Wetland Types and codes

Salt/Brackish Marsh (w-type 1)
Any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), as long as this flooding does not include hurricane or tropical storm waters. Plant species include: smooth cordgrass; black needlerush; glasswort; salt grass; sea lavender; salt marsh bullrush; saw grass; cattail; salt meadow cordgrass; and big cordgrass. Marshes in this category are also called Coastal Marshes.

Estuarine Shrub Scrub (w-type 3)
Any shrub/scrub dominated community subject to occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses).   Typical species include wax myrtle and eastern red cedar.

Estuarine Forested (w-type 15)
A forested wetland community subject to occasional flooding by tides, including wind tides (whether or not the tide waters reach the these areas through natural or artificial watercourses). Examples include pine-dominated communities with rushes in the understory or fringe swamp communities such as those that occur along the Albemarle and Pamlico sounds.

Maritime Swamp Forest (w-type 16)
A forested community characterized by its stunted growth due to the stresses imposed by its proximity to salt spray from the ocean. Typical vegetation includes live oak, red maple and swamp tupelo.

Freshwater Marsh (w-type 2)
Herbaceous areas that are flooded for extended periods during the growing season. Included are marshes within lacustrine systems, managed impoundments, some Carolina Bays, and other non-tidal marshes (i.e. marshes which do not fall into the Salt/Brackish Marsh category). Typical communities include species of sedges, millets, rushes and grasses that are not specified in the coastal wetland regulations. Also included are giant cane, arrowhead, pickerelweed, arrow arum, smartweed, and cattail.

Pocosin (w-type 4)
Palustrine scrub/shrub communities (i.e. non-Estuarine Scrub/Shrub) dominated by evergreen shrubs, often mixed with pond or loblolly pines. Typically occur on saturated, acid, nutrient poor, sandy or peaty soils; usually removed from large streams; and subject to periodic burning.

Bottomland Hardwood and Riverine Swamp Forest (w-type 6, 7)
Riverine forested or occasionally scrub/shrub communities usually occurring in floodplains, that are semi-permanently to seasonally flooded. In bottomland hardwood systems, typical species include oaks (overcup, water, laurel, swamp chestnut), sweet gum, green ash, cottonwoods, willows, river birch, and occasionally pines. In swamp forest systems, typical species include cypress, black gum, water tupelo, green ash and red maple.

Depressional Swamp Forest (w-type 7)
Very poorly drained non-riverine forested or occasionally scrub/shrub communities that are semi-permanently or temporarily flooded. Typical species include cypress, black gum, water tupelo, green ash and red maple. These are distinguished from riverine swamp forests in the data by having a hydrogeomorphic (hgm) class of flat (f).

Headwater Swamp (w-type 17)
Forested systems along the upper reaches of first order streams. These include hardwood-dominated communities with soil that is moist most of the year. Channels receive their water from overland flow and rarely overflow their banks.

Hardwood Flat (w-type 9)
Poorly drained interstream flats not associated with rivers or estuaries. Seasonally saturated by a high water table or poor drainage. Species vary greatly but often include sweet gum and red maple.

Pine Flat (w-type 10)
Palustrine, seasonally saturated pine communities on hydric soils that may become quite dry for part of the year. Generally occur in flat or nearly flat areas that are not associated with a river or stream system. Usually dominated by loblolly pine. This category does not include managed pine systems.

Managed Pineland (w-type 11)
Seasonally saturated, managed pine forests (usually loblolly pine) occurring on hydric soils. This wetland category may also contain non-managed pine forests occurring on hydric soils. Generally these are areas that were not shown on National Wetlands Inventory maps. These areas may or may not be jurisdictional wetlands. Since this category is based primarily on soils data and 30 meter resolution satellite imagery, it is less accurate than the other wetland categories. The primary criteria for mapping these areas are hydric soils and a satellite imagery classification of 'pine forest'.

Human Impacted Area (w-type 40)
Areas of human impact have physically disturbed the wetland, but the area is still a wetland. Impoundments and some cutovers are included in this category, as well as other disturbed areas, such as power lines.

Modifiers

Partially Drained Wetland (w-type 21-37)
Any wetland system described above that is, or has been, partially drained/ditched according to the US Fish & Wildlife Service's National Wetland Inventory maps.

Cleared Wetland (w-type 41-57)
Areas of hydric soils for which satellite imagery indicates a lack of vegetation in *both* 1988 *and* 1994. These areas are likely to no longer be wetlands.

Cutover Wetland (w-type 61-77)
Areas for which satellite imagery indicates a lack of vegetation in 1994. These areas are likely to still be wetlands, however, they have been recently cut over. The vegetation in cutover areas may be regenerating naturally, or the area may in use for silvicultural activities.

Wetland Code Explanation for Modifiers:
Drained: add 20 to w-type (e.g., drained hardwood flat = 29)
Cleared: add 40 to w-type (e.g., cleared pocosin = 44)
Cutover: add 60 to w-type (e.g., cutover pine flat = 70)
Note that these modifiers are not applicable to Managed Pine and Human Impacted wetland types.

Hydrogeomorphic (HGM) Characteristics

Riverine HGM Classification (r)
These wetlands are those in which hydrology is determined or heavily influenced by proximity to a perennial stream of any size or order. Overbank flow from the stream exerts considerable influence on their hydrology.

Flat/Depressional HGM Classification (f)
These wetlands are generally not in direct proximity to surface water. While they may be either isolated from or hydrologically connected to surface water, the hydrology of depressional wetlands is primarily determined by groundwater discharge, overland runoff, and precipitation.

Headwater HGM Classification (h)
These wetlands exist in the uppermost reaches of local watersheds upstream of perennial streams. Headwater systems may contain channels with intermittent flow, but the primary sources of water input are precipitation, overland runoff, and groundwater discharge rather than overbank flow from a stream.

Estuarine Wetlands (e)
This code was added to DCM's wetlands data for clarity, as these wetlands do not generally fit into the other three HGM classes.   These wetlands are generally found along the margins of estuaries and sounds and sometimes exhibit tidal regimes. All salt/brackish marsh, estuarine shrub/scrub, and estuarine forest wetlands receive this code.

NC Coastal Area Wetland Acreage

North Carolina Department of Environment and Natural Resources
Division of Coastal Management

20 Coastal Counties- Wetland Acreage by Wetland Type

Wetland Type	Area (acres)			Total
	Unaltered	Partially Drained	Cutover	
Salt/Brackish Marsh	198999	29229	0	**228228**
Freshwater Marsh	23059	558	0	**23618**
Estuarine Shrub Scrub	28325	2194	570	**31091**
Pocosin	458181	85289	4784	**548254**
Bottomland Hardwood	76601	5066	3470	**85139**
Riverine Swamp Forest	483091	12577	107	**495776**
Depressional Swamp Forest	192572	59843	4965	**257381**
Hardwood Flat	98679	40891	10543	**150114**
Pine Flat	223173	64712	11635	**299521**
Managed Pineland	656633	0	0	**656633**
Estuarine Forest	965	19	5	**990**
Maritime Forest	3558	17	137	**3713**
Headwater Swamp	22235	1589	2341	**26166**
Human Impacted	23906	0	0	**23906**
Total	2489982	301989	38563	**2830534**

Notes:
These data were created to use in a planning, not a regulatory context. The maps produced from these data are advisory in nature. Although every effort has been made to ensure the accuracy and validity of data location and extent, remotely-sensed data have inherent errors and accuracy limits. Surfaces mapped from remotely-sensed data have certain degrees of error. Actual feature boundaries may differ from those from which these statistics were derived. Features smaller than one acre are often omitted at this scale and may not be included in the data.

While every effort has been made to ensure that DCM's maps and data are accurate and reliable within limits of the current state of technology, DCM cannot assume liability for any damages caused by inaccuracies in these data. DCM makes no warranty, express or implied, not does the fact of distribution constitute such a warranty.

The 20 Coastal Counties:
Bertie, Beaufort, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico. Pasquotank, Pender, Perquimans, Tyrrell, Washington

17 Inner Coastal Plain Counties- Wetland Acreage by Wetland Type

Wetland Type	Area (acres)			Total
	Unaltered	Partially Drained	Cutover	
Salt/Brackish Marsh	0	0	0	**0**
Freshwater Marsh	10337	2357	0	**12694**
Estuarine Shrub Scrub	0	0	0	**0**
Pocosin	64497	20936	2031	**87464**
Bottomland Hardwood	169242	11505	5039	**185786**
Riverine Swamp Forest	454890	15253	7383	**477526**
Depressional Swamp Forest	30471	2716	1188	**34375**
Hardwood Flat	83825	37219	3936	**124980**
Pine Flat	99631	51063	5485	**156179**
Managed Pineland	424964	0	0	**424964**
Estuarine Forest	0	0	0	**0**
Maritime Forest	0	0	0	**0**
Headwater Swamp	11619	1129	693	**13441**
Human Impacted	14672	0	0	**14672**
Total	1364148	142178	25755	**1532081**

Inner Coastal Plain Counties:

Bladen, Columbus, Cumberland, Duplin, Edgecombe, Greene, Halifax, Johnston, Jones, Lenoir, Martin, Nash, Northampton, Pitt, Sampson, Wayne, Wilson