



WISCONSIN DEPARTMENT OF NATURAL RESOURCES NOTICE OF FINAL GUIDANCE & CERTIFICATION

Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

DOCUMENT ID

WW-19-0118-C

DOCUMENT TITLE

NEW DAM CONSTRUCTION CHECKLIST

PROGRAM/BUREAU

WATERWAYS PROGRAM

STATUTORY AUTHORITY OR LEGAL CITATION

CH. 31, WIS. STATS.

DATE SENT TO LEGISLATIVE REFERENCE BUREAU (FOR PUBLIC COMMENTS)

12/2/2019

DATE FINALIZED

12/30/19

DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

12/23/19

Signature

Date

New Dam Construction Application Instructions

The Wisconsin Department of Natural Resources helps protect your rights in public waters as well as public safety, by ensuring adequate planning and design of projects affecting fish and wildlife habitat, water quality and natural scenic beauty. This is done through permit and plan approval requirements for individual water projects. Chapters 30 and 31 of the Wisconsin Statutes require written permits for certain activities on or near a watercourse. A permit and plan approval is required for new dams on a navigable watercourse. Only a plan approval is required for new dams on a non-navigable watercourse.

Prior to applying for this permit:

- For more information, select “New dam construction” from the Dams section on the website, dnr.wi.gov/permits/water/.
- Contact your county, city, or village zoning department to find out if your project site is either in a mapped wetland or floodplain and if local zoning restrictions could affect your project.
- During the review process, the WI DNR evaluates the project plans from both an engineering perspective and the potential impacts the project will have on the watercourse. A new dam will need to be designed by a professional engineer registered in Wisconsin. WI DNR staff will also review what potential impacts the project will have on fish and wildlife, water quality, navigation, and similar interests.
- Prior to the construction of any dam, the prospective owner must demonstrate to the satisfaction of the department the ability to operate and maintain the dam for at least 10 years.

Pre-application meeting is recommended with the local Water Management Engineer and the local Water Management Specialist, and **prior** to submitting the application packet for a permit, or development of formal plans for the project.

- The meeting is to help to design an approvable project and complete your application.
- It is also suggested that U.S. Army Corps of Engineers project manager.

To apply:

- Apply online using our online ePermitting System at dnr.wi.gov/permits/water/.
- Include all required attachments. Each document must be less than 15 megabytes and our online system offers a help guide to reduce file sizes.
- Permit processing review times begin when all of the required application materials are received by the DNR. Depending on the type, complexity, and location of the proposed project, processing can take 60 working days or three months to complete a review.
- A plan approval is required for all large and small dams.
- The department may require additional information to evaluate the project.
- If you have questions regarding your application contact:
 - The local Water Management Engineer (WME) for your county, refer to dnr.wi.gov/topic/dams/regionalcontacts.html, for information about dams.
 - The local Water Management Specialist (WMS) for your county, refer to dnr.wi.gov/topic/Waterways/contacts.html for information about navigability or wetland impacts.

Public notice newspaper posting:

- As part of the permit process for dams on a navigable waterway, it is required to publish as a public notice in the local newspaper.
- The department will prepare the notice.
 - If you would like to delegate to the department the required task of publishing in the newspaper, please select and pay the additional fee.
- If requested, a **public hearing** may be required.

Recorded transfer documents:

- Once the department has issued the permit or plan approval for the project, within 30 days the applicant must:
 - Have the approval recorded with the appropriate Register of Deeds in connection with the land described.

Paper copies of application materials:

After the application has been submitted electronically, please submit three (3) hard copies of all of the required attachments, except the application fee, directly to the local Water Management Engineer. When the application has been successfully submitted, the person signing the application receives a pdf copy of the WRAPP form that was filled out electronically. Please also include a note that the application was submitted electronically.

Plans and specifications are required to be prepared and stamped under the supervision of a professional engineer registered in Wisconsin. The engineer should have experience with dam design and construction. The department reserves the right to require additional information to evaluate the project

Required attachments - Forms or documents you upload in our online ePermitting System

1. **Application form** - A complete, signed application form "Water Resources Application for Project Permits (WRAPP)" (Form 3500-053).
2. **Application fee** - Payment needs to be submitted through the ePermitting System as part of the application process. A list of fees can be found at dnr.wi.gov/topic/waterways/documents/PermitDocs/feesheet.pdf.
3. **Ownership documentation** - (i.e. copy of deed, land contract). Please verify that the property has adequate access to the dam, allows for any necessary construction or repair, and includes all land that will be flowed as a result of the dam construction.

If you do not own all the land that will be flowed up to the 100-year flood stage, you must provide a flowage and flooding easement from the affected property owner(s). Submit the names, addresses and easements for all property owners affected by the proposed impoundment. Sample flooding and flowage easements can be found at dnr.wi.gov/topic/dams/documents/SampleFloodingEasement.pdf and dnr.wi.gov/topic/dams/documents/SampleFlowageEasement.pdf. We suggest you seek the advice of legal counsel prior to using the documents.

4. **Photographs** that clearly show the on-the-ground conditions of the existing project areas. Remember that too much snow cover or vegetation may obscure important details. If possible, have another person stand near the project area for size reference. Color images are preferred. Label photos to illustrate where the dam and flowage will be located and provide difference reference points.

5. **Site maps** that clearly illustrate the location and perimeter of the project site, and its relationship to nearby water resources (e.g. lakes, rivers, streams, wetlands), major landmarks and roads. Provide copies of relevant maps (e.g. wetland, aerial, topographical, soil, floodplain, or zoning maps), with the project location clearly identified. The department offers a web mapping tool to assist in creating these maps at dnr.wi.gov/topic/surfacewater/swdv/. Include a map on a scale of not less than 4 inches to the mile; show the lands that may be affected by the repair or reconstruction of the dam. Provide copies of relevant maps (when possible) with the project area clearly identified, such as a USGS topographical map, Wisconsin Wetland Inventory map, FEMA floodplain map, NRCS soils map or a zoning map. A sample site map can be found at dam plan information requirements diagram, dnr.wi.gov/topic/Dams/Documents/DamPlanInfoReqsDiagram.pdf.

6. **Plans and specifications** that show what you intend to do. Plan drawings should be clear and to scale. Be sure to draw all plans as accurately and detailed as possible. Plans should be engineered to limit the potential liability of dam owners. The plans and specifications for both large and small dams must be prepared by a Professional Engineer registered in Wisconsin with experience in dam design and construction. The department reserves the right to require additional information to evaluate the project. Be sure to include:

- Any project design report
- Hydrologic/hydraulic analyses
- Soil borings
- Stability analyses
- Any other information used in the project design

7. **Narrative description** of your proposal on a separate page. Please include:

- What the project is, purpose of project, and need for the project.
- Information on other participants if this is a cooperative effort.
- How you intend to carry out the project, including methods, materials, and equipment.
- Your proposed construction schedule and sequence of work.
- If this information is included in the project design report with the plans and specifications, please indicate which pages the information can be found.
- Provide estimated itemized cost information for the project to confirm financial assurance. Please also refer to required item **10. Proof of Financial Responsibility** below for additional information.

Note: that any temporary coffer dams must be designed to structurally withstand at least a 10-year flood event, with or without overtopping. If a preliminary design for the coffer dams is included in this submittal, the design can be approved under the Chapter 31 plan approval, and proposed design changes by the contractor would go through a change order and plan amendment. If not included, the contractor's coffer dam design would need to be submitted for a separate Chapter 30.19 permit and prepared by a Professional Engineer registered in Wisconsin.

8. **Riparian owners list** - List the names and addresses of the adjacent property owners.

9. **New dam plan review checklist** - The designer should use the new dam plan review checklist, dnr.wi.gov/topic/Dams/Documents/DamPlanReviewChecklist.pdf, as a guide to make sure that all of the required information is addressed in the plans and specifications. Information on how to calculate the storage volume for the dam can be found at the bottom of the Dam Plan Information Requirements page, dnr.wi.gov/topic/Dams/Documents/DamPlanInfoReqsDiagram.pdf.

10. Proof of financial responsibility - Prospective new dam owners are required to demonstrate the ability to operate and maintain the dam in good condition for a period of at least 10 years.

Instructions on calculating financial capability can be found at **financial capability for dams**

dnr.wi.gov/topic/Dams/Documents/FinancialCapabilityforDams.pdf. Financial capability can be demonstrated through a number of means, including:

- Sample escrow agreement: dnr.wi.gov/topic/Dams/Documents/SampleEscrowAgreement.pdf
- Sample letter of credit: dnr.wi.gov/topic/Dams/Documents/SampleLetterofCredit.pdf
- Sample performance bond: dnr.wi.gov/topic/Dams/Documents/SamplePerformanceBond.pdf

We suggest that you seek the advice of legal counsel prior to using these documents, and that you first submit the financial responsibility calculation to the local Water Management Engineer. After the amount has been approved, then you can submit the documentation to demonstrate financial capability directly to the local Water Management Engineer.

11. Dam failure analysis - For large dams, the designer should use the dam failure analysis checklist, dnr.wi.gov/topic/Dams/Documents/DFARReviewChecklist.pdf, as a guide to make sure that all of the required information is addressed.

12. Erosion control standards - Temporary and permanent erosion control measures must exceed the stormwater management technical standards.

13. Wild rice - If any existing wild rice is known to be included within the Ceded Territory, provide a brief narrative indicating potential impacts.

14. Environmental Impact Statement (EIS) - Contact your Regional Water Management Specialist or Engineer to determine if an EIS is required.

15. Wetland permit application - If wetlands are present where any work will be done, you will also need to apply for a wetland permit. Refer to the decision module to determine which application to submit, dnr.wi.gov/topic/Waterways/construction/wetlands.html.

16. Large dams - There are numerous additional requirements for the construction of large dams. Wisconsin Administrative Code, Chapter NR 333, dnr.wi.gov/topic/Dams/Documents/nr333.pdf, and the new dam plan review checklist, dnr.wi.gov/topic/Dams/Documents/DamPlanReviewChecklist.pdf, provide criteria for the design of large dams or other dams that will likely endanger life, health, or property.

A dam is considered a **large dam** if either of the following applies:

- Has a structural height of more than six feet and a maximum storage capacity of greater than or equal to 50-acre feet; OR
- Has a structural height greater than or equal to 25 feet and a maximum storage capacity of more than 15 acre-feet.

17. Endangered and threatened resources - The applicant is not required, but is encouraged to request an endangered resources (ER) review letter before applying for the permit. Information on how to obtain a review can be found by visiting the website at dnr.wi.gov/topic/ERReview/Review.html. The applicant can also visit the NHI Public Portal, dnr.wi.gov/topic/ERReview/PublicPortal.html, to determine if a full ER Review is required. Read the 'What is an ER Preliminary Assessment and what do the results mean?' section to determine follow-up steps.

18. **Historical and cultural resources** - If you are aware there is a historical or cultural resource present, you are **required** to contact the Wisconsin State Historical Society to verify and receive documentation that the activity will not result in an adverse impact to these resources.