Field Indicators of Hydric Soils in the United States
Updates in Version 5.9
Edited for Mid Atlantic Region Only
*Changes are underlined

All Soils

A1.
Wording Change

"Histosol (*For use in all LRRs*) or Histel (*For use in LRRs with permafrost*). Classifies as a Histosol (except Folist) or as a Histel (except Folistel)."

A2.
Addition of chroma requirement to meet indicator

"Histic Epipedon. *For use in all LRRs.* A histic epipedon underlain by mineral soil material with chroma 2 or less."

A3.
Addition of chroma requirement to meet indicator

"Black Histic. *For use in all LRRs.* A layer of peat, mucky peat, or muck 20 cm (8 inches) or more thick starting within the upper 15 cm (6 inches) of the soil surface having hue 10YR or yellower, value 3 or less, and chroma 1 or less underlain by mineral soil material with chroma 2 or less."

A5.
Change in Value Requirement, no longer needs value of 4 or more in remaining layers

"Stratified Layers. *For use in LRRs C, F, K, L, M, N, O, P, R, S, T, and U; for testing in LRRs V and Z.* Several stratified layers starting within the upper 15 cm (6 inches) of the soil surface. One or more of the layers has value 3 or less with chroma 1 or less and/or it is muck, mucky peat, peat, or mucky modified mineral texture. The remaining layers have chroma 2 or less."

A6.
New addition to Indicator

"Organic Bodies. *For use in LRRs P, T, U, and Z.* Presence of 2% or more organic bodies of muck or a mucky modified mineral texture, approximately 1 to 3 cm (0.5 to 1 inches) in diameter, starting within 15 cm (6 inches) of the soil surface. In some soils the organic bodies are smaller than 1 cm."

A11.
Change in what LRRs can be used in, used to be indicator F4, Concepts from TS4 Sandy Neutral Surface are also included.

"Depleted Below Dark Surface. *For use in all LRRs except W, X, and Y; for testing in LRRs W, X, and Y.* A layer with a depleted or gleyed matrix that has 60% or more chroma 2 or less starting within 30 cm (12 inches) of the soil surface that has a minimum thickness of either:

a. 15 cm (6 inches), or
b. 5 cm (2 inches) if the 5 cm (2 inches) consists of fragmental soil material.

Loamy/clayey layer(s) above the depleted or gleyed matrix must have value 3 or less and chroma 2 or less. Sandy layer(s) above the depleted or gleyed matrix must have value 3 or less, chroma 1 or less, and at least 70% of the visible soil particles must be covered, coated or similarly masked with organic material."

A12.
Can be used in all LRRs, also include material from former TF7 (Thick Dark Surface 2/1)

"Thick Dark Surface. For use in all LRRs. A layer at least 15cm (6 inches) thick with a depleted matrix that has 60% or more chroma 2 or less (or a gleyed matrix) starting below 30cm (12 inches) of the surface. The layer (s) above the depleted or gleyed matrix have value 2.5 or less and chroma 1 or less to a depth of 30cm (12 inches) and value 3 or less and chroma 1 or less in the remainder of the epipedon. If the epipedon is sandy at least 70% of the visible soil particles must be covered, coated, or similarly masked with organic material."

A16.
Can be used in LRR T, test indicator for LRRs L and R. Also, is the new TS5 (Chroma 3 Sandy Redox)

"Coast Prairie Redox. *For use in MLRA 150A of LRR T.* A layer starting within 15 cm (6 inches) of the soil surface that is at least 10 cm (4 inches) thick and has a matrix chroma 3 or less with 2% or more distinct or prominent redox concentrations as soft masses and/or pore linings."

Sandy Soils

S1.
No longer needs a Mucky modified mineral surface, and can be used in Regions which use Indicator A7

"Sandy Mucky Mineral. *For use in all LRRs except W, X, and Y and those LRRs that use Indicator A7 (P, T. and U).* A mucky modified mineral layer 5 cm (2 inches) or more thick starting within 15 cm (6 inches) of the soil surface."

S3.
Can be used in LRR R for testing

"5 cm Mucky Peat or Peat. *For use in LRRs F, and M; for testing in LRR R.* A layer of mucky peat or peat 5 cm (2 inches) or more thick with value 3 or less and chroma 2 or less starting within 15 cm (6 inches) of the soil surface underlain by sandy soil material."

S6.
Change in Wording, addition of faint

"Stripped Matrix. *For use in all LRRs except V, W, X, and Y.* A layer starting within 15 cm (6 inches) of the soil surface in which iron/manganese oxides and/or organic matter have been stripped from the matrix exposing the primary base color of soil materials. The stripped areas and translocated oxides and/or organic matter form a faint diffuse splotchy pattern of two or more colors. The stripped zones are 10% or more of the volume; they are rounded and approximately 1 to 3 cm (0.5 to 1 inches) in diameter."

S7.
Addition of TS3 Dark Surface 2 information

"Dark Surface. *For use in LRRs N, P, R, S, T, U, V, and Z.* A layer 10 cm (4 inches) or more thick starting within the upper 15 cm (6 inches) of the soil surface with a matrix value 3 or less and chroma 1 or less. At least 70% of the visible soil particles must be covered, coated, or similarly masked with organic material. The matrix color of the layer immediately below the dark layer must have chroma 2 or less."

Loamy and Clayey Soils

F1.
Change in LRRs it can be used in

"Loamy Mucky Mineral. *For use in all LRRs except N, R, S, V, W, X, and Y, those using A7, and MLRA 1 of LRR A.* A mucky modified mineral layer 10 cm (4 inches) or more thick starting within 15 cm (6 inches) of the soil surface"

F2.
Word Change

"Loamy Gleyed Matrix. *For use in all LRRs except W, X, and Y.* A gleyed matrix that occupies 60% or more of a layer starting within 30 cm (12 inches) of the soil surface.

F3.
Word Change, no longer soil surface

"Depleted Matrix. *For use in all LRRs except W, X, and Y.* A layer with a depleted matrix that has 60% or more chroma 2 or less that has a minimum thickness of either:

a. 5 cm (2 inches) if 5 cm (2 inches) is entirely within the upper 15 cm (6 inches) of the soil, or

b. 15 cm (6 inches) and starts within 25 cm (10 inches) of the soil surface.

F4.
Indicator number change, now indicator A11, Depleted Below Dark Surface.

"Depleted Below Dark Surface. *For use in all LRRs except W, X, and Y; for testing in LRRs W, X, and Y.* A layer with a depleted or gleyed matrix that has 60% or more chroma 2 or less starting within 30 cm (12 inches) of the soil surface that has a minimum thickness of either:

a. 15 cm (6 inches), or

b. 5 cm (2 inches) if the 5 cm (2 inches) consists of fragmental soil material.

Loamy/clayey layer(s) above the depleted or gleyed matrix must have value 3 or less and chroma 2 or less. Sandy layer(s) above the depleted or gleyed matrix must have value 3 or less, chroma 1 or less, and at least 70% of the visible soil particles must be covered, coated or similarly masked with organic material."

F5.
Indicator number change, now A12, Thick Dark Surface.

"Thick Dark Surface. For use in all LRRs. A layer at least 15cm (6 inches) thick with a depleted matrix that has 60% or more chroma 2 or less (or a gleyed matrix) starting below 30cm (12 inches) of the surface. The layer (s) above the depleted or gleyed matrix have value 2.5 or less and chroma 1 or less to a depth of 30cm (12 inches) and value 3 or less and chroma 1 or less in the remainder of the epipedon. If the epipedon is sandy at least 70% of the visible soil particles must be covered, coated, or similarly masked with organic material."

F11.
Addition of use in LRR T, no longer testing in LRR S

"Depleted Ochric. *For use in MLRA 151 of LRR T.* A layer(s) 10 cm (4 inches) or more thick that has 60% or more of the matrix with value 4 or more and chroma 1 or less. The layer is entirely within the upper 25 cm (10 inches) of the soil surface**."**

F13.
Addition of use in LRR N

"Umbric Surface. *For use in LRRs P, T, and U and MLRA 122 of LRR N.* In depressions and other concave landforms, a layer 25 cm (10 inches) or more thick starting within 15 cm (6 inches) of the soil surface in which the upper 15 cm (6 inches) must have value 3 or less and chroma 1 or less, and the lower 10 cm (4 inches) of the layer must have the same colors as above or any other color that has a chroma 2 or less."

F17.
Addition of use in LRR T

"Delta Ochric. *For use in MLRA 151 of LRR T.* A layer 10 cm (4 inches) or more thick that has 60% or more of the matrix with value 4 or more and chroma 2 or less with no redox concentrations. This layer occurs entirely within the upper 30 cm (12 inches) of the soil surface."

F18.
Addition of use in LRR T

"Reduced Vertic. *For use in MLRA 150 of LRR T; for testing in all LRRs with Vertisols and Vertic intergrades*. In Vertisols and Vertic intergrades, a positive reaction to alphaalpha-Dipyridyl that: (a) is the dominant (60% or more) condition of a layer at least 4 inches thick within the upper 12 inches (or at least 2 inches thick within the upper 6 inches) of the mineral or muck soil surface, (b) occurs for at least 7 continuous days and 28 cumulative days, and (c) occurs during a normal (within 16-84% of probable precipitation) or drier season and month."

F19.
Addition of use in LRRs

"Piedmont Flood Plain Soils. For use in MLRAs 149A and 148 of LRR S; for testing on flood plains subject to Piedmont deposition throughout LRRs P, S, and T. On active flood plains, a mineral layer at least 15 cm (6 inches) thick starting within 25 cm (10 inches) of the soil surface with a matrix (60 percent or more of the volume) chroma less than 4 and 20% or more distinct or prominent redox concentrations as soft masses or pore linings.

F20.
Addition of use in LRRs

"Anomalous Bright Loamy Soils. For use in MLRA 149A of LRR S and MLRA 153C and 153D of LRR T; for testing in MLRA 153B of LRR T. Within 200m (656 feet) of estuarine marshes or waters and within 1 m (3.28 feet) of mean high water, a mineral layer at least 10cm (4 inches) thick starting within 20 cm (8 inches) of the soil surface with a matrix (60 percent or more of the volume) chroma less than 5 and 10 percent or more distinct or prominent redox concentrations as soft masses or pore linings and/or depletions"

Test Indicators of Hydric Soils

All Soils

TA1. Playa Rim Stratified Layers. This test Indicator has been deleted.

TA2. Structureless Muck. This test Indicator has been deleted.

TA3. Coast Prairie Redox. This test Indicator has been approved for use and is now A16 (Coast Prairie Redox)

Sandy Soils

TS1. Iron Staining. This test Indicator has been deleted.

TS2. Thick Sandy Dark Surface. This test Indicator has been deleted. The concepts of this test indicator have been approved for use and are now included with Indicator A12 (Thick Dark Surface).

TS3. Dark Surface 2. This test Indicator has been deleted. This is the same Indicator as Indicator S7 (Dark Surface).

TS4. Sandy Neutral Surface. This test Indicator has been deleted. Most of the concepts of this test indicator have been approved for use and are now included with Indicator A11 (Depleted Below Dark Surface).

TS5. Chroma 3 Sandy Redox. This test Indicator has been deleted. It has been approved for use as Indicator A16 (Coast Prairie Redox).

Loamy and Clayey Soils

TF2.
Change in wording

"Red Parent Material. *For testing in LRRs with red parent material*. In parent material with a hue of 7.5YR or redder, a layer at least 10 cm (4 inches) thick with a matrix value 4 or less and chroma 4 or less and 2% or more redox depletions and/or redox concentrations as soft masses and/or pore linings. The layer is entirely within 30 cm (12 inches) of the soil surface. The minimum thickness requirement is 5 cm (2 inches) if the layer is the mineral surface layer."

TF7. Thick Dark Surface 2/1. This test Indicator has been deleted. The concepts of this test indicator have been approved for use and are now included with Indicator A12 (Thick Dark Surface).

TF10. Alluvial Depleted Matrix. This test Indicator has been deleted

Table 1: Use Indicators by Land Resource Regions (LRRSs) and certain Major Land Resource Areas (MLRAs)
Edited for Mid-Atlantic Regions

LRR	Indicators
L	A1, A2, A3, A4, A5, A11, A12, S1, S4, S5, S6, F1, F2, F3, F6, F7, F8.
N	A1, A2, A3, A4, A5, A10, A11, A12, S1, S4, S5, S6, S7, F2, F3, F6, F7, F8, F12, F13 (MLRA 122).
P	A1, A2, A3, A4, A5, A6, A7, A9, A11, A12, S4, S5, S6, S7, F2, F3, F6, F8, F12, F13.
R	A1, A2, A3, A4, A5, A11, A12, S1, S3, S4, S5, S6, S7, S8, S9, F2, F3, F6, F7, F8.
S	A1, A2, A3, A4, A5, A11, A12, S1, S4, S5, S6, S7, S8, S9, F2, F3, F6, F7, F8, F19 (MLRAs 148 and 149A, F20 (MLRA 149A).
T	A1, A2, A3, A4, A5, A6, A7, A9, A11, A12, A16 (MLRA 150A), S4, S5, S6, S7, S8, S9, F2, F3, F6, F8, F11 (MLRA 151), F12, F13, F18 (MLRA 150), F20 (MLRAs 149A and 153C).

Table 2: Test Indicators by Land Resource Regions (LRRs) and certain Major Land Resource Areas (MLRAs)*****
Edited for Mid-Atlantic Regions

LRR	Indicators
L	A10, A16, S8, S9, TF2.
N	TF2.
P	F18 (MLRA 135), F19.
R	A16, F19, TF2.
S	A10, TF2.
T	F19, F20 (MLRA 153B), TF2.

*** These indicators are for test only, not for use**.