvial Red Maple Swamps have well-developed shrub layers with northern arrow-wood (*Viburnum dentatum* var. *lucidum*), American hazelnut (*Corylus americana*), silky dogwood (*Swida amomum*), buttonbush (*Cephalanthus occidentalis*), meadowsweet (*Spiraea alba* var. *latifolia*), and the non-native glossy buckthorn (*Frangula alnus*). Vines include poison ivy (*Toxicodendron radicans*). In the coastal plain, shrubs may include mountain laurel (*Kalmia latifolia*), winterberry



(*Ilex verticillata*), and sweet pepper-bush (*Clethra alnifolia*). The herbaceous layer is often dominated by sensitive fern (*Onoclea sensibilis*) and false nettle (*Boehmeria cylindrica*), mixed with a rich assemblage of herbaceous species that commonly includes cinnamon fern (*Osmundastrum cinnamomeum*), royal fern (*Osmunda regalis*), goldenrods (*Solidago* spp.), jewelweeds (*Impatiens* spp.), beggar-ticks (*Bidens* spp.), bugleweeds (*Lycopus* spp.), awned sedge (*Carex crinita*), and grasses, including rice cutgrass (*Leersia oryzoides*), bluejoint grass (*Calamagrostis canadensis*), and woodreed (*Cinna arundinacea*).

**Differentiating Occurrences:** Alluvial Red Maple Swamps occur along low-gradient rivers and receive river flood waters. Unlike true floodplain forests, alluvial swamp forests have well-developed shrub layers composed of northern arrow-wood (*Viburnum dentatum* var. *lucidum*), silky dogwood (*Swida amomum*), and the non-native glossy buckthorn (*Frangula alnus*). Silver maple is often a codominant with red maple. The periodic river flooding is a key process in the Alluvial Red Maple Swamps that affects species composition and differentiates it from closely related community types. Alluvial Hardwood Flats are along small streams that have multiple short flooding events throughout the year after storms. Black cherry and white pine are usually abundant in the canopy with red maple, but not silver maple. High-terrace Floodplain Forests do not flood annually. They have a mix of floodplain trees and mesic, deciduous hardwoods. The diverse herbaceous layer includes floodplain species and others more typical of rich forests. Red Maple Swamps are in basins or hillside seeps along small drainage ways. They are less diverse than Alluvial Red Maple Swamps in all layers.

**Associated Fauna:** Alluvial red maple swamps, especially at the upland fringe or in old meander scars and oxbows, can function as vernal pool habitat if water remains standing for 2-3 months and they lack fish; these areas provide important amphibian breeding habitat. Riverine odonates use adjacent alluvial red maple swamps for shelter.

**Public Access:** Taunton River WMA and Black Brook WMA, Middleborough; West Hill Dam and Park (US Army Corps of Engineers), Northbridge; George L. Darey Housatonic Valley WMA, Lenox.

**Threats:** Invasion of non-native plant species, including moneywort (*Lysimachia nummularia*) and glossy buckthorn (*Frangula alnus*).

**Management Needs:** Removal of non-native plant species.

**USNVC/NatureServe:** *Acer rubrum* - *Fraxinus pennsylvanica* Seasonally Flooded Forest Alliance -- *Acer rubrum* - *Fraxinus (pennsylvanica, americana)*/*Lindera benzoin*/*Symplocarpus foetidus* Forest (CEGL006406) [CEGL006975; *Acer (rubrum, saccharinum)* - *Ulmus americana* forest (but this alliance is freely drained, not poorly drained, and not as shrubby as the Mass description)]. *Quercus bicolor* - *Acer rubrum*/*Carpinus caroliniana* Forest (CEGL006386)