

Appendix O: Vegetation Classification System Reference and Sample

Vegetation Classification System, Upper Mississippi River Refuge

Upper Mississippi River CODE	Upper Mississippi River Class	Upper Mississippi River Class Description	Hydrolocial Description	Habitat Needs Assessment CROSSWALK	National Vegetation and Information Standard (NVCS Code)	NVCS_DESCRIPTION
AG	Agriculture	All obviously cultivated fields. This category may include transitional fallow fields that show evidence of tilling.	Infrequently Flooded Non-Forest	Agriculture	VC.2.N.b.	Annual row-crop forbs or grasses
CN	Conifers	All natural or semi-natural evergreen communities. Typically Pine, but occasionally Cedar.	Infrequently Flooded Forest	Mesic Bottomland Hardwood Forest	I.A.8.N.b.	Rounded-crowned temperate or subpolar needle-leaved evergreen forest
DMA	Deep Marsh Annual	Dominated by Wild Rice, but may include floating-leaf species, submergents, or deep marsh perennials.	Semipermanently Flooded Non-Forest	Semi-permanently Flooded Emergent Annual	VA.5.N.1.	Semipermanently flooded temperate or subpolar grassland
DMP	Deep Marsh Perennial	Persistent emergents that prefer lots of water. Dominated by Arrowhead, Bur-reed, and Cattail and may include Pickerelweed, Giant Reed Grass, and Bulrush.	Semipermanently Flooded Non-Forest	Semi-permanently Flooded Emergent Perennial	VA.5.N.1.	Semipermanently flooded temperate or subpolar grassland
DMS	Deep Marsh Shrub	Shrubby vegetation >25%, dominated by Buttonbush and Water Willow, frequently growing in standing water. May include RFA, SV, and deep marsh perennials.	Semipermanently Flooded Shrubs	Scrub/Shrub	III.B.2.N.f.	Semipermanently flooded cold-deciduous shrubland

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DV	Developed	Areas that are predominantly artificial in nature such as cities/towns, large farmsteads, and industrial complexes.	Infrequently Flooded Non-Forest	Developed	n/a	Developed; Default to Anderson Classification
FF	Floodplain Forest	Softwood forests growing on saturated soils near the main channel and in floodplain backwaters. These forest are predominantly Silver Maple, but also include Elm, Cottonwood, Black Willow, and River Birch.	Seasonally Flooded Forest	Wet Floodplain Forest	I.B.2.N.e.	Seasonally flooded cold-deciduous closed tree canopy
GR	Grassland	Drier upland grass or grass/ forb fields. May include fallow fields, sand prairies, and shrubby vegetation < 25%.	Infrequently Flooded Non-Forest	Grassland	VA.5.N.a.	Tall sod temperate grassland
LF	Lowland Forest	Lowland Forest - More common on southern reaches of the UMRS. These forests grow along the river banks on sites that are drier than FF sites. Typical species include many Hickories, Pecan, River Birch.	Temporarily Flooded Forest	Wet Floodplain Forest	I.B.2.N.d.	Temporarily flooded cold-deciduous closed tree canopy
LV	Levee	All continuous dikes or embankments designed for flood protection. More common on southern reaches of the UMRS and typically covered with mixed grass and forbs.	Infrequently Flooded Non-Forest	Grassland	VA.5.N.a.	Tall sod temperate grassland

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MUD	Mud	Exposed, non-vegetated mudflats. May occur near the main channel or in backwaters.	Seasonally Flooded Non-Forest	Sand/Mud	VII.C.4.N.c.	Seasonally/Temporarily flooded mudflats
NPC	No Photo Coverage	Gaps in photo coverage. May include areas obscured by clouds or shadows.	No Photo Coverage	No Photo Coverage	n/a	No Photo Coverage
OW	Open Water	All non-vegetated open bodies of water.	Permanently Flooded Non-Forest	Open Water	n/a	Open Water; Default to Anderson Classification
PC	Populus Community	Predominantly Cottonwood (>50%) but may include willow and other floodplain forest species.	Seasonally Flooded Forest	Populus Community	I.B.2.N.e.	Seasonally flooded cold-deciduous closed tree canopy
PN	Plantation	All commercially-grown evergreen plantations, large nurseries, and orchards. Typically will be Red or White Pine.	Infrequently Flooded Forest	Mesic Bottomland Hardwood Forest	I.A.8.C.a.	Plantation
PS	Pasture	All grass fields used for the production of livestock.	Infrequently Flooded Non-Forest	Grassland	V.A.5.C.a.	Perennial Grass Crops
RD	Roadside Grass/Forbs	Grass/forb-covered right-of-ways along side of roads, highways, and railroads.	Infrequently Flooded Non-Forest	Grassland	n/a	Roadside Grass/Forbs; Default to Anderson Classification
RFA	Rooted Floating Aquatics	Typically Lotus and Lily, but may include Water Shield and Water Primrose. Frequently grows with submergent vegetation when RFA density is < 90%.	Permanently Flooded Non-Forest	Floating-Leaved Aquatic Bed	V.C.2.N.a.	Permanently flooded temperate or subpolar hydromorphic rooted vegetation

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SB	Sand Bar	Exposed sand bars typically found in and near the main channel, and often associated with wing dams and islands.	Temporarily Flooded Non-Forest	Sand/Mud	VII.C.2.N.c.	Temporarily flooded sand flats
SC	Salix Community	Predominantly Willow (>50%) but may include Cottonwood and other floodplain forest species.	Seasonally Flooded Forest	Salix Community	I.B.2.N.e.	Seasonally flooded cold-deciduous closed tree canopy
SD	Sand Dunes/Spoil	Sand spoil banks, beaches, and other sparsely-vegetated sandy areas.	Infrequently Flooded Non-Forest	Sand/Mud	VII.C.1.N.a.	Dunes with sparse herbaceous vegetation
SM	Sedge Meadow	Dominated by mixed Sedges but may include perennial emergents and moist soil grass/forbs.	Temporarily Flooded Non-Forest	Wet Meadow	VA.5.N.j.	Temporarily flooded temperate or subpolar grassland
SMA	Shallow Marsh Annual	Typically Wild Millet and Beggarsticks and other annual species that favor mudflats and shallow basins.	Seasonally Flooded Non-Forest	Seasonally Flooded Emergent Annual	VA.5.N.k.	Seasonally flooded temperate or subpolar grassland
SMP	Shallow Marsh Perennial	The transition zone between deep marsh and wet meadow that is dominated by Bulrush, and to a lesser extent Cattail, Arrowhead, Bur-reed, Giant Reed Grass, Smartweed, and other moist soil species.	Seasonally Flooded Non-Forest	Seasonally Flooded Emergent Perennial	VA.5.N.k.	Seasonally flooded temperate or subpolar grassland
SMS	Shallow Marsh Shrub	Mixed shrubs >25%, but typically Sandbar Willow growing near the main channel and in backwaters along with mixed emergents, grasses, and forbs.	Seasonally Flooded Shrubs	Scrub/Shrub	III.B.2.N.e.	Seasonally flooded cold-deciduous shrubland

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SS	Shrub/Scrub	Shrubby vegetation > 25% on drier soils with a mixed grass/forb understory.	Infrequently Flooded Shrubs	Scrub/Shrub	III.B.2.N.a.	Temperate cold-deciduous shrubland
SV	Submerged Aquatic Vegetation	All submersed aquatic vegetation.	Permanently Flooded Non-Forest	Submersed Aquatic Bed	VC.2.N.a.	Permanently flooded temperate or subpolar hydromorphic rooted vegetation
UF	Upland Forest	Forests growing at the edge or out of the UMRS floodplain. Species include Red/White Oak, Hickories, Elm, and other deciduous trees.	Infrequently Flooded Forest	Mesic Bottomland Hardwood Forest	I.B.2.N.a.	Lowland or submontane cold-deciduous closed tree canopy
WM	Wet Meadow	Dominated by moist soil grasses such as Reed Canary Grass and Rice Cutgrass. Also includes Loosestrife, Smartweed, and small inclusions of other mixed emergents, grasses, and forbs.	Saturated Soil Non-Forest	Wet Meadow	VA.5.N.m.	Saturated temperate or subpolar grassland
WMS	Wet Meadow Shrub	Mixed shrubby vegetation > 25%, typically Alder, Elder, False Indigo, Dogwood and/or Willow with a sedge/grass/forb understory.	Temporarily Flooded Shrubs	Wet Floodplain Forest	I.B.2.N.f.	Semipermanently flooded cold-deciduous closed tree canopy
WS	Wooded Swamp	Most common in southern reaches of UMRS. Includes Bald Cypress, Water Tupelo, Sourgum, and Black Ash.	Semipermanently Flooded Forest	Wet Floodplain Forest	I.B.2.N.f.	Semipermanently flooded cold-deciduous closed tree canopy

**2000 Land Cover Use
for the Upper Mississippi
River National Wildlife
and Fish Refuge
according to the
National Vegetation
Classification System**

Pool 8

