USDA icon **Natural Resources Conservation Service**

Major Land Resource Area 144A
New England and Eastern New York Upland, Southern Part

Accessed: 06/22/2026

Ecological site keys

144A PES Key

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 anthroprgenic (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 combustic; 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)

MLRA 144A Outline

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 execessively 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