What is a Wetland?
What is a Wetland?

◆ **1956: US Fish and Wildlife Service** - waterfowl habitat
  - lowlands covered with shallow and sometimes temporary water
  - marsh, swamps, bogs, wet meadows, potholes, sloughs, river-overflow

◆ **1975: US Army Corps of Engineers** - proposed definition
  - regular inundation by tidal, riverine or lacustrine flowage
  - inland and coastal shallows, marshes, mudflats, estuaries, swamps

◆ **1976: US Fish and Wildlife Service** - interim classification
  - excess water is the dominant factor determining soil/plants/animals
  - water table at or near surface long enough to promote formation of hydric soils/ support hydrophytes
What is a Wetland? (cont.)

**1977: US Army Corps of Engineers** - definition
- inundated or saturated by surface or ground water at frequency/duration sufficient to support vegetation adapted to saturated soil conditions
- marsh, swamps, bogs

**1979: US Fish and Wildlife Service** - classification
- transitional areas between terrestrial and aquatic systems, water table at or near surface, have one or more of following attributes:
  - support predominantly hydrophytes
  - predominantly undrained hydric soil
  - saturated or covered by shallow water some time during growing season

**1985: Food Security Act**
- predominantly hydric soil
- support predominantly hydrophytic vegetation
Transitional Wetland

**TERRESTRIAL SYSTEM**
- **Hydrology**: Dry
- **Biogeochemical Role**: Source
- **Productivity**: Low to Medium

**WETLAND**
- **Hydrology**: Intermittently to Permanently Flooded
- **Biogeochemical Role**: Source, Sink or Transformer
- **Productivity**: Generally High but Sometimes Low

**DEEPWATER AQUATIC SYSTEM**
- **Hydrology**: Permanently Flooded
- **Biogeochemical Role**: Sink
- **Productivity**: Generally Low

**Import/Export of Nutrients and Biological Species**
Depressional Wetland

**TERRESTRIAL SYSTEM**
- Import of nutrients

**WETLAND**
- Fluctuating water level

**GROUNDWATER**
- Hydrology: Dry - Intermittently to Permanently Flooded
- Biogeochemical Role: Source - Sink or Transformer
- Productivity: Medium to High - Generally Medium to High
Reference Definition

An ecosystem that depends on constant or recurrent, shallow inundation or saturation at or near the surface of the substrate. The minimum essential characteristics are recurrent, sustained inundation or saturation at or near the surface and the presence of physical, chemical, and biological features reflective of recurrent, sustained inundation or saturation. Common diagnostic features are hydric soils and hydrophytic vegetation.

Committee on Wetland Characterization – National Research Council
Wetland Definition Diagram

Wetlands

- Physicochemical (substrate) criterion
  - Hydric soils
    - Redoxomorphic features
  - Other saturated substrates
- Hydrologic criterion
  - Water level record (long term)
- Biologic criterion
  - Other organisms requiring saturation or inundation
  - Hydrophytic vegetation
    - Percent cover, Prevalence Index
    - Buttressing pneumatophores
  - Composition and abundance

Definition
Criteria
General indicators
Specific indicators, (examples)
USFWS Classification of Wetland Types

Wetland/Deepwater Habitats

- Marine
  - Subtidal
  - Intertidal
- Estuarine
  - Subtidal
  - Intertidal
- Riverine
  - Tidal
    - Lower Perennial
    - Upper Perennial
    - Intermittent
  - Intertidal
- Lacustrine
  - Limnetic
  - Littoral
- Palustrine
Types of Wetlands

- COASTAL WETLAND ECOSYSTEMS
  - Tidal Salt Marshes
  - Tidal Freshwater Marshes
  - Mangrove Wetlands
Types of Wetlands (cont.)

- INLAND WETLAND ECOSYSTEMS
  - Inland Freshwater Marshes
  - Northern Peatlands
  - Southern Deepwater Swamps
  - Riparian Wetlands