

**TOPIC: Private Ponds**

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White Paper Group 3

**BACKGROUND**

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In Wisconsin, nearly all waterbodies are legally defined as waters of the state; see [Section 281.01, Wis. Stats](#) [PDF exit DNR]. Because they are waters of the state, ponds are under the jurisdiction of the Wisconsin Department of Natural Resources (DNR) even though they may be located on private land. Therefore, DNR permits or approvals are required for most management strategies.

In recent years, an increasing trend in permit numbers appears to be largely driven by aquatic plant management (APM) in private ponds. This could be due to an increase in the number of private pond owners conducting APM activities or an increased compliance by private pond owners who may have been previously unaware of APM permit requirements. The department has been able to gain compliance through education and outreach and by working with non-profit and private industry partners.

The APM permitting process and requirements for private ponds is outlined in Ch. NR 107 and 109. Private ponds are exempt from some of the provisions in Ch. NR 107 (Ch. NR 107.11 (3)) and permit fees are limited to the non-refundable \$20 application fee. The department also waives permit requirements for non-chemical APM in private ponds (must be 10 acres or less; Ch. NR 109.06(1)).

Another important note related to NR 107 permitting pertains to private ponds in which fish are stocked by the owner. There are more than 2,500 of these ponds in the state. Private pond owners interested in stocking fish can either 1) apply for a free General Stocking Permit through the department's Fisheries Management Bureau or 2) seek approval to become a certified fish farm through the Department of Agriculture, Trade, and Consumer Protection (DATCP). For the former option, an NR 107 permit is required for any herbicide treatments to the pond (fee of \$20 per year). For certification through DATCP, a Natural Waterbody Use Permit issued through the department's Bureau of Fisheries Management may be required (one-time fee of \$50-\$500 and annual registration \$37.50-\$125 per year). A DATCP-certified fish farm pond is only exempt from NR 107 if there is a controllable outflow or no outflow. In this case, herbicide application must still follow the Federal Insecticide, Fungicide and Rodenticide Act and EPA pesticide label guidelines.

As of 2019, the department received just over 2,000 permits for the chemical and mechanical management of aquatic plants. Of those permits, 1,184 were for the chemical management of private ponds, which accounts for approximately 58% of permits.

**Permit Issuance**

The first step in assessing a private pond application is to verify that the waterbody fits the Ch. NR 107 definition of a private pond: a waterbody located entirely on the land of an applicant, with no surface water discharge, and without access by the public

Tax parcel information, provided application site map, and aerial imagery is used to assess ownership, access, and outflow. However, due to differences in available GIS information and staff time, some waterbodies may have been historically permitted as private ponds without meeting the current criteria.

Currently, the Department is working to verify that each waterbody fits the definition of a private pond while also ensuring correct geographic and contact information.

However, some difficulties persist. Aerial imagery quality can make determining outflow difficult. Additionally, campground ponds and homeowner association ponds are difficult to determine if they classify as private ponds. Applicants attest that although people are accessing campground ponds, it is not public access because they are paying for access. For homeowner association ponds, often multiple property owners are listed on the parcel containing the waterbody, but applicants attest that the association is a single entity and therefore should be considered as a single owner.

Another step in issuing a private pond permit includes conducting a Natural Heritage Inventory (NHI) evaluation of the waterbody. Like other waterbodies, a two-mile buffer is drawn around the private pond and element occurrences (EO)<sup>a</sup> are determined. When making the EO determinations, the department uses a standardized language including a lack of suitable habitat for the species in question, especially since the EO often does not fall on the pond site directly. This differs from sites such as lakes, which might contain an EO directly and for which information about habitat suitability or species occurrences is more available.

For waterbodies with an EO designation within the two-mile buffer for certain aquatic reptiles and amphibians (e.g. Blanding's Turtle, Blanchard's Cricket Frog) the department issues limitations on permitted herbicides as part of the permit conditions. This includes denying certain herbicides and/or restricting the concentration level. This has been done consistently for ponds that contain these EO designations, which differs from non-private sites that are evaluated on case-by-case basis.

### **Habitat Potential of Ponds**

Many different aquatic plants from algae, which drifts suspended in the water, to plants floating on the water surface or rooted in the pond bottom can grow in ponds. Rooted plants grow either entirely under the water, have floating leaves, or grow with stems above the water surface. Some have both underwater and floating leaves. Both algae and rooted plants will grow in all ponds. Keeping a balance is sometimes difficult.

Single-celled algae, usually not visible, form the base of the food chain and make much of the oxygen needed for other life in the pond. Filamentous algae, sometimes called moss or grass, is more visible and most easily becomes a nuisance. Sudden growth of either type of algae is called a "bloom".

Rooted aquatic plants are important to the overall health of ponds and lakes. They stabilize the shoreline and pond bottom, tie up plant nutrients thus reducing algae blooms, help the water to clear faster after a rain, produce oxygen and provide food and habitat for the many forms of life that live in and around a pond. Plants also provide nursery habitat for many fish and moderate levels are important for good growth, condition, and abundance of sport fish, which can be found in certain waterbodies currently considered "private" under NR 107.

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<sup>a</sup> a population of a species or an example of a natural community or natural feature naturally occurring at a specific, ecologically appropriate location

Other small organisms that live in ponds are called zooplankton, which are members of the animal kingdom that are suspended in the water column. Common examples of zooplankton are rotifers, Cladocera's (water fleas), and copepods. Zooplankton, insects, crustaceans, and tadpoles that live in the pond consume phytoplankton. Larger invertebrates, including gastropods (snails), bivalves (fingernail clams), oligochaetes (worms), annelids (leeches), decapods (crayfish), and insects consume these smaller animals, creating the complex food webs that occur in the pond ecosystem. The typical pond ecosystem can support an extensive array of plants, insects, amphibians, reptiles, fish, and birds. 80% of threatened, endangered and species of concern use aquatic habitats during all or a portion of their life cycle.

### **Best Management Practices for Ponds<sup>b</sup>**

Registration of a chemical with USEPA and the DATCP does not mean the product is safe; rather, it means that there is an acceptable risk associated with proper use of the product.

The use of aquatic herbicides may not be the best option to achieve long-term results in pond management. Herbicides do not control the nutrients that are the main cause of excessive aquatic plant growth; therefore, plants will continue to grow year after year. Herbicides are selective for specific types of plants, so it is important to identify the aquatic plants in a pond before treating. Random application of herbicides without consideration of the type of nuisance plants often results in ineffective treatment and the addition of unnecessary pesticides to the environment. Chemical treatment of plants can also result in excessive algae growth. It is important to read the product labels to learn about water use restrictions and the potential negative impacts to other organisms in a pond before using chemical treatments. Excessive herbicide use can prevent the product from performing in the intended way.

Ponds will grow abundant populations of plants and algae unless there are efforts to reduce sediment and nutrient runoff into a pond. A buffer strip of native vegetation around the pond will help trap soil and nutrients before they enter the water. As a rule, the larger the buffer the more effective it will be. A minimum of 35 feet is recommended, however, up to 150-foot buffers provide the most benefit.

A pond with a buffer strip of trees and native plants surrounding it can become the perfect home for a variety of birds and animals. The deeper the buffer the better for songbirds, ducks, amphibians and other creatures. There are many other commended management activities to protect the habitat potential in ponds for amphibians and reptiles.

1. Avoid clearing or replacing natural native vegetation around the pond. A minimum of 50 feet is recommended, but more would be better.
3. Do not introduce non-native plants or animals, as they may harm or replace native species.
4. Leave logs, snags, and other woody debris on site and replace if removed.
5. Develop vegetated corridors between habitat fragments to provide habitat complexes rather than habitat islands.
6. Minimize mowing shorelines and drainage ditches late winter through mid-fall.
7. Avoid overgrazing and keep livestock out of the pond and surrounding vegetative buffer.
8. Whenever possible, avoid intensive techniques that unnecessarily reduce potential refuges for amphibians and reptiles.

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<sup>b</sup> For more information: [NRCS and Wildlife Habitat Council](#), [WDNR](#)

9. Limit pesticide and fertilizer use. Follow pesticide/fertilizer directions carefully.

### **Available approaches for repealed and revised NR 107**

The department evaluates the risk all management poses to human health and the environment. Together; access, surface water exchange, groundwater exchange and habitat potential highlight differing levels of risk to human health and the environment in management of aquatic environments. There are pros and cons to varying approaches the department could take in repealed and revised NR 107 as it relates to pond regulations.

#### Approach 1 – Reduce regulation in private ponds

Creation of a multi-year permit could benefit permit applicants through reduced permit processing times or reduced frequency in going through the permitting process. Fees and reporting requirements would need to be adjusted accordingly. This alternative would reduce the workload of the department's APM Central Permit Intake Coordinator but would not reduce workload for department APM field staff. Reduced regulation of APM activities in private ponds could reduce funding for department's APM program and may have detrimental effects on fish and wildlife populations, endangered or at-risk species, groundwater infiltration, as well as waterbody and human health. Moreover, if record-keeping requirements change along with permitting requirements, department staff and service providers may not maintain records of management history, which are important for devising management strategies. Record-keeping requirements and a process for adjusting permit conditions from one year to another (for multi-year permits) may help to reduce potential negative effects associated with this alternative.

#### Approach 2 – Increase regulation in private ponds

Central Office department staff, instead of field staff, began processing permits for APM in private ponds in 2014. Reverting to increased supervision or regulation of these activities may benefit fish and wildlife populations, endangered or at-risk species, waterbody and human health, and reduce groundwater infiltration. This alternative could increase workload for department staff and permit applicants.

The use of pesticides is regulated under the Clean Water Act and while private ponds are included as waters of the state and under NR 107, the department's APM program recognizes there is less public interest in private ponds with no surface water discharge. WPDES permitting is not required, and some techniques, such as dyes, do not require permits.

### **RULE PROPOSAL – PRIVATE PONDS**

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The department proposes changes to the existing definition of what constitutes a private or public pond, primarily to account for changes in development practices in urban environments.

#### **Proposed Definitions**

"Private pond" means a man-made or natural body of water wholly on the lands of a single owner, or \*jointly owned by an organization, which does not have any surface water connection with any public waters, which has no public access, and which is less than ten surface acres.

\*meaning a homeowner's association or business park

"Public pond" means a man-made or natural body of water on land owned by a municipality or county, which may have a surface water connection to public waters, which may have public access, and which is less than ten surface acres.

**Table 1. Proposed pond criteria**

	Private Pond	Public Pond
<b>Construction</b>	Man-made or natural	Man-made or natural
<b>Ownership</b>	Single Owner, Jointly Owned	Municipality, County
<b>Surface Water Connection</b>	No	Yes, or Intermittent
<b>Public Access</b>	None	May have
<b>Acreage</b>	<10	<10

### Proposed Permitting Processes

The department proposes the creation of a Multi-year Permit (up to five years) for those waterbodies considered to be public or private ponds. However, the department proposes public notification and posting requirements be different between public and private ponds. Waterbodies with surface water discharge and/or public access require annual public notification. The department will have a public meeting early winter 2021 to discuss public notification and posting requirements for all management activities.

**Table 2. Proposed application requirements for pond permits issued under repealed and replaced NR 107.**

	Chemical management of submerged aquatic species on private ponds	Chemical management of submerged aquatic species on public ponds
Application Fee	TBD – will be designed to adequately fund the program's operations	
Application requirements (Please see other white papers for more description)	<ul style="list-style-type: none"> <li>– Map of treatment area and proof of ownership</li> <li>– Description uses being obstructed</li> <li>– Description of the plant community causing impairment               <ul style="list-style-type: none"> <li>– Chemical product name</li> </ul> </li> <li>– Chemical applicator name and license number</li> <li>-Evidence of public notice for public ponds</li> </ul>	
-Issuance	-Within 30 days of permit submittal	
Expiration	-Expire 10/1 of year of renewal end-date	
Holds	<ul style="list-style-type: none"> <li>- The permit application is incomplete</li> <li>-A public hearing has been granted under s. 227.42, Wis. Stats.</li> <li>- An environmental impact report or statement required under s. 1.11</li> </ul>	

Amendments	<ul style="list-style-type: none"> <li>-Company conducting activity</li> <li>-Applicator conducting treatment</li> <li>-Trade name of herbicide</li> </ul>
Renewal	Every 5 Years
Reporting	Annual – within 30 days of each treatment

**Table 3. Proposed Permit Issuance Criteria Under Repealed and Replaced NR 107**

	Chemical management public and private ponds
The department will approve the permit if these criteria are met.	<ul style="list-style-type: none"> <li>– The proposed activity will remedy the water use impairments caused by aquatic plants</li> <li>– The proposed activity will not result in a hazard to humans</li> <li>– The proposed activity will not interfere with the rights of riparian owners</li> <li>– The proposed activity will not cause significant adverse impacts to threatened or endangered resources.</li> <li>– The proposed activity will not cause significant adverse effects to fish, fish eggs, fish larvae, essential fish food organisms or wildlife, either directly or through habitat destruction</li> <li>– The proposed activity will not result in a significant adverse effect on the water quality, aquatic habitat or the aquatic community including the native aquatic plant community</li> <li>– The proposed activity is not in locations identified by the department as approved or proposed Critical Habitat - Sensitive Areas (subset of critical habitat), Public Rights Features (NR 1.06), ASNRI, Priority Navigable Waterway, Outstanding and Exceptional Resource Waters, if the proposal is in these areas, the applicant shall demonstrate to the satisfaction of the department that treatments can be conducted in a manner that will not alter the ecological character or reduce the ecological value of the area.</li> <li>– The cumulative impacts of previously approved applications on the waterbody have not caused significant adverse effects over time to water quality, aquatic habitat or the aquatic community including the native aquatic plant community.</li> <li>– If wild rice is involved, the stipulations incorporated by <i>Lac Courte Oreilles v. Wisconsin</i>, 775 F. Supp. 321 (W.D. Wis. 1991) are complied with.</li> </ul>
The department may set conditions to satisfy the criteria of issuance	<ul style="list-style-type: none"> <li>– The quantity of aquatic plants that may be introduced or controlled</li> <li>– The species of aquatic plants that may be introduced or controlled</li> <li>– The areas in which aquatic plants may be introduced or controlled</li> <li>– The methods that may be used to introduce or control aquatic plants</li> <li>– The times during which the aquatic plants may be introduced or controlled</li> <li>– The allowable methods used for disposing of or using aquatic plants that are removed or controlled</li> </ul>

	<ul style="list-style-type: none"><li>– Annual or other reporting requirements to the department that may include information related to the above</li><li>– Any other conditions necessary to reduce or avoid impacts which would otherwise result in denial of a permit application.</li></ul>
Conditional approval pending pre-treatment surveys and or supervisions	<ul style="list-style-type: none"><li>– The department may stop or limit an activity if at any time it determines the activity will be ineffective, or will result in unreasonable restrictions on current water uses, or will produce unnecessary adverse side effects on non-target organisms or the targeted aquatic plants are not causing an impairment of beneficial water use activities.</li></ul>