

WETLAND FUNCTION AND VALUE CHECKLIST

Project _____
Wetland Site No. _____

1. TYPE OF WETLANDS

_____ Tidal
_____ Non - Tidal

2. FUNCTIONS

_____ Passive Recreation, Uniqueness, and Natural
Heritage Value **(occurs often)
_____ Habitat for Wildlife or Fisheries
_____ Sediment Trapping/Stabilization (short term)
_____ Flood Desynchronization
_____ Food Chain Support (nutrient export)
_____ Dissipation of Erosive Forces
_____ Active Recreation
_____ Groundwater Discharge/Groundwater Recharge
_____ Nutrient Retention/Removal (long term)
_____ Sediment Trapping/Stabilization (long term)

2. VALUE

_____ High
_____ Medium
_____ Low

** Threatened or Endangered Species habitat, Areas of State Critical Concern, and Wetlands of Special State Concern, are always "high" valued wetlands regardless of function, size or location.

DEFINITION CHECKLIST FOR FIELD REVIEW OF WETLAND FUNCTIONS

1. Passive Recreation and Natural Heritage Value

Aesthetic enjoyment, nature study, picnicking, education, scientific research, open space, preservation of rare species of plants or animals.

2. Active Recreation

Water-dependent recreational activities including swimming, boat launching or anchoring, power boating, sailing, and canoeing.

3. Habitat for Aquatic Wildlife or Fisheries

Food and cover needs of birds, mammals, reptiles, amphibians, and waterfowl; finfish and shellfish resources harvested by people, and wildlife fish species.

4. Sediment Trapping (short-term)

Process of depositing inorganic (sand, silt, clay) particulate matter within a wetland or water basin.

5. Groundwater Discharge

Look for in steep watersheds that have porous soils and valley streams. Ground water discharges to streams during dry seasons, the water exiting the porous soil and entering the stream or any body of water increasing the "base flow".

6. Nutrient Retention (short-term)

Look for wetlands with low gradients, sheet flow slow, with sinuous patterns or irregular shaped basins that are densely vegetated; *wooded wetlands store the most nutrients the longest. Storing of nutrients such as nitrogen and phosphorus within the substrate or wetland vegetation. This improves downstream water quality.

7. Food Chain Support (Nutrient Export)

Direct or indirect use of nutrients by animals inhabiting aquatic environments. Nutrients are in continuous movement usually downstream, thus explaining the species diversity and density at river mouths and bays. This also explains that even though headwaters of streams may have few fish, this is where the nutrients enter the system from trees and bank vegetation.

8. Dissipation of Erosive Forces

Is there a decrease of energy associated with waves, currents, ice, or flood waters. The vegetation, or rocks, riprap, slow down the water sheet flow; look for at tidal locations or large river basins.

9. Flood Desynchronization

Process of simultaneous storage of peak flood flows in numerous basins or wetlands within a watershed, and their subsequent gradual release in a staggered manner, resulting in containment of water flow in the channel downstream. (Look for wetlands that are sinuous or irregularly shaped in wide floodplains with dense vegetation; wetland broader than it is long).

10. Nutrient Retention (Removal long-term)

Long-term storage is more significant to ecosystems. Swamp or forested wetlands store the nutrients for up to 50 years, therefore, the value of these wetlands are very high and hard to replace. Also, shallow retention ponds with specific wetland vegetation can have multiple uses.

11. Sediment Trapping (long-term)

Look for possible infiltration sites within porous (sand, gravel) soils or vegetated and woody/shrub swates.

12. Groundwater Recharge

Downward precipitation into the groundwater flow system. Look for basins with no outlet perched above most surrounding terrain, high in the subject watershed. This is the origin of a lot of mountain "seeps" and springheads.

13. Shoreline Anchoring

Stabilization of soil at the waters edge or in shallow water by fibrous plant root complexes. Look for on the tidal wetlands that have the various tall cordgrasses).