

Wetlands – Where Land and Water Intercept



Testimony to the Senate Committee on Natural Resources and Energy, January 23, 2025

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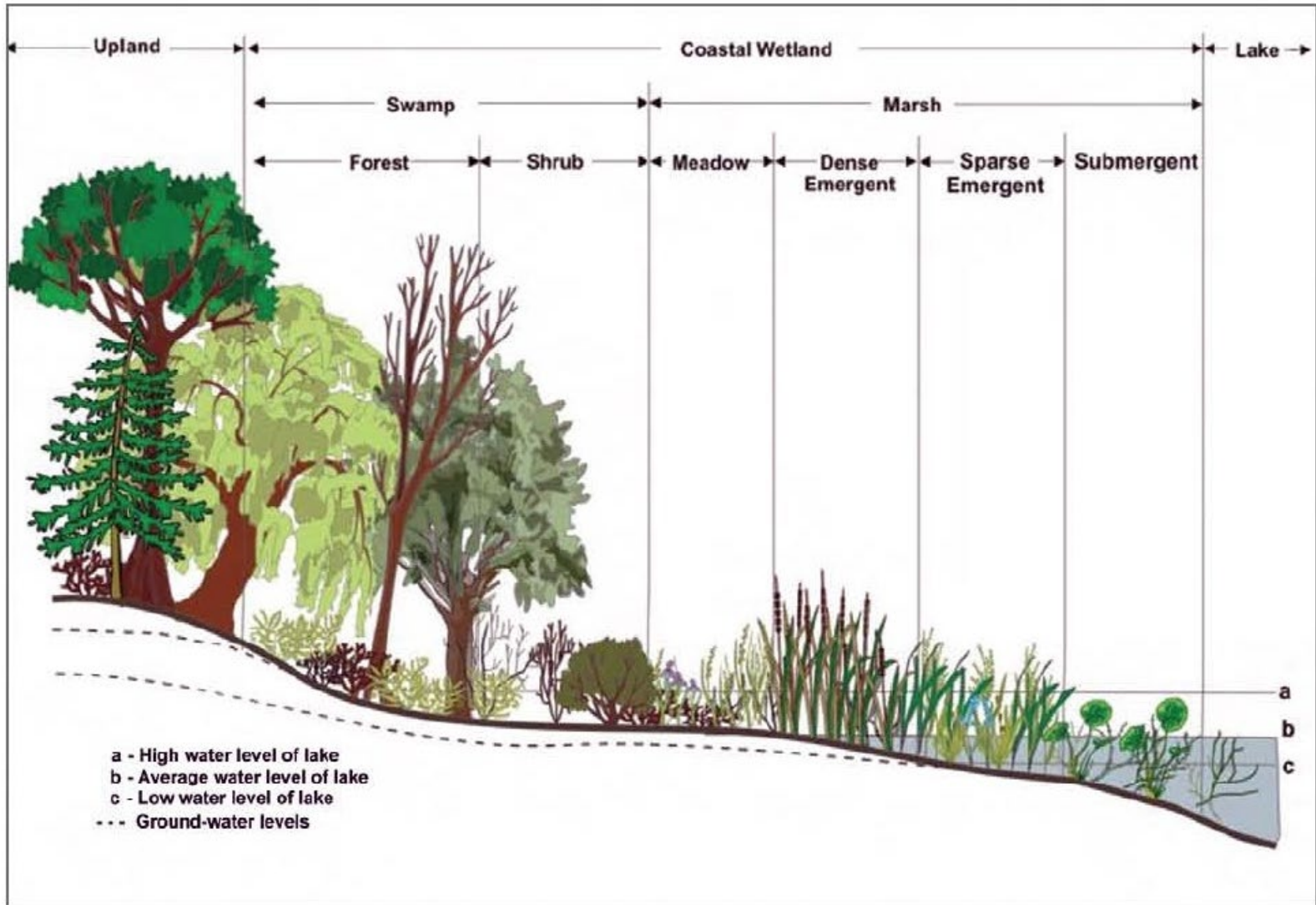
What is a Wetland?

“Wetlands are those areas that are wet for a period of time to adequately support wetland vegetation” (Army Corps of Engineers).

- Spongy ground
- Saturated at the surface
- Uneven ground (hummocks)
- An area you would not want to drive your car
- Areas dominated by hydrophytic plants - cattails, reed canary grass, bulrush, dogwood, willow, speckled alder, green ash, red maple, American elm, etc.
- Review aerial imagery and topographical maps – ANR Natural Resource Atlas, USGS Soil survey, US FWS - NWI



Wetland profile



Types of VT Wetlands



Types of VT Wetlands



Types of VT Wetlands



Photo by Marc Cimonetti



Eshqua Bog Natural Area, June 23, 2022



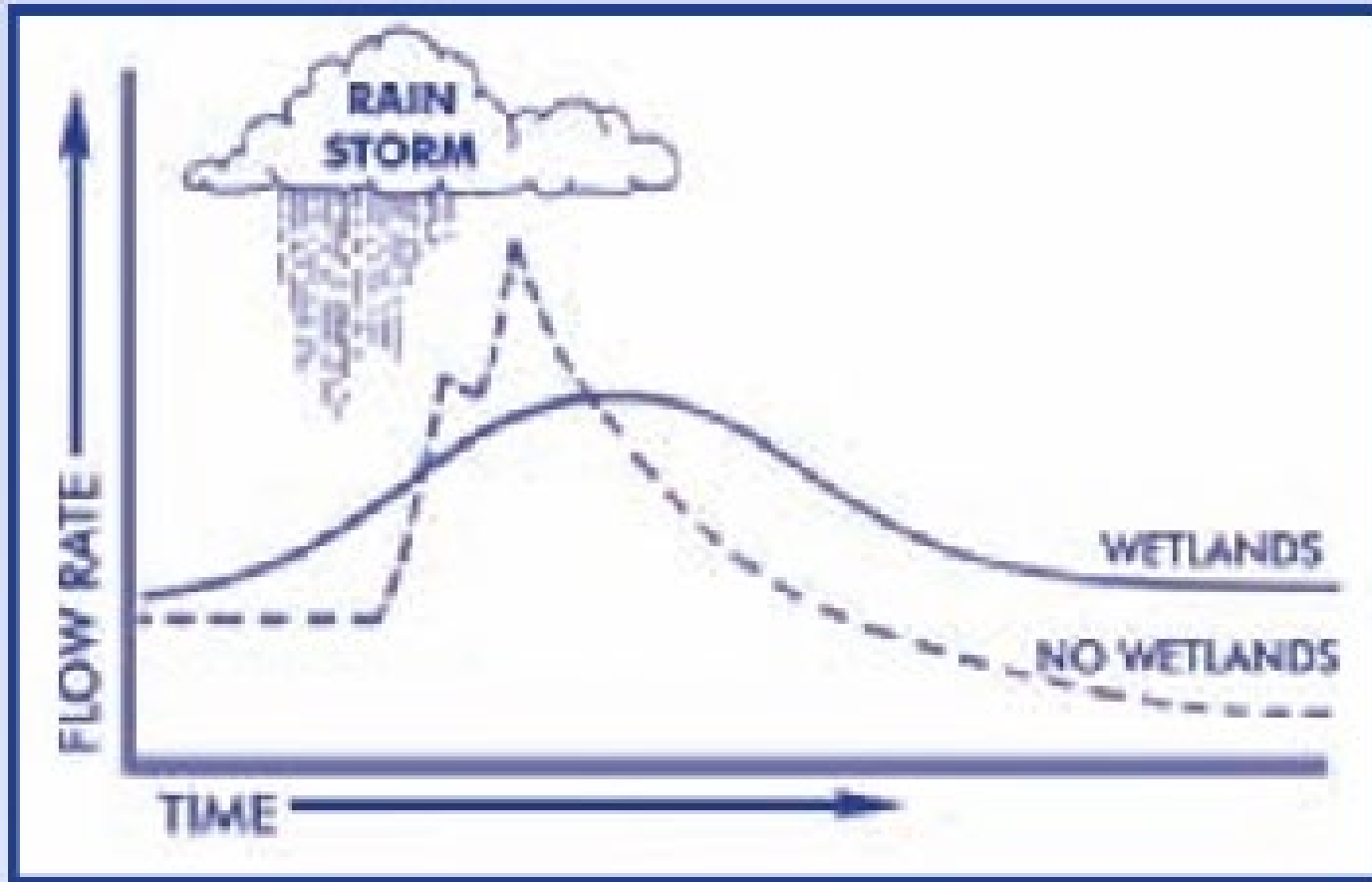
Nature's Sponge - Floodplain Wetlands in Action



Flooded Farms near Jeffersonville, UVM Spatial Analyst Lab – July 2023

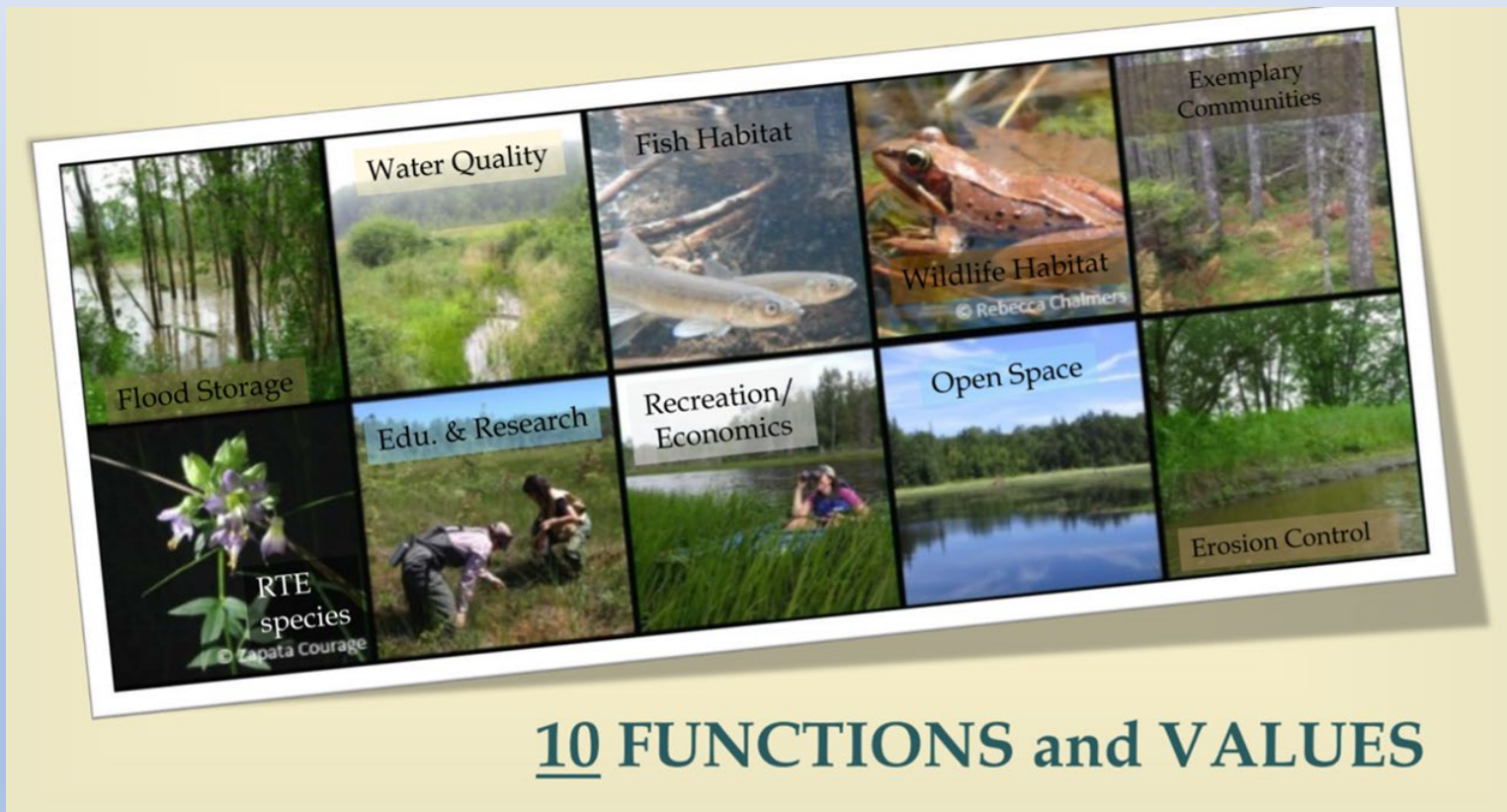
More Wetlands Mean Less Flooding

- The Clean Water Act (Section 404) was enacted to protect and preserve the functions (storage, filtration, wildlife habitat, stabilization) wetlands provide to society at large
- Wetland Ecosystem Services – wetlands reduce peak stormwater flows, enhance protection for the future



(Source: Kusler 1983)

Wetlands in Vermont are Protected by Their Functions and Values



Vermont Wetland Classification

- Class I wetlands are considered exceptional and irreplaceable in Vermont - 100ft buffer
- Class II wetlands are significant wetlands that provide wetland functions and values - 50ft buffer
- Class III wetlands do not require protection under Vermont's rules due to lack of sufficient functions/values. Typically these areas are smaller than ½ acre
- Vermont's Act 250 ruling can take jurisdiction over Class III wetlands



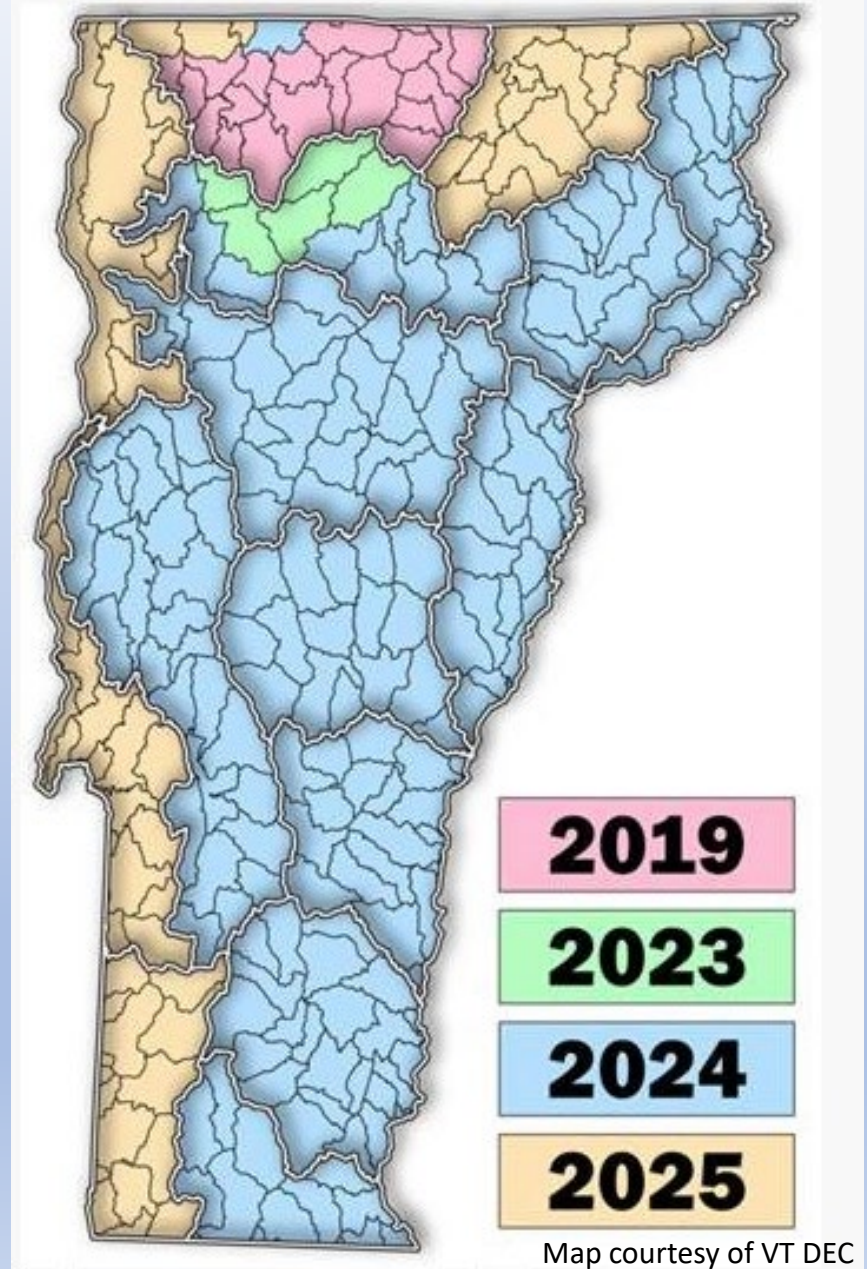
Wetland Threats

- Lack of understanding of VT Wetlands
- Bad data
- Physical Disruption to the Wetland Function
- Historic Wetland Loss



Wetland Maps are a Planning Tool

- VSWI displays Class I and II Wetlands
- Wetlands Advisory Layer
- Hydric Soils
- NWI mapping underway





Protections for Wetlands

- Improved understanding of wetlands through education and outreach- VAWS <https://www.vermontwetlandscience.org/home>
- Improved mapping of wetlands.
- Reporting wetland loss and specific impacts.
- Conservation and restoration of a diverse and contiguous array of wetland communities.
- Monitor wetlands for water quality & wildlife - citizen science



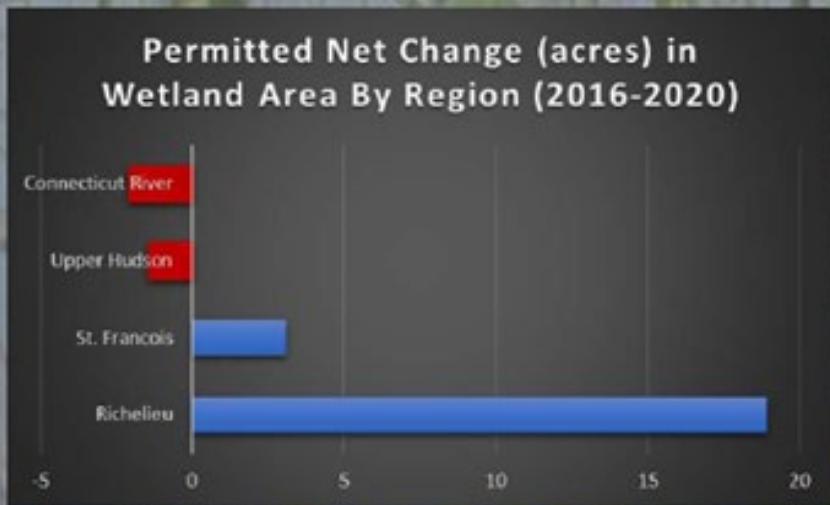
Wetlands Policy in Act 121 – Flood Safety

- State Policy for a net gain of wetland Acreage
- Wetlands Impacted from Development are Restored 2:1 Ratio, within Watershed (>5,000sq ft or 0.10ac)
- High Quality NWI Mapping Statewide by 2030 with a Ground Truthing Component – (updates every 5yr)
- VSWI Updated Annually Starting January 1, 2025
- Annual Wetland Report on Wetland Status and Trends



Wetlands Net Gain

Permitted Net Gain of 18.5
Wetland Acres
2016-2020



Reconnected Freshwater System



Wainwright Dam Removal and Wetland Restoration, FluidStateConsulting