USDA icon **Natural Resources Conservation Service**

Major Land Resource Area 111X
Indiana and Ohio Till Plain

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Ecological site keys

111A_ES_KEY

1a. Organic parent material

2a. Underlying material is mineral [Mineral Muck Prairie] ... R111XA001IN – Mineral Muck

2b. Underlying material is organic

3a. Underlying material is limnic [Mucky Prairie] ... R111XA002IN – Limnic Muck

3b. Underlying material is not limnic [Deep Muck Wetland] ... R111XA003IN – Deep Muck

1b. Non-organic parent material

4a. Active floodplain, alluvium parent material

5a. Soils are very poorly to somewhat poorly drained [Floodplain Forest] ... F111XA004IN – Wet Alluvium

5b. Soils are moderately well or well drained [Dry Floodplain Forest] ... F111XA005IN – Dry Alluvium

4b. Other landforms, not in floodplain, non-alluvium parent material

5a. Residuum of weathering bedrock

6a. Depth to restrictive layer is less than 100 cm (40 inches)

7a. Depth to restrictive layer is less than 50 cm (20 inches) [Shallow Restricted woodland] ... F111XA018IN – Shallow Restricted

7b. Depth to restrictive layer is between 50 and 100 cm (20 and 40 inches) [Mixed Forest] ... F111XA019IN – Moderately Deep Restricted

6b. Depth to restrictive layer is greater than 100 cm (40 inches) [Mesic Forest] ... F111XA020IN – Deep Restricted

5b. Unconsolidated deposits

8a. Ice-transported unstratified deposits (glacial till)

9a. Site is located in a depression landscape position

10a. Soil Munsell surface color is lighter than 3/2 and/or an alfisol; no ponding [Mesic Forest] ... F111XA006IN – Till Depression

10b. Soil Munsell surface color is 3/2 or darker and/or a mollisol; occasional to frequent ponding [Till Flatwood] ... F111XA007IN – Till Depression Flatwood

9b. Site is located in a swell (convex) landscape position

11a. Soil Munsell surface color is lighter than 3/2

12a. Soils are poorly or somewhat poorly drained [Till Mesic Forest] ... F111XA008IN – Wet Till Ridge

12b. Soils are moderately well or well drained [Till Ridge Forest] ... F111XA009IN – Till Ridge

11b. Soil Munsell surface color is 3/2 or darker and/or a mollisol [Till Mesic Prairie] ... R111XA010IN – Till Ridge Prairie

8b. Non-ice-transported stratified deposits (wind and water deposits)

13a. Water-transported deposits (lacustrine and outwash)

14a. Deposited in non-flowing water, lacustrine parent material

15a. Soils are poorly or somewhat poorly drained [Flatwood Forest] ... F111XA011IN – Wet Lacustrine Forest

15b. Soils are somewhat poorly to well drained [Mesic Forest] ... F111XA012IN – Lacustrine Forest

14b. Deposited in flowing water, outwash parent material

16a. Soil Munsell surface color is lighter than 3/2

17a. Soils are somewhat poorly or moderately well drained [Outwash Forest] ... F111XA014IN – Outwash Upland

17b. Soils are well to excessively drained [Oak-Hickory Forest] ... F111XA015IN – Dry Outwash Upland

16b. Soil Munsell surface color is darker than 3/2

18a. Soils are very poorly to somewhat poorly drained [Wet prairie] ... R111XA016IN – Outwash Mollisol

18b. Soils are moderately well to excessively drained [Tallgrass Prairie] ... R111XA017IN – Dry Outwash Mollisol

13b. Wind-transported or sandy deposits (Loess, Sandy Deposits)

19a. Wind-transported silt, loess parent material [Flatwood Forest] ... F111XA013IN – Loess Upland

19b. Sandy parent material

20a. Site is located on an interdunal landscape position [Oak Woodland-Prairie] ... F111XA021IN – Sandy Interdune

20b. Site is located on a dune landscape position [Dry Sand Savanna] ... R111XA022IN – Sand Dune

111B_ES_KEY

1a. Organic parent material

2a. Underlying material is mineral ... R111XB001IN – Mineral Muck

2b. Underlying material is organic

3a. Underlying material is limnic ... R111XB002IN – Limnic Muck

3b. Underlying material is not limnic and/or greater than 75 cm (30 inches) from the surface ... R111XB003IN – Deep Muck

1b. Non-organic parent material

4a. Active floodplain, alluvium parent material

5a. Soil Surface dark in color (3/2 Munsell or darker)

6a. Soils are in the aquic taxonomic suborder ... F111XB201IN – Wet Alluvium Floodplain

6b. Soils are not in the aquic taxonomic suborder ... F111XB202IN – Dry Alluvium Floodplain

5b. Soil surface light in color (lighter than 3/2 Munsell)

7a. Soils are very poorly to somewhat poorly drained ... F111XB203IN – Wet Alluvium Forest

7b. Soils are moderately well or well drained ... F111XB204IN – Dry Alluvium Forest

4b. Other landforms, not in floodplain, non-alluvium parent material

8a. Residuum of weathering bedrock

9a. Soil surface dark in color 3/2 Munsell or darker ... R111XB301IN – Dark Bedrock Prairie

9b. Soil surface light in color (lighter than 3/2 Munsell)

10a. Soils are poorly or somewhat poorly drained ... F111XB302IN – Mesic Bedrock Forest

10b. Soils are moderately well drained or drier ... F111XB303IN – Dry Bedrock Forest

8b. Unconsolidated deposits

11a. Ice-transported unstratified deposits (glacial till)

12a. Site is on a concave landscape position and/or very poorly or poorly drained ... F111XB501IN – Till Depression

12b. Site is on a convex landscape position

13a. Soils are somewhat poorly drained ... F111XB502IN – Wet Till Ridge

13b. Soils are moderately well or well drained

11b. Non-ice-transported stratified deposits (water deposits)

14a. Deposited in non-flowing water, lacustrine parent material

15a. Soils are very poorly or poorly drained ... F111XB101IN – Lacustrine Flatwood

15b. Soils are somewhat poorly or moderately well drained ... F111XB102IN – Lacustrine Forest

14b. Deposited in flowing water, outwash parent material

16a. Soil surface dark in color 3/2 Munsell or darker

17a. Soils are in the aquic suborder and/or very poorly or poorly drained ... R111XB401IN – Wet Outwash Mollisol

17b. Soils are not in the aquic suborder and/or they are SWPD or drier ... R111XB402IN – Dry Outwash Integrade

16b. Soil surface light in color lighter than 3/2 Munsell

18a. Soils are very poorly to somewhat poorly drained ... F111XB403IN – Outwash Upland

18b. Soils are moderately well drained or drier ... F111XB404IN – Dry Outwash Upland

111C_ES_KEY

1a. Organic parent material

2a. Underlying material is mineral [mineral muck prairie] ... R111XC012IN – Mineral Muck

2b. Underlying material is organic

3a. Underlying material is limnic [mucky prairie] ... R111XC011IN – Limnic Muck

3b. Underlying material is not limnic [deep muck wetland] ... R111XC013IN – Deep Muck

1b. Non-organic parent material

4a. Active floodplain, alluvium parent material

5a. Soils are very poorly to somewhat poorly drained [floodplain forest] ... F111XC014IN – Wet Floodplain

5b. Soils are moderately well or well drained [dry floodplain forest] ... F111XC015IN – Dry Floodplain

4b. Other landforms, not in floodplain, non-alluvium parent material

6a. Ice-transported unstratified deposits (glacial till)

7a. Site is located in a depression landscape position [wet prairie] ... R111XC005IN – Glacial Depression

7b. Site is located in a swell (convex) landscape position

8a. Soil Munsell surface color is lighter than 3/2, and slope generally greater than 4% [till mesic woodland] ... F111XC007IN – Glacial Ridge

8b. Soil Munsell surface color is 3/2 or darker and/or a mollisol, and slope usually less than or equal to 4% [till mesic prairie] ... R111XC006IN – Flat Glacial Ridge

6b. Non-ice-transported stratified deposits (wind and water deposits)

9a. Water-transported deposits (outwash)

10a. Site is located in a depression landscape position

11a. Site is hydric (poorly drained and very poorly drained) [wet prairie] ... R111XC008IN – Wet Overflow

11b. Site is non-hydric (moderately well drained and somewhat poorly drained) [outwash forest] ... F111XC009IN – Overflow

10b. Site is located in a swell (convex) landscape position [tallgrass savanna] ... R111XC010IN – Well Drained Overflow

9b. Wind-transported or sandy deposits (dunes)

12a. Site is located on an interdunal landscape position

13a. Site is hydric (poorly drained and very poorly drained) [wet sand prairie] ... R111XC002IN – Wet Sandy Interdune

13b. Site is non-hydric (moderately well drained and somewhat poorly drained) [oak woodland] ... F111XC003IN – Sandy Interdune

12b. Site is located on a dune landscape position [dry sand savanna] ... R111XC001IN – Sand Dune

111D_ES_KEY

1a. Organic parent material

2a. organic material depth less than 130 cm (51 inches) [Muck Prairie] ... R111XD001IN – Shallow Muck

2b. organic material depth 130 cm (51 inches) or greater [Deep Muck] ... R111XD002IN – Deep Muck

1b. Non-organic parent material

3a. Active floodplain, alluvium parent material

4a. Soils are very poorly to somewhat poorly drained [Floodplain Forest] ... F111XD003IN – Wet Alluvium

4b. Soils are moderately well or well drained [Dry Floodplain Forest] ... F111XD004IN – Dry Alluvium

3b. Other landforms, not in floodplain, non-alluvium parent material

5a. Residuum of weathering bedrock

6a. Depth to restrictive layer is less than 100 cm (40 inches)

7a. Depth to restrictive layer is less than 50 cm (20 inches) [Shallow Restricted woodland] ... F111XD022IN – Shallow Restricted

7b. Depth to restrictive layer is between 50 and 100 cm (20 and 40 inches) [Mixed Forest] ... F111XD023IN – Moderately Deep Restricted

6b. Depth to restrictive layer is greater than 100 cm (40 inches) [Mesic Forest] ... F111XD024IN – Deep Restricted

5b. Unconsolidated deposits

8a. Ice-transported unstratified deposits (glacial till)

9a. Site is located in a concave landscape position

10a. Soil Munsell surface color is lighter than 3/2 and/or an alfisol [Mesic Forest] ... F111XD005IN – Till Depression

10b. Soil Munsell surface color is 3/2 or darker

11a. Soil Surface color is less than 25 cm (10 inches) deep [Tall-Grass Savanna] ... R111XD006IN – Mollic Till Depression

11a. Soil Surface color is 25 cm (10 inches) or deeper

12a. Soils are well drained [Till Prairie] ... R111XD007IN – Till Depression Prairie

12b. Soils are very poorly or poorly drained [Till Flatwood] ... F111XD008IN – Till Depression Flatwood

9b. Site is located in a convex landscape position

13a. Soil Munsell surface color is lighter than 3/2

14a. Soils are poorly or somewhat poorly drained [Till Mesic Forest] ... F111XD009IN – Wet Till Ridge

14b. Soils are moderately well or well drained [Till Ridge Forest] ... F111XD010IN – Till Ridge

13b. Soil Munsell surface color is 3/2 or darker

15a. Soil surface color is less than 25 cm (10 inches) deep [Savanna] ... R111XD011IN – Mollic Till Ridge

15b. Soil surface color is 25 cm (10 inches) or deeper [Till Mesic Prairie] ... R111XD012IN – Till Ridge Prairie

8b. Non-ice-transported stratified deposits (wind and water deposits)

16a. Water-transported deposits (lacustrine and outwash)

17a. Deposited in non-flowing water, lacustrine parent material

18a. Soils are very poorly or poorly drained [Flatwood Forest] ... F111XD013IN – Wet Lacustrine Forest

18b. Soils are somewhat poorly or moderately well drained [Mesic Forest] ... F111XD014IN – Lacustrine Forest

17b. Deposited in flowing water, outwash parent material

19a. Soil surface color is lighter than 3/2

20a. Soils are somewhat poorly or moderately well drained [Outwash Forest] ... F111XD017IN – Outwash Upland

20b. Soils are well to excessively drained [Oak-Hickory Forest] ... F111XD018IN – Dry Outwash Upland

19b. Soil surface color is darker than 3/2

21a. Surface color is less than 25 cm (10 inches) deep [Savanna] ... R111XD019IN – Outwash Integrade

21b. Surface color is 25 cm (10 inches) or deeper

22a. Soils are very poorly to somewhat poorly drained [Wet prairie] ... R111XD020IN – Wet Outwash Mollisol

22b. Soils are moderately well to excessively well drained [Tallgrass Prairie] ... R111XD021IN – Dry Outwash Mollisol

16b. Wind-transported or sandy deposits (Loess, Sandy Deposits)

23a. Wind-transported silt, loess parent material

24a. Soils are very poorly or poorly drained and/or are a mollisol [Flatwood Forest] ... F111XD015IN – Wet Loess Upland

24b. Soils are somewhat poorly to well drained and/or are an alfisol [Loess Forest] ... F111XD016IN – Dry Loess Upland

23b. Sandy parent material

25a. Site is located on an interdunal landscape position [Oak Woodland-Prairie] ... F111XD025IN – Sandy Interdune

25b. Site is located on a dune landscape position

26a. Soil surface color is 3/2 or darker to a depth of 25 cm (10 inches) or greater [Sand Dune Prairie] ... R111XD026IN – Sand Dune Prairie

26b. Soil surface is lighter than that 3/2 munsell or less than 25 cm (10 inches) [Dry Sand Savanna] ... R111XD027IN – Sand Dune

111E_ES_KEY

1a. Organic parent material

2a. Underlying material is mineral [big bluestem -switchgrass] ... R111XE001OH – Mineral Muck

2b. Underlying material is organic

3a. Underlying material is limnic (coprogenous earth) [big bluestem - eastern gamagrass???] ... R111XE002OH – Limnic Muck

3b. Underlying material is not limnic [bulrush - cattail] ... R111XE003OH – Deep Muck

1b. Non-organic parent material

4a. Active floodplain, alluvium parent material

5a. Soil surface dark in color (3/2 Munsell or darker)

6a. Soils are very poorly drained [cottonwood - sycamore] ... F111XE201OH – Wet Alluvium Floodplain

6b. Soils are moderately well to well drained [Ohio buckeye - red maple] ... F111XE202OH – Dry Alluvium Floodplain

5b. Soil surface light in color (lighter than 3/2 Munsell)

7a. Soils are poorly to somewhat poorly drained [silver maple - swamp white oak] ... F111XE203OH – Wet Alluvium Forest

7b. Soils are moderately well to well drained [sugar maple - American basswood] ... F111XE204OH – Dry Alluvium Forest

4b. Other landforms, not in floodplain, non-alluvium parent material

8a. Residuum of weathering bedrock

9a. Soils are somewhat poorly drained [sugar maple - American beech] ... F111XE301OH – Wet Restricted

9b. Soils are moderately well to well drained [white oak - red oak] ... F111XE302OH – Dry Restricted

8b. Unconsolidated deposits

10a. Ice-transported unstratified deposits (glacial till)

11a. Site is on a concave landscape position (toeslope and/or footslope) AND frequently ponded [pin oak -swamp white oak] ... F111XE501OH – Till Depression

11b. site is on a convex landscape position (summit, shoulder, backslope)

12a. Soils are somewhat poorly drained [sugar maple - American beech] ... F111XE502OH – Wet Till Ridge

12b. Soils are moderately well to well drained [sugar maple - American beech] ... F111XE503OH – Till Ridge

10b. Non-ice-transported stratified deposits

13a. Deposited in non-flowing water, lacustrine parent material

14a. Soils are very poorly or poorly drained [pin oak - swamp white oak] ... F111XE101OH – Lacustrine Flatwood

14b. Soils are somewhat poorly drained or drier [sugar maple - American beech] ... F111XE102OH – Lacustrine Forest

13b. Deposited in flowing water, outwash-colluvium parent material

15a.Soil surface dark in color (3/2 Munsell or darker)

16a. Soils are very poorly or poorly drained [prairie cordgrass - big bluestem] ... R111XE401OH – Wet Outwash Mollisol

16b. Soils are somewhat poorly drained or drier [white oak - bur oak / little bluestem - big bluestem] ... R111XE402OH – Dry Outwash Mollisol

15b. Soil surface light in color (lighter than 3/2 Munsell)

17a. Soils are very poorly, poorly or somewhat poorly drained [sugar maple - red oak] ... F111XE403OH – Outwash Upland

17b. Soils are moderately well drained or drier [oaks / prairie understory] ... F111XE404OH – Dry Outwash Upland

111A Outline

I. Organic PM

A. Underlying material is mineral ... R111XA001IN – Mineral Muck

B. Underlying material is organic

i. Underlying material is limnic ... R111XA002IN – Limnic Muck

ii. Underlying material is not limnic ... R111XA003IN – Deep Muck

II. Non-Organic PM

A. Alluvium PM

i. Soils are very poorly to somewhat poorly drained ... F111XA004IN – Wet Alluvium

ii. Soils are moderately well or well drained ... F111XA005IN – Dry Alluvium

B. Glacial till PM

i. **Site is located in a depression landscape position**

a. **Soil surface color (SC) is lighter than 3/2 and/or an alfisol; no ponding ...** F111XA006IN – Till Depression

b. **Soil SC is 3/2 or darker and/or a mollisol; occasional to frequent ponding ...** F111XA007IN – Till Depression Flatwood

ii. **Site is located in a swell (concave) landscape position**

a. **Soil surface is lighter than 3/2**

Soils are poorly or somewhat poorly drained ... F111XA008IN – Wet Till Ridge

Soils are moderately well or well drained ... F111XA009IN – Till Ridge

b. **Soil surface color is 3/2 or darker and/or a mollisol ...** R111XA010IN – Till Ridge Prairie

C. Lacustrine PM

i. **Soils are poorly or somewhat poorly drained ...** F111XA011IN – Wet Lacustrine Forest

ii. **Soils are somewhat poorly to well drained ...** F111XA012IN – Lacustrine Forest

D. Loess PM ... F111XA013IN – Loess Upland

E. Outwash PM

i. **Soils surface color is lighter than 3/2**

a. **Soils are somewhat poorly or moderately well drained .F111AY014IN**

b. **Soils are well to excessively drained ...** F111XA015IN – Dry Outwash Upland

ii. **Soils surface color is darker than 3/2**

a. **Soils are very poorly to somewhat poorly drained ...** R111XA016IN – Outwash Mollisol

b. **Soils are moderately well to excessively drained ...** R111XA017IN – Dry Outwash Mollisol

F. Residuum PM

i. **Depth to restrictive layer is less than 20 inches ...** F111XA018IN – Shallow Restricted

ii. **Depth to restrictive layer is between 20 and 40 inches ...** F111XA019IN – Moderately Deep Restricted

iii. **Depth to restrictive layer is greater than 40 inches ...** F111XA020IN – Deep Restricted

G. Sand PM

i. **Site is located on an interdunal landscape position ...** F111XA021IN – Sandy Interdune

ii. **Site is located on a dune landscape position ...** R111XA022IN – Sand Dune

111B Outline

I. Organic PM

A. Underlying material is mineral ... R111XB001IN – Mineral Muck

B. Underlying material is organic

i. **Underlying material is limnic ...** R111XB002IN – Limnic Muck

ii. **Underlying material is not limnic and/or greater than 30 inches from the surface ...** R111XB003IN – Deep Muck

II. Mineral PM

A. Lacustrine Parent Material

i. Soils are very poorly or poorly drained ... F111XB101IN – Lacustrine Flatwood

ii. Soils are somewhat poorly or moderately well drained ... F111XB102IN – Lacustrine Forest

B. Alluvium Parent Material

i. Soil Surface dark in color (3/2 Munsell or darker)

a. Soils are in the aquic taxonomic suborder ... F111XB201IN – Wet Alluvium Floodplain

b. Soils are not in the aquic taxonomic suborder ... F111XB202IN – Dry Alluvium Floodplain

ii. Soil surface light in color (lighter than 3/2 Munsell)

Soils are very poorly to somewhat poorly drained ... F111XB203IN – Wet Alluvium Forest

Soils are moderately well or well drained ... F111XB204IN – Dry Alluvium Forest

C. Bedrock Parent Material

i. Soil surface dark in color 3/2 Munsell or darker ... R111XB301IN – Dark Bedrock Prairie

ii. Soil surface light in color (lighter than 3/2 Munsell)

a. Soils are poorly or somewhat poorly drained ... F111XB302IN – Mesic Bedrock Forest

b. Soils are moderately well drained or drier ... F111XB303IN – Dry Bedrock Forest

D. Outwash Parent Material

i. Soil surface dark in color 3/2 Munsell or darker

a. Soils are in the aquic suborder and/or very poorly or poorly drained ... R111XB401IN – Wet Outwash Mollisol

b. Soils are not in the aquic suborder and/or they are SWPD or drier ... R111XB402IN – Dry Outwash Integrade

ii. Soil surface light in color lighter than 3/2 Munsell

a. Soils are very poorly to somewhat poorly drained ... F111XB403IN – Outwash Upland

b. Soils are moderately well drained or drier ... F111XB404IN – Dry Outwash Upland

E. Glacial Till Parent Material

i. Site is on a concave landscape position and/or very poorly or poorly drained ... F111XB501IN – Till Depression

ii. Site is on a convex landscape position

a. Soils are somewhat poorly drained ... F111XB502IN – Wet Till Ridge

b. Soils are moderately well or well drained ... F111XE503IN – Till Ridge

111D Outline

I. Organic PM

A. organic material depth less than 51 inches ... R111XD001IN – Shallow Muck

B. organic material depth 51 inches or greater ... R111XD002IN – Deep Muck

II. Mineral PM

A. Alluvium PM

A. Soils are very poorly to somewhat poorly drained ... F111XD003IN – Wet Alluvium

B. Soils are moderately well to excessively drained ... F111XD004IN – Dry Alluvium

B. Glacial Till

A. Site is located in a concave landscape position

i. Soil surface color is lighter than 3/2 and/or an alfisol ... F111XD005IN – Till Depression

ii. Soil surface color is 3/2 Munsell or darker

a. Soil Surface color is less than 10 inches deep ... R111XD006IN – Mollic Till Depression

b. Soil surface color is 10 inches or deeper

1) Soils are well drained ... R111XD007IN – Till Depression Prairie

2) Soils are very poorly or poorly drained ... F111XD008IN – Till Depression Flatwood

B. Site is located in a convex landscape position

i. Soil surface color is lighter than 3/2

a. Soil is poorly or somewhat poorly drained ... F111XD009IN – Wet Till Ridge

b. Soil is moderately well or well drained ... F111XD010IN – Till Ridge

ii. Soil surface color is 3/2 or darker

a. Soil surface color is less than 10 inches deep ... R111XD011IN – Mollic Till Ridge

b. Soil surface color is 10 inches or deeper ... R111XD012IN – Till Ridge Prairie

C. Lacustrine PM

A. Soils are very poorly or poorly drained ... F111XD013IN – Wet Lacustrine Forest

B. Soils are somewhat poorly or moderately well drained Lacustrine Forest ... F111XD014IN – Lacustrine Forest

D. Loess PM

A. Soils are very poorly or poorly drained and/or are a mollisol ... F111XD015IN – Wet Loess Upland

B. Soils are somewhat poorly to well drained and/or are an alfisol ... F111XD016IN – Dry Loess Upland

E. Outwash PM

A. Soil surface color is lighter than 3/2

i. Soils are somewhat poorly or moderately well drained ... F111XD017IN – Outwash Upland

ii. Soils are well to excessively drained ... F111XD018IN – Dry Outwash Upland

B. Soil surface color is darker than 3/2

i. Surface color is less than 10 inches deep ... R111XD019IN – Outwash Integrade

ii. Surface color is 10 inches or deeper

1) Soils are very poorly to somewhat poorly drained ... R111XD020IN – Wet Outwash Mollisol

2) Soils are moderately well to excessively well drained ... R111XD021IN – Dry Outwash Mollisol

F. Residuum PM

A. Depth to restrictive layer is less than 20 inches ... F111XD022IN – Shallow Restricted

B. Depth to restrictive layer is between 20 and 40 inches ... F111XD023IN – Moderately Deep Restricted

C. Depth to restrictive layer is greater than 40 inches ... F111XD024IN – Deep Restricted

G. Sand PM

A. Site is located on an interdunal landscape position ... F111XD025IN – Sandy Interdune

B. Site is located on a dune landscape position

i. Soil surface color is 3/2 or darker to a depth of 10 inches or greater ... R111XD026IN – Sand Dune Prairie

ii. Soil surface is lighter than that 3/2 munsell ... R111XD027IN – Sand Dune

111E Outline

I. Organic Parent Material

A. Underlying material is mineral ... R111XE001OH – Mineral Muck

B. Underlying material is organic

1 Underlying material is limnic (coprogenous earth) ... R111XE002OH – Limnic Muck

2 Underlying material is not limnic ... R111XE003OH – Deep Muck

II. Non-Organic/Mineral Parent Material

A. Lacustrine Parent Material

1 Soils are very poorly or poorly drained ... F111XE101OH – Lacustrine Flatwood

2 Soils are somewhat poorly drained or drier ... F111XE102OH – Lacustrine Forest

B. Alluvium Parent Material

1 Soil surface dark in color (3/2 Munsell or darker)

i. Soils are very poorly drained ... F111XE201OH – Wet Alluvium Floodplain

ii. Soils are moderately well to well drained ... F111XE202OH – Dry Alluvium Floodplain

2 Soil surface light in color (lighter than 3/2 Munsell)

i. Soils are poorly to somewhat poorly drained ... F111XE203OH – Wet Alluvium Forest

ii. Soils are moderately well to well drained ... F111XE204OH – Dry Alluvium Forest

C. Residuum Parent Material

1 Soils are somewhat poorly drained ... F111XE301OH – Wet Restricted

2 Soils are moderately well to well drained ... F111XE302OH – Dry Restricted

D. Outwash-Colluvium Parent Material

1 Soil surface dark in color (3/2 Munsell or darker)

i. Soils are very poorly or poorly drained ... R111XE401OH – Wet Outwash Mollisol

ii. Soils are somewhat poorly drained or drier ... R111XE402OH – Dry Outwash Mollisol

2 Soil surface light in color (lighter than 3/2 Munsell)

i. Soils are very poorly, poorly or somewhat poorly drained ... F111XE403OH – Outwash Upland

ii. Soils are moderately well drained or drier ... F111XE404OH – Dry Outwash Upland

E. Glacial Till Parent Material

1 Site is on a concave landscape position (toeslope and/or footslope) AND frequently ponded ... F111XE501OH – Till Depression

2 site is on a convex landscape position (summit, shoulder, backslope)

i. Soils are somewhat poorly drained ... F111XE502OH – Wet Till Ridge

ii. Soils are moderately well to well drained ... F111XE503OH – Till Ridge