

## ENVIRONMENTAL ASSESSMENT

Wisconsin Statewide General Permit for placement of fish habitat structures

Prepared by Wisconsin Department of Natural Resources, Bureau of Watershed Management  
September 12<sup>th</sup> 2013

NOTE TO REVIEWERS: This document is a Department of Natural Resources Environmental Analysis that evaluates probable environmental effects and decides on the need for an Environmental Impact Statement. The attached analysis includes a description of the action and the affected environment. The DNR has reviewed the attachments and accepts responsibility for their scope and content to fulfill requirements in s. NR 150.22, Wisconsin Administrative Code.

Your comments should address completeness, accuracy or the EIS decision.

For your comments to be considered, they must be received by the contact person before 4: 30 p.m., October 24th 2013.

Wisconsin Department of Natural Resources  
Bureau of Watershed Management  
Martin Griffin, Statewide Waterway Science & Policy Coordinator, GEF II- WT/3  
PO Box 7921  
Madison, WI 53707  
[MartinP.Griffin@wi.gov](mailto:MartinP.Griffin@wi.gov)

## **DESCRIPTION**

### **Statewide General Permit Process**

#### ***General Permit Issuance***

If a regulated project or activity is not exempt in statute from the requirement to obtain a permit, it must be authorized by either a general permit or an individual permit. General permits are written to cover any number of projects or activities that can meet a standardized set of criteria, whereas an individual permit is written specifically for that project.

In the spring of 2012, 2011 Wisconsin Act 167 established new procedures under the DNR's authority to issue a general permits for activities that affect navigable waters (any activity regulated under Ch. 30, Wis. Stats). These new procedures exempts general permits from the definition of "rule" (eliminating the procedural requirements for promulgating these permits by adopting administrative rules to create a General Permit), and replaces that procedure with a public comment period and a legislative committee review process. The legislative review process provides for temporary suspension of general permits by certain legislative committees

To ensure that the cumulative adverse environmental impact of the activities authorized by a general permit cause only minimal adverse environmental impacts and that the issuance of the general permit will not injure public rights or interests, cause environmental pollution, as defined in s. 299.01 (4), or result in material injury to the rights of any riparian owner, the department may impose any of the following conditions on the permit:

- Construction and design requirements that are consistent with the purpose of the activity authorized under the permit.
- Location requirements that ensure that the activity will not materially interfere with navigation or have an adverse impact on the riparian property rights of adjacent riparian owners.
- Restrictions to protect areas of special natural resource interest.

#### ***General Permit Coverage:***

Individuals may apply for coverage under a statewide general permit to perform work in accordance with the terms and conditions of the general permit. Coverage under a general permit will be valid for a period of 5 years from the date of issuance. Regardless of the expiration date of a general permit, an activity authorized under a general permit remains authorized for five years from the date of coverage or until it is complete, whichever occurs first. The Department continues to have authority to establish requirements, conditions and exceptions for statewide general permits to ensure that the authorized activity will cause only minimal adverse environmental effects. The DNR is authorized to renew, modify and revoke general permits following the same procedures used to issue the general permit initially. The Department will make a determination to either issue coverage under the general permit to the applicant or require an individual permit. The Department determination will depend on whether or not the project complies with the eligibility requirements and standard conditions outlined in the general permit.

### **Statewide General Permit for Fish Habitat Projects**

#### ***Authorized Activities:***

WDNR-GP6-2013 would provide authorization for the construction, placement and maintenance of a fish crib, spawning reef, wing deflector, or similar device that is placed on the bed of navigable waters for the purpose of improving fish habitat. Projects would be required to meet all eligibility standards, terms and conditions of the general permit to be eligible for coverage.

#### ***Excluded Activities:***

Fish habitat projects that are exempt from permitting requirements under 30.12(1g)(c) are not required to be authorized under WDNR-GP6-2013. Projects that are not exempt from permitting requirements, and do not meet all the terms and conditions of WDNR-GP6-2013 would not be eligible and would be excluded from coverage. Projects that are not eligible for this general permit may be reviewed under the individual permit review process. The department has authority under s. 30.206(3r), Stats. to require an individual permit in lieu of a general permit, if the department has

conducted an investigation and visited the site and has determined that conditions specific to the site require restrictions on the activity in order to prevent significant adverse impacts to the public rights and interest, environmental pollution, as defined in s. 299.01 (4), or material injury to the riparian rights of any riparian owner.

***Permit Changes:***

The department could modify or revoke coverage of the general permit if the placement of fish habitat projects was not carried out in compliance with the terms and conditions of the permit, or if the Department determines the project would be detrimental to the public interest. Furthermore, the Department would have the authority to reevaluate the effectiveness of WDNR-GP6-2013 and could suspend, modify or revoke it if determined necessary.

**PURPOSE AND NEED**

The purpose of issuing a statewide general permit is to establish a stable, relatively simple permit program that is specifically designed to effectively and efficiently regulate the public and private needs for minor environmental impacts. The legislative intent of 2011 Wisconsin Act 167 was to establish clear criteria, conditions and timelines to ensure more predictable permit review process and decisions.

**ALTERNATIVES**

The Department retains authority under 30.206(3r), Stats, to require an individual permit in lieu of a general permit.

Coverage under WDNR-GP6-2013 could be granted for projects meeting all applicable purpose, design, construction and location requirements, terms and conditions. The Department would have 30 days to review the application, notify the applicant of any further required information or missing application items, and make a determination regarding the applicants' eligibility for coverage. When Department review of the proposed project indicates that terms and conditions of the general permit were not sufficient to ensure only minimal adverse environmental effects (for example an unusually large project area for placement of structures, or placement of structures in an environmentally sensitive area) the Department could require an individual permit to allow a more detailed review and possible acceptance of the project.

Projects requiring individual permits would be those that do not fit the pre-approved designs, terms and conditions necessary to be eligible for coverage under the statewide general permit. Individual permit procedures require a more detailed permit application and Department review. Through the individual permit process Department staff may advise applicants on project modifications needed to reduce impacts and ensure that the project would not result in any significant adverse environmental consequences. Additionally, individual permits require a public notice, public comment period and an opportunity for an informational hearing. Individual permit decisions are subject to appeal for review by an administrative law judge within 30-days of the decision.

Although the Department has the authority to require an individual permit in lieu of a general permit, the alternative of only permitting placement of fish habitat structures as individual permits is deemed unnecessary.

The Department has the authority to establish requirements, conditions and exceptions for statewide general permits and WDNR-GP6-2013 has been designed to produce and achieve the same regulatory results as an individual permit review for projects with minor impacts. Furthermore, individual permit reviews for all projects is beyond the ability of the Department's limited resources. Individual permit review would be required of proposed projects not meeting the terms and conditions of WDNR-GP6-2013 or on a case-by-case determination of specific site conditions that necessitate additional restrictions in order to provide reasonable assurance that no significant adverse impacts to the environment would occur.

**AUTHORITIES AND APPROVALS**

General permit authorizations are provisional and require that the applicant obtain any other federal, state, local or tribal permits or approvals that may be required for the project or activity involving alterations to public waters and before any work is authorized. For example, under section 404 of the Clean Water Act, the U.S. Army Corps of

Engineers (USACE) may require permits for placement of structures below the ordinary high water mark in federal navigable waters and for the discharge of dredged or fill material into waters and wetlands. This federal permit is in addition to a state permit. If federal permits are needed, the type of permit and the length of the USACE review of a proposal would depend on the extent of the alteration proposed. More information about federal requirements can be found at: <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

Furthermore, while the state permit program governs the determination of whether the placement of structures, dredging and similar activities in or adjacent to navigable waters is in compliance with state Water Quality Standards, it does not affect the authority of the Department to otherwise regulate the discharge of dredged or fill material into a wetland. For example, several types of activities related to collecting, storing, transporting, treating, and disposing of solid waste, require permits or licenses from the Department. Additionally, local governments use floodplain and shore-land zoning to control development along lake shores and streams. Local zoning officials administer permit programs for buildings, land disturbance and other activities in shore-land and floodplain areas.

## **ENVIRONMENTAL IMPACTS**

This analysis briefly describes potential effects that would be attributable to activities authorized by WDNR-GP6-2013 for the placement of fish habitat structures. This analysis further addresses any expected difference in environmental effects and impacts between the issuance of a statewide general permit versus the alternative of issuing an individual permit.

### **Affected Environment**

Woody habitat is a critical feature of freshwater ecosystems. The majority of the environment affected by the placement of fish habitat structures is the littoral zone – the area that is close to the shore or bank sometimes referred to as the near shore or riparian area.

Wood in lakes (trees, limbs, branches, roots, etc.) serves many functions within aquatic ecosystems including erosion control, as a carbon source, and as a surface for algal growth which serves as a food base for aquatic macroinvertebrates (Engel and Pederson 1998). Wood based habitat also serves as refuge, foraging, and spawning habitat for fish (Hanchin et al 2003), aquatic invertebrates, turtles, and other animals (Engel and Pederson 1998).

The amount of wood that occurs naturally is related to characteristics of riparian forests and likelihood of toppling (Marburg et al. 2006). However, humans have also had a large impact on amounts of littoral wood that is present in waterbodies through time. During the 1800's the amount of wood in lakes was increased beyond natural levels as a result of logging practices. But through time changes in the logging industry and increasing shoreline development have led to reductions in woody habitat present in many northern Wisconsin lakes. Trees, shrubs and other woody plants are often removed by shoreline residents to improve aesthetics or recreational opportunities. Jennings et al. (2003) found a negative relationship between lakeshore development and the amount of wood present in northern Wisconsin lakes. Similarly, Christensen et al. (1996) found a negative correlation between density of cabins and woody habitat present in Wisconsin and Michigan lakes.

### **General Impacts Due to Placement of Fish Habitat Structures**

The statewide general permit for the placement of fish habitat structures has safeguards in place to minimize the impacts to public's interest in the waterbody. However there are general considerations when placing structures on the beds of waterways to enhance fish habitat.

Woody structures have been shown to be an important and preferred habitat for many fish species. Newbrey et al. (2005) observed 16 different species occupying woody habitat in a Wisconsin Lake. Placement of fish habitat structures where habitat has been lost can prove to be beneficial for various life stages of many different species. Johnson et al. (1988) found that artificial structures simulating wood attracted 5-10% of bluegill present in the waterbody despite the added structures taking up for less than 1% of the area of the waterbody. Smallmouth and largemouth bass prefer to build spawning nests in proximity to woody habitat particularly large logs (Hunt and Annett 2002). Research suggests that the addition of fish habitat structures, like wood, may improve reproduction of bass in lakes where woody habitat is lacking or has been removed. Additionally, woody habitat can play an important role in fish growth. Ahrenstorff et al. (2009) found that largemouth bass had lower activity rates, higher prey consumption rates and greater occupancy of the near shore

littoral zone following addition of wood structures in the littoral zone suggesting that reduced activity but increased consumption rates by bass in the presence of woody habitat could lead to faster growth rates in comparison to open habitats with no woody structures.

### **Impacts Related to Habitat Structure Degradation**

Large structures can have a residence time of several centuries (Guyette and Cole 1999), although wood decomposition rate increases with water temperature, pH, and the abundance of shredding invertebrates (Engel and Pederson 1998). The bark of some trees (spruce and hemlock) that are used in fish habitat work has been shown to be toxic to some taxa of aquatic animals (Buchanan et al. 1976).

The presence of habitat structures can stimulate aquatic plant growth in the immediate area by stabilizing sediments and seed beds and reducing wave scouring, but can also potentially hinder plant growth by shading out plants. Overall, additions of fish habitat structures should not be expected to have significant or far reaching influences on aquatic plant communities.

### **Impacts Due to Permit Processes**

There are certain fish habitat structures that can be placed without a permit, as long as the project meets certain exemption standards outlined in statute and administrative rule. The statute provides for a way that the public can request that the department ascertain if their project is exempt from permitting or requires a permit. To date, the Department has received 116 requests to place exempt fish habitat structures.

Fish habitat structures that cannot be placed under an exemption require a permit. The Department currently has 5 different types of fish habitat general permits promulgated under rule. To this point, 760 general permits have been issued for these projects. Projects that cannot meet the general permit standards are eligible to be authorized under an individual permit. To this point the Department has issued 792 individual permits for fish habitat projects.

The Department anticipates that the issuance of WDNR-GP6-2013 may result in more GP activity authorization beyond what has historically been authorized under the GP and IP permitting program previously in place. Given the expanded ability of the general permit to facilitate lake-wide management level efforts for certain fish habitat structures and other expanded allowances of WDNR-GP6-2013, some of permits previously reviewed through the individual permit process would potentially become eligible for the new statewide general permit. While this is a large increase in the number of applications that would be eligible for coverage and review through the new streamlined statewide general permit process, the impact of these projects would be low if proper standards are followed.

Both WDNR-GP6-2013 and individual permits provide terms and conditions that address cumulative impacts to surface waters. Permit requirements to decrease impacts include construction measures to minimize sediment movement into surface waters, avoidance of the spread of invasive species, and prevention of potential pollutants from entering a water body. Both permitting processes prevent adverse impacts to historical and cultural resources, state and federal designated threatened or endangered species and fishery spawning habitat. Neither the general permit nor individual permit authorizations would be contrary to wetland water quality standards or result in adverse impacts to adjacent landowners. Both general and individual permitted projects would be required to be maintained in good condition to ensure that there would be no additional impacts.

Evaluating the overall extent of secondary and cumulative impacts of placing fish habitat structures, can be difficult since individual projects that may seem minor when considered in isolation may become major if considered collectively over time and space. Individual permit review requires a more intensive analysis that will minimize the impacts to recreation and navigation, and will provide that the project will not result in any other significant adverse environmental consequences that are detrimental to the public trust. The Department considers direct impacts, cumulative impacts and potential secondary impacts of proposed projects in determining that each permitted project represents the least environmentally damaging alternative.

Differences in the ecology of lakes and streams, especially between inland waters and outlying waters, variations in land use throughout the state, economic trends, and potential impacts of future climate changes provide uncertainties in predicting the environmental effects of future activities that would be authorized under either WDNR-GP6-2013 or

individual permits. Both general and individual permits could be revoked if the Department determines that the applicant failed to comply with the terms and conditions of the permit or if the information provided by the applicant proves to be false, incomplete or inaccurate. Either permit could also be revoked if new information indicates that the project would cause significant environmental impacts.

The establishment of this general permit as a streamlined permit process for activities of minimal impact would have the advantage of allowing more Department resources to be allocated to the review of individual permits of greater complexity and greater potential for significant adverse impacts.

### **Impacts to Air Quality**

Placement of large wood complexes or other types of fish habitat structures done with heavy machinery will result in emissions of vehicle exhaust. Projects of the scale that would be covered under WDNR-GP6-2013 would result in only minor and temporary air emissions. Impacts to air quality would be the same for these kinds of projects regardless of coverage under WDNR-GP6-2013 or an individual permit.

### **Risk**

#### ***Reliance on Applicants Data:***

Department staff would review all general permit applications to determine that projects meet all permit terms and conditions, and are eligible for coverage. In making these determinations, the Department would rely on the information provided by applicants, and any other required information. The Department would have authority for site access to investigate the project construction, operation, maintenance or permit compliance. The Department could deny coverage or reevaluate its decision on any authorization under this GP at any time circumstances warrant. Circumstances would include, but would not be limited to, failure to comply with the terms and conditions of the general permit; information provided by the applicant proves to have been false, incomplete, or inaccurate; or significant new information surfaces which was not considered in reaching the original determination. Any act of noncompliance would constitute a permit violation and would be grounds for enforcement action.

#### ***Presumptive Approval:***

Under WDNR-GP6-2013, if the Department failed to make a determination regarding coverage under the general permit within 30 days, the project would be presumed to be authorized under s. 30.206(3), Wis. Stats., and the applicant could proceed. According to recent permitting data, the average general permit decision issued by the Department has been within this 30 day timeframe. The Department cannot guarantee that statutory presumptive approval would never occur, however. Any presumptively approved project would still have to adhere to the terms and conditions of the general permit with any act of noncompliance constituting a permit violation that would be grounds for enforcement action.

### **Degree of Controversy**

The authority and requirement of the Department to issue statewide general permits was legislatively established. The process involves public notice of the Department's intent to issue, modify or revoke a statewide general permit, and allows for public input to address potential concerns. The issuance is not expected to be controversial. The authorization of coverage for WDNR-GP5-2013 permit activities would provide no public comment opportunity, nor would it require notification to adjacent landowners of any proposed activity. However, this is no change from prior general permit procedures promulgated under rule and is not expected to be controversial.

### **Degree of Precedence**

While this is one of the early statewide general permit to be issued under the new process established by 2011 Act 167, historically the Department has promulgated many general permits (albeit by rule). This new process for creating statewide general permits administratively instead of through rule promulgation continues the Department's practice of consistently providing conditions and standards for low-risk projects in navigable waters.

Project Name: Statewide General Permit WDNR-GP6-2013 to **place fish habitat structures on the beds of navigable waters**  
County: Statewide

---

**PRELIMINARY DECISION**

---

In accordance with s. 1.11, Wis. Stats., and Ch. NR 150, Wis. Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Wis. Stats., and Ch. NR 150, Wis. Adm. Code.

The Department has made a preliminary determination that the Environmental Impact Statement process will not be required for this action/project. This recommendation does not represent approval from other DNR sections which may also require a review of the action/project.

Signature of Evaluator 	Date Signed 09/12/13
---	-------------------------

---

**FINAL DECISION**

---

The public review process has been completed. The Department received and fully considered responses to the news release or other notice.

Pursuant to s. NR 150.22(2)a., Wis. Adm. Code, the attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action, and therefore the environmental impact statement process is not required prior to final action by the Department.

The Department has determined that it has complied with s. 1.11, Wis. Stats., and Ch. NR 150, Wis. Adm. Code. This decision does not represent approval from other DNR sections which may also require a review of the action/project.

Signature of Environmental Analysis Program Staff	Date Signed
---	-------------

---

**NOTICE OF APPEAL RIGHTS**

---

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm.

Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

DRAFT

## ADDENDUM

### GENERAL PERMIT PROCESS SEQUENCE

- Anyone wishing to proceed with an activity that may be authorized under a statewide general permit is required to submit an application for coverage at least 30 days before beginning the activity.
- The applicant needs to provide sufficient information describing the proposed activity in order for the Department to make a determination whether the activity can be authorized by the general permit.
- The applicant will allow the Department consent to enter and inspect the site if needed.
- General permits are valid for five years and may be renewed, modified, or revoked. It also specifies that projects authorized under a general permit remain authorized for five years from the date the DNR determines the project may proceed under the general permit, even if the underlying general permit expires during this time period.
- The application will be reviewed by the Department to ensure that the proposed project complies with all general permit requirements.
- Applications providing all required project information and found to comply with all general permit requirements will be issued a “Letter of Coverage” authorizing the activity.
- If sufficient information is not received with the proposed project application, the Department can make one request for additional information deemed necessary for the Department to verify compliance with the terms and conditions of the general permit.
- If the Department fails to make a determination regarding coverage under the general permit within 30 days, the project is considered to be authorized and the applicant may proceed as long as the project is carried out in compliance with all conditions of the general permit.
- The Department may determine that the proposed project is not eligible for coverage under the general permit and require that the project be reviewed through the individual permit process as outlined in Ch. 30.12(3m) Wisconsin Statutes.
- Authorization of coverage under a general permit is valid for 5 years after the date of issuance or until the project is completed, whichever occurs first.

### DOCUMENTS USED IN ANALYSIS:

#### References

- Ahrenstorff, T. D., G. G. Sass, and M. R. Helmus. 2009. The influence of littoral zone coarse woody habitat on home range size, spatial distribution, and feeding ecology of largemouth bass (*Micropterus salmoides*). *Hydrobiologia* 623:223–233.
- Buchanan, D. V., P. S. Tate, J. R. Moring. 1976. Acute Toxicities of Spruce and Hemlock Bark Extracts to some Estuarine Organisms in Southeastern Alaska. *J. Fish. Res. Bd. Can.* 33:1188-1192.
- Christensen, D. L., B. J. Herwig, D. E. Schindler, and S. R. Carpenter. 1996. Impacts of lakeshore residential development on coarse woody debris in north temperate lakes. *Ecological Applications* 6:1143–49.
- Engel, S., and J. L. Pederson Jr. 1998. The Construction, Aesthetics, and Effects of Lakeshore Development: A Literature Review. WDNR Research Report 177.
- Guyette, R. P., and W. G. Cole. 1999. Age characteristics of coarse woody debris (*Pinus strobus*) in a lake littoral zone. *Can. J. Fish. Aquat. Sci.* 56: 496–505.
- Hanchin, P. A., D. W. Willis, T. R. St. Stauver. 2003. Influence of introduced spawning habitat on yellow perch reproduction, Lake Madison South Dakota. *Journal of Freshwater Ecology* 18.
- Hunt, J., and C. A. Annett. 2002. Effects of Habitat Manipulation on Reproductive Success of Individual Largemouth Bass in an Ozark Reservoir. *North American Journal of Fisheries Management* 22:1201–1208.
- Jennings, M. J., E. E. Emmons, G. R. Hatzenbeler, C. Edwards, and M. A. Bozek. 2003. Is Littoral Habitat Affected by Residential Development and Land Use in Watersheds of Wisconsin Lakes? *Lake and Reservoir Management* 19:272-279
- Marburg, A. E., M. G. Turner, T. K. Kratz. 2006. Natural and anthropogenic variation in coarse wood among and within lakes. *Journal of Ecology* 94:558-568.

Newbrey, M. G., M. A. Bozek, M. J. Jennings, and J. A. Cook. 2005. Branching complexity and morphological characteristics of coarse woody structure as lacustrine fish habitat. *Can. J. Fish. Aquat. Sci.* 62: 2110–2123.

DRAFT