

Wetland Conservation Act (WCA) Topic of the Week

Ditches, Drainage Projects, and WCA

November 12, 2020

WCA topics of the week are a series of informal fact sheets that provide practical information on WCA program implementation in a question and answer format. They are intended to better clarify and summarize certain aspects of WCA implementation and should be considered as supplemental to WCA statutes, rules and any associated BWSR guidance and policy. Information in these fact sheets are subject to change over time.

Question: Are ditches regulated by WCA?

Answer: It depends. Many ditches in Minnesota were constructed through wetlands. Wetlands may persist in and around the ditches (although now hydrologically altered), or they may have been eliminated by drainage caused by the ditch. In the latter, the ditch is the only remnant of the former wetland. In the former, the ditch is just a deeper portion of the surrounding and remaining wetland. In either case, the ditch itself is subject to wetland regulations unless it is too deep to be a wetland (~6.6 -foot average water depth), the flow is consistent with a stream instead of a wetland (i.e. perennial flow, pool-riffle complexes, other stream characteristics), or the ditch was constructed in a natural upland area.

Question: How does WCA regulate ditch maintenance?

Answer: Wetland fill, excavation (in certain wetland types), and drainage are wetland impacts. Most drainage maintenance projects involve one or more of these activities and are thus subject to WCA regulation. However, WCA has a specific drainage exemption that allows for certain types of wetland impacts to occur as part of a drainage maintenance project without requiring wetland replacement. The specific qualifications for this exemption are complex and depend on a number of factors including public vs private drainage systems, cropping/seeding history of affected wetlands, historical status of affected wetland, public drainage system expenditures, etc. The appendix includes a series of yes/no questions to help explain and sort through qualification for this complex exemption.

Question: How are wetland impacts evaluated for drainage projects?

Answer: Wetland fill and excavation impacts are determined by quantifying the areal extent (acreage or square footage) of proposed fill and excavation activities in wetlands. Drainage impacts are more difficult to assess because they extend beyond the footprint of the ditch/tile being installed, maintained, or improved. For confined wetland basins where water levels are controlled by an outlet, lowering of the outlet typically results in full or partial drainage of the entire basin. In other situations, drainage manipulations may only affect a portion of the wetland. Drainage affects vary by soil type, soil structure, soil profile, water source, and a number of other factors that are difficult to quantify. Regulatory reviewers often use *lateral effect* or *scope and effect* tables of setback distances to estimate drainage impacts. BWSR has guidance and links to tables on their website [here](#).

Question: Is indirect drainage of wetlands considered an impact?

Answer: Yes. Drainage projects may divert water away from downstream wetlands and result in reducing hydrology over time. This is considered an indirect drainage impact and possibly subject to WCA wetland replacement requirements. Assessing these type of impacts can be difficult and generally involve the following considerations:

- Pre vs post project watershed drainage area of wetland
- Relative contribution of surface versus groundwater to wetland's hydrology
- Sensitivity to changes in hydrology, primarily related to wetland type and other characteristics
- Quality of wetland

These considerations are used to assess: 1) if the wetland will likely experience hydrologic modification; 2) if the hydrologic modification will result in a significant loss of wetland quantity, quality, or biological diversity; and 3) if the wetland will be partially drained or fully drained (i.e. no longer have wetland hydrology).

Question: What if a project results in a reduction in wetland hydrology, but there will still be enough hydrology for it to be considered wetland?

Answer: This is referred to as a wetland impact due to partial drainage. Wetlands that are partially drained may require replacement. However, the amount of replacement required can be anywhere from full replacement (i.e. the same as that for fully drained wetlands) to half that amount. For example, a 1-acre wetland that is partially drained in an area of the state with a 2:1 replacement ratio could have a replacement requirement as low as 1:1, but no lower. The exact amount of replacement for partial drainage impacts within these limits is determined by the WCA Technical Evaluation Panel (TEP) based on their assessment of lost functions and public value due to the impact. The quality, type, and position of the wetland in the landscape influences this determination.

Question: What is the best approach to assessing proposed drainage projects for WCA?

Answer: The following stepwise, general approach is recommended for assessing drainage projects:

1. Discuss project objectives, requirements, and intentions at a pre-application meeting with the WCA TEP and/or Local Government Unit (LGU).
2. Determine if there are wetlands or potential wetlands in or near the proposed project.
3. Determine the type of wetlands and quantify the amount of fill, excavation, and drainage impacts by wetland type (Circular 39 type) per the WCA definition of a wetland impact.
4. Determine if the drainage exemption applies to the identified impacts (see appendix).
5. Determine if any other WCA exemptions or no-loss provisions apply.
6. If no exemptions or no-loss provisions apply, calculate replacement requirements and proceed with replacement plan application.

Appendix – WCA Drainage Exemption Qualification Worksheet¹

1. Yes No Is the project a maintenance and/or repair of an existing drainage ditch/system? If **no**, the drainage exemption **does not apply**. If **yes**, **proceed to 2**.
2. Yes No Are project impacts on wetlands limited to the drainage of wetlands on agricultural land where wetlands have been annually seeded in crops (or in a crop rotation) 8 of the last 10 years and/or are enrolled in a state or federal land conservation program that met the 8 of 10 requirement prior to enrollment? If **yes**, **drainage exemption applies**. If **no**, **proceed to 3**.
3. Yes No Are project impacts on wetlands limited to one or more of the following: **a)** the drainage of wetlands as described in 2 above; **b)** Type 1 wetlands; and **c)** up to 5 acres Type 2 or 6 wetlands in an unincorporated area where drainage benefits for a public drainage system have been assessed on the land where all of the impacted wetlands are located? If **yes**, **proceed to 4**. If **no**, **proceed to 6**.
4. Yes No Do any of the following apply to the applicable public drainage system: **a)** there was an expenditure from the public drainage system account from 1/1/1972 to 1/1/1992; **b)** the public drainage system was repaired/maintained as approved by the drainage authority; or **c)** the public drainage authority made a determination that no repair or maintenance of the public drainage system was required under Minnesota Statutes, section 103E.705, subdivision 1? If **yes**, **proceed to 5**. If **no**, **proceed to 6**.
5. Yes No Will the drained wetlands be converted to platted lots or other residential (more than one unit per 40 acres except for zoning that allows family members an additional residence on the same 40 acres), commercial, or industrial development? If **no**, **drainage exemption applies**. If **yes**, **proceed to 6**.
6. Yes No Is the project being conducted or authorized by a public drainage authority under Minnesota Statutes, chapter 103E (Drainage Law)? If **yes**, **proceed to 7**. If **no**, **proceed to 8**.
7. Yes No Will the project drain any type 3, 4, or 5 wetlands that have existed for more than 25 years before the proposed impact? If **yes**, **drainage exemption does not apply**. If **no**, **drainage exemption applies**.
8. Yes No Will the project drain wetlands that have existed for more than 25 years before the proposed impact? If **yes**, **drainage exemption does not apply**. If **no**, **drainage exemption applies**.

¹ This only applies to qualification for the WCA drainage exemption. This does not address qualification for other WCA exemptions or no-loss provisions that may apply to a project.