NWI Wetlands and Deepwater Map Code Diagram

System: M - Marine

Subsystem: 1 - Subtidal

Class	Subclass
RB – Rock Bottom	1 Bedrock 2 Rubble
UB – Unconsolidated Bottom	1 Cobble-Gravel 2 Sand 3 Mud
AB – Aquatic Bed	1 Algal 3 Rooted Vascular
RF – Reef	1 Coral 3 Worm

Subsystem: 2 - Intertidal

Class	Subclass
AB – Aquatic Bed	1 Algal 3 Rooted Vascular
RF – Reef	1 Coral 3 Worm
RS – Rocky Shore	1 Bedrock 2 Rubble
US – Unconsolidated Shore	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

System: E - Estuarine

Subsystem: 1 - Subtidal

Class	Subclass
RB – Rock Bottom	1 Bedrock 2 Rubble
UB – Unconsolidated Bottom	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB – Aquatic Bed	1 Algal 3 Rooted Vascular 4 Floating Vascular
RF – Reef	2 Mollusk 3 Worm

Subsystem: 2 - Intertidal

Class	Subclass
AB – Aquatic Bed	1 Algal 3 Rooted Vascular 4 Floating Vascular
RF – Reef	2 Mollusk 3 Worm
SB – Streambed	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic
RS – Rocky Shore	1 Bedrock 2 Rubble
US – Unconsolidated Shore	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
EM – Emergent	1 Persistent 2 Non-persistent 5 *Phragmites australis*
SS – Scrub-Shrub	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen
FO – Forested	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

System: R - Riverine

Subsystem: 1 - Tidal, 2 – Lower Perennial, 3 – Upper Perennial, 4* - Intermittent

Class	Subclass
RB** – Rock Bottom	1 Bedrock 2 Rubble
UB – Unconsolidated Bottom	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB – Aquatic Bed	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular
SB***– Streambed	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated
RS – Rocky Shore	1 Bedrock 2 Rubble
US – Unconsolidated Shore	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
EM – Emergent	2 Nonpersistent

* **Intermittent** is limited to the **Streambed** Class;
** **Rock Bottom** is not permitted for the **Lower Perennial** Subsystem;
*** **Streambed** is limited to **Tidal** and **Intermittent** Subsystems

Classification of Wetlands and Deepwater Habitats of the United States, Cowardin *et al*. 1979

NWI Wetlands and Deepwater Map Code Diagram

System: L - Lacustrine

Subsystem: 1 - Limnetic

- **Class:** RB – Rock Bottom
  - **Subclass:** 1 Bedrock; 2 Rubble
- **Class:** UB – Unconsolidated Bottom
  - **Subclass:** 1 Cobble-Gravel; 2 Sand; 3 Mud; 4 Organic
- **Class:** AB – Aquatic Bed
  - **Subclass:** 1 Algal; 2 Aquatic Moss; 3 Rooted Vascular; 4 Floating Vascular

Subsystem: 2 - Littoral

- **Class:** RB – Rock Bottom
  - **Subclass:** 1 Bedrock; 2 Rubble
- **Class:** UB – Unconsolidated Bottom
  - **Subclass:** 1 Cobble-Gravel; 2 Sand; 3 Mud; 4 Organic
- **Class:** AB – Aquatic Bed
  - **Subclass:** 1 Algal; 2 Aquatic Moss; 3 Rooted Vascular; 4 Floating Vascular
- **Class:** RS – Rocky Shore
  - **Subclass:** 1 Bedrock; 2 Rubble
- **Class:** US – Unconsolidated Shore
  - **Subclass:** 1 Cobble-Gravel; 2 Sand; 3 Mud; 4 Organic; 5 Vegetated
- **Class:** EM – Emergent
  - **Subclass:** 2 Nonpersistent

System: P - Palustrine

- **Class:** RB – Rock Bottom
  - **Subclass:** 1 Bedrock; 2 Rubble
- **Class:** UB – Unconsolidated Bottom
  - **Subclass:** 1 Cobble-Gravel; 2 Sand; 3 Mud; 4 Organic
- **Class:** AB – Aquatic Bed
  - **Subclass:** 1 Algal; 2 Aquatic Moss; 3 Rooted Vascular; 4 Floating Vascular
- **Class:** US – Unconsolidated Shore
  - **Subclass:** 1 Cobble-Gravel; 2 Sand; 3 Mud; 4 Organic; 5 Vegetated
- **Class:** ML – Moss-Lichen
  - **Subclass:** 1 Moss; 2 Lichen
- **Class:** EM – Emergent
  - **Subclass:** 1 Persistent; 2 Nonpersistent; 5 *Phragmites australis*
- **Class:** SS – Scrub-Shrub
  - **Subclass:** 1 Broad-Leaved Deciduous; 2 Needle-Leaved Deciduous; 3 Broad-Leaved Evergreen; 4 Needle-Leaved Evergreen; 5 Dead; 6 Deciduous; 7 Evergreen
- **Class:** FO – Forested
  - **Subclass:** 1 Broad-Leaved Deciduous; 2 Needle-Leaved Deciduous; 3 Broad-Leaved Evergreen; 4 Needle-Leaved Evergreen; 5 Dead; 6 Deciduous; 7 Evergreen

MODIFIERS

In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy.

Water Regime			Special Modifiers	Water Chemistry		Soil
Nontidal	**Saltwater Tidal**	**Freshwater Tidal**		**Halinity/Salinity**	**pH Modifiers for Fresh Water**	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded- Fresh Tidal	b Beaver	1 Hyperhaline / Hypersaline	a Acid	g Organic
B Seasonally Saturated	M Irregularly Exposed	Q Regularly Flooded-Fresh Tidal	d Partly Drained/Ditched	2 Euhaline / Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	R Seasonally Flooded-Fresh Tidal	f Farmed	3 Mixohaline / Mixosaline (Brackish)	i Alkaline	
D Continuously Saturated	P Irregularly Flooded	T Semipermanently Flooded-Fresh Tidal	m Managed	4 Polyhaline		
E Seasonally Flooded / Saturated		V Permanently Flooded-Fresh Tidal	h Diked/Impounded	5 Mesohaline		
F Semipermanently Flooded			r Artificial Substrate	6 Oligohaline		
G Intermittently Exposed			s Spoil	0 Fresh		
H Permanently Flooded			x Excavated			
J Intermittently Flooded						
K Artificially Flooded						