

SECTION 2

KEY TO THE WETLAND
PLANT COMMUNITIES

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- 1A. Mature trees (dbh >6 inches) are present and form closed stands (>17 trees/acre; >50 percent canopy cover).....2
- 2A. Hardwood trees are dominant (>50 percent areal cover or basal area of the tree stratum); alluvial, peaty/mucky, or poorly-drained mineral soils.....3
- 3A. Floodplains that are temporarily inundated during flood events, but may be relatively well-drained for much of the growing season; silver maple, American elm, river birch, green ash, black willow, swamp white oak, box elder and/or plains cottonwood are dominant;
.....**FLOODPLAIN FOREST**
- 3B. Ancient lake basins, closed depressions, or retired riverine oxbows, that have longer term inundation/saturation during the growing season.....4
- 4A. Black ash, green ash, yellow birch, red maple, quaking aspen, balsam poplar, silver maple, black willow and/or plains cottonwood are dominant; northern white cedar may be subdominant; growing on poorly-drained mineral or peat/muck soils often associated with ancient lake basins and retired riverine oxbows.....**HARDWOOD SWAMP**
- 4B. Quaking aspen, plains cottonwood, red maple, American elm, silver maple, yellow-bud hickory and/or green ash are dominant growing in seasonally ponded depressions.....
.....**HARDWOOD SWAMP (Vernal Pool Subtype)**
- 2B. Coniferous trees are dominant (>50 percent areal cover or basal area of the tree stratum); soils usually mucky/peaty.....5
- 5A. Tamarack and/or black spruce are dominant; growing on a nearly continuous *Sphagnum* moss mat and acidic, peat soils.....**CONIFEROUS BOG**
- 5B. Northern white cedar and/or tamarack are dominant; nearly continuous *Sphagnum* moss mat absent; usually growing on neutral to alkaline peats or mucks.....**CONIFEROUS SWAMP**
- 1B. Mature trees are absent or, if present, form open, sparse stands; other woody plants, if present, are shrubs, saplings, or pole size trees (dbh <6 inches) less than 20 feet in height.....6
- 6A. Community dominated (>50 percent areal cover) by woody shrubs.....7
- 7A. Low, woody shrubs usually <3 feet in height; *Sphagnum* moss mat layer may or may not be present.....8
- 8A. Shrubs are ericaceous (Heath family) and evergreen growing on a *Sphagnum* moss mat; peat soils are acidic; common.....**OPEN BOG**
- 8B. Shrubs are deciduous, mostly shrubby cinquefoil, often growing on sloping sites with a spring-fed supply of internally flowing, calcareous waters; calcium-tolerant plants (calciphiles) are

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- dominant; *Sphagnum* moss mat layer absent; muck or poorly-drained mineral soils are alkaline; rare...
.....**CALCAREOUS FEN**
- 7B. Tall, deciduous shrubs usually >3 feet in height; *Sphagnum* moss mat absent.....9
- 9A. Speckled alder is dominant; usually growing on acidic hydric soils in and north of the
vegetation tension zone.....**ALDER THICKET**
- 9B. Willows, red-osier dogwood, silky dogwood, meadowsweet and/or steeplebush are
dominant; usually growing on neutral to alkaline hydric soils; found both north and south of the
vegetation tension zone; NOTE: Non-native buckthorns (*Rhamnus cathartica* and *Frangula alnus*)
can occur as dominant shrubs or small trees in disturbed sites**SHRUB-CARR**
- 6B. Community dominated (>50 percent areal cover) by herbaceous plants.....10
- 10A. Aquatic emergent and terrestrial vegetation layers absent; dominated by floating, floating-
leaved and/or submergent species; water depths up to 6.6 feet.....
.....**SHALLOW, OPEN WATER COMMUNITIES**
- 10B. Aquatic emergent and/or terrestrial vegetation layers present; standing water may or may
not be present.....11
- 11A. Permanently to seasonally inundated by water depths up to 3 feet or more during
most growing seasons; dominated by perennial aquatic emergent, floating, floating-leaved and/or
submergent vegetation layers¹.....12
- 12A. Inundated by water depths of 6 inches to 3 feet or more throughout the growing
season in most years; community a mixture of aquatic emergent, floating, floating-leaved and/or
submergent layers.....**DEEP MARSH**
- 12B. Inundated by water depths up to 6 inches, often drying down to saturated soils
during the latter half of most growing seasons; aquatic emergent layer is dominant; floating and
floating-leaved layers may be present but not dominant.....**SHALLOW MARSH**
- 11B. Temporarily inundated to saturated soils during most growing seasons; floating,
floating-leaved and submergent layers absent.....13
- 13A. Temporarily inundated for a few weeks in spring giving way to mudflats and
then dry for the remainder of the growing season; annuals (e.g., smartweeds, wild millet) typically
dominate by the late growing season; often cultivated for row crops; geomorphic position consists of
basins or flats.....**SEASONALLY FLOODED BASIN**

¹ Wild rice, an annual, can also be a dominant in marshes.

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- 13B. Saturated soils, at most briefly inundated; typically 75-100 percent areal cover by perennial vegetation; geomorphic position variable.....14
- 14A. Nearly continuous *Sphagnum* moss mat on acidic, peat soils; sedges and forbs tolerant of low nutrient conditions are characteristic.....**OPEN BOG**
- 14B. Nearly continuous *Sphagnum* moss mat absent or sparse; soils typically circumneutral to alkaline peats, mucks or hydric mineral soils.....15
- 15A. Spring-fed supply of internally flowing, calcareous groundwater; dominated by calcium-tolerant species (calciphiles) such as sterile sedge, Grass of Parnassus, and beaked spike-rush; typically on sloping or domed muck soils; rare.....**CALCAREOUS FEN**
- 15B. Calciphiles not dominant; water source/chemistry/soils not restricted to the above; both common and rare communities.....16
- 16A. Dominated by sedges, primarily *Carex*.....17
- 17A. A floating mat primarily composed of wiregrass sedge (*Carex lasiocarpa*) and/or bog sedge (*C. oligosperma*); common associates are other sedges, Canada blue-joint grass, marsh fern and various forbs.....**SEDGE MAT**
- 17B. Floating mat absent; well developed peat, muck or hydric mineral soils dominated by hummock sedge (*Carex stricta*) and/or other sedges².....**SEDGE MEADOW**
- 16B. Dominated by grasses and/or forbs18
- 18A. Dominated by native prairie grasses (e.g., prairie cord-grass, big bluestem, narrow reedgrass, switch grass) with native prairie forbs; growing on hydric mineral soils; predominately occurs south of the vegetation tension zone; rare...**WET to WET-MESIC PRAIRIE**
- 18B. Dominated by Canada blue-joint grass, non-native grasses (e.g., reed canary grass, redtop) and/or forbs not restricted to prairies; soils are peats, mucks or mineral; occurs in both floristic provinces and tension zone; common.....19
- 19A. Dominated by Canada blue-joint grass and/or native forbs
.....**FRESH (WET) MEADOW (Native Subtype)**
- 19B. Dominated by non-native grasses and/or forbs indicative of disturbance (e.g., stinging nettle, giant ragweed).....
.....**FRESH (WET) MEADOW (Disturbed Subtype)**

²Some sedges (e.g., *Carex lacustris*) can dominate shallow marshes. Use couplet 11 to differentiate sedge-dominated shallow marshes from sedge meadows.

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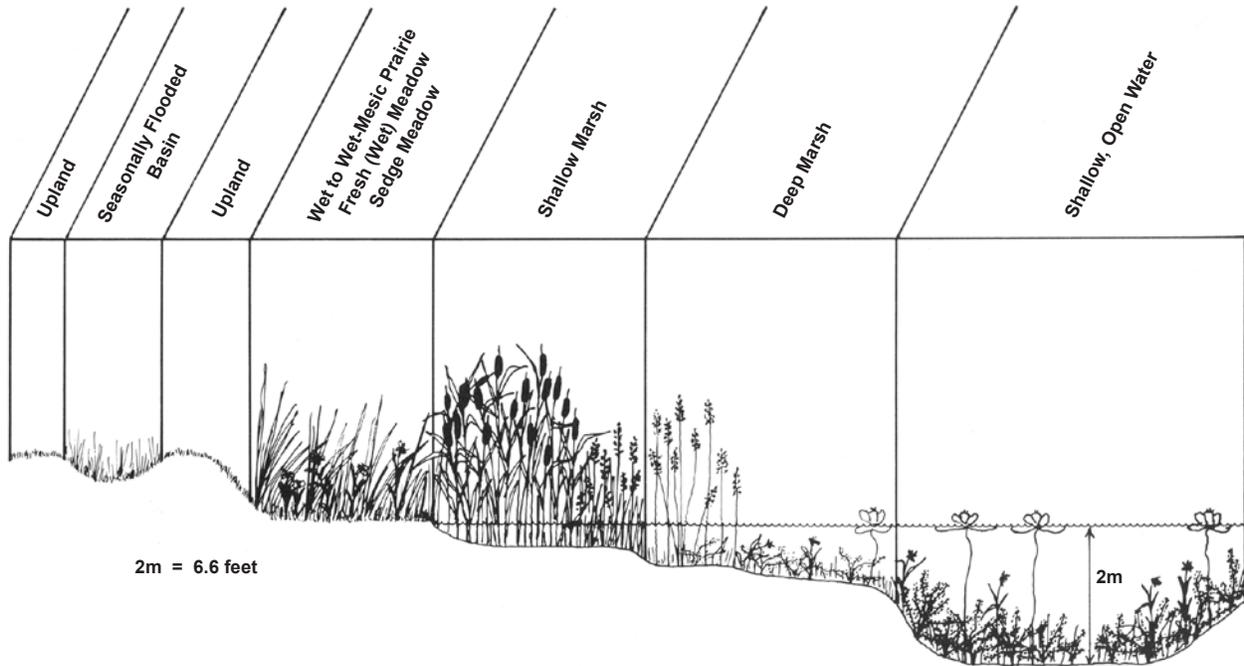


FIGURE 5 - Generalized Cross Section of a Meadow-Marsh-Open Water Complex

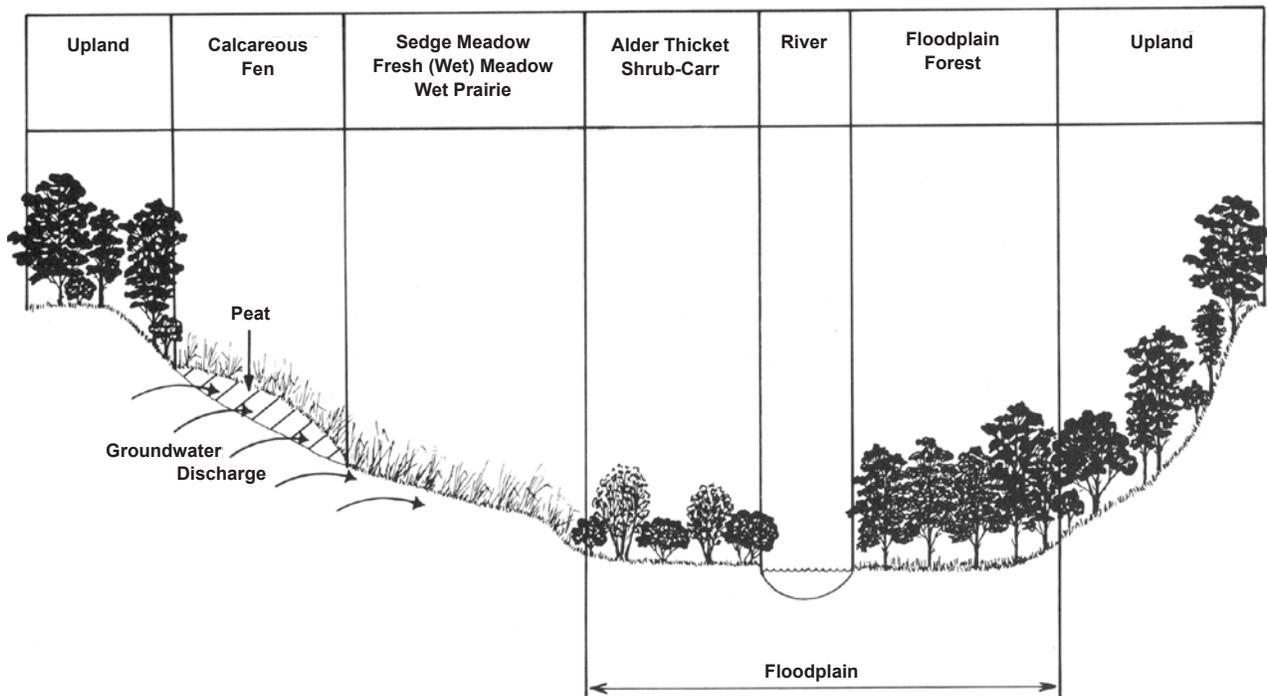


FIGURE 6 - Generalized Cross Section of Wetland Plant Communities in a River Valley

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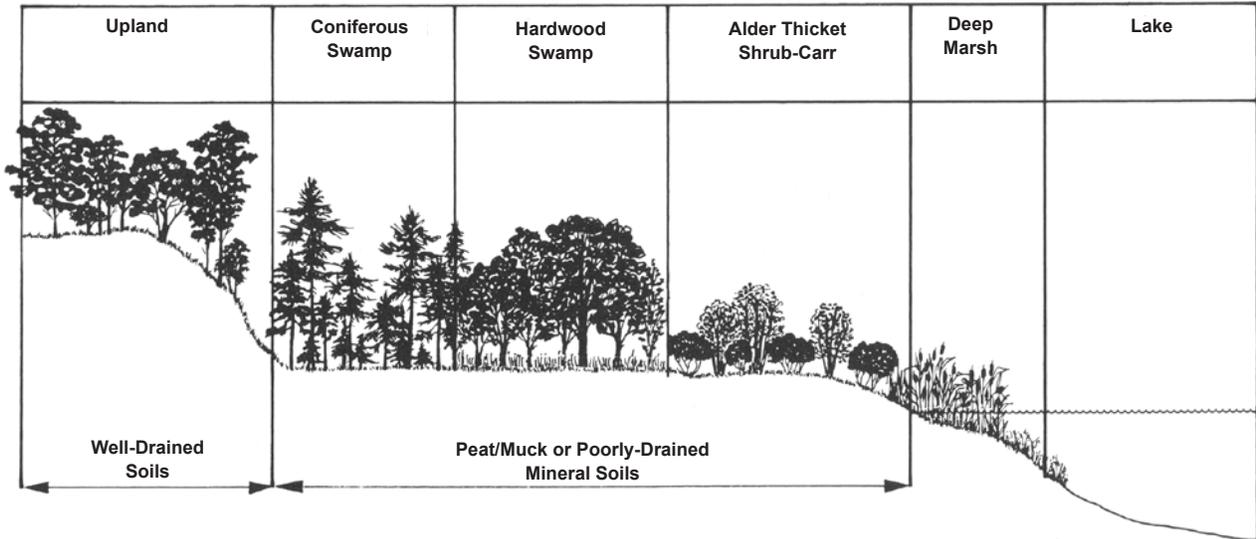


FIGURE 7 - Generalized Cross Section of Wetland Plant Communities in a Lake Basin

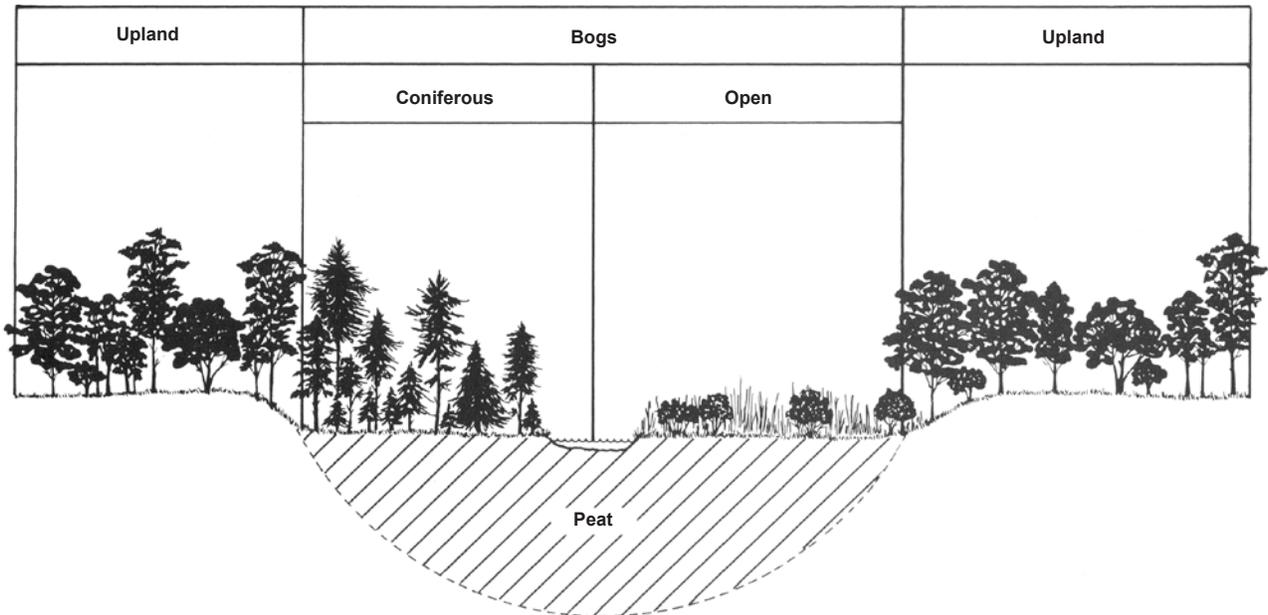


FIGURE 8 - Generalized Cross Section of a Bog