

# Ditch Maintenance

## Best Management Practices (BMPs)

(11/2018)



The Wisconsin Department of Natural Resources (WDNR) appreciates the opportunity to work with municipalities on road improvement projects. Ditch creation and maintenance is an important component of road improvement projects. The best management practices outlined below will aid municipalities in completing these projects.

Ditching, the removal of accumulated sediment to the original construction configuration, is a basic maintenance procedure, provided the best management practices to protect water quality are followed. However, creating or deepening existing ditches in wetlands may cause negative water quality impacts and result in costly road maintenance and safety concerns in certain situations.

Please contact the [WDNR Transportation Liaison](https://dnr.wi.gov/topic/Sectors/documents/transportation/Liaisons.pdf) for your county (<https://dnr.wi.gov/topic/Sectors/documents/transportation/Liaisons.pdf>) before working in ditches.

### Ditch Maintenance:

*If you are proposing to change the depth, width, or direction of flow in an existing ditch through or near a wetland, please contact the [WDNR Transportation Liaison](https://dnr.wi.gov/topic/Sectors/documents/transportation/Liaisons.pdf) for your area.*

- ❖ Work should take place during dry conditions, whenever possible.
- ❖ A municipality can remove accumulated sediment or vegetation from a ditch provided the materials removed are deposited in an upland (non-wetland) area.
- ❖ Maintenance equipment should not be operated in wetland areas. Ditch cleaning should be done with a back-hoe from the road to avoid compaction of wetland soils.
- ❖ The ditch dimensions cannot be greatly altered by ditch maintenance activities. Please check the size and elevations of the ditch prior to maintenance.



**Ditch Creation:** *If you are planning on creating a new ditch in wetland, you must coordinate with your WDNR Transportation Liaison prior to starting this operation for necessary permits or approval.*

- Ditching in a wetland could severely alter the hydrology of the wetland resulting in a loss of wetland functions and values.
- Ditching in a wetland will not take water away from the road, it will just create a place for more water to gather next to the road.

### Sometimes a ditch, isn't a ditch!

Often in Wisconsin, natural streams travel along roads and are not ditches at all. It is important to contact the [WDNR Transportation Liaison](https://dnr.wi.gov/topic/Sectors/documents/transportation/Liaisons.pdf) for your area to determine if the area next to your roadway is a wetland or waterway before doing any maintenance work. For any work in ditches, check out the [NHI Public Portal](https://dnr.wi.gov/topic/erreview/publicportal.html) (<https://dnr.wi.gov/topic/erreview/publicportal.html>) to determine if your project might impact endangered resources.



## Road improvements in wetland areas can minimize the need for ditching

Note that some of these options may require a [WDNR](#) or USACE permit approval.

- Install equalizer pipes (cross drainage culverts) to distribute the water evenly along the road corridor.
- Raise the road elevation or improving the road base.
- Reduce potential beaver problems by using equalizer pipes with beveled edges, installing end grates, and cleaning culverts frequently.

## Erosion Control BMPs (NR 151.225)

([https://docs.legis.wisconsin.gov/code/admin\\_code/nr/100/151/IV/225](https://docs.legis.wisconsin.gov/code/admin_code/nr/100/151/IV/225))

Wisconsin Administrative Code NR 151.225 describes erosion control BMPs required to protect waterways and wetland from excessive sediment deposition during and after construction. Transportation facility authorities are required to maintain erosion and sediment control practices at each site where land disturbing construction activity is to occur and prevent or reduce all of the following (**from NR151.225(3)**):

*(a) The deposition of soil from being tracked onto streets by vehicles.*

*(b) The discharge of sediment from disturbed areas into on-site storm water inlets.*

*(c) The discharge of sediment from disturbed areas into adjacent waters of the state.*

*(d) The discharge of sediment from drainage ways that flow off the site.*

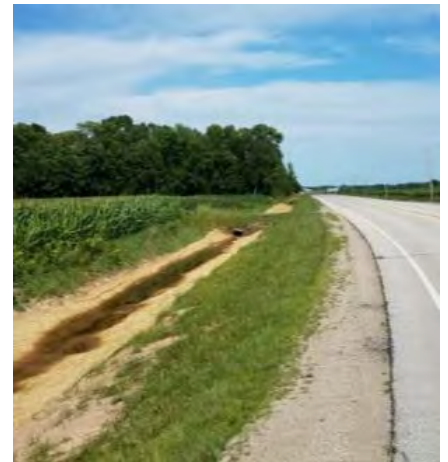
*(e) The discharge of sediment by dewatering activities.*

*(f) The discharge of sediment eroding from soil stockpiles existing for more than 7 days.*

*(g) The transport by runoff into waters of the state of chemicals, cement and other building compounds and materials on the construction site during the construction period. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this paragraph.*



**BMPs** shall be located so that treatment occurs before runoff enters waters of the state. The BMPs used to comply with this section shall be implemented as follows (**from NR151.225(5)**):



*(a) Erosion and sediment control practices shall be constructed or installed before land disturbing construction activities begin.*

*(b) Erosion and sediment control practices shall be maintained until final stabilization.*

*(c) Final stabilization activity shall commence when land disturbing activities cease and final grade has been reached on any portion of the site.*

*(d) Temporary stabilization activity shall commence when land disturbing construction activities have temporarily ceased and will not resume for a period exceeding 14 calendar days.*

*(e) BMPs that are no longer necessary for erosion and sediment control shall be removed by the responsible party.*