

Coastal Change Analysis Program (C-CAP)

Office for Coastal Management



10-Meter BETA Land Cover Classification Scheme

The following information provides a description of land cover classes used with NOAA's 10-meter BETA Land Cover products. It should be noted that these data were derived through the automated classification of 1-meter aerial imagery (that was resampled to 10-meter) and modeling based on the data's intersection with the National Wetlands Inventory (NWI) wetland products.

These classes are related to, but not consistent with those used in existing, standardized Coastal Change Analysis Program (C-CAP) Regional and High-Resolution Land Cover (see right).

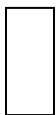
	Developed - High Intensity
	Developed - Medium Intensity
	Developed - Low Intensity
	Developed - Open Space
	Cultivated
	Pasture / Hay
	Grassland
	Deciduous Forest
	Evergreen Forest
	Mixed Forest
	Scrub / Shrub
	Palustrine Forested Wetland
	Palustrine Scrub / Shrub Wetland
	Palustrine Emergent Wetland
	Estuarine Forested Wetland
	Estuarine Scrub / Shrub Wetland
	Estuarine Emergent Wetland
	Unconsolidated Shore
	Bare Land
	Water
	Palustrine Aquatic Bed
	Estuarine Aquatic Bed
	Tundra
	Snow / Ice

Unclassified

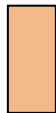
Background (0) – areas within the image file limits but containing no data values.

Unclassified (1) – areas in which land cover cannot be determined; these include clouds and deep shadow.

Uplands



Developed Impervious (2) – Anthropogenic features such as buildings, and parking lots and roads developed from asphalt, concrete, or other constructed surfaces, that do not allow infiltration from precipitation.



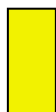
Upland Herbaceous (8) – contains areas dominated by herbaceous vegetation. Areas may include natural grasslands; lawns, golf courses, and other grass associated with developed areas and constructed surfaces; pasture and hay fields; and cultivated crops.



Upland Forest (11) – contains areas dominated by trees generally greater than 5 meters tall, and greater than 20 percent of total vegetation cover. Areas in this class may include both deciduous and evergreen species. *Both coniferous and broad-leaved evergreens are included in this category.*



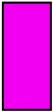



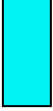




Scrub/Shrub (12) – contains areas dominated by shrubs less than 5 meters tall with shrub canopy typically greater than 20 percent of total vegetation. This class includes tree shrubs, young trees in an early successional stage, or trees stunted from environmental conditions.



Barren Land (20) – contains bedrock, desert pavement, scarps, talus, slides, volcanic material, glacial debris, sand dunes, strip mines, gravel pits, bare cultivated fields, and accumulations of earth material. Generally, vegetation accounts for less than 10 percent of total cover.

Wetlands

-  **Palustrine Forested Wetland (13)** – includes tidal and nontidal wetlands dominated by woody vegetation greater than or equal to 5 meters in height, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is below 0.05 percent (0.5 ppt). Total vegetation coverage is greater than 20 percent.
-  **Palustrine Scrub/Shrub Wetland (14)** – includes tidal and nontidal wetlands dominated by woody vegetation less than 5 meters in height, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is below 0.05 percent (0.5 ppt). Total vegetation coverage is greater than 20 percent. *Species present could be true shrubs, young trees and shrubs, or trees that are small or stunted from environmental conditions.*
-  **Palustrine Emergent Wetland (Persistent) (15)** – includes tidal and nontidal wetlands dominated by persistent emergent vascular plants, emergent mosses or lichens, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is below 0.05 percent (0.5 ppt). Total vegetation cover is greater than 80 percent. *Plants generally remain standing until the next growing season.*
-  **Estuarine Forested Wetland (16)** – includes tidal wetlands dominated by woody vegetation greater than or equal to 5 meters in height, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is equal to or greater than 0.05 percent (0.5 ppt). Total vegetation coverage is greater than 20 percent.
-  **Estuarine Scrub/Shrub Wetland (17)** – includes tidal wetlands dominated by woody vegetation less than 5 meters in height, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is equal to or greater than 0.05 percent (0.5 ppt). Total vegetation coverage is greater than 20 percent.
-  **Estuarine Emergent Wetland (18)** – Includes all tidal wetlands dominated by erect, rooted, herbaceous hydrophytes (excluding mosses and lichens). These wetlands occur in tidal areas in which salinity due to ocean-derived salts is equal to or greater than 0.05 percent (0.5 ppt) and are present for most of the growing season in most years. Total vegetation cover is greater than 80 percent. *Perennial plants usually dominate these wetlands.*
-  **Unconsolidated Shore (19)** – includes material such as silt, sand, or gravel that is subject to inundation and redistribution due to the action of water. Substrates lack vegetation except for pioneering plants that become established during brief periods when growing conditions are favorable.
-  **Open Water (21)** – includes areas of open water, generally with less than 25 percent cover of vegetation or soil.
-  **Palustrine Aquatic Bed (22)** – includes tidal and non-tidal wetlands and deepwater habitats in which salinity due to ocean-derived salts is below 0.05 percent (0.5 ppt) and which are dominated by plants that grow and form a continuous cover principally on or at the surface of the water. These include algal mats, detached floating mats, and rooted vascular plant assemblages. Total vegetation cover is greater than 80 percent.
-  **Estuarine Aquatic Bed (23)** – includes tidal wetlands and deepwater habitats in which salinity due to ocean-derived salts is equal to or greater than 0.05 percent (0.5 ppt) and which are dominated by plants that grow and form a continuous cover principally on or at the surface of the water. These include algal mats, kelp beds, and rooted vascular plant assemblages. Total vegetation cover is greater than 80 percent.