NC Division of Coastal Management
Potential Wetland Restoration and Enhancement Site Descriptions

Wetland Restoration Sites -These sites are former wetland areas that have been altered from their natural condition to the extent that the site no longer meets the vegetative, hydrologic, and/or soil conditions required to be classified as jurisdictional wetlands. Restoration sites exhibit few, if any of the wetland functions typical of the site's original wetland types. Sites identified with Wetland Disturbance Classes of 1, 2, 3, 7 or 8 are normally restoration sites.

Wetland Enhancement Sites - These sites are usually classified as jurisdictional wetlands and normally have hydrophytic vegetation, wetland hydrology, and hydric soil conditions. Nevertheless, enhancement sites are not functioning at the fullest capacity typical of that particular wetland type or are sites that have been degraded and exhibit the functional capacity typical of another wetland type. For example, a bottomland hardwood enhancement site may be functioning as a wet flatwood due to channelization of the stream to which it is adjacent resulting in a lack of riverine characteristics. Sites identified with Wetland Disturbance Classes of 4, 5, 6,and 9 are normally enhancement sites.

Restoration Types - The "restoration type" refers to the specific type of wetland to be restored or enhanced in a specific area. The restoration type identifies the historic and natural wetland type that existed in a specific area. There are six different "restoration types" identified by DCM.

Wetland Disturbance Class (wd_class) - Wetland Disturbance Class identifies the type of disturbance that has occurred in a specific area. There are nine different Wetland Disturbance Classes identified by DCM. The Wetland Disturbance Classes are normally grouped into 6 categories of disturbances.

RESTORATION TYPES

Salt/Brackish Marsh (restoration type = 1)
Tolerant of frequent regular flooding and high salt concentrations. Plants typically found in salt/brackish marshes include: big cordgrass, saltmarsh cordgrass, saltmeadow cordgrass, sawgrass, saltgrass, and black needlerush.

Estuarine Shrub/Scrub, Estuarine Forest, Maritime Swamp Forest (restoration type = 2)
These areas are usually irregularly flooded (*e.g.* by wind tides) with salt or brackish water. Plant distribution in these areas is heavily influenced by the exposure to salt spray. In areas where salt spray is a factor, species such as saltmeadow cordgrass, wax myrtle, red cedar, Eastern baccharis, and live oak are found. In areas where salt spray is not as prevalent vegetation such as black willow, redbay, blueberry, wild olive, yaupon, red maple, and loblolly pine, occur. Maritime Forests are usually found on stabilized dune systems located on the sound-side of barrier islands. Although these areas rarely flood, they are subjected to constant salt spray, wind shear, and poor soil conditions (low water, nutrient availability). Vegetation common to these dune swale communities include: loblolly pine, red maple, live oak, laurel oak, wax myrtle, redbay, and red cedar.

Swamp Forests and Bottomland Hardwood Forests (restoration type = 4)
Riverine swamp forests and bottomland hardwood forests are found in the floodplains of major rivers and streams where the hydrology is primarily controlled by over-bank flooding. Some swamps are depressional. Swamp forests are usually frequently flooded and/or nearly permanently saturated with groundwater. Vegetation typically found in swamp forests includes many water-tolerant hardwoods such as bald cypress, water tupelo, swamp tupelo, and Carolina ash. Common herbaceous species found include lizard's tail and arrowhead. Vegetation commonly found in bottomland hardwood forests includes: red maple, river birch, sycamore, American elm, overcup oak, willow oak, green ash, and swamp tupelo.

Bottomland Hardwood/Headwater Forest (BLH/Hdwtr) (restoration type = 5)
Bottomland hardwood forests are associated with riverine systems whose hydrology is primarily controlled by over-bank flooding. Vegetation commonly found in bottomland hardwood forests includes: red maple, river birch, sycamore, American elm, overcup oak, willow oak, green ash, and swamp tupelo. Headwater forests are found along first order streams and may be irregularly flooded by surface runoff, although much of the hydrology of headwaters is typically controlled by seasonally high water tables (groundwater). Species common to headwater forests include red maple, sweetgum, loblolly pine, tulip poplar, blackgum, and greenbriar.

Wet Flatwoods (restoration type = 6)
Wet flatwood sites include pine flats and wet hardwood flats that are located on the broad, flat interstream divides in the Coastal Plain. Typical hydrology for wet flatwoods is controlled by seasonally high water tables from local groundwater input. Local rainfall may have an impact on the site's hydrology if the area is slightly depressional. Vegetation common to wet flatwoods include: loblolly pine, sweetgum, red maple, willow oak, water oak, blackgum, longleaf pine, horsesugar, hollies, and giant switchcane.

Pocosins (restoration type = 7)
Pocosin sites are found on slightly raised elevations on interstream divides. Carolina Bays and bay forests are also mapped under this type. Vegetation typical of pocosins includes: pond pine, sweet bay, loblolly bay, hollies, blueberry, fetterbush, sweet pepperbush, ti-ti, and laurel-leaf greenbriar.

WETLAND DISTURBANCE CLASSES (wd_class)

Drained and Cleared (wd_class = 1,2,3) (restoration)
Former wetlands that were identified having no vegetation by both 1988 and 1994 Satellite Imagery and thought to be drained. These areas were also identified as having hydric soil by the NRCS. Drained and cleared areas are often prior converted farm fields. Drained and cleared areas are potential restoration sites.

Drained and Not Cleared (wd_class = 8) (restoration)
Areas identified as hydric soil by NRCS and forested by satellite imagery, but not identified as wetlands during the National Wetland Inventory. These areas are also located within 100 feet of a channelized stream or ditch. They are typically restoration areas that were drained prior to 1983.

Ditched Not Cleared (wd_class = 4,9) (enhancement)
Hydric soil areas identified as being ditched or partially drained but not cleared on satellite imagery. These sites typically meet the criteria of jurisdictional wetland and are typically enhancement sites. (This class does not include Managed Pinelands that are classified as Wetland Disturbance Class 5).

Managed Pinelands (wd_class = 5) (enhancement)
Seasonally saturated, managed pine forests (usually loblolly pine) occurring on hydric soils. Managed Pinelands can be restoration or enhancement sites, but are typically enhancement sites.

NWI Impounded Areas (wd_class = 6) (enhancement)
Areas identified by the National Wetland Inventory as being impounded. Impounded areas can be either restoration or enhancement sites but are typically enhancement.

NWI Excavated/Spoil (wd_class = 7) (restoration)
Areas identified by the National Wetland Inventory as being located in a basin or channel excavated by man. Excavated areas are typically restoration sites.