



WETLAND CONSERVATION ACT

Wetland Delineations: Choosing the Appropriate Method

BWSR Technical Guidance, July 1, 2010

Background

The 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (87 Manual) describes two general types of delineation methods: routine and comprehensive (see Part IV, Section 3 of the 87 Manual). The routine method includes three options, or “levels,” of investigation:

- Level 1 - Onsite Inspection Unnecessary
- Level 2 - Onsite Inspection Necessary
- Level 3 - Combination of Levels 1 and 2

The comprehensive method requires a more rigorous investigation and more detailed documentation. The 87 Manual provides general guidance on which level to use, but does not address circumstances relating to the implementation of the Minnesota Wetland Conservation Act (WCA), including instances where a delineation may not be necessary to determine the applicability of a specific rule provision. This guidance is intended to provide assistance in selecting the appropriate method and level of wetland delineation method to use in various situations related to implementation of WCA. The actual method and level will vary from site to site and project to project. Corps of Engineers requirements may also differ due to federal Clean Water Act provisions.

Routine Delineations

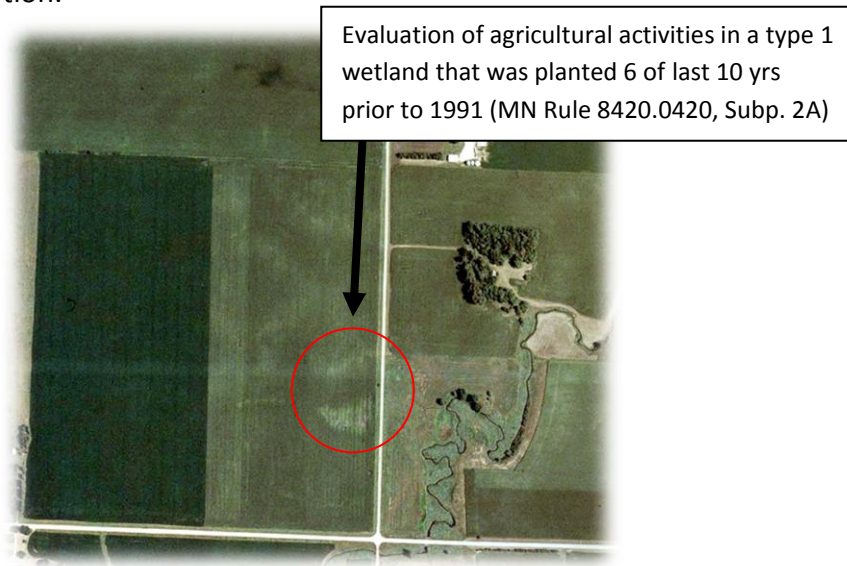
The routine wetland delineation method is appropriate for the vast majority of situations relating to WCA. The routine method involves the use of simple, rapidly applied techniques to obtain qualitative data which is then used to make a determination.

Routine Level 1: Onsite inspection unnecessary.

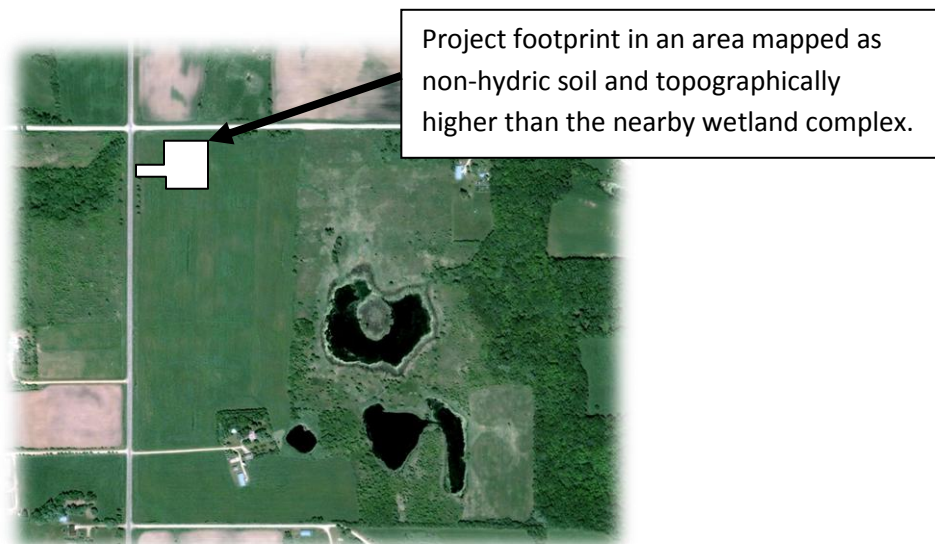
The Routine Level 1 delineation may be appropriate when there is sufficient offsite information to make a determination for a particular activity or site. Level 1 is generally used when the exact boundary of a wetland is not critical. It is also often used to determine wetland type, although in many cases an on-site inspection may be necessary to determine type. A Level 1 review typically consists of an examination of common offsite mapping resources (soils, topography, National Wetland Inventory, aerial photos, etc.) to determine the potential presence of a wetland, identify its type, and/or sketch its approximate boundaries. Use of the “Wetland Mapping Conventions for Cropland” (BWSR, USACE, and NRCS, 1994) is a common application of a Routine Level 1 delineation procedure in Minnesota.

Examples where a Level 1 Routine method may be appropriate for WCA purposes:

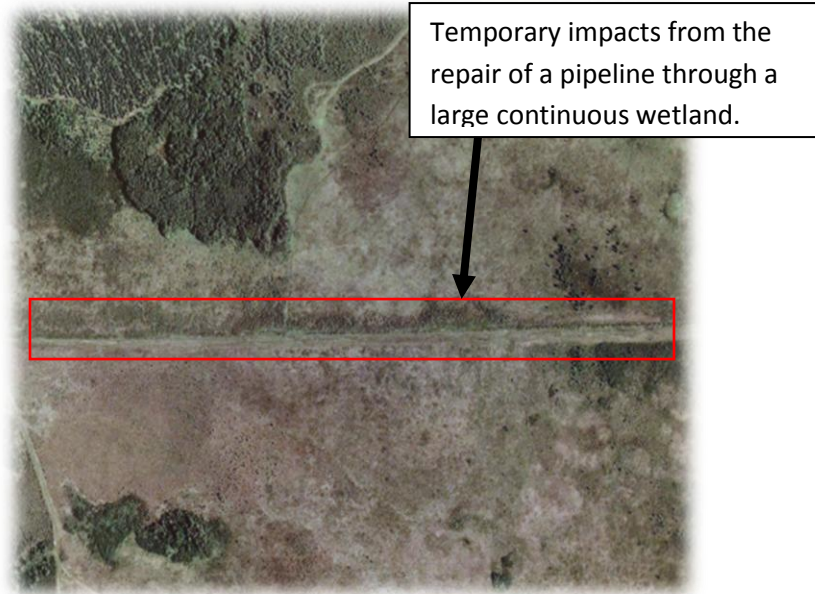
1. An activity-based WCA exemption that applies to certain wetland types regardless of the size of the wetland. For example, agricultural activities in a type 1 wetland planted with annually seeded crops six of the last ten years prior to 1991, in accordance with MN Rule 8420.0420, Subp. 2A, are exempt. In this case, once cropping history is verified for the area in question, it is usually sufficient to simply determine the wetland type. If sufficient evidence to determine wetland type is available through a Level 1 review, a site inspection may not be necessary to determine eligibility for the exemption.



2. A project in an area where uplands and wetlands are clearly distinguishable, indicators of each are readily identifiable, and the activity is located in an area that is obvious upland according to off-site resources. This type of determination must be evaluated on a case by case basis and requires experience, expertise, and knowledge of the local landscape. An example would be a project on a hill in an area with distinct upland characteristics where specific soils, topography, and other information have consistently been reliable in identifying upland and wetland areas.



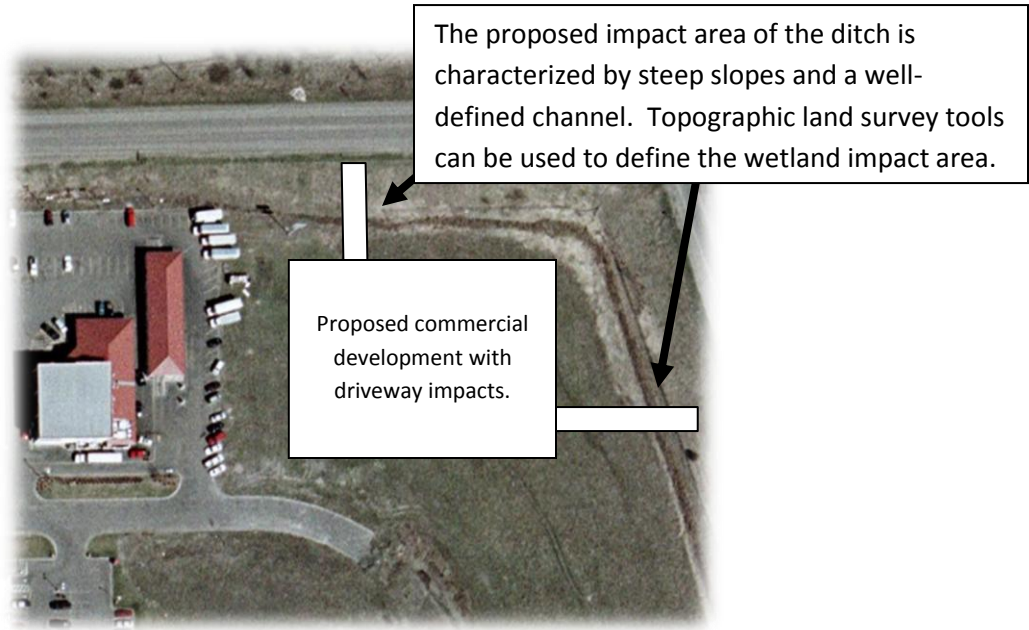
3. A project that proposes to temporarily impact a wetland and then restore it back to its original condition in accordance with WCA No-Loss criteria. In many of these cases it is only necessary to determine that the project will in fact occur in a wetland, and the characteristics of the wetland that will need to be restored. It is not necessary to define exact boundaries of the wetland if they are clearly outside the project area.



4. Similar to example 3 above, a situation where a de minimis impact is proposed and the entire footprint of the project is less than the applicable de minimis amount. For example, a road crossing through a wetland may be proposed such that the actual footprint of the road is less than the applicable de minimis amount for that location. In this case, a determination on the applicability of the de minimis exemption can be made without knowing the exact wetland boundary.



5. A situation where the wetland-upland boundary follows an obvious topographic break that has been sufficiently identified by topographic data (land survey, LiDAR). For example, a well-defined ditch through an area that was previously wetland (i.e. the side of a road) may not require intense field sampling to adequately determine the location of the wetland. In these situations it is often sufficient to characterize the typical upland-wetland transition and extrapolate it to similar areas as indicated by the topographic map or other similar type of data resource.



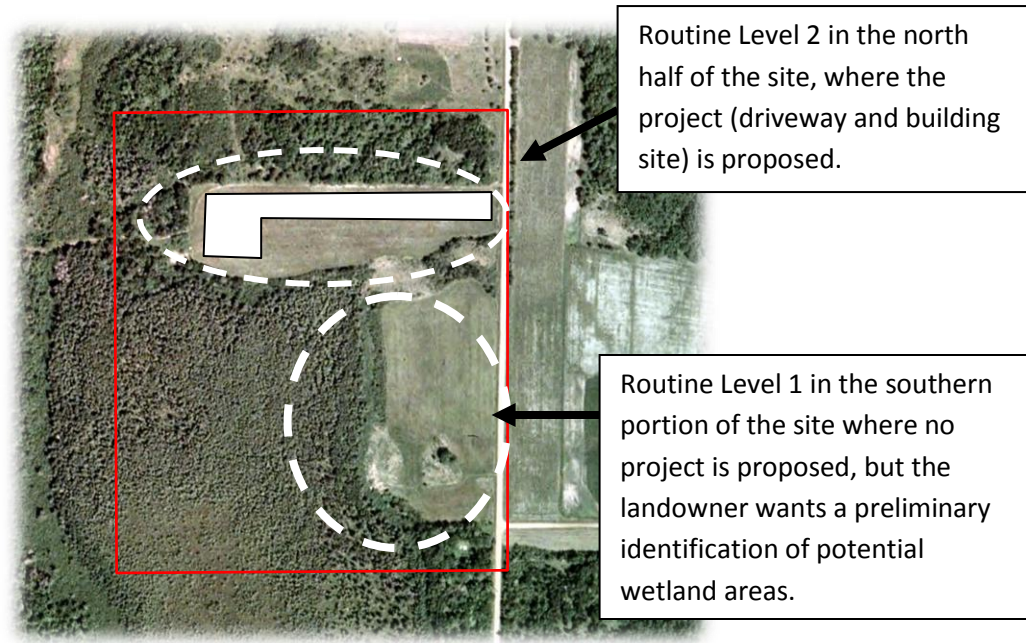
Routine Level 2: Onsite inspection necessary.

The Routine Level 2 delineation involves the onsite collection of field data and the physical marking of wetland boundaries. Level 2 is used when an accurate wetland boundary is critical for the implementation of WCA. It is used in most situations where permanent wetland impacts are proposed to occur (or potentially could occur) and wetland replacement may be required. In addition, Level 2 is often used when a landowner wants to know the land-use constraints of their property and seek assurance through a formal wetland boundary approval.



Routine Level 3: Combination of levels 1 and 2.

With the Routine Level 3 delineation, a portion of the site is delineated utilizing offsite methods while another portion is delineated utilizing onsite field data collection and the physical marking of boundaries. Level 3 could be used where exact boundaries are relevant for only a portion of the site or project, while the remainder can be assessed using offsite resources.



Comprehensive Delineations

The comprehensive delineation method should be used when the project area is very complex or when a determination requires rigorous documentation. When the comprehensive method is used, both the applicant and the Technical Evaluation Panel (TEP) should agree to the exact methodology prior to beginning the field work. Keep in mind that the comprehensive method can be used in combination with routine methods, depending on the parameter (vegetation, soils, hydrology) that requires greater documentation.

Examples where the comprehensive method may be appropriate for WCA purposes:

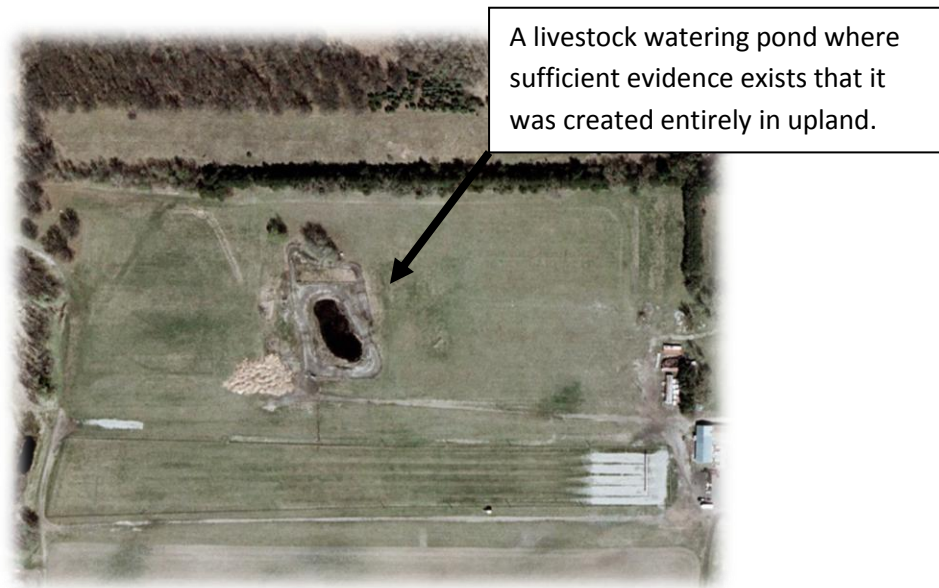
1. The applicant and TEP disagree on a routine delineation and further data collection using the routine method cannot, or could not, resolve the dispute. This could be the case with a complex site where the selection of sampling point locations has a significant influence on the result. In such instances, the comprehensive method provides a systematic approach to sampling that should reduce bias.
2. The decision or project is, or is likely to be, challenged in court. This type of situation can sometimes require more rigorous data collection and documentation to support boundary locations and other conclusions.

Delineation Unnecessary

In some instances a wetland delineation or type determination may not be necessary to ascertain the status of a piece of property or a proposed activity in relation to a specific provision in WCA rule. These instances can include activities where eligibility is based on factors such as prior land-use or specifics of the activity itself, regardless of the size or type of the wetland (i.e. if the land or activity meets the eligibility requirements of a specific WCA provision, it may not be necessary to determine if a wetland is present or not).

Examples where a wetland delineation may not be necessary:

1. Agricultural activities on land that was planted with annually seeded crops in eight out of the last ten years in accordance with MN Rule 8420.0420, Subp. 3, Item C(1). Once cropping history and eligibility for the exemption has been verified, it is typically not necessary to determine the boundary or type of potential wetlands within the area that is eligible for the exemption.
2. Activities in a potential wetland that was clearly created in upland and where sufficient evidence has been submitted or is available to document that the area is incidental and not regulated by WCA. In this case, it may not be necessary to determine the wetland boundary or type if sufficient evidence exists to verify that the entire area was created in upland and meets the WCA criteria for incidental wetlands.



3. Removal of materials (i.e. from beavers) blocking a legally installed culvert.

Summary

The following tables provide a general summary of wetland delineation method selection:

Delineation Method	Review of offsite mapping resources	Site Visit	Sampling Approach	Complete Field Data Forms	Field Staking of Wetland Boundaries
Routine Level 1	Yes	Sometimes	Offsite	No	No
Routine Level 2	Yes	Yes	Onsite, qualitative	Yes	Yes
Comprehensive	Yes	Yes	Onsite, quantitative	Yes	Yes

WCA Application Type Examples	Commonly Used Delineation Method
Temporary impact under No-Loss	Routine Level 1
Banking application: pre-application scoping	Routine Level 1
Banking application: full application	Routine Level 2
Road Program Wetland Impact Documentation—Road project through a large continuous wetland	Routine Level 1
Road Program Wetland Impact Documentation—Scattered wetlands within construction corridor	Routine Level 2
Replacement plan	Routine Level 2
Enforcement actions	Routine Level 2 or Comprehensive
Wetland boundary approval (no project application)	Routine Level 2
Agricultural exemption determination (8420.0420, Subpart 2A)	Routine Level 1

In all cases, the selection of the appropriate delineation method and level should be coordinated between the applicant and the WCA local government unit or TEP. The need for a delineation, and the appropriate method/level, depends on the amount of specificity and documentation necessary to achieve the purpose of the project and make a decision on the activity or request in relation to WCA. Regardless of the method or level used, the delineation results should include a description of techniques, materials utilized, and a basis for the determination made. As with many aspects of the 87 Manual, common sense and good judgment is essential.

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This document is available on the BWSR website and may be revised periodically. Check the website for the most current version. www.bwsr.state.mn.us/wetlands

Contact your Local Government Unit or BWSR Wetland Specialist for additional information.