



Fact Sheet

STATE OF WISCONSIN • DEPARTMENT OF NATURAL RESOURCES
BUREAU OF WATERSHED MANAGEMENT

DAM ABANDONMENT AND REMOVAL

There are several reasons why dam owners choose to abandon their permit for a dam and remove the structure. Most commonly, dam owners may be reluctant or unable to spend the amount of money necessary to repair and/or maintain the dam. In other cases, they have selected to remove a dam that causes a significant environmental impact or no longer serves its intended purpose.

A dam owner is not obligated to maintain the dam in perpetuity. This fact sheet provides owners with information about how to abandon the permit for a dam and the process to prepare for actual removal of the dam.

If an owner no longer wants to be responsible for a dam they have the options to abandon and remove the dam or to transfer ownership to a willing owner. While often very little interest is expressed to acquire the dam, there is frequently vocal opposition to abandonment and removal of the dam. During the decision making process, a public information hearing may help to explain the options for the dam and find a financially capable entity to accept transfer of the dam.

STATE STANDARDS

- Section 31.18 of the Wisconsin State Statutes (Wis. Stats.) provides abandonment procedures for dams authorized by Section 31.33, Wis. Stats., the Mill Dam Act, and Legislative grants.
- Section 31.185, Wis. Stats. requires a permit to abandon a dam initially authorized under Sections 31.06 or 31.08, Wis. Stats. This includes a public notice and hearing, if necessary. A 120-day waiting period is provided if there is an objection to the abandonment.
- Section 31.187, Wis. Stats. provides the Department with authority to remove dams that have been “abandoned” and have no identified owner.
- Prior to removal of the dam, Section 31.253, Wis. Stats. requires a public notice and informational hearing unless it is an emergency.

DEPARTMENT CONSIDERATIONS

The Department’s specific statutory standards to consider include the following:

- ***Protection and preservation of public rights in navigable waters***

The public has a right to wade, swim, fish, boat, enjoy scenic beauty, and all other incidents of navigation.

At a minimum, protection of these rights requires removal of all structures below the Ordinary High Water Mark (OHWM) before the dam was in place. The Department’s general policy requires the removal of all structures regardless of whether they were originally below the OHWM.

- **Promote Safety** (only in Section 31.185, Wis. Stats.)

As many hazardous or attractive nuisances as possible should be eliminated from any remaining structures. If a structure cannot be made safe, it should be removed regardless of impact to flood flows or its relationship to the river. Excessively steep slopes should either be flattened or fenced and signed. The profile of the stream bed should be considered and its danger to all users assessed.

- **Protection and preservation of life, health and property**

Some of the same kinds of concerns listed above should be considered under this standard. In addition, the effect any remaining structures will have on flood flows and the potential for downstream damage from failure during such flood flows must be assessed. If an owner wishes to retain portions of the structure, above the OHWM, the owner must show:

- The structure will cause no more than two feet of backwater during the regional flood
- The remaining structure will be stable up to and during the regional flood
- Rights to flow areas inundated by the structure during the regional flood have been retained or acquired

PREPARING A DAM ABANDONMENT AND REMOVAL APPLICATION

The Dam Abandonment and Removal Application Checklist identifies information that is required as part of a dam abandonment and removal application. The following information will be required:

- **Narrative Description, Plans and Specifications**

Detailed plans and specifications may not be needed at the beginning stages of abandonment; however, a thorough narrative description will need to be provided. Please contact the Regional Water Management Engineer to discuss. The final plans and specifications will need to be prepared by a Professional Engineer licensed in Wisconsin.

The narrative description should include the purpose of the project, the drawdown procedure to be used prior to dismantling of the dam, parts of the dam that will be removed to render it abandoned, the method by which the dam will be removed, the disposal site for the dam materials, and the stream channel and flowage bed restoration and protection needs.

When preparing the final plans, include data on a specific benchmark with a retrievable datum (e.g., “permanent” benchmark). Tie both the pre-removal and post-removal conditions to the benchmark. This may require a survey of existing and proposed conditions.

- **Hydrologic and Hydraulic Analyses**

The applicant is usually required to provide any technical hydrologic and hydraulic (H&H) analyses. It is recommended that you contact the Regional Water Management Engineer for the county in which your dam is located prior to preparing any H&H analysis. Required analyses may include the following, depending on specific circumstances:

- An estimate of the 100 year flood in accordance with the standards of NR 116.07(3)
- A profile of the regional flood, both upstream and downstream, without the dam in place

Removal of a dam may modify flood profiles both upstream and downstream. Any existing floodplain ordinance should be modified to reflect the changes.

Downstream easements for additional flooding caused by dam removal are not required before the Department allows abandonment and removal. To do so would require the owner to perpetually maintain a benefit to downstream properties.

- ***Sediment Management Plan***

The application will need to include a sediment management plan that explains existing sediment conditions, how sediment transport will be managed during removal, and how the bed will be stabilized after removal. This plan should include existing bed contours, drawdown procedure, grading proposals, seeding plan, and necessary stabilization methods.

Sediment sampling may be required. The number of samples and chemicals tested are case specific, and should be determined in consultation with the Department NR 347 Sediment Coordinator. The Regional Water Management Engineer for the county in which your dam is located can help put you in contact with the sediment coordinator. In some cases where there is no real indication that the sediment could have been contaminated, the Department may require no testing. Refer to Wisconsin Administrative Code (Wis. Admin. Code), Chapter NR 347 for specifics.

- ***Field Investigation***

If needed, the Regional Water Management Specialist may conduct a site visit to determine whether the stream is navigable or nonnavigable. Note that navigability determinations are defined by today's standards rather than at the time of original dam construction.

The Regional Water Management Engineer for the county in which your dam is located will conduct a site visit of the dam prior to approving the submittal to abandon and remove the structure. The Regional Water Management Engineer will be consider:

- Whether the removal plan is adequate based on the site and structural features of the dam
- Potential safety problems with remaining portions of the dam
- Impoundment bank features which might indicate potential erosive conditions caused by the proposed drawdown
- Sediment contamination and erosive conditions to determine adequacy of proposed restoration measures
- Impact on riparian property, existing uses and fish/aquatic life
- Future public uses (navigation and incidents thereof)
- Time limit for completion of the abandonment/removal

- ***Environmental Impact Statement***

Wisconsin Administrative Code, Chapter NR 150 identifies the abandonment of a dam as a minor action which does not require that an Environmental Impact Statement (EIS) be prepared.

AFTER THE APPLICATION HAS BEEN SUBMITTED

Once the application has been submitted, Department staff will notify the applicant whether additional information is required. Once all the information is received, the Department will provide the applicant with a "Notice of Complete Application". During the review process, Department staff may also notify the applicant if modifications are needed to the submittal.

- **Notice and Hearing Requirements**

While Sections 31.18 and 31.19, Wis. Stats. do not specifically require a hearing, Section 31.253, Wis. Stats. requires a public notice and the opportunity to request a public information hearing prior to any department action that causes the removal of an authorized dam. Section 31.185, Wis. Stats. requires a public notice and hearing under Section 31.06, Wis. Stats., if requested. A 120-day waiting period is provided if there is an objection to the abandonment.

An applicant should be prepared to submit facts at any hearing which would justify the request for abandonment, if such presentation becomes necessary by reason of opposition to the proposal as provided in Section 31.185(4), Wis. Stats.

- **Final Disposition**

Although Section 31.18, Wis. Stats. requires plan approval and Section 31.185, Wis. Stats. requires a permit, the statutory standards are almost identical. The final approval will be conditioned to ensure protection of public interests and may require:

- Removal of specified portions of the dam
- Safe and appropriate dam dismantling methods
- Proper disposal of removed materials
- Restoration of the site to a stable condition
- Measures needed to retard erosion of sediment from the new channel and exposed lakebed (above the dam) as well as techniques to trap sediment from flowing downstream if required
- Approval of a final engineering plan

The Department has been able to provide some assistance in the form of grants to many dam owners for abandonment and removal of their structures. More information on the Municipal Dam Grant and the Dam Removal Grant Programs can be found on the Department website at <http://dnr.wi.gov/topic/Dams/grants.html>

If you have questions or need further assistance with the abandonment/removal process, contact the Water Management Engineer for the county in which your dam is located (see web site below).

For more information contact:

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Visit Wisconsin Department of Natural Resources on the web @ <http://dnr.wi.gov> or the Dam Safety Program web page @ <http://dnr.wi.gov/topic/dams/>

