



# THIRD PARTY ORDINARY HIGH WATER MARK DETERMINATION DATA COLLECTION PROCEDURE

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**Disclaimer:** *This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.*

**Notice:** Collection of this information is authorized under ch. 30, Wis Stats and ch. NR 300, Wis. Admin. Code. See ss. 30.10, 30.102, 30.28(1m), Wis. Stats.; s. NR 300.17, Wis. Admin. Code. The Department of Natural Resources has the authority to make waterway jurisdictional determinations. This procedure can be used by any third party to provide information to the DNR to help make an Ordinary High Water Mark Determination. DNR will use information gathered using this procedure to make jurisdictional determinations if the information provided is true, accurate and complete.

## Overview of Third-Party Ordinary High Water Mark (OHWM) Data Collection and DNR Concurrence Request Steps

**Step 1:** Identify the project location and gather desktop data.

**Step 2:** Document your desktop findings using the Ordinary High Water Mark (OHWM) Determination Data Form ([DNR Form 3500-138](#))

**Step 3:** Gather field information from the project location and document findings in the OHWM Determination Data Form

Physical characteristics observation and documentation

Biological characteristics observation and documentation

Other site factors of influence observation and documentation

OHWM survey data

**Step 4:** Make a preliminary determination and submit your completed OHWM Determination Data Form to the DNR for review and concurrence



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**Preface:** Public waters subject to state public trust responsibilities are those waterways (e.g., lakes, ponds, flowages, rivers, streams and associated enlargements) declared navigable under s. 30.10, Wis. Stats. Under article IX, section 1 of the Wisconsin Constitution, these public waters are held in trust by the state for the benefit of all its citizens. Wis. Const. art. IX, s. 1; see, e.g., *State v. Deetz*, 66 Wis. 2d 1, 11, 224 N.W.2d 407 (1974).

**What is the OHWM?** Navigable waterways held in trust by the state extend from the open water, landward to the ordinary high water mark (OHWM). The OHWM is the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristic. *Diana Shooting Club v. Husting*, 156 Wis. 261, 272, 145 N.W. 816 (1914).

*Note:* Wisconsin OHWM definitions may vary from Federal OHWM definitions. For projects subject to Federal jurisdiction, validation of the OHWM with a wetland and waterway delineator following the [Corps 1987 Wetland Delineation Manual](#) and associated [Corps OHWM determination guidance](#) may be required. Contact your Army Corps of Engineers representative for more information.

**Limitations of Confirmation Service:** The Third-Party OHWM Confirmation Service is intended to establish jurisdiction for projects regulated under ch. 30, Wis. Stats. While the field procedure for identifying the OHWM is consistent with the procedure for determining the OHWM for shoreland setback purposes, the DNR's third-party confirmation service is not available for those projects. Applicants seeking information concerning the location of the OHWM for shoreland zoning/setback purposes should work with their local regulatory authority (Village, City, County). Local regulatory authorities are responsible for determining jurisdiction for administration of their respective local ordinances and the local requirements therein.

## Step 1: Identify the project location and gather desktop data

Desktop data collection can help support OHWM decision making. The DNR considers desktop data in making a final decision. You may include desktop-collected data such as:

- Public Land Survey System (PLSS) data, Latitude/Longitude coordinates, address information
- labeled diagram photos
- historical aerial photos
- U.S. Geological Survey (USGS) topographic maps
- Light Detection and Ranging (LiDAR)/Hillshade topographic maps
- Wisconsin Public Land Survey Records
- Previous Ordinary High Water Mark determination information

The above is not an all-inclusive list and other data sources may also be considered. This data can be recorded on the Ordinary High Water Mark Data Form in the "Additional Desktop Data Collection" section located at the end of the form.



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## **Step 2: Document your findings using the Ordinary High Water Mark Data Form** ([DNR Form 3500-138](#))

Your report should include the following components:

- Landowner and site location information
- Narrative describing purpose for determination
- Bank and water level data
- Desktop data reviewed and summary of the information, including attachments of site maps, aerial photos, survey data if applicable, etc.
- Site photos, including up-close and distant images of the waterway and all relevant indicators for making an OHWM determination. Include an item of known size, such as a tape measure, for scale reference in photos.
- If survey equipment is used, include the elevation and datum that is tied to the OHWM and provide a map of the survey if completed.

## **Step 3: Field Data Collection and Narrative**

For the section of the OHWM Determination Data Form labeled “Field Data Documentation”, collect site data under each of the following four categories: Physical Characteristics, Biological Characteristics, Other Factors, and OHWM Survey Data (optional). Document observations with site photos clearly depicting pertinent factors used in review. It is important to consider information from each of these categories when determining an OHWM. Note that some of these indicators may not be present, some indicators may be weighed more heavily than others, and in some circumstances, there may be conflicting indicators.

### **Physical Characteristics (section 1 of form)**

The following list of physical indicators may be considered in a determination; however, this is not an all-inclusive list of physical indicators:

- Ice scars or berms
- Wave erosion, scouring of a bank, or bank undercutting
- Mud stains, water stains, or debris lines
- Soil leach marks (leaching in soil horizon), changes in soil texture and color, or peaty or mucky, gleyed soils are all indicators of inundation to water.
- Changes in soil type (e.g., a transition from organic topsoil overlying mineral soils to unconsolidated parent material like sand, rock, clays, or mucks often indicates a transition from above to below the OHWM).
- Sediment sorting, exposed roots, and matted/damaged vegetation

### **Biological Characteristics (section 2 of form)**

To recognize biological characteristics, it may be easiest to first identify mature woody terrestrial vegetation and work your way waterward. As you progress waterward, you will likely find transitional plants (i.e., plants found above and below the OHWM) and aquatic vegetation (i.e., plants almost always found below the OHWM). Observations about the OHWM can be made by identifying characteristic vegetation, including:

- Transition from open water to woody or terrestrial vegetation as elevation above water surface increases



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- Mosses or lichen – may occur near the water’s edge and are easily destructible by persistent water action. Areas with abundant mosses or lichen are likely above the OHWM.
- Horizontal tree root – typically occurs at or just above the OHWM, resulting from persistent woody vegetation’s low tolerance to long-term water inundation.
- Buttressing roots – A biological adaptation for woody vegetation that is more tolerant of wet conditions, often corresponds to shallow rooted woody vegetation in saturated or semi-saturated soils and may be an indication that the vegetation is growing near the location of the OHWM.
- Cattail mats – frequently grow below the OHWM
- Algae stain lines – occur at an elevation that recent water levels have achieved. Not typically a persistent indicator.
- Aquatic vegetation – emergent and submerged aquatic vegetation typically occurs below the OHWM.
- Floating bogs – complexes of more water-tolerant species occurring together as a floating mat of organic material and vegetation, which are often located below the OHWM.

Note: There are various names for vegetation types located below the ordinary high water mark such as bogs, vegetated lake or stream beds, or wetlands below the OHWM. It is important to note that the land between the water’s edge and the OHWM does not need to have continuous open-water to be considered part of the lake or stream bed. There may be areas below the OHWM where the lake or stream bed is exposed.

### **Other Factors (section 3 of form)**

Site specific factors can influence an OHWM determination. There may be site specific conditions that make it difficult to observe clear indicators and make an OHWM determination. Site specific factors to consider may include but are not limited to the following:

- The presence of human structures in the waterway or along the bank (piers or erosion control structures) or persistent bank disturbance (e.g., agricultural disturbance) can influence how water-based erosive energy acts along a particular shoreline, and thus may be relevant to an OHWM determination.
- The configuration of the shoreline can influence an OHWM determination. Headland points which are more exposed to wave energy than sheltered bays or coves will tend to have an OHWM that is higher in elevation than more protected areas.
- Shoreland wetlands - vegetation along the shoreline can sometimes make OHWM determinations challenging. Shorelines with gradual slopes from uplands to wetlands to open water, or shorelines where floating bogs or dense emergent aquatic vegetation are present can make traditional physical indicators difficult to identify since the erosive energy of the water is moderated by the dense vegetation.
- Water levels - unusually high or low water levels can mask indicators typically used for OHWM determinations. If flooded conditions are present such that the OHWM is underwater, you may not be able to collect the necessary data and may need to return once the water levels recede. Conversely, if water levels are low, there may be substantial areas of exposed lake or stream beds which may start to grow early successional upland vegetation if low water persists. These circumstances can make identifying the OHWM more challenging. It is worth noting that the area below the OHWM need not be navigable-in-fact to be considered part of the lake or stream bed (State v. Trudeau, 139 Wis. 2d 91, 103, 408 N.W.2d 337 (1987))
- Weather conditions can affect the ability to identify OHWM indicators. Snow and ice cover can obscure indicators. Additionally, windy conditions can generate excessive wave energy which can make water level observations difficult, especially on larger waterbodies.



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If it is anticipated that site specific factors are present that may make it difficult to determine the OHWM on the subject property, those factors should be documented in this section.

### **OHWM Survey Data (section 4 of the form)**

Physical and biological characteristics identified or observed at the site in question are important factors for determining the OHWM. It is important to note that the location of these indicators can be tied to an elevation; however, the OHWM itself is not a set elevation and is likely to vary in elevation from site to site, and may differ across the same property.

In some cases where clear indicators are obscured (e.g., expansive shoreland wetlands, exposed beaches, substantial human modification), it may be appropriate to observe the OHWM at an adjacent site where indicators are clear, document the elevation of those clear indicators, and transfer that elevation to the subject property where indicators are more difficult to observe.

To establish an OHWM where a floating bog is present along the shoreline:

When transferring the elevation of OHWM indicators at an adjacent site back to the bog complex, the following process should be used. First, determine whether the bog is floating or anchored and then probe through the bog in search of terra firma, which generally includes sand, densely compacted peat, or muck. Take note of the distance between terra firma and the lowest point on the surface. When measuring water levels within the bog, stand as far as possible away from the stadia rod to avoid false water level elevations that can be created by your weight while standing next to the rod. Surface elevation on the bog mat should be taken at the lowest level since the vegetative surface of the bog is undulating. Continue this process in a landward direction until you have come to the point where the elevation of terra firma and the water level elevation are relatively the same. Substantiate your determination with the vegetation. One reason for documenting terra firma is to ensure that the contour of the substrate is below the OHWM. This will also help corroborate that the hydrophytic vegetation present is associated with the waterbody and not groundwater.

If you have an exposed shoreline lacking a bog complex in front of it, that will be the general location to select your OHWM. Certain site-specific circumstances may require you to locate OHWM indicators off site and transfer that elevation to the desired location with the use of surveying equipment. Remember that the elevation of OHWM indicators may be transferred from one site to another to help determine the OHWM. *State v. McDonald Lumber Co., Inc.*, 18 Wis.2d 173 (1962). Remember when transferring the elevation of OHWM indicators, if using a lake, to avoid the use of the lake's surface water elevation as a turning point unless you know weather patterns are relatively stable and your survey will take a short period of time to complete (less than one hour).



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**Step 4:** Make a preliminary determination and submit your OHWB Determination Data Form to the DNR for review and concurrence.

OHWB Determination Data Forms or preliminary reports can be submitted to local DNR Water Management Specialists for review by submitting all required information through the DNR's E-permitting system at <https://dnr.wisconsin.gov/permits/water>. Should you have questions, you can find your local Water Management Specialist at <https://dnr.wisconsin.gov/topic/Waterways/contacts.html>.

Upon receipt of a complete OHWB determination confirmation request, DNR staff will evaluate the information provided and respond within 30 days of receipt. At such time, the DNR may concur with the preliminary determination, request additional information in support of the preliminary determination, or not concur with the preliminary determination. The DNR will provide a response in writing and, if applicable, will clearly explain the additional information needed for review or the reason for not concurring with the preliminary determination.

Other useful references:

[OHWM Fact Sheet](#)

[OHWM website](#)

E-permitting: <https://dnr.wisconsin.gov/permits/water>