

# Major Land Resource Area 144A

## New England and Eastern New York Upland, Southern Part

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### Ecological site keys

#### MLRA 144A

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##### I. Soils permanently (>21hrs/day) submerged in water

###### A. Soils formed in freshwater

- 1 Soils formed in submerged organic deposits ... R144AY046RI – Subaqueous Freshwater Organic Deposits
- 2 Soils formed in submerged mineral deposits ... R144AY045RI – Subaqueous Freshwater Mineral Deposits

###### B. Soils formed in salt and/or brackish water

- 1 Soils formed in submerged glacial deposits ... R144AY047RI – Subaqueous Haline Glacial Deposits
- 2 Soils formed in marine or estuarine deposits
  - i. Soils formed in low energy environments (lagoon & bay bottoms, stream valleys, coves) ... R144AY048RI – Subaqueous Haline Low Energy Basins
  - ii. Soils formed in high energy environments
    - a. Landform a washover fan flat or flood tidal delta flat ... R144AY050RI – Subaqueous Haline Flats
    - b. Landform a washover fan slope ... R144AY049RI – Subaqueous Haline Slopes

##### II. Soils not permanently submerged in water

###### A. Soils with organic layer ("O" horizon) ≥ 16" in thickness

- 1 Soils formed in freshwater environments
  - i. Wetland mineralogy nutrient poor; Dysic soil reaction class ... F144AY043MA – Acidic Organic Wetlands
  - ii. Wetland mineralogy nutrient rich; Euic soil reaction class ... F144AY042NY – Semi-Rich Organic Wetlands
- 2 Soils formed in salt/brackish environments
  - i. Tidally flooded daily ... R144AY001CT – Tidal Salt Low Marsh mesic very frequently flooded
  - ii. Tidally flooded twice a month ... R144AY002CT – Tidal Salt High Marsh mesic very frequently flooded

###### B. Soils without organic layer ("O" horizon) or organic layer < 16" in thickness

###### 1 Parent material alluvium; landform a floodplain

- i. Soils excessively drained ... F144AY006CT – High Floodplain Levee
- ii. Soils well, moderately well, somewhat poorly, poorly or very poorly drained
  - a. Soils hydric; drainage class somewhat poorly, poorly or very poorly drained
    - 1) Soils very poorly drained ... F144AY016MA – Very Wet Low Floodplain
    - 2) Soils somewhat poorly or poorly drained
  - b. Soils not hydric; drainage class well, moderately well
    - 1) Soils well drained
      - a) Soil texture coarse-silty
      - b) Soil texture coarse-loamy ... F144AY010NH – Sandy High Floodplain
    - 2) Soils moderately well drained

- a) Soil texture coarse-silty
  - b) Soil texture coarse-loamy ... F144AY012CT – Sandy Low Floodplain
- 2 Parent material glacial till, glaciofluvial, or glaciolacustrine; landform not a floodplain
  - i. Parent material glaciolacustrine
    - a. Soils well drained ... F144AY017NH – Well Drained Lake Plain
    - b. Soils moderately well, somewhat poorly, poorly or very poorly drained.
      - 1) Soils moderately well and somewhat poorly drained ... F144AY018NY – Moist Lake Plain
      - 2) Soils poorly or very poorly drained
        - a) Soils poorly drained ... F144AY019NH – Wet Lake Plain
        - b) Soils very poorly drained ... F144AY020MA – Very Wet Coastal Lake Plain
  - ii. Parent material glacial till or glaciofluvial
    - a. Soils extremely to moderately acid ... F144AY022MA – Dry Outwash
    - b. Soils moderately acid to moderately alkaline ... F144AY021MA – Semi-Rich Dry Outwash
- 3 Soil depth < 20" to Bedrock
  - i. Bedrock lithology limestone
  - ii. Bedrock lithology granite, gneiss, or schist

## 144A PES (nested couplets)

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- 1a. Soils not permanently submerged in water
- 2a. Soils native, not anthropogenic (Not Human Altered Human Transported [HAHT])
- 3a. Soils without organic layer ("O" horizon) or organic layer < 40 cm (16") in thickness –Mineral Soils
- 4a. Parent material of glaciated nature; glaciolacustrine, glaciofluvial, or glacial till (not alluvium)
- 5a. Glaciated Parent material water-deposited (glaciofluvial, glaciolacustrine)
- 6a. Glaciated meltwater fluvial deposits (glaciofluvial/outwash)
- 7a. Soils well-drained to excessively well drained
  - 8a. Soils somewhat excessively drained to excessively drained
    - 9a. Soils nutrient rich; higher base saturation - Semi-rich Dry Outwash ... F144AY021MA – Semi-Rich Dry Outwash
    - 9b. Soils not nutrient rich; lower base saturation – Dry Outwash ... F144AY022MA – Dry Outwash
  - 8b. Soils well drained
    - 10a. Soils nutrient rich; higher base saturation – Semi-rich Moist Outwash ... F144AY025MA – Semi-Rich Moist Outwash
    - 10b. Soils not nutrient rich; lower base saturation
      - 11a. Soils without eolian mantle (loess) – Well Drained Outwash ... F144AY023CT – Well Drained Outwash
      - 11b. Soils with eolian mantle (loess) – Well Drained Eolian Outwash ... F144AY024NY – Well Drained Eolian Outwash
- 7b. Soils moderately well-drained to very poorly drained
  - 12a. Soils moderately well drained
    - 13a. Soils nutrient rich; higher base saturation – Semi-rich Moist Outwash ... F144AY025MA – Semi-Rich Moist Outwash
    - 13b. Soils not nutrient rich; lower base saturation
      - 14a. Surface texture silty – Moist Silty Outwash ... F144AY026CT – Moist Silty

- Outwash
  - 14a. Surface texture sandy – Moist Sandy Outwash ... F144AY027MA – Moist Sandy Outwash
- 12b. Soils poorly to very poorly drained
  - 15a. Soils poorly drained
    - 16a. Soils nutrient rich; higher base saturation – Semi-rich Wet Outwash ... F144AY029NY – Semi-Rich Wet Outwash
    - 16b. Soils not nutrient rich; lower base saturation – Wet Outwash ... F144AY028MA – Wet Outwash
  - 15b. Soils Very Poorly Drained
    - 17a. Soils nutrient rich; higher base saturation – Semi-rich Very Wet Outwash ... F144AY030NY – Semi-Rich Very Wet Outwash
    - 17b. Soils not nutrient rich; lower base saturation – Very Wet Outwash ... F144AY031MA – Very Wet Outwash
- 6b. Glaciated lakewater deposits (glaciolacustrine)
  - 18a. Soils well drained – Well Drained Lake Plain ... F144AY017NH – Well Drained Lake Plain
  - 18b. Soils moderately well drained to very poorly drained
    - 19a. Soils moderately well drained and somewhat poorly drained – Moist Lake Plain ... F144AY018NY – Moist Lake Plain
    - 19b. Soils poorly or very poorly drained
      - 20a. Soils poorly drained – Wet Lake Plain ... F144AY019NH – Wet Lake Plain
      - 20b. Soils very poorly drained – Very Wet Coastal Lake Plain ... F144AY020MA – Very Wet Coastal Lake Plain
- 5b. Glaciated parent material ice-deposited (glacial till)
  - 21a. Soils well drained to excessively drained
    - 22a. Soils somewhat excessively to excessively drained
      - 23a. Soils shallow (< 50cm) to bedrock – Shallow Dry Till Uplands ... F144AY033MA – Shallow Dry Till Uplands
      - 23b. Soils moderately deep or deep to bedrock – Dry Till Uplands ... F144AY032NH – Dry Till Uplands
    - 22b. Soils well drained
      - 24a. Soils nutrient rich; higher base saturation
        - 25a. Soils shallow (< 50cm) to bedrock – Shallow Semi-rich Well Drained Till Uplands ... F144AY035MA – Shallow Semi-Rich Well Drained Till Uplands
        - 25b. Soils moderately deep or deep to bedrock – Semi-rich Well Drained Till Uplands ... F144AY036NY – Semi-Rich Well Drained Till Uplands
      - 24b. Soils not nutrient rich; lower base saturation
        - 26a. Soils moderately deep to densic contact -Well Drained Dense Till Uplands ... F144AY007CT – Well Drained Dense Till Uplands
        - 26b. Soils deep to contact – Well Drained Till Uplands ... F144AY034CT – Well Drained Till Uplands
  - 21b. Soils moderately well to very poorly drained
    - 27a. Soils moderately well drained
      - 28a. Soils nutrient rich; higher base saturation – Semi-rich Moist Till Uplands ... F144AY038NY – Semi-Rich Moist Till Uplands
      - 28b. Soils not nutrient rich; lower base saturation
        - 29a. Soils moderately deep to densic contact – Moist Dense Till Uplands ... F144AY037MA – Moist Dense Till Uplands

- 29b. Soils deep to contact – Moist Till Uplands ... F144AY008CT – Moist Till Uplands
- 27b. Soils poorly to very poorly drained
  - 30a. Soils poorly drained
    - 31a. Soils nutrient rich; higher base saturation – Semi-rich Wet Till Depressions ... F144AY039NY – Semi-Rich Wet Till Depressions
    - 31b. Soils not nutrient rich; lower base saturation – Wet Till Depressions ... F144AY009CT – Wet Till Depressions
  - 30b. Soils very poorly drained
    - 32a. Soils nutrient rich; higher base saturation – Semi-rich Very Wet Till Depressions ... F144AY040NY – Semi-Rich Very Wet Till Depressions
    - 32b. Soils not nutrient rich; lower base saturation – Very Wet Till Depressions ... F144AY041MA – Very Wet Till Depressions
- 4b. Parent material Alluvium; landform a floodplain
  - 33a. Soils excessively drained to well drained
    - 34a. Soils excessively drained – High Floodplain Levee ... F144AY006CT – High Floodplain Levee
    - 34b. Soils well drained - Sandy High Floodplain ... F144AY010NH – Sandy High Floodplain
  - 33b. Soils moderately well drained to very poorly drained
    - 35a. Soils moderately well drained – Sandy Low Floodplain ... F144AY012CT – Sandy Low Floodplain
    - 35b. Soils poorly to very poorly drained
      - 36a. Soils poorly drained
        - 37a. Soil texture coarse-sandy – Wet Sandy Low Floodplain ... F144AY014CT – Wet Sandy Low Floodplain
        - 37b. Soil texture coarse-silty – Wet Silty Low Floodplain ... F144AY015NY – Wet Silty Low Floodplain
      - 36b. Soils very poorly drained – Very Wet Low Floodplain F144AY016MA ... F144AY016MA – Very Wet Low Floodplain
- 3Bb. Soils with organic layer ("O" horizon) ≥ 40 cm (16") in thickness – Organic Soils
  - 38a. Soils formed in freshwater environments
    - 39a. Wetland mineralogy nutrient rich; euic soil reaction class – Semi-rich Organic Wetlands ... F144AY042NY – Semi-Rich Organic Wetlands
    - 39b. Wetland mineralogy nutrient poor; dysic soil reaction class – Acid Organic Wetlands ... F144AY043MA ... F144AY043MA – Acidic Organic Wetlands
  - 38b. Soils formed in salt/brackish environments
    - 40a. Tidally flooded daily – Tidal Low Marsh ... R144AY002CT – Tidal Salt High Marsh mesic very frequently flooded
    - 40b. Tidally flooded twice a month – Tidal High Marsh ... R144AY001CT – Tidal Salt Low Marsh mesic very frequently flooded
- 2b. Soils anthropogenic (Human Altered Human Transported [HAHT] -Urban Soils
  - 41a. HAHT material dredged
    - 42a. Soils excessively to moderately well drained - Dredgic Material
    - 42b. Soils somewhat poorly to poorly drained - Wet Dredgic Material
  - 41b. HAHT material not dredged; either methanogenic, combustic, spolic, or pauciartifactic, or artifactic
    - 43a. HAHT material methanogenic (landfill soils) – Landfills
    - 43b HAHT material not methanogenic; either combustic, spolic, pauciartifactic & artifactic
      - 44a. HAHT material combustic (coal combustion)
      - 45a. Soils somewhat excessively drained to moderately well drained – Ashy

- 45b. Soils somewhat poorly to poorly drained – Wet Ashy
- 44b. HAHT material not combastic; either spolic or pauciartifactic & artifactic
- 46a. Soils spolic (clean fill, <10% artifacts) - Clean Fill
- 46b. Soils pauciartifactic & artifactic (>10% artifacts, mostly construction debris) – Artifactic
- 1b. Soils permanently (>21hrs/day) submerged in water - Subaqueous Soils
  - 47a. Soils formed in freshwater
    - 48a. Soils formed in submerged mineral deposits - Subaqueous Freshwater Mineral Deposits ... R144AY045RI – Subaqueous Freshwater Mineral Deposits
    - 48b. Soils formed in submerged organic deposits - Subaqueous Freshwater Organic Deposits ... R144AY046RI – Subaqueous Freshwater Organic Deposits
  - 47b. Soils formed in salt and/or brackish water
    - 49a. Soils formed in submerged glacial deposits - Subaqueous Haline Glacial Deposits ... R144AY049RI – Subaqueous Haline Slopes
    - 49b. Soils formed in marine or estuarine deposits
      - 50a. Soils formed in low energy environments (lagoon & bay bottoms, stream valleys, coves) - Subaqueous Haline Low Energy Basins ... R144AY048RI – Subaqueous Haline Low Energy Basins
      - 50b. Soils formed in high energy environments
        - 51a. Landform a washover fan slope - Subaqueous Haline Slopes ... R144AY049RI – Subaqueous Haline Slopes
        - 51b. Landform a washover fan flat or flood tidal delta flat - Subaqueous Haline Flats ... R144AY050RI – Subaqueous Haline Flats

key2. Key 2 is a strict dichotomous key w/ paired couplets. 7 HAHT PES were added as reserves to be developed in EDIT (NBarrett)