

# SURFACE WATERS Factor Sheet

06-10-2019

Wisconsin Department of Transportation

|                     |   |                    |
|---------------------|---|--------------------|
| <b>Alternative:</b> | <b>Preferred:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None identified | <b>Project ID:</b> |
|---------------------|---|--------------------|

Surface water resources include rivers, streams, lakes, ponds, impoundments, flowages and other open water bodies.

A separate Factor Sheet may need to be completed for each alternative carried forward for detailed analysis. In some instances, it may be reasonable to have a separate Factor Sheet completed for each alternative carried forward for detailed analysis for each surface water potentially impacted. In other instances, it may make sense to discuss all surface waters potentially impacted on a single Factor Sheet if potential impacts are identical between alternatives. Define the approach in the Alternative box above.

When applicable, the information on this Factor Sheet should be consistent with the Environmental Document Template, the Section 4(f), Community, Section 6(f) or Other Special Funding, Environmental Justice, Wetlands, Erosion Control, Stormwater and Threatened and Endangered Factor Sheets. Additionally, Habitat and Tribal Factors may need to be addressed on the Other Factor Sheet. Discussion of indirect or cumulative impacts should also be reflected in the indirect impacts and cumulative impacts discussion in the environmental document.

Resources: Consult your Region Environmental Coordinator (REC) or the Bureau of Technical Services-Environmental Services Section (BTS-ESS) for additional guidance.

- See FDM Procedure 24-5-5 for general guidance: <https://wisconsindot.gov/rdwy/fdm/fd-24-05.pdf#fd24-5-5>
- DNR's Surface Water Data Viewer (SWDV) is another useful tool for identifying and characterizing lakes, rivers, wetlands and other water bodies: <https://dnr.wi.gov/topic/surfacewater/swdv/>

Certain waterbodies in Wisconsin have special classifications and additional protections:

- Outstanding resource waters (ORW) – NR 102.10
- Exceptional resource waters (ERW) – NR 102.11
- Great Lakes systems – NR 102.12(1)
- Fish and aquatic life waters – NR 102.13
- Certain intrastate waters – NR 104, Tables 3-8

Resources:

- DNR Rivers and Streams: <https://dnr.wi.gov/topic/Rivers/>
- DNR trout stream classifications: <https://dnr.wi.gov/topic/fishing/trout/streamclassification.html>

## 1. Waterbody name:

Resource may not be named (i.e. classified as "unnamed").

## 2. Location of waterbody:

Section-Township-Range:

Municipality Name:

For a large water body, provide location(s) where it contacts the project.

## 3. Waterbody type (check all that apply):

- Lake
- Pond
- Impoundment or flowage
- River or Stream
  - Warm water
  - Cold water, if trout stream, identify trout stream classification:
  - Wild and scenic river
  - Outstanding resource water (ORW), per NR 102.10, describe:
  - Exceptional resource water (ERW), per NR 102.11, describe:

Other, describe:

Water body type is often determined by the resource's name (e.g. Lost Lake, Little Eau Pleine Flowage, Cedarburg Bog, Wisconsin River, etc.). However, the name may mischaracterize the resource (e.g. Lake Wisconsin is classified as a flowage by DNR). Refer to the water body type classification on DNR's Find a Lake website (see above under Resources).

The "other" category may include open water wetlands or marshes, or other unclassified fish and aquatic life waters as defined in NR 102.13. Bogs or other open water wetlands should also be documented on the Wetland Factor Sheet.

The type should be in the initial DNR project review letter.

**4. Watershed name:            Size:            (square miles)**

Identify the most relevant watershed based on the scale, context and intensity of your project.

DNR defines watershed as the entire region contributing runoff or surface water to a watercourse or body of water.

Resources to find watershed name and size include:

<https://dnr.wi.gov/topic/watersheds/> - DNR Watersheds and Basins

<https://water.usgs.gov/wsc/index.html> - Locate Your Watershed by Hydrologic Unit Code (HUC)

**5. Hydrologic characteristics:**

Permanent (year-round)

Temporary (wet part of year)

This may be easy to determine from aerial photographs or a USGS map for some resources. This information may be available on the DNR's Find a Lake website (see above under Resources). Your REC or DNR liaison are also useful resources for completing this question.

**6. Waterbody characteristics:**

A. Substrate:

Sand

Silt

Clay

Cobbles

Other, describe:

B. Area of water body (for lakes):            acres

C. Average water depth:            feet

D. Vegetation in waterbody:

Absent

Present, if known, describe:

This information may be apparent during project field review or found using the above Resources. Your REC or DNR liaison are useful sources of information for completing this question.

If vegetation is present in the waterbody, at a minimum describe:

- General vegetation characteristics: emergent, submerged, floating or a combination;
- Dominant species, if known
- Invasive species concerns, if known.

E. Identify aquatic organisms or water-dependent species observed or expected:

Aquatic organisms include more than just fish. They may include water-dependent mammals (e.g. muskrat and beaver), amphibians (e.g. frogs, toads and newts), reptiles (e.g. turtles), crustaceans (e.g. crayfish), mollusks (e.g. clams), insects and plants.

List common and/or dominant species observed or expected. If species are not known, describe types of species that may inhabit the waterbody (example: fish, emergent plants, turtles, frogs, etc.). Information may be available on DNR's Surface Water Data Viewer (link provided above, under Resources).

F. Summarize water quality data, if available:

Availability of water quality data varies considerably. Some waterbodies have been researched extensively and have abundant information available, while others have little or no research or water quality data available.

Summary may include:

- General water quality, based on existing assessments and data
- Specific water quality concerns (e.g. observed or expected pollutants, impairments, dissolved oxygen levels, trophic state, etc.)
- Research conducted to date. Reference dates and scope of previous research efforts (if available), including where additional information can be found.

G. Is this waterbody on the DNR's "Impaired Waters" list?

- No  
 Yes, describe:

See DNR's Impaired Waters website: <https://dnr.wi.gov/topic/impairdwaters/>.

**7. Describe land adjacent to waterbody:**

Describe dominant and/or common land uses, including notable features (e.g. state natural area, large developments, parks, urban area, etc.).

**8. Describe proposed work in, over, or adjacent to the waterbody:**

**9. Discuss physical impacts to the waterbody during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the lake or water body:**

Discussion should identify any filling, dredging or other direct impacts to the water body that are anticipated as a result of the project.

**10. Discuss probable impacts to water quality during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the waterbody:**

Discussion should identify anticipated impacts to water quality, and/or plants and animals that may result from the project during or after construction.

Impacts may include (this is not a comprehensive list):

- Temporary removal of vegetation
- Permanent and direct impacts from placing fill material or riprap in and around the river or stream
- Temporary impacts from causeways, temporary bridges, etc.
- Increased turbidity or sedimentation

Discussion should identify anticipated impacts to water quality, and/or plants and animals that may result from the project during or after construction. Consider whether the impacted resources, such as wild rice, cranberries or fisheries, are used for sustenance or food by local communities or groups.

**11. Describe coordination with the public, municipalities and state and federal agencies concerning waterbodies:**

Coordination concerning lakes or other open water bodies should be discussed here. Examples may include DNR, USACE, US Coast Guard (USCG), the public, lake associations, etc.

**12. Are measures proposed to avoid, minimize, or compensate for impacts:**

- No

Yes, describe:

Examples may include navigation or recreational issues, construction windows, in waterbody work windows, wildlife accommodations, or others identified in the DNR Initial Comments letter.

**13. Are measures proposed to enhance beneficial effects:**

No

Yes, describe:

This question is meant to document measures proposed to enhance beneficial effects. Beneficial measures may include habitat enhancements, like habitat or fish passage improvements, or erosion control or stormwater measures designed to prevent impacts to waterbodies.

All environmental commitments made to avoid, minimize or compensate for impacts must be listed in Question 23 of the ER and EA Template, Section 5 of the PCE Template or Question XII of the CEC Template.