When proposing a wetland restoration project there are various federal and state laws, along with municipal and county ordinances, that have to be followed. Without these regulations in place to protect wetlands, many acres of wetlands in Wisconsin would have been filled. Regulation of wetlands also extends to their restoration. Permits are required for most wetland restoration activities, especially those that alter or impact a wetland or waterway including removing drainage features, diverting water, changing topography, moving soil, or other significant changes to the site.

The first step in navigating regulations is to determine which regulations apply to your situation. Once you have assessed your site and have some thoughts on your plan, contact the United States Army Corps of Engineers (USACE) staff and the Wisconsin DNR water management specialist in your county (see Appendix B). They will be able to determine which federal and state permits will be required for your project. They might also have suggestions on the design of your project that may limit the number of permits that are required. Be sure to find out how long the permit process will take and apply for all necessary permits at once. Visit your county and town offices to determine if they have additional permit requirements. Keep in mind that the more urban your county, the more likely you may need to apply for a permit that will involve a public hearing.
There are some ways you can streamline the permit process. For example, if your project is located in an agricultural setting it might qualify for one or more government wetland restoration programs such as the Conservation Reserve Program (CRP), Wetland Reserve Program (WRP), or Partners for Wildlife. In addition, private organizations like the Wisconsin Waterfowl Association or Ducks Unlimited may have wetland restoration efforts in your area that you may qualify for. Please see Chapter 8 for a discussion of these different programs. If you are accepted into any of these programs part of the technical assistance you will get with your project will include facilitation with acquiring necessary permits.

Later in this chapter you will find a section on the Wisconsin administrative code entitled NR 353 “Wetland Conservation Activities”. This rule was developed to specifically streamline the regulatory process for wetland restoration activities. Consequently, if you do all you can to fit within the conditions of NR 353, the permit process for your project will be simpler and faster. If your project only involves maintenance of an existing project, you may find that your site can be managed under the “grandfather” provisions of NR 353. If you proceed in restoring your wetland before securing the necessary permits, you might be found to be in violation of wetland regulations. The consequences of illegal wetland activities could be severe, possibly including fines or restoration of the site to pre-disturbance conditions.

Section 404 of the Clean Water Act

The Section 404 permitting program is the primary federal program governing activities in wetlands. This program aims at minimizing adverse impacts to waters of the United States (including wetlands) and regulates filling, grading, and other land disturbing activities in those areas. The USACE is the sole federal agency responsible for administering the Section 404 permit process under the Clean Water Act.

If your restoration is in an existing wetland you will need to contact the USACE and the Wisconsin DNR since both agencies have regulatory oversight of wetland activities (see the flow chart at the end of this chapter). A USACE permit is not valid without water quality certification from the Wisconsin DNR.

Some of the factors the USACE will consider during the permitting process include:

- How disturbed or altered is the site?
- Will any soil/fill be placed in a drainage ditch, creek, or wetland? If so, how much?
- Where will excavated soil be placed? Will it be used as a ditch plug or spread on an adjacent upland?
- What techniques are you using to promote vegetation and to control invasive plants?
- What is the timing of your project?
The regional office of the USACE recently reorganized the permit process for Wisconsin by eliminating 30 to 40 nationwide permits and developing a simplified version called the General Permit/Letter of Permission (GP/LOP-98-WI). There are currently four types of general federal permits and letters of permission categories.

Two types of general permits are applicable to wetland restoration projects. The first is a “non-reporting provision” of GP/LOP-98-WI that applies to wetland and riparian (e.g., stream or river) restoration projects sponsored by federal or state agencies. There is no individual Wisconsin DNR water quality certification required and no reporting of activities under this particular permit. Since GP/LOP-98-WI only applies to projects sponsored by federal or state agencies, if you have a privately funded restoration you can ask an agency to consider co-sponsoring your project. Even if you are supplying all of the financial support, the interested agency can review the project and agree to sponsor it. This will allow you to use the non-reporting GP/LOP-98-WI. Keep in mind, you will need to enter into a binding agreement with the agency which may include conditions you must uphold for the permit to be valid.

The second type of general permit for wetland projects the USACE may authorize is GP/1-WI. GP/1-WI regulates waterfowl habitat and wildlife ponds for private projects. This permit is only valid if your project requires a Wisconsin DNR permit under Chapters 30 or 31. The conditions of GP/1-WI require that the restoration have 1) irregular shorelines, 2) shallow slopes with a minimum of an 8:1 ratio, 3) average water depths no more that 2-3 feet, and 4) only 25% of the surface area can have a maximum depth of 5 feet. Please note, however, to get the corresponding Wisconsin DNR permit, your design must contain less than 4 feet of water. In addition, the goal of your project must include wildlife or waterfowl habitat improvement.

It is important to remember that before you file for any permit, discuss the site and your plans with your local USACE wetland staff (see Appendix B). The USACE will review your site and may ask to see final restoration plans before issuing or denying a permit. If your site cannot be permitted under the two general permits discussed above, your project may require the more involved individual permit process.
State waterway and wetland laws regulate activities in Wisconsin’s wetlands and in adjacent navigable waters. Wisconsin has some of the best wetland regulations in the country. The primary wetland protection mechanism is a set of administrative rules, NR103, which outline water quality standards for wetlands. Rather than second-guessing what state regulations may apply to your site, it is best to involve Wisconsin DNR staff early in the planning phase of your project to determine if permits are required. Wisconsin DNR staff comments and initial review may assist you in preparing your plan to comply with state laws and rules. The Wisconsin DNR water management specialists are listed by county in Appendix B.

The Wetland Conservation Permit under NR 353

Recognizing that wetland restoration is in the public interest, the Wisconsin DNR has given wetland restoration special regulatory consideration under new administrative rules, NR 353. These rules are meant to encourage and facilitate ecologically sound wetland restoration through a streamlined permitting process. Your project will have faster application review and permit approval if the site and restoration practices meet specific conditions. It is wise to make every effort to design your site to meet the criteria outlined in NR 353. If you do, you will have a more ecologically friendly project and the permit may be issued quicker. Please note: If the purpose of the project is to convert a wetland into a pond or a stormwater system, NR 353 criteria will not apply.

In order for your project to be permitted under the streamlined NR 353, your site needs to meet a number of eligibility requirements. The language of NR 353 can be found on the Wisconsin DNR web site at: www.dnr.wi.gov/org/water/fhp/wetlands/whatsnew.shtml. A discussion of the main eligibility requirements and how your site may fit these requirements are listed below. It is difficult to simplify these regulations since there are legal nuances that may be important. Please be advised that this discussion is not exhaustive and is only intended to help you understand how the Wisconsin DNR may view your site.

Your restoration project may be eligible for the NR 353 permit if: (Wisconsin DNR rule language is in **bold**)

1. **The project purpose is wetland conservation.** For example, projects with other purposes such as stormwater retention, flood control, or fish ponds cannot be permitted by NR 353.

2. **The project proponent has demonstrated that site conditions exhibit impacts to topography, soils, native vegetation, or hydrology that have degraded a wetland and are potentially...**
reversible. A site with any combination of ditches, drain tiles, wetland fill, deposition or sediment, and dominant invasive plants will easily meet these criteria. If there are no reversible impacts on your site, chances are the wetland is in a natural state and should not be disturbed.

3. The project uses the listed wetland conservation activities as explained in the next section, including drain tile removal, ditch plug or fill, certain berms, sediment removal, etc.

4. The project does not involve any activities in navigable waters with prior stream history, or is otherwise determined to not cause significant adverse impacts to those waters. The permit is applicable to fill or plug ditches that were dug to drain a wetland, were not originally a stream, and therefore do not have stream history (see accompanying explanation of navigability and stream history). If you want to restore a stream or a ditch that has a stream history (i.e. historically was a stream) you will need to apply for a more involved Chapter 30 permit.

5. The project does not cause significant adverse impacts to a cold water community as defined in s. NR 102.04(3)(a) or cause significant obstruction of fish passage to existing spawning areas. If your project is adjacent to a cold water stream, it needs to be designed to avoid seriously impacting these waters. For example, trout habitat could be negatively affected if pooled, sun-warmed water from your restoration site drained into the cold water stream. The permit would not be issued unless you could work out the design with the Wisconsin DNR to eliminate warm water drainage or other problems. In addition, there are areas in the state where streams have been so radically altered that ditches are the only available way for fish to access existing spawning areas. If your project blocks fish access in one of these ditches the permit may not apply.

6. The project will not cause significant adverse impacts to state threatened or endangered resources... or... historic or cultural resources... The Wisconsin DNR will determine if there are state threatened or endangered species or historic and cultural resources on your site when they review the permit application. Most threatened or endangered wetland species are aided by wetland restoration. However, if threatened or endangered species are identified by the Wisconsin DNR as a concern on the site, the project needs to be specifically designed to benefit those species. As a result, an additional review may be needed. Similarly, they will determine if a restoration plan needs to be modified in order to protect an historic or cultural resource.

7. The project does not involve the planned introduction of non-native or invasive wetland plants. Only native plants may be seeded or planted on your project.

In addition, there are several other eligibility requirements which can be found in the NR 353 text on the Wisconsin DNR web site at: www.dnr.wi.gov/org/water/fhp/wetlands/whatsnew.shtml.
The NR 353 permit applies to the following wetland restoration practices and the sites on which these practices are appropriate:

**Tile Breaks.** Drain tile may be removed or disabled in the project area provided the activity does not impact adjacent landowners or drain tile is not part of a legal drainage system.

**Ditch Plugs and Ditch Fills.** Ditches may be plugged or completely filled as long as they do not have stream history and are not part of a legal drainage system. If the ditch is located in a floodplain, you will need to supply top, cross-sectional, and side view plans of the project.

**Dikes, Embankments, or Low Berms.** For proposed new dikes, embankments, or low berms there are several considerations under the conservation permit process. These structures are allowed under the conservation permit as long as the site is cropped, or is dominated by invasive wetland species or pioneer wetland plants. A berm cannot be built to flood an existing wetland community or negatively impact an adjacent wetland. For example, if the berm would isolate an adjacent wetland from its water source or cause its water levels to rise, then the permit would not apply.

In addition, the berm can be no more than 6 feet high from the ground and create less than 50 ‘acre-feet’ of water storage. The berm must be designed by a professional engineer or be submitted by a county, state, or federal agency (e.g., NRCS, Wisconsin DNR, or USFWS). The requirement for a professional engineer to design the berm is waived if the berm is no more than 2 feet high and creates less than 50 ‘acre-feet’ of water storage.

**Excavation.** Excavation includes the removal of soil and vegetation; the creation of micro-topography including shallow scrapes, channels, submerged islands, and interconnected open water areas, or the removal of post-European settlement deposition that has accumulated over historic wetland soils. These techniques are allowed under the conservation permit as long as the site is cropped or is dominated by invasive wetland species or pioneer wetland plants. The practices cannot harm an undisturbed wetland on or adjacent the site. For example, the scrape or soil removal is permitted in an area dominated by reed canary grass but not in an alder thicket or sedge meadow. Additionally, excess soil not used as a component of the restoration design to plug or fill a ditch will need to be deposited on adjacent uplands or trucked to an off-site disposal location.

**Water Level Manipulation.** Activities that are allowable include adding or removing pumps, breaching dikes, re-routing ditches or other artificial water features, or installing and manipulating a water control structure. These techniques are allowed as long as the site is cropped or is dominated by invasive wetland and pioneer plant species. The practices cannot harm an undisturbed wetland on or adjacent the site. For example, water control may be used as a management tool to flood a meadow of reed canary grass or narrow-leaved cattail, but not to flood out a higher quality wetland community.
Vegetation Management. Vegetation management is allowed under NR 353. Introducing native wetland plants, controlling invasive plants by cutting or removal, introducing USDA approved biological control agents (e.g., purple loosestrife beetles), manipulating water levels, burning, or using US EPA registered herbicides are acceptable management techniques under NR 353. The project, however, cannot involve the planned introduction of non-native or invasive wetland plants.

Water Monitoring Devices. Staff gauges, water level recording devices, water quality testing, and small weirs and flumes to measure and record scientific data are permitted.

Further descriptions of these practices can be found in Chapter 4.

To apply for a NR 353 general wetland conservation permit contact your Wisconsin DNR water management specialist for the correct form. A list of these specialists is available at www.dnr.wi.gov/org/water/fhp/waterway/watermanagementspecialists.shtml and in Appendix B.

Some of the materials you need to put together for your permit include:

- The location of the site on a USGS quad map.
- A general description of the site and any adjacent wetland areas, including aerial photographs of the proposed restoration area.
- A description of the existing site conditions including soils, hydrology, and the current land use and plant communities present.
- A narrative description of the planned project and how it meets the eligibility requirements.
- A sketch of the project with dimensions (additional information is required for proposed dike, embankment, or berm projects).
- Sufficient information to demonstrate that the project will not flood any neighboring lands or obstruct ditches in drainage districts.
- The goals and objectives for your site, including long-term management.

It is very important to include your management plans with the permit application because maintenance that is described and included in your proposal will not require Wisconsin DNR permits in the future. For example, if your management plan includes maintenance of a ditch plug you will be allowed to repair the plug to original specifications at a later date without a permit. Burns, herbicide use, vegetation control, and any future maintenance should be included if you want to practice them in the future without further Wisconsin DNR permitting. Keep in mind that you may still need future federal or local permits.

Timing

Every effort should be made to submit a complete application to the Wisconsin DNR. You can speed up the review by having the local Wisconsin DNR water management specialist visit your project site in...
advance while you are developing your restoration plan. Make sure you thoroughly communicate your site conditions and how your project fits the permit criteria. For projects that meet the NR 353 eligibility requirements, the Wisconsin DNR has 30 days to request any additional information from you and an additional 30 days from the receipt of this additional information to either issue a permit or deny the plans.

**Special Case for Previously Completed Wetland Projects**

If you own land with a wetland project that was constructed prior to August 1, 1991, you may maintain your project under the NR 353 rules. The project maintenance provisions of NR 353 were developed for landowners who have structures (such as berms) that were constructed prior to when the existing wetland protection laws came into effect. It is intended to allow you to rebuild and maintain original water control structures on your site without additional permit requirements.

In order for your project to be considered under NR 353 without further permit requirements, you need to provide a description and a diagram of existing site conditions including: the location of the project, hydrologic characteristics of the site, existing plant communities on the site, the location and condition of existing project infrastructures (e.g., dikes, ditches, nesting islands, water level control structures and pumps, etc.), current land use for the site, and past management and maintenance activities that may have occurred on the site.

The application should include a plan that describes the proposed maintenance activities including areas to be excavated and cross-sections of proposed enhancements to existing dikes and nesting islands. A hydrologic/hydraulic analysis by an engineer licensed in the state of Wisconsin may be required if the proposed project includes alteration to the height or cross-section of the original dike.

The Wisconsin DNR may wish to meet with you to review the project in the field and to discuss any modifications to your maintenance plan. Only after approval of the plan can you conduct the maintenance activities described in the plan as long as Wisconsin DNR employees have access to make inspections of the site. *Note, any new project work or expansion of created wetlands would require a new permit!*

Please visit [www.legis.state.wi.us/rsb/code/index.html](http://www.legis.state.wi.us/rsb/code/index.html) for the complete text of NR 353.

**Other Wisconsin DNR Permits**

If your restoration project cannot be permitted under the NR 353 Wetland Conservation Permit, you need to discuss with your Wisconsin DNR water management specialist what other permit options, if any, are available. NR 353 is designed to expedite projects that involve minimal review by Wisconsin DNR staff. Very large and involved restoration projects that require extensive environmental review or public notice will either require additional permits or may not be able to be permitted at all. Potential project situations where other permits may be needed include bridges or culverts...
in navigable waters, stream restoration projects (or projects impacting ditches with stream history), dams, grading adjacent navigable waters that cannot be permitted under NR 353, and ponds connected to or within 500 feet of navigable waters.

**Vegetation Management:**
**Possible Permit Concerns**
If you confine your restoration plan to vegetation management activities alone, generally you will not need permits. However, you may need to call your local fire department to obtain a town-issued agricultural burn permit before undertaking a prescribed burn. If you live in an ozone non-attainment area of the state (including Washington, Ozaukee, Milwaukee, Waukesha, Racine, and Kenosha counties) you need to call the Wisconsin DNR air management program to obtain approval before burning. Planting native stock and brush cutting usually do not require permits. Counties may regulate the cutting of vegetation in a shoreland zone and a county permit may be required to clear brush. When in doubt, check all potential local (municipal, county, etc.) permit requirements.

If your management activities include controlling aquatic plants (i.e. plants in water, including wetlands) by the use of chemicals, manual or mechanical removal, or by using biological control agents, you may need a valid aquatic plant management permit under state administrative rules NR 107 or NR 109, or a NR 353 permit described above. Contact the aquatic plant manager at your local or regional Wisconsin DNR office for details on obtaining permits (see Appendix B). Some herbicides are not suitable for use over or near water. If herbicide use is planned, it is very important to carefully read the label before purchasing and applying any chemical.

**“Isolated” Wetlands**
In January 2001, the United States Supreme Court decided that wetland sites that are “isolated” from navigable waterbodies are excluded from USACE jurisdiction. Isolated wetlands typically have no detectable connection to streams, rivers, or lakes and are surrounded by uplands. Examples of isolated wetlands include ephemeral ponds, prairie potholes, depressional basins, and kettle bogs.

The USACE makes the determination whether a site is isolated or not. If they determine that the wetland is isolated, the USACE has no further authority to review or permit activities on that site. The Wisconsin Legislature passed a law in 2001 that gives regulatory authority over these “non-federal” isolated wetlands to the Wisconsin DNR. Therefore, all proposed wetland fill or dredge activities in isolated wetlands need to be permitted with water quality certification by the Wisconsin DNR.
The "isolated wetlands" controversy began in the Chicago area, when the Solid Waste Agency of Northern Cook County (SWANCC) tried to place a landfill in a former gravel pit. The former gravel pit had been determined by the United States Army Corps of Engineers (USACE) to be a wetland and as a result, the USACE refused to issue a permit. When the resulting lawsuit landed in the lap of the United States Supreme Court, the Court declared in January 2001 that this gravel pit was not a wetland under federal definitions. This decision had the far-reaching and unexpected effect of eliminating federal jurisdiction over all isolated wetlands in the country. Because Wisconsin's state wetland protection regulations were linked to federal jurisdiction, this meant that an estimated one million acres of isolated wetlands were instantly vulnerable to development. Within a few months, isolated wetlands began to be filled in the state, and citizen alarm mounted. The Wisconsin Wetlands Association (WWA) worked closely with key legislators, the Wisconsin DNR, other environmental groups, and the Governor’s office to find a way to quickly resolve the isolated wetland crisis. WWA helped create an impressive coalition of over 70 organizations representing more than 330,000 conservationists, hunters, and anglers in the state that worked diligently to urge lawmakers to protect our vulnerable wetlands. By April 30, 2001, the new wetlands protection bill passed the State Senate and Assembly unanimously and the Governor signed the law on May 7, thereby restoring protection to all of Wisconsin’s wetlands. Wisconsin was the first state in the country to swiftly fill the regulatory gap created by the Supreme Court’s decision. Sadly, as of 2003, very few states have yet taken action to protect their isolated wetlands.

Isolated wetland in Milwaukee county. Forested depression protected from development.
Wetland Mitigation

Under the federal “no net loss” wetland policy, many federal wetland permits have been issued with the requirement to “mitigate” or offset the unavoidable wetland losses that result from a fill activity. Many states have adopted wetland mitigation policies that accept wetland creation, enhancement, or restoration activities on other sites to compensate for lost wetland acres. New state rules for Wisconsin that allow the use of wetland mitigation became effective in 2002. The Wisconsin DNR permitting process, under NR 103, requires avoidance of any wetland fill activity. If wetlands are impacted, the impact must be minimized. The new law allows for flexibility in the permitting process and, in certain situations where wetlands would be impacted, an applicant for a wetland fill permit can include a proposal to mitigate the fill by restoring wetlands to compensate for those destroyed.

The new rules favor mitigation projects that are restorations, as opposed to creations or enhancements, on original wetland soils. In general, the replacement ratio requires providing 1.5 acres of restored wetland for each acre of wetland lost. The first area to search for mitigation is on the site within 1/2 mile of the impacted area. If there are no suitable areas on-site then look at restoration sites within the Geographic Management Unit, within the county of impact, within a 20 mile radius from the project site, or purchase credits from an approved “mitigation bank”. The Wisconsin DNR maintains a list of approved mitigation bank sites and their service areas on a registry that is found on the Wisconsin DNR web site at: www.dnr.wi.gov/org/water/fhp/wetlands/mitigation/mitigationbanks.shtml.

The purpose of mitigation is to allow a flexible permit process that allows restored wetlands to replace other wetlands that are permitted to be filled. When mitigation is part of the approved project proposal, the regulatory agencies have a high interest in the success of the mitigation project. Projects should be designed to restore wetlands on the landscape using restoration methods that have low maintenance requirements. In addition, the restored wetland must be protected in perpetuity. Projects should favor ecologically sound restoration to original site conditions with good upland buffers, such as the ones described in this handbook. The Guidelines for Wetland Compensatory Mitigation in Wisconsin are available from the Wisconsin DNR web site at: www.dnr.wi.gov/org/es/science/wetmit.htm. If the mitigation is being mandated by the USACE, your project must also be in accordance with the USACE Section 404 mitigation policy. We encourage you to speak with your USACE agency staff early in the planning process (see Appendix B).

Local town and county governments vary statewide in their regulation of wetlands and floodplain shorelands through zoning ordinances. Check with your local government county zoning or land conservation office early in the process to see which ordinances may apply to your project (see Appendix B).
Decision Chart for Wetland Restoration Regulation

**Are You Moving Soil?**
- **NO** (Plan involves management)
  - Review Vegetation Management section.

**Is the Site a Wetland on the Wisconsin Wetland Inventory or NRCS Maps?**
- **YES**
  - Most likely will require permits from the United States Army Corps of Engineers, DNR, or county. Requires technical assistance. See Appendix B.
- **NO**
  - NO
  - **YES**
    - May be a wetland. May require permits. Requires technical assistance.

**Is the Soil Mapped as Wetland Soil by the NRCS?**
- **YES**
  - May require permits from at least one agency.
- **NO**
  - **YES**
    - Requires technical assistance. See Appendix B.

**Is the Project within a Creek, Stream or Ditch?**
- **YES**
  - Contact the United States Army Corps of Engineers, DNR, and county. Requires technical assistance. See Appendix B.
- **NO**
  - **YES**
    - May require state or local permits. Contact DNR and the county. See Appendix B.

**Is the Site within 500 Feet of a Navigable Waterway or Lake?**
- **YES**
  - Unlikely to require federal or state permits. Contact the county land conservation department office.
- **NO**
  - **YES**
    - May require state or local permits. Contact DNR and the county. See Appendix B.