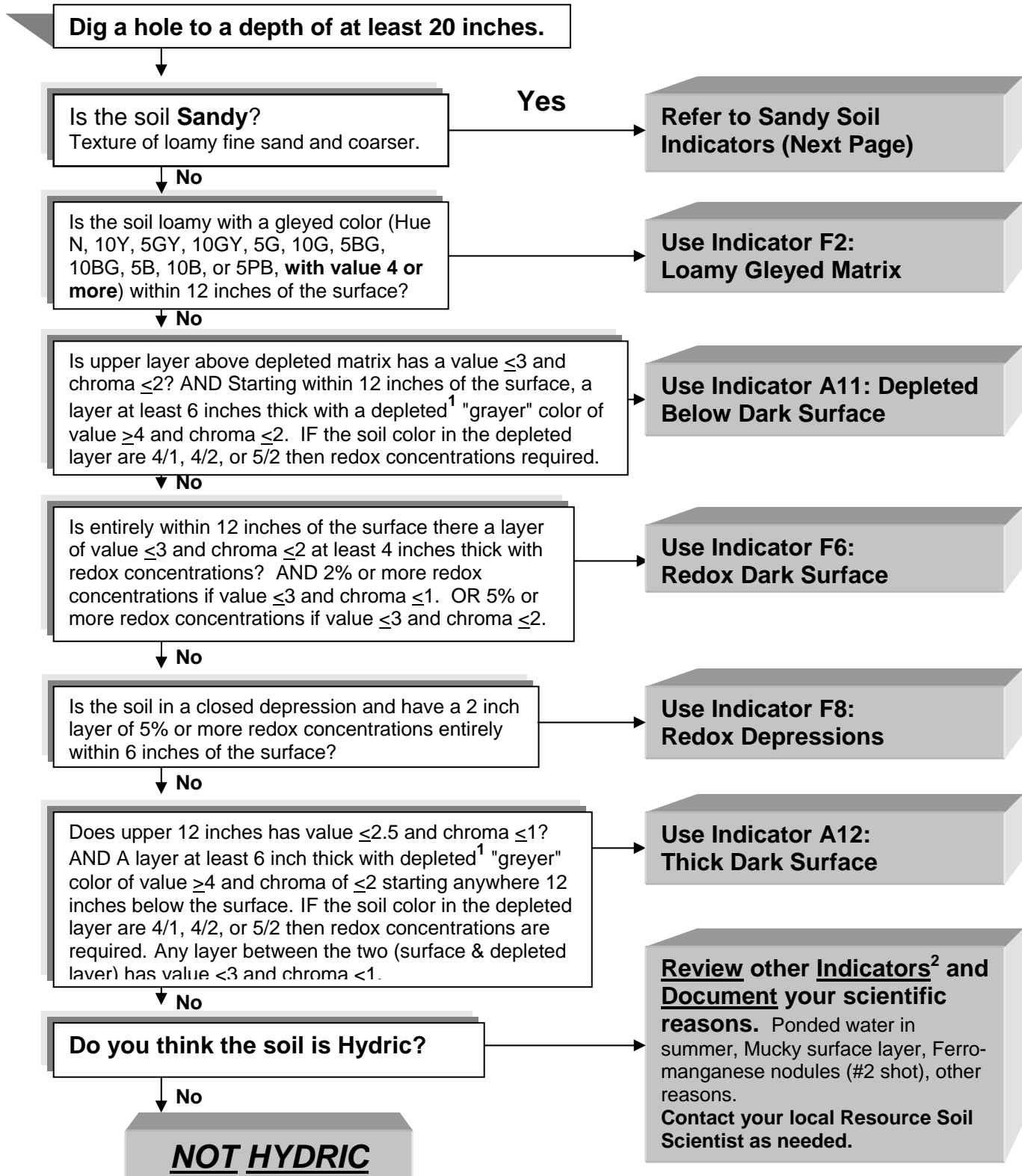


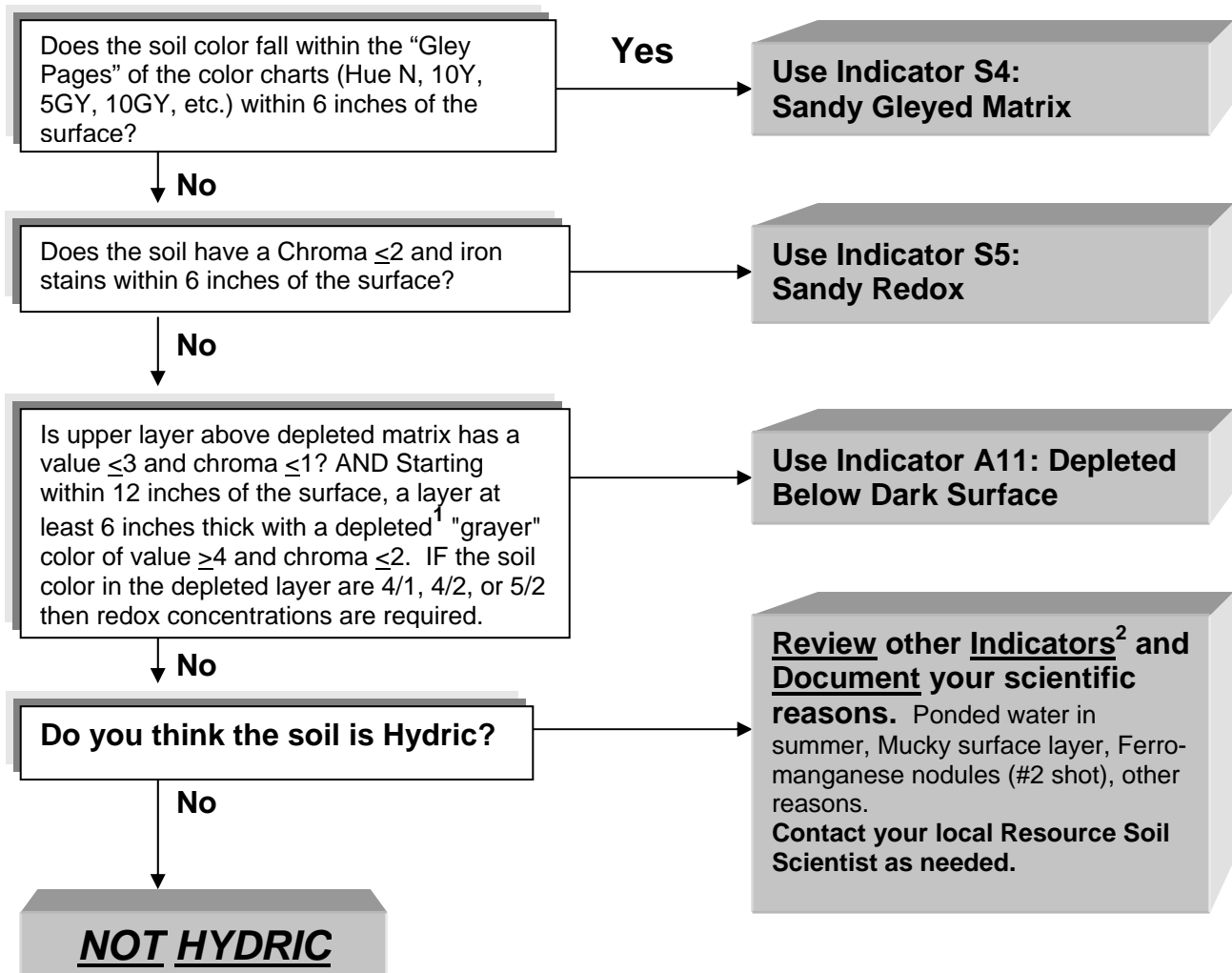
HYDRIC SOIL INDICATORS

This flowchart **MUST** be used with “Field Indicators of Hydric Soils in the United States, Version 6.0” to verify the indicator chosen for the soil meets all criteria.

If there is an organic layer and one of the below indicators does not seem to fit then refer to indicators A1, A2, A3, & A4.



Sandy Soil Indicators



¹ A, E, and calcic horizons may have low chromas and high values and may therefore be mistaken for a depleted matrix; however, they are excluded from the concept of depleted matrix unless the soil has common or many distinct or prominent redox concentrations occurring as soft masses or pore linings.

² Other indicators to be used in Nebraska are:

Region G: A1, A2, A3, A4, A9, S1, S2, S6, F1, F3, F7, A16 (test), S7 (test), TF2 (test)

Region H: A1, A2, A3, A4, A9, S1, S2, S6, F1, F3, F7, F16, A16 (test), TF2 (test)

Region M: A1, A2, A3, A4, A5, A10, S1, S3, S6, F1, F3, F7, F12 (test), A16 (test)

Hydric Soil Determination Guidelines

The National Technical Committee on Hydric Soils has issued version 6.0 of “Field Indicators of Hydric Soils in the United States.” This new version has combined the old indicators F4 and TS4 into indicator A11 (Depleted Below Dark Surface). The new version also combined the old indicators TS2, F5, and TF7 into indicator A12(Thick Dark Surface). Test indicator TF5 was deleted.

Field experience has shown the reliability of indicator A12 (old TF7) is very dependent on landscape and landform. Experience has shown that many sites in linear, flood plain, slope, and open drainage landforms have a plant community that is not hydrophytic, hydrology is not present, the soils do not meet indicator F6, yet still meet indicator A12

If a soil in a depressional landform does not meet field indicator, A11 (Depleted Below Dark Surface), F6(Redox Dark Surface), or F8 (Redox Depressions), and does not meet any other indicator, the site will need to be investigated to see if it meets indicator A12(Thick Dark Surface). However, because the depth to the depleted matrix is deeper than 12 inches when using this indicator, A12 is not an approved secondary indicator of hydrology in depressional landforms.

The Hydric Soil Indicators flowchart was designed to reflect these changes and was created by field request, as a quick one-page reference guide for the most common hydric soil indicators in Nebraska. It does NOT list all possible indicators for the state. It also does not carry a complete description of the indicators. The complete description for all indicators can be found in the publication “Field Indicators of Hydric Soils in the United States, Version 6.0” at: ftp://ftp-nc.sc.egov.usda.gov/NSSC/Hydric_Soils.

When determining hydric soils, use a spade or shovel to investigate the top 20 inches. The use of a spade will help make those determinations much easier. It allows you to see more surface area than can be seen using a push probe or auger. Also, remember that when using any of the hydric indicators, in any landscape, investigate starting from the edge of the suspected hydric area. If needed, a push probe or hand auger maybe used to investigate below the 20 inch depth. When using Field Indicator A12, remember that **no** layers above the depleted or gleyed matrix may have a moist value greater than three, or a moist chroma greater than one. Go no deeper than 48 inches from the soil surface. If the soil is dark colored to more than a depth of 48 inches, move closer to the edge of the depressional landform until the dark soil is less than 48 inches thick. If the upper edge of the landform has a hydric soil indicator, then all lower elevations within the landform are hydric soils.

Definitions

Depleted matrix: For loamy and clayey material, a depleted matrix refers to the volume of a soil horizon or subhorizon in which the processes of reduction and translocation have removed or transformed iron, creating colors of low chroma and high value. A, E, and calcic horizons may have low chromas and high values and may therefore be mistaken for a depleted matrix; however, they are excluded from the concept of depleted matrix unless the soil has common or many distinct or prominent redox concentrations occurring as soft masses or pore linings.

Redox concentration: Bodies of apparent accumulation of Fe-Mn oxides. Redox concentrations include soft masses, pore linings, nodules, and concretions. For the purposes of the Indicators, nodules and concretions are excluded from the concept of redox concentrations unless otherwise specified by specific Indicators.