

# Wetland Delineation Review Checklist for Minnesota

This document is intended to provide those reviewing wetland delineations for regulatory purposes with a checklist of basic components that should be considered when reviewing wetland delineations. It can also serve as a useful guide for those conducting delineations and preparing reports. This checklist is for most routine wetland delineations in Minnesota. Other report components and review considerations may be applicable depending on the characteristics of the site being evaluated. Users should consult the 1987 Corps of Engineers Wetland Delineation Manual, any applicable regional supplement, and Board of Water & Soil Resources guidance documents for more specific information and explanations.

## **Basic Report Components** (check to make sure these are in the report)

- Site location map
- National Wetland Inventory (NWI) map
- Soil survey map (use web soil survey at <http://websoilsurvey.nrcs.usda.gov/app/>)
- MN Dept. of Nat. Resources Protected Waters Map
- Recent air photo with sampling point locations, site boundary, and wetland boundaries
- Survey map (optional depending on local requirements)
- Wetland delineation data forms corresponding to indicated sampling point locations

## **Report Contents** (review report and data forms for these elements)

### General

- Circular 39 wetland types and Eggers & Reed plant community types identified for each wetland
- Vegetation and landscape position of all adjacent upland areas identified and described
- Wetland-upland transitions described for each wetland in terms of vegetation, soils, and hydrology
- Methodology for identifying potential wetland areas described
- All potential wetlands from hydric soil, NWI, and other mapping sources adequately investigated and described in the report.

### Wetland Delineation Data Form Review

- "Normal circumstances", "disturbed" and "problematic" designations properly identified
- Vegetation classified into appropriate layers (herb, shrub, tree, vine)
- Scientific name and indicator status identified
- 50/20 dominance rule applied properly for each vegetation layer
- Soil described to at least 20 inches from the soil surface
- Soil textures and Munsell colors given for each soil layer in sample

## **Field Review** (conduct a field review and verify the following elements)

- Appropriate number of sampling transects (see notes on page 2)
- Sample points representative of the plant community and landscape position being sampled (see notes on page 2)
- Appropriate vegetation sample plot sizes used (see notes on page 2)
- Vegetation properly identified and quantified
- Soil pits deep enough to document presence/absence of all potential hydric soil indicators
- Soil layers properly described in terms of texture, color, and redox features
- Hydric soil indicators properly applied
- Hydrology indicators properly applied (see notes on page 2)
- Delineation flag spacing appropriate (see notes on page 2)

## Notes:

**Sampling Transects** – Typically, sampling transects should be located at each major upland/wetland transition area on the site. This may result in several transects on a single wetland or a single transect for 2 similar wetlands depending on the characteristics of the site. Delineators should carefully choose transect locations that are representative of the major wetland-upland transitions. More standardized approaches for establishing sampling transects are detailed in the 87 Manual and its supplements.

**Vegetation Sample Plot Sizes** – Recommended sample plot sizes for vegetation are stated in the 87 Manual supplements. In general, sizes are 5 ft. radius for herbaceous layer, 15 ft. for shrub layer, and 30 ft. for tree and woody vine layers.

**Soil Sample Point Locations** – Soil sample points should be indicative of the landscape position of the upland, wetland, or transition area being sampled. For example, soil sample pits located in a micro-depression or on a small hill in an otherwise uniform topographic area should not be considered representative.

**Delineation Flag Spacing** – The spacing of flags to delineate a wetland should be in accordance with the implied precision of the delineation. Wetlands with abrupt topographic and/or vegetative changes allow for more precise delineation and could result in spacing as low as 25 to 50 feet between flags. Wetlands with subtle topographic changes into upland and significant overlap of wetland and upland plant species generally result in wide spacing (50 to 100 feet) between flags. The greater the number of sampling transects documenting the upland-wetland transition, the closer together the flags can be.

**Hydrology Indicators** – Hydrology indicators are often ephemeral. For example, observation of surface water may only be present during the wet portion of the growing season in normal precipitation years for some wetlands. Once a wetland hydrology indicator is observed, it is an indicator and should be noted on the data form and in the wetland delineation report. For example, if water is observed within 6 inches of the soil surface after a heavy rain, it is an indicator of wetland hydrology even though subsequent observations after normal rainfall events may show a water table at 30 inches below the surface. These subsequent observations do not “cancel out” the first observation of the indicator. If the indicator is observed, then it should be recorded. However, these subsequent observations may help in understanding normal climatic variations that are important in *interpreting* hydrology indicators. Refer to the 87 Manual and its applicable supplement for sources and methodologies to interpret hydrology indicators in making wetland determinations.

**Regional Supplements** – The regional supplements to the 1987 Manual are now or soon will be in effect for the State. These supplements are designed for use with the current version of the 87 Manual and should be utilized for conducting wetland delineations in Minnesota.