WETLAND DELINEATION

GRANTHAM WETLAND MAPPING & PROTECTION PLAN
VOLUNTEER WORKSHOP

GRANTHAM, NEW HAMPSHIRE

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WHAT IS A WETLAND?

- EPA defines wetlands as:

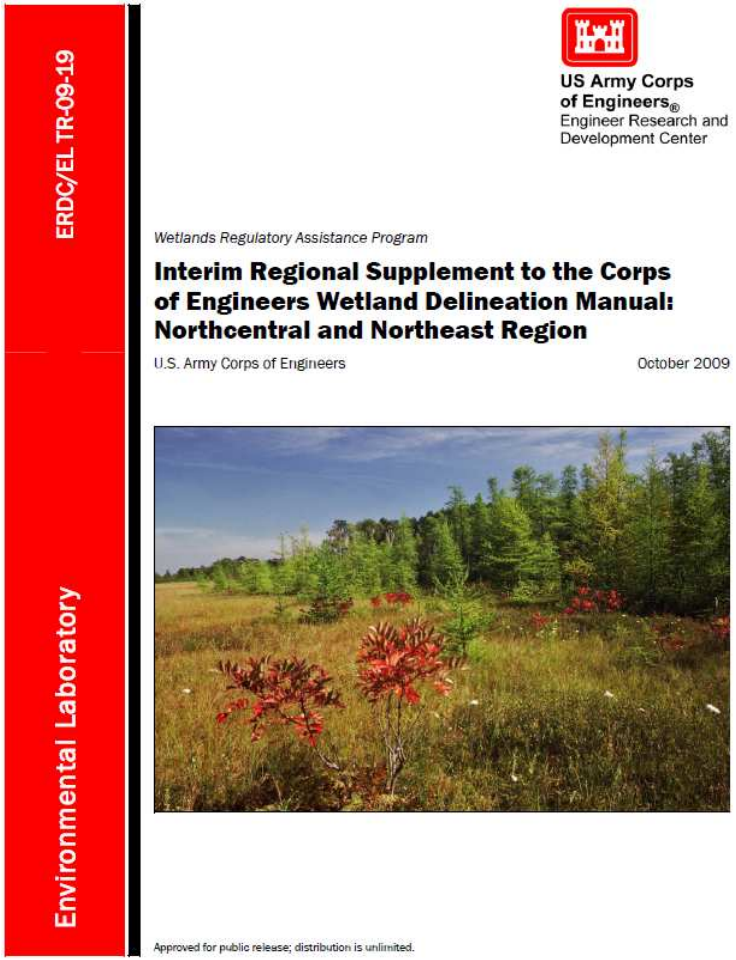
  "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

- Generally Include:
  - Swamps
  - Marshes
  - Bogs

WHY DELINEATE WETLANDS?

- EPA Regulates water quality under the Clean Water Act
- Define a boundary to regulate land use and activities near wetlands to protect:
  - Water Quality
  - Nutrient Transformation
  - Wildlife Habitat (Breeding & Nesting)
  - Flood Storage Potential
  - Recreation and Fishing

HOW ARE WETLAND BOUNDARIES DETERMINED?

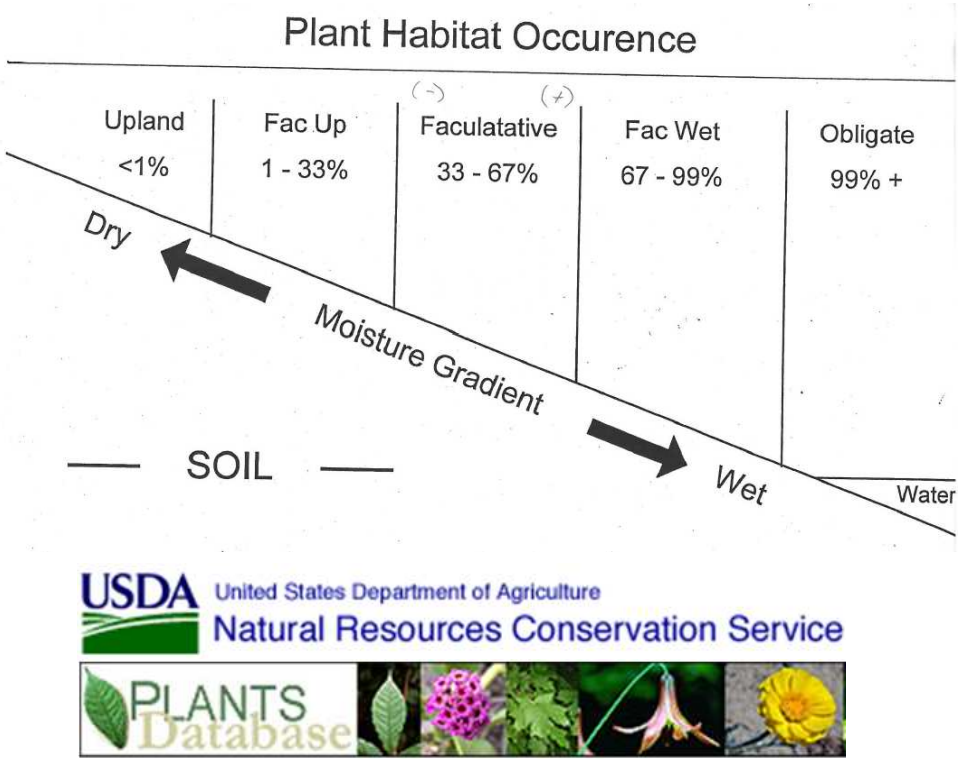


- USACE developed a method for identifying and delineating wetland boundaries subject to jurisdiction under Section 404 of the Clean Water Act

- Three-parameter approach:
  - Hydrophytic (Wet) Vegetation
  - Hydric (Wet) Soils
  - Evidence of Hydrology

WETLAND PARAMETER #1

HYDROPHYTIC VEGETATION



USACE references NRCS National Plant List to determine habitat occurrence for each species and likelihood the area to be considered 'wet.'

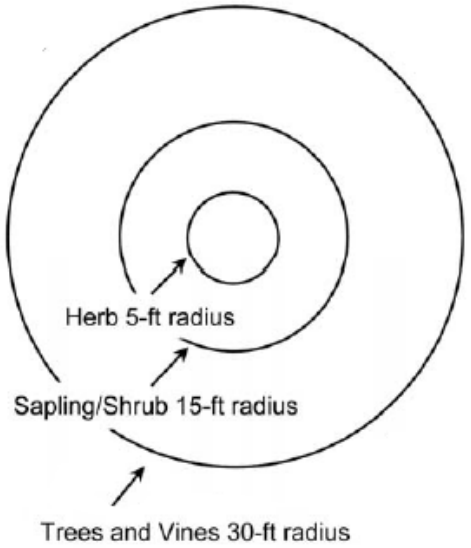
Vegetation Strata

Trees (> 3 inches diameter)

Sapling / Shrub (< 3" diameter, > 3' tall

Herbs (< 3' tall)

Woody Vines



Vegetation Sampling Plots

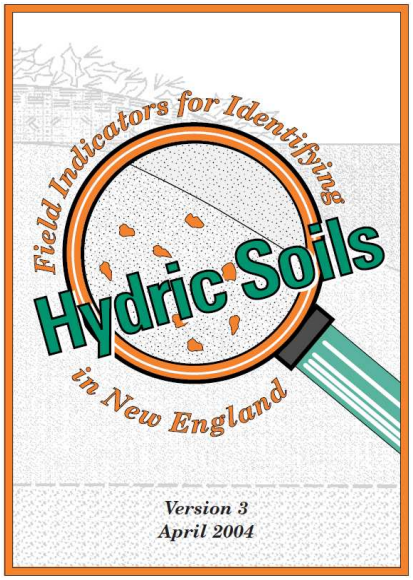
WETLAND PARAMETER #1

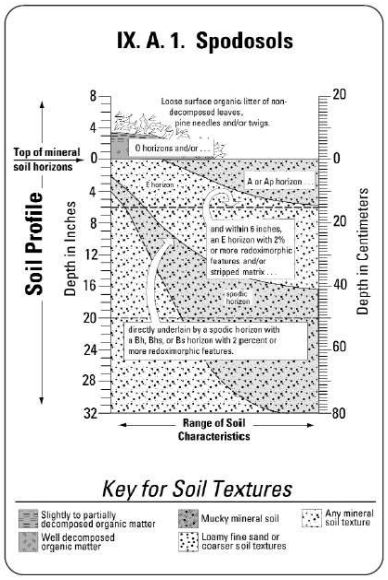
PLANT ADAPTATION

WETLAND PARAMETER #2

HYDRIC SOILS

- Natural Resource Conservation Service (NRCS) developed guide for determining conditions (indicators) for soils to be considered hydric (prolonged periods of wetness or inundation)
- Many wetland scientists use New England Indicators for problem areas





WETLAND PARAMETER #2

HYDRIC SOIL INDICATORS

SOIL PROFILE

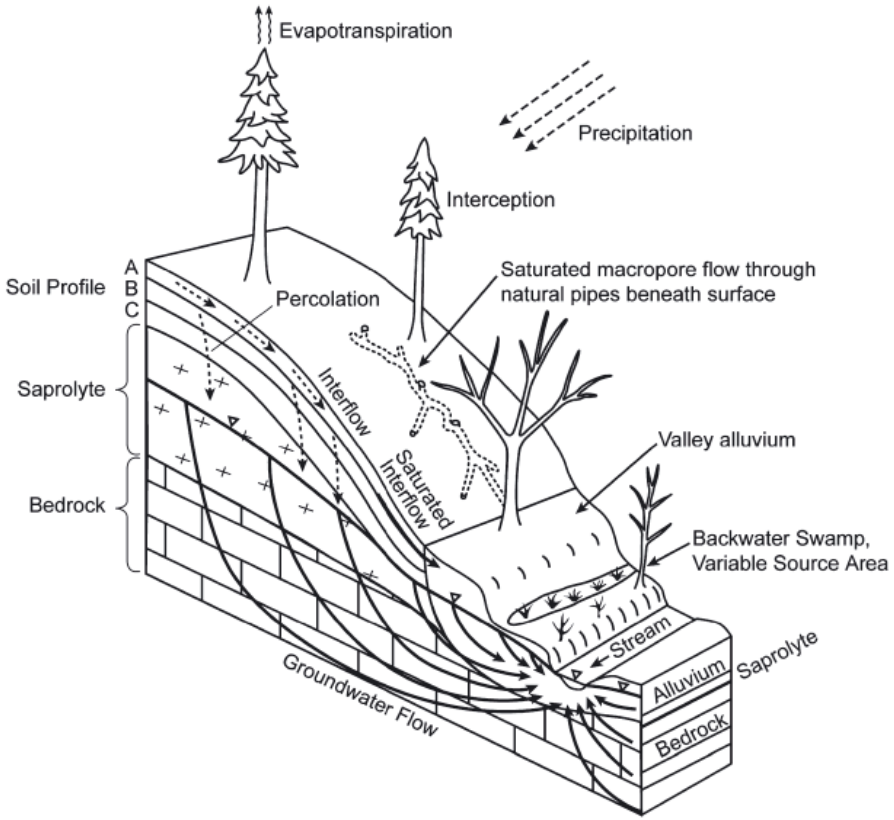
Describe soil profile:

- Soil Texture
- % Organics
- Color
- Iron Oxidation/Reduction (redoximorphic features)

IRON OXIDATION & REDUCTION

WETLAND PARAMETER #3

HYDROLOGIC PATHWAYS

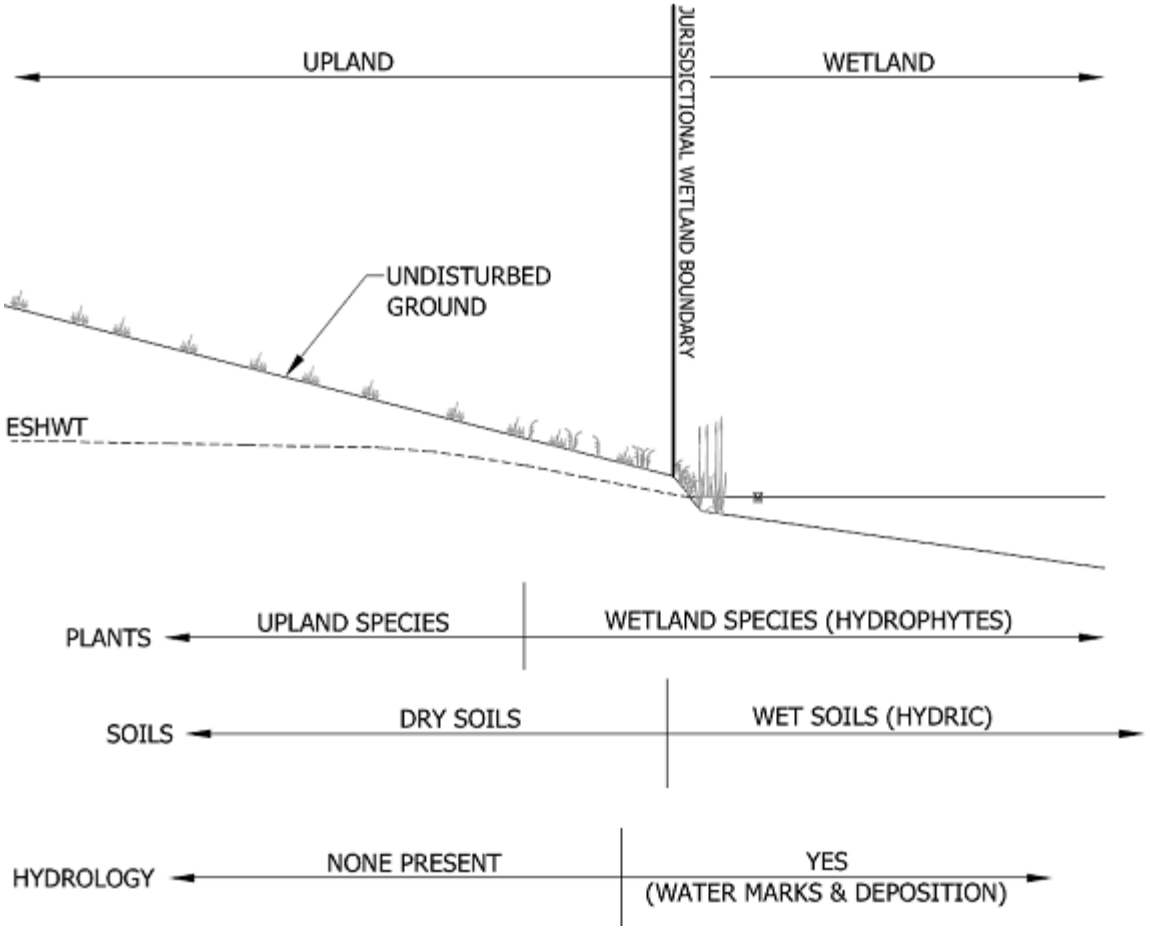


WETLAND PARAMETER #3

EVIDENCE OF HYDROLOGY

- Hydrologic indicators:
  - Surface Water
  - High Water Table
  - Drift Deposits
  - Drainage Patterns
  - Water Marks
  - Sediment Deposits

WETLAND BOUNDARY



THANK YOU

REFERENCES

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