

Table 4. Comparison of wetland types described in U.S. Fish and Wildlife Service Circular 39 with some of the major components of this classification system.

Circular 39 type and references for examples of typical vegetation	Classification of wetlands and deepwater habitats		
	Classes	Water regimes	Water chemistry
Type 1—Seasonally flooded basins or flats Wet meadow (Dix and Smeins 1967; Stewart and Kantrud 1972) Bottomland hardwoods (Braun 1950) Shallow-freshwater swamps (Penfound 1952)	Emergent Wetland Forested Wetland	Temporarily Flooded Intermittently Flooded	Fresh Mixosaline
Type 2—Inland fresh meadows Fen (Heinselman 1963) Fen, northern sedge meadow (Curtis 1959)	Emergent Wetland	Saturated	Fresh Mixosaline
Type 3—Inland shallow fresh marshes Shallow marsh (Stewart and Kantrud 1972; Golet and Larson 1974)	Emergent Wetland	Semipermanently Flooded Seasonally Flooded	Fresh Mixosaline
Type 4—Inland deep fresh marshes Deep marsh (Stewart and Kantrud 1972; Golet and Larson 1974)	Emergent Wetland Aquatic Bed	Permanently Flooded Intermittently Exposed Semipermanently Flooded	Fresh Mixosaline
Type 5—Inland open fresh water Open water (Golet and Larson 1974) Submerged aquatic (Curtis 1959)	Aquatic Bed Unconsolidated Bottom	Permanently Flooded Intermittently Exposed	Fresh Mixosaline
Type 6—Shrub swamps Shrub swamp (Golet and Larson 1974) Shrub-carr, alder thicket (Curtis 1959)	Scrub-Shrub Wetland	All nontidal regimes except Permanently Flooded	Fresh
Type 7—Wooded swamps Wooded swamp (Golet and Larson 1974) Swamps (Penfound 1952; Heinselman 1963)	Forested Wetland	All nontidal regimes except Permanently Flooded	Fresh
Type 8—Bogs Bog (Dansereau and Segadas-vianna 1952; Heinselman 1963) Pocosin (Penfound 1952; Kologiski 1977)	Scrub-Shrub Wetland Forested Wetland Moss-Lichen Wetland	Saturated	Fresh (acid only)
Type 9—Inland saline flats Intermittent alkali zone (Stewart and Kantrud 1972)	Unconsolidated Shore	Seasonally Flooded Temporarily Flooded Intermittently Flooded	Eusaline Hypersaline
Type 10—Inland saline marshes Inland salt marshes (Ungar 1974)	Emergent Wetland	Semipermanently Flooded Seasonally Flooded	Eusaline
Type 11—Inland open saline water Inland saline lake community (Ungar 1974)	Unconsolidated Bottom	Permanently Flooded Intermittently Exposed	Eusaline
Type 12—Coastal shallow fresh marshes Marsh (Anderson et al. 1968) Estuarine bay marshes, estuarine river marshes (Stewart 1962) Fresh and intermediate marshes (Chabreck 1972)	Emergent Wetland	Regularly Flooded Irregularly Flooded Semipermanently Flooded-Tidal	Mixohaline Fresh

Table 4. Continued.

<i>Circular 39</i> type and references for examples of vegetation	Classification of wetlands and deepwater habitats		
	Classes	Water regimes	Water chemistry
Type 13—Coastal deep fresh marshes Marsh (Anderson et al. 1968) Estuarine bay marshes, estuarine river marshes (Stewart 1962) Fresh and intermediate marshes (Chabreck 1972)	Emergent Wetland	Regularly Flooded Semipermanently Flooded-Tidal	Mixohaline Fresh
Type 14—Coastal open fresh water Estuarine bays (Stewart 1962)	Aquatic Bed Unconsolidated Bottom	Subtidal Permanently Flooded-Tidal	Mixohaline Fresh
Type 15—Coastal salt flats Panne, slough marsh (Redfield 1972) Marsh pans (Pestrong 1965)	Unconsolidated Shore	Regularly Flooded Irregularly Flooded	Hyperhaline Euhaline
Type 16—Coastal salt meadows Salt marsh (Redfield 1972; Chapman 1974)	Emergent Wetland	Irregularly Flooded	Euhaline Mixohaline
Type 17—Irregularly flooded salt marshes Salt marsh (Chapman 1974) Saline, brackish, and intermediate marsh (Eleuterius 1972)	Emergent Wetland	Irregularly Flooded	Euhaline Mixohaline
Type 18—Regularly flooded salt marshes Salt marsh (Chapman 1974)	Emergent Wetland	Regularly Flooded	Euhaline Mixohaline
Type 19—Sounds and bays Kelp beds, temperate grass flats (Phillips 1974) Tropical marine meadows (Odum 1974) Eelgrass beds (Akins and Jefferson 1973; Eleuterius 1973)	Unconsolidated Bottom Aquatic Bed Unconsolidated Shore	Subtidal Irregularly Exposed Regularly Flooded Irregularly Flooded	Euhaline Mixohaline
Type 20—Mangrove swamps Mangrove swamps (Walsh 1974) Mangrove swamp systems (Kuenzler 1974) Mangrove (Chapman 1976)	Scrub-Shrub Wetland Forested Wetland	Irregularly Exposed Regularly Flooded Irregularly Flooded	Hyperhaline Euhaline Mixohaline Fresh