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Natural Resources Conservation Service

Wetlands in a Watershed at the Landscape Scale

August 15, 2018 | Kendra Moseley, Regional ESS, Soil Science Division

Natural Resources Conservation Service

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Summary – Hydrologic Factors

- **Source** of Water (Precipitation, Surface Flow, Groundwater)
- Flow **Direction** of Water
- **Amount** of Water (magnitude)
- **Duration** (residence time)
- **Timing** (season, frequency)

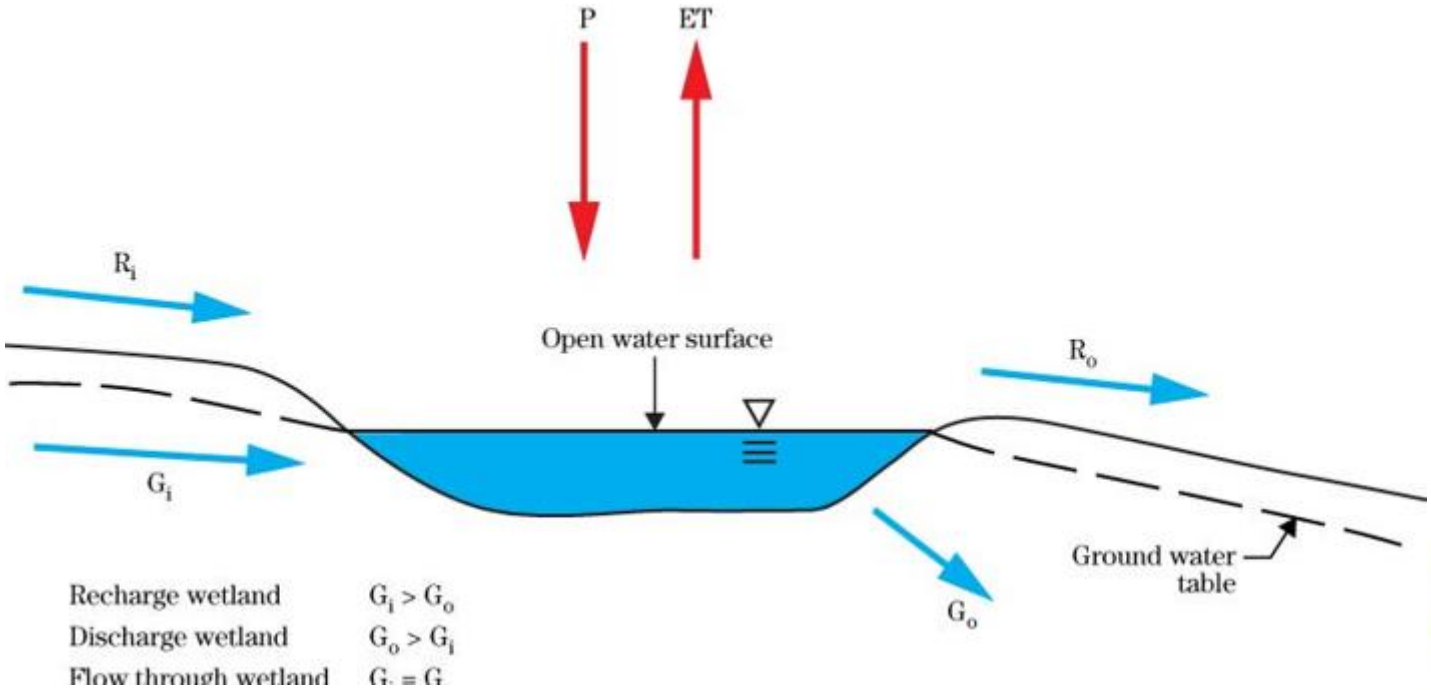
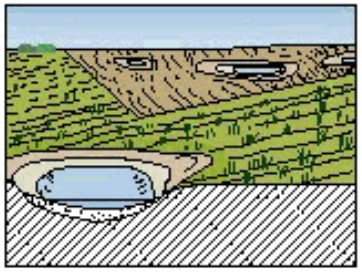
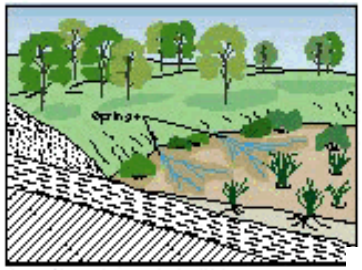


Image courtesy of Richard Weber

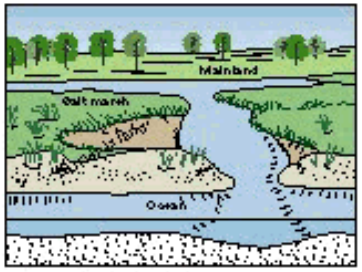
Summary – Geology & Soils

Geology and soils influence the types of wetlands that exist in an area based on their physical and chemical properties.

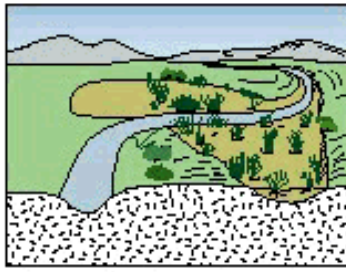

Isolated depressions

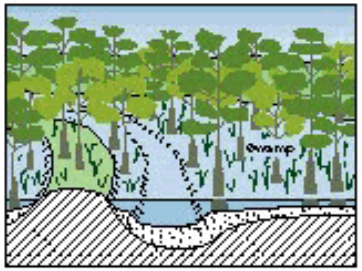


Seepage areas and springs

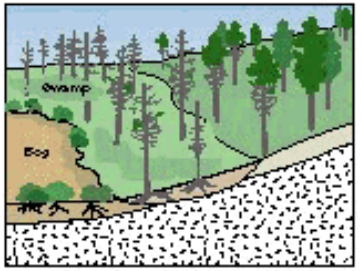


Sheltered embayments

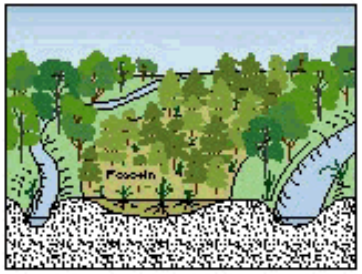

Basins with streams



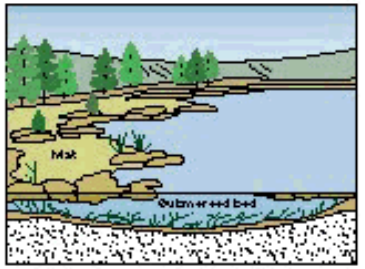
Flood plains



Blanket bogs in boreal and arctic regions

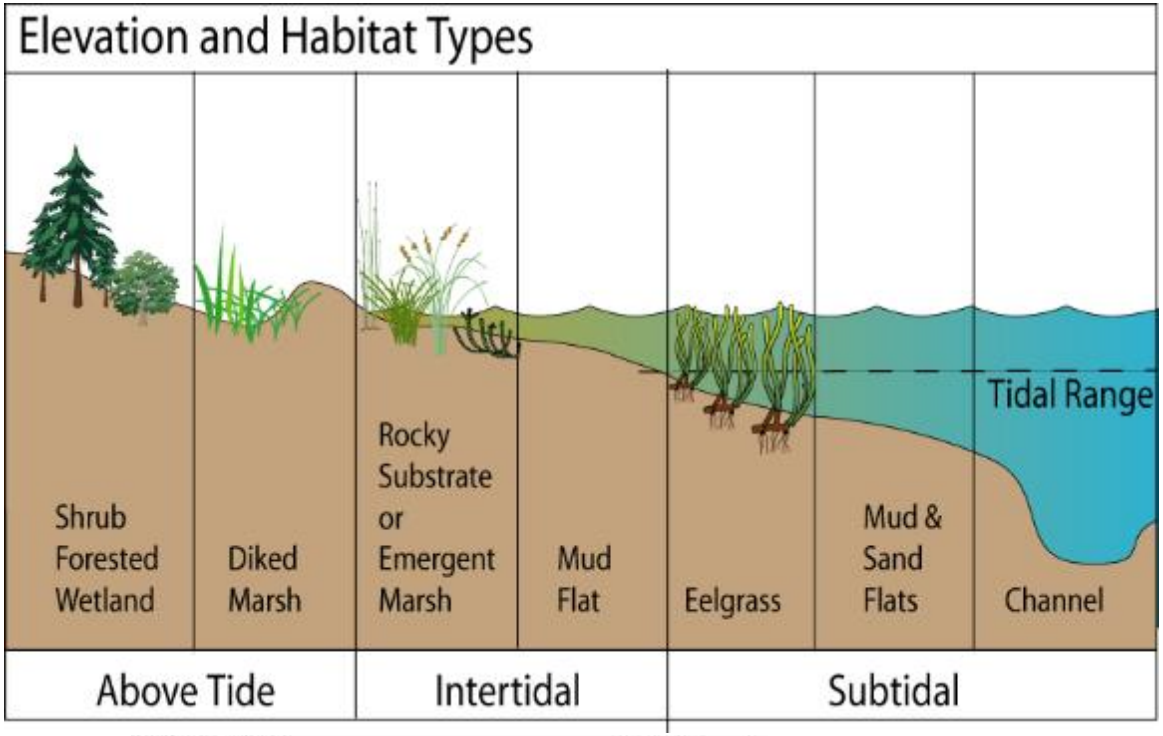


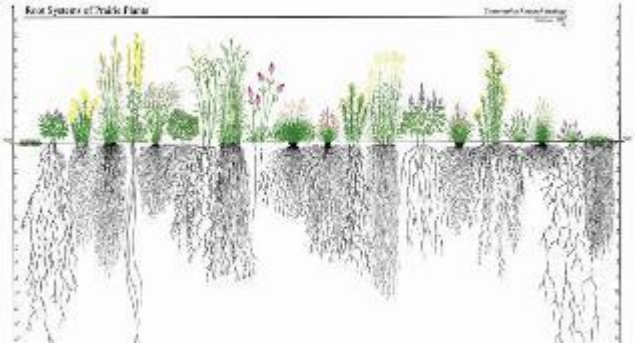
Relatively flat interstream divides (including pocosins)



Open water bodies with floating mats and submersed beds

Summary – Vegetation & Wildlife





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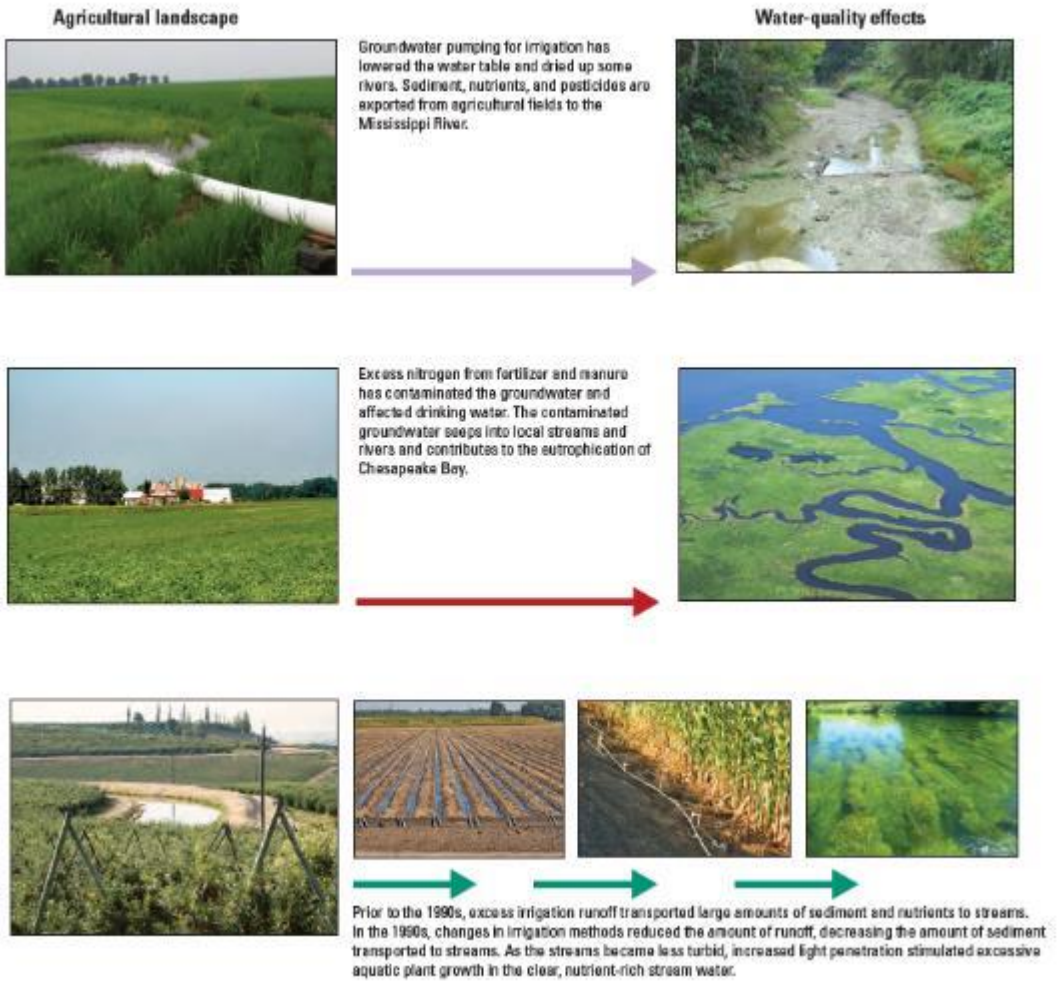
Summary – Land Use

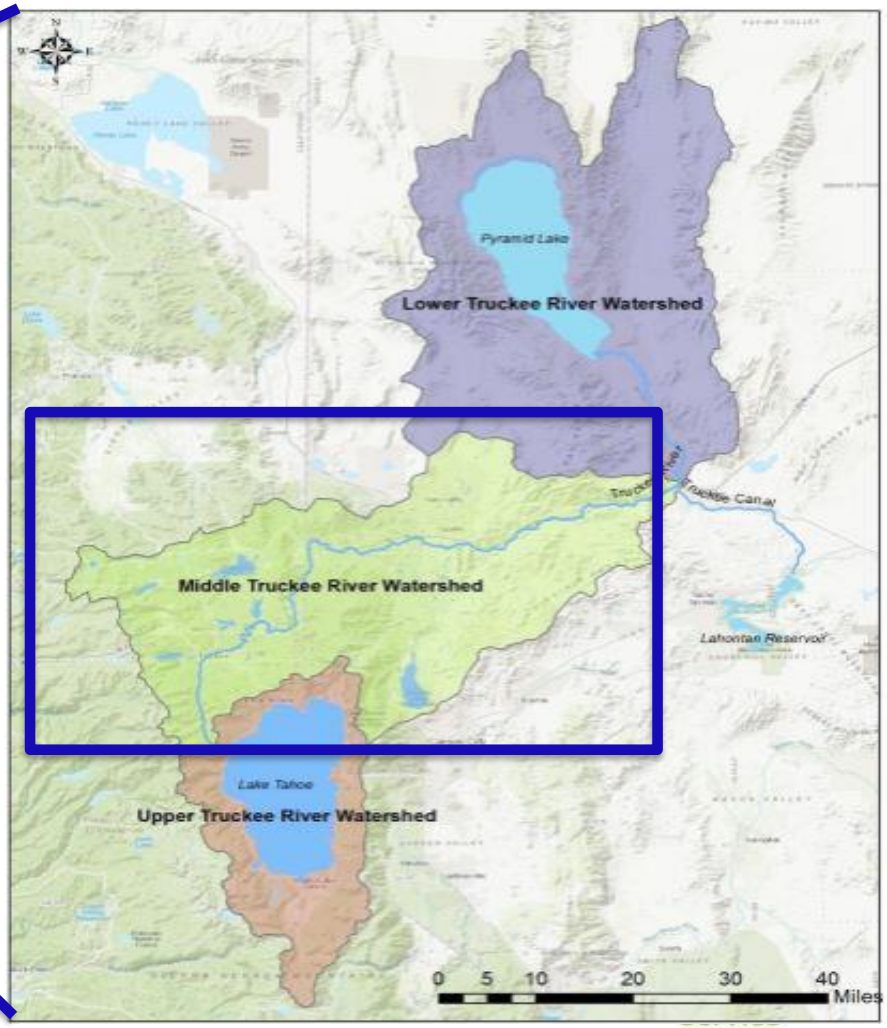
- Groundwater pumping
- Agricultural drainage
- Agricultural irrigation



Capel et al. 2018

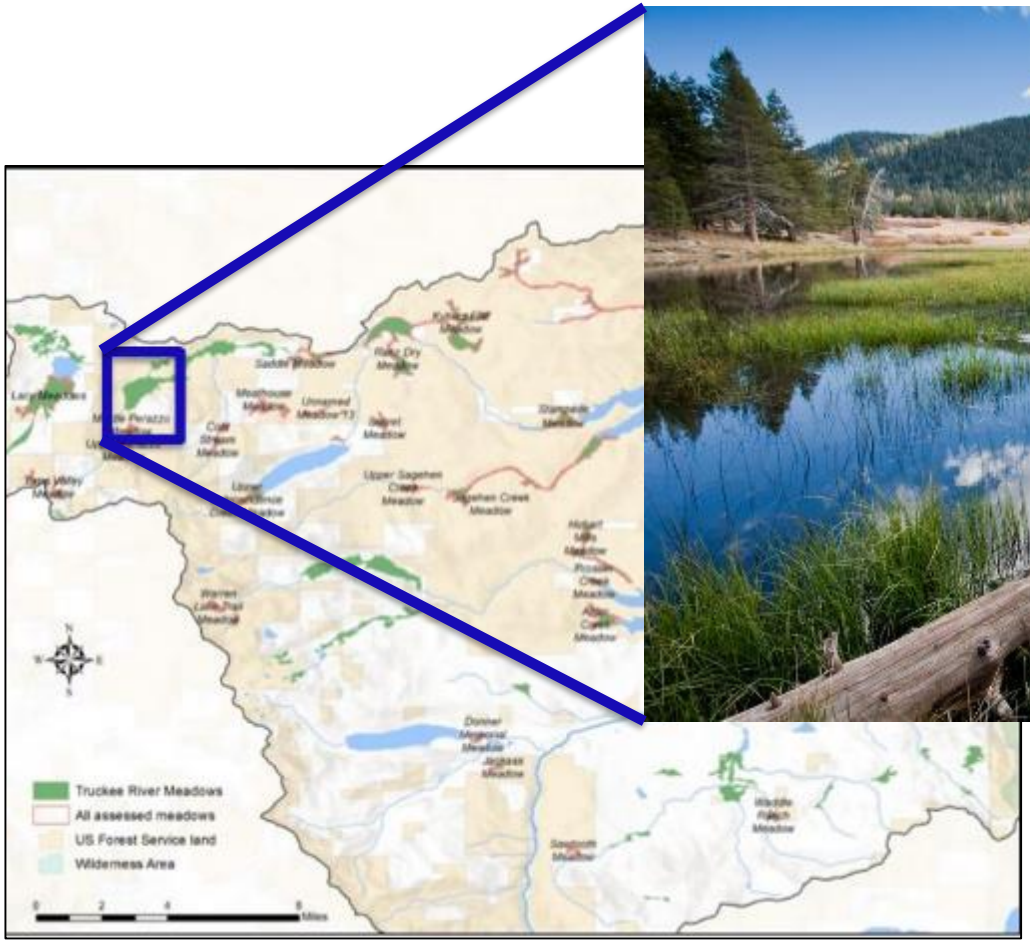
Summary – Landscape to Watershed

California Sierra Nevada Mountains



Middle Truckee River Watershed

Summary – Watershed to Wetland



Middle Perazzo Meadows

Middle Perazzo Meadows Wetland

Summary – Questions?