


Drainage of Marine and
Lacustrine Soils
of the
Lake Champlain Basin
and
Implications for USDA Wetland
Compliance



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Objectives

- Identify and Locate Marine and Lacustrine Clays in the Lake Champlain Watershed.
- Describe the characteristics of Marine and Lacustrine Clays.
- Alert farmers and landowners about the USDA regulatory consequences of draining wetland soils.

Identifying Marine and Lacustrine Clays

- Heuvelton, Muskellunge, Adjidaumo
- Vergennes, Kingsbury, Covington
- *50 to 70 % clay*

- Hudson, Rhinebeck, Madalin
- *35 to 60% clay*



Locations of Marine and Lacustrine Clays

- These soils are located in the lower positions of the landscapes, and on former lake plains.
- Between bedrock ridges and old shoreline deposits (Glacial Lake Vermont and the Champlain Sea).



Locations of Marine and Lacustrine Clays

- Elevations between 100 to 700 ft. above present sea level.
- These soils have been cleared and are primarily in agricultural use for corn and hay.



Characteristics of Marine and Lacustrine Clays

- Some clay soils are moderately well drained and considered to be non-hydric.
- Some clay soils are poorly or very poorly drained and considered to be hydric.

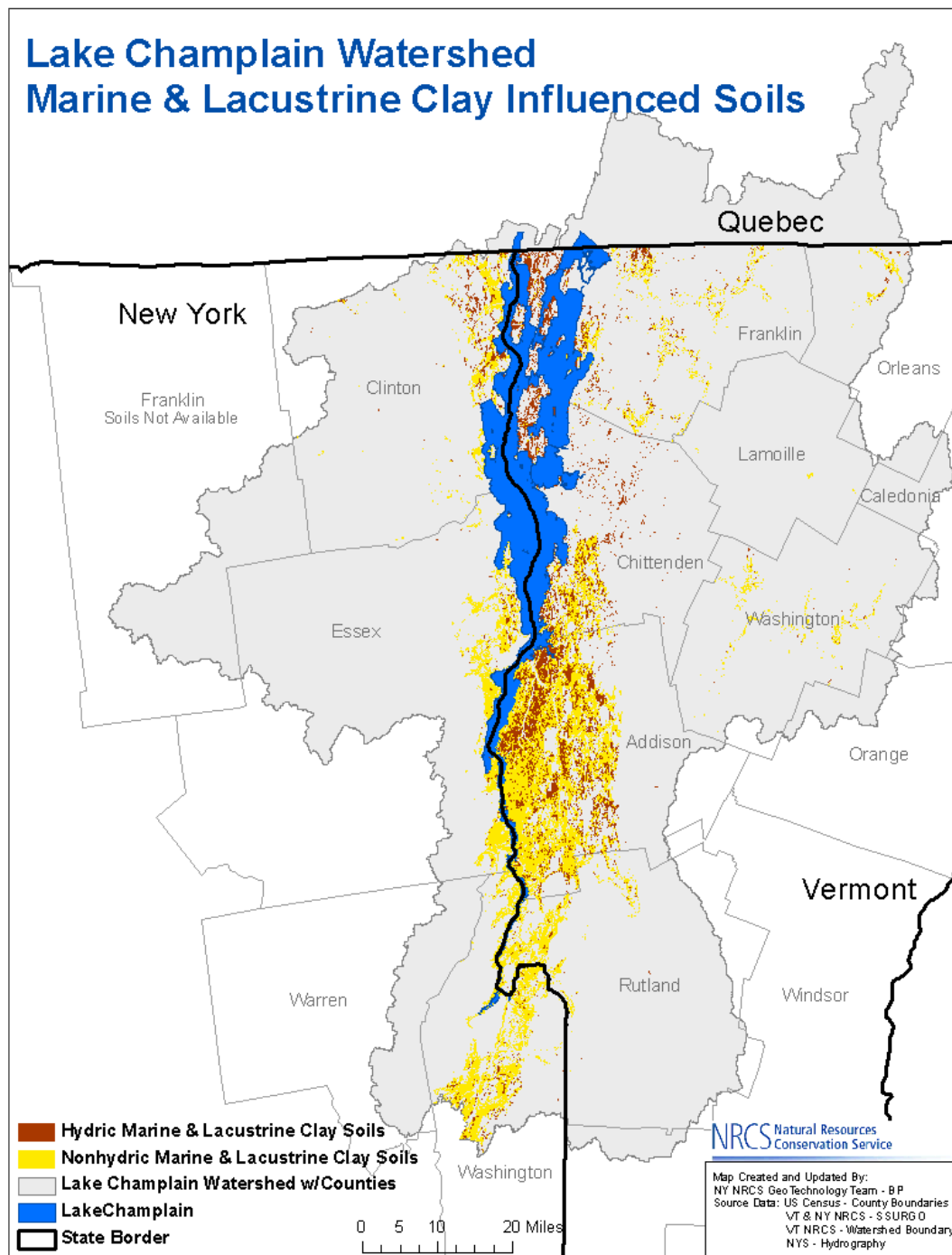


Characteristics of Marine and Lacustrine Clays

- Moderately well drained map units have inclusions of poorly drained soils that could qualify as wetlands.



Lake Champlain Watershed Marine & Lacustrine Clay Influenced Soils



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