

# Master Plan Variance

**Property Name:** Brule River State Forest

**Date Master Plan was Approved:** December 4, 2002

## **Variance to the Master Plan:**

The variance being proposed is comprised of the components described below. Text which currently exists in the master plan is shown with specific changes indicated in **bold** text.

### Page 75 – Area 4 – Scenic River Corridor – Authorized Management Activities

#### Original Text:

All activities will be conducted to maintain a scenic and safe experience for recreational users and will not be conducted for natural community management. Maintenance of public use facilities, exotic plant control, erosion mitigation, hazard tree removal, and salvage harvests would occur if deemed necessary to maintain the scenic and safe nature of the management area.

#### **Suggested Revision (changes shown in bold text):**

All activities will be conducted to maintain a scenic and safe experience for recreational users and will not be conducted for natural community management. Maintenance of public use facilities, **fisheries habitat**, exotic plant control, erosion mitigation, hazard tree removal, and salvage harvests would occur if deemed necessary to maintain the scenic and safe nature of the management area.

### Page 79-80 – Area 4 – Fish Habitat Management

#### **Proposal:**

Move the entire section “Area 4 – Fish Habitat Management” on pages 79-80 and create a new section in the beginning of the Master Plan with this content. This new section would be after “Property-Wide Management Provisions” (page 23-27) and before “Real Estate Management”. The new section would appear as follows (text currently existing on pages 79-80 is shown, with all references to “Area 4” removed and changes indicated in **bold** font):

#### **Title: Fisheries Habitat Management**

The development and maintenance of habitat for salmonid species within the Brule River system is important to the high quality sport fishery. This work is planned and conducted by fisheries management staff. As part of the Department’s integrated management planning these management actions are also described in property master plans. This description covers all instream fisheries habitat work conducted within the Brule River system.

Fish Habitat Management - Long-term Management Objectives (100 years):

- Provide a high quality, naturally reproducing and self-sustaining trout and salmon fishery. In order to ensure that the population is self-sustaining, it is critical that water quality be maintained, and adequate high quality instream habitat exists to support spawning and all other life stages for the several species of salmonids which coexist in the river.
- Continue to provide a high quality angling experience for both lake run and resident salmonids.

Fish Habitat Management - Short-term Management Objectives (50 years):

- Continue to identify sites where habitat restoration or improvement could benefit the fishery, without impacting the natural scenic quality of the site and continue to apply the appropriate habitat management techniques to those sites.

Fish Habitat Management – Authorized Management Actions:

In addition to stocking and harvest regulation, past fishery management actions have included numerous habitat modification techniques. Gravel, rock, and woody debris have been placed into the stream in order to improve and restore cover and spawning habitat. Beaver control and dam removals have been used to ensure that fish have access to high quality spawning areas. Stabilization of eroding or slumping streambanks has been used to reduce sedimentation. ~~The authorized management actions and prescriptions also apply to appropriate sites within Management Area 5.~~ **These past activities continue to be authorized management actions and prescriptions on appropriate sites within any Management Area of the Brule River State Forest which contain critical salmonid spawning habitat.**

As flowing water systems can be very dynamic, changes are to be expected. Both natural and human induced events can have serious negative impacts on instream habitat. These fishery management techniques can be used to prevent and minimize impacts, as well as to speed the natural recovery processes after impacts have occurred. We anticipate using these techniques, as needed to protect, maintain and improve the water quality and instream habitat.

Fish Habitat Management – Resource Management Prescriptions:

- Sites where banks become unstable due to serious erosion or slumping will be stabilized and repaired.
- Instream additions or removal of gravel, rock, large woody debris or other materials will be made to improve salmonid spawning or living conditions, on a site-by-site basis. These modifications will only be undertaken if it will not create a hazard or degrade the scenic quality of the location.
- Downed and fallen trees in the river that provide important fish habitat but are not deemed safety hazards to navigation will be left in the river.
- Continue instream maintenance of restored fish habitat areas (gravel additions, log habitat, etc.)
- Continue to control beaver populations on the tributaries to protect fish habitat and assure fish movement. Beaver control should only be considered on designated trout water and specific ecologically sensitive sites. Actual removal should only be done for resident beaver as evidenced by beaver houses, lodges, or bank dens and not during spring dispersal that is critical to allow beaver to travel throughout the area and settle in other suitable sites.

- Conduct Hilsenhoff Biotic Index monitoring every 3 years to assure that high water quality is maintained on the Brule River and tributaries.

**Addition to Bulleted List above:**

- **Aspen, alder, and other associated tree species within the streamside habitat area, typically 200 feet from the river's edge, will be controlled to improve the Brule River fishery using non-commercial treatments by cutting, girdling, and/or the use of herbicide along the river and streamside tributaries. Cut and girdled trees will not be removed from the site. Aesthetics will be a primary consideration when control treatments are conducted. If natural regeneration of suitable tree species is inadequate within five years after the treatment is completed, underplanting the area with longer-lived coniferous tree species, including pine, spruce, cedar, tamarack, and fir will occur to promote a more natural appearing streamside forest condition.**

Page 79:

After the Fisheries Management Section is moved to the beginning of the Master Plan, provide a note in Area 4 which states:

**For fisheries management objectives and prescriptions please refer to the "Fisheries Habitat Management" section. Authorized fish habitat management actions and prescriptions apply to appropriate sites (tributaries to the Brule River) within any Management Area of the Brule River State Forest which contain critical salmonid spawning habitat.**

Page 85 – Area 5 – Brule River Bog and Spillway – Authorized Management Activities:  
After the Fisheries Management Section is moved to the beginning of the Master Plan, provide a note in Area 5 which states:

**For fisheries management objectives and prescriptions please refer to the "Fisheries Habitat Management" section. Authorized fish habitat management actions and prescriptions apply to appropriate sites (tributaries to the Brule River) within any Management Area of the Brule River State Forest which contain critical salmonid spawning habitat.**

**Approved:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Administrator, Division of Forestry

**Variance Initiator/Author:** Dave Schulz

**Title:** Superintendent, Brule River State Forest

## Supporting Approvals

\_\_\_\_\_ Date: \_\_\_\_\_  
*Property Manager*

\_\_\_\_\_ Date: \_\_\_\_\_  
*Department Master Planning Manager, LF*

\_\_\_\_\_ Date: \_\_\_\_\_  
*Regional Forestry Leader*

\_\_\_\_\_ Date: \_\_\_\_\_  
*Program Bureau Director*

## **SUPPORTING INFORMATION**

### **Purpose and Need for the Proposed Variance:**

This variance is needed to clarify streamside fisheries habitat management activities within the Brule River State Forest. The current plan does not clearly authorize land management activities that help meet the objectives listed in the plan. This variance is intended to clarify the actions allowed to meet the objectives. The Brule River State Forest Master Plan was approved in 2002.

### **Anticipated Primary Benefits of the Proposed Variance:**

Several benefits to the Brule River fishery will be achieved, including: long term restoration of critical salmonid spawning habitat, a more resilient self sustained fishery, reduced stream sedimentation, and reduced habitat maintenance costs. In addition, streamside forest recovery would eventually lead to the recruitment of large wood falling into the stream. Large wood in the stream, also referred to as coarse woody habitat, is critical in promoting long-term stream health, because it creates natural fish habitat. The encouragement of native conifer species in streamside areas would further promote a healthy streamside forest by accelerating streamside forest restoration. It will also reduce aspen dominance and increase the prevalence of coniferous species over the long-term. The girdling of aspen trees will create standing dead trees that provide significant benefits to wildlife species, will eventually create more coarse woody habitat, and will also help re-establish coniferous species.

### **Additional Anticipated Benefits:**

Aside from major benefits to the fishery, one additional benefit includes reduced impacts and costs of controlling beaver. Alder and aspen suppression would shift the forest type toward species less preferred by beaver which would reduce the impacts in critical fish habitat reaches. Currently, due to the high abundance of alder and aspen, beaver are attracted to these areas and build dams. The dams cause a variety of problems, such as blocking salmonids from reaching upstream spawning areas, stopping natural sediment transport which buries critical spawning habitat, causing sedimentation or filling of salmonid living space, and setting back streamside forest succession as the creation of dams drown out trees.

### **Unavoidable Adverse Impacts:**

One of the impacts from the proposed management is the potential short-term impacts on aesthetics. In these areas, beaver dams have created flowages that drowned out streamside forests and caused diverse streamside forests to be replaced with sedge, grassy meadows, and dense stands of alder and aspen. The treatment of alder in these stream reaches will initially create a more open appearance next to the stream. However, in the long-term, the management actions will enhance the visual appearance by increasing the prevalence of coniferous species as well as encourage a more naturally appearing forest by promoting longer-lived species. In addition, a majority of the management actions will occur on tributaries to the Brule River, reducing visual impacts on the scenic river corridor along the main channel of the Brule River.

Another impact of the proposed management will be a localized decrease in beaver abundance within the Brule River State Forest in response to the eventual shift of streamside habitat away from their preferred tree species.

**Compatibility with Statutes, Codes and Department Policies:**

The proposed master plan variance is compatible with NR 44.04(a) which reads as follows:

NR 44.04

(1) DEFINITIONS.

(d) "Master plan variance" or "plan variance" means a change in management activity or use described in the master plan that is consistent with the area's land management classification and does not constitute a change in an objective for management or public use of the area as specified in the plan.

**Federal Aid Limitations:**

There are no Federal Aid limitations.

**How the Master Plan Supports the Proposed Variance:**

This variance is supported by several objectives in the Brule River State Forest Master Plan (2002). The proposed management activities requiring this variance comply with the objectives of the Master Plan; however, the proposed activities are not recognized as 'authorized management activities'. The variance remedies this inconsistency.

The proposed management activities are supported by the following objectives in the Master Plan:

Page 22 – Property-Wide Management Objectives, Watershed Management

- Protect and maintain in-stream conditions that supply all the various habitat needs to the self-sustaining multi-species fishery and other aquatic biota. The tributaries act as important spawning and nursery areas for the Brule River system fishery.

Page 79 – Area 4 – Fish Habitat Management, Long-term Management Objectives

- Provide a high quality, naturally reproducing and self-sustaining trout and salmon fishery. In order to ensure that the population is self-sustaining, it is critical that water quality be maintained, and adequate high quality in-stream habitat exists to support spawning and all other life stages for the several species of salmonids which coexist in the river.

Page 79 – Area 4 – Fish Habitat Management, Short-term Management Objectives

- Continue to identify sites where habitat restoration or improvement could benefit the fishery, without impacting the natural scenic quality of the site and continue to apply the appropriate habitat management techniques to those sites.

Page 79-80 – Area 4 – Fish Habitat Management, Short-term Management Objectives

- In addition to stocking and harvest regulation, past fishery management actions have included numerous habitat modification techniques. Gravel, rock, and woody debris have been placed into the stream in order to improve and restore cover and spawning habitat. Beaver control and dam removals have been used to ensure that fish have access to high quality spawning areas. Stabilization of eroding or slumping streambanks has been used to reduce sedimentation. The authorized management actions and prescriptions also apply to appropriate sites within Management Area 5.

The use of herbicides is authorized on Page 75 – Area 4 – Scenic River Corridor, Resource Management Prescriptions, although it is specifically referencing exotic plant infestations.

- Monitor for exotic plant infestations and use control methods appropriate to the species and infestation threat. These methods may include mechanical removal, herbicide applications or biological control.

#### **The Public Review Process Used:**

1. Information was presented at the Brule River State Forest annual spring public meeting on April 19, 2008 and the 'variance public summary' handout was provided (attached).
  - a. Meeting was advertised in two newspapers, via email, via word of mouth, and via DNR website (events calendar and Brule River State Forest webpage).
2. Information was presented at the annual meeting of Brule Preservation.
3. Information was presented at a meeting of the Brule River Sportsman's Club.
4. Information was available on the BRSF webpage (webpage link was included on handout, which was shared at all of the meetings described in items 1-3 above). [http://dnr.wi.gov/master\\_planning/Brule/](http://dnr.wi.gov/master_planning/Brule/)
5. Electronic survey page was available for people to provide comments online (webpage shared as indicated in item 4 above). Survey was available April 19, 2008 through May 20, 2008.
6. Comments were also available to be received via e-mail, phone, and written letter to Dave Schulz, BRSF superintendent.

#### **Description of the Support and/or Opposition to the Proposed Variance (including reasons for the various positions taken) and Any Unresolved Issues or Concerns:**

In general, the variance was very well received by the public. Most understood the need for the fish habitat management work and saw the value in such activities. Also, the public was happy with the avenues used to share information with the public. Two written comments were received.

There were four main areas of comment at the meetings and in written comments:

1. Herbicide Use. Many individuals were concerned with the use of herbicides anywhere on the state forest property. At the meetings, responses were that all herbicide application will be done under the direct supervision of a trained applicator, and that application will target individual alder clumps or aspen trees. This information relieved the general concern.
2. Impacts to Beaver Populations. There was general concern over the impacts these treatments would have on the Brule valley beaver population. It was explained that beaver will remain in the Brule valley, and these management activities will reduce beaver abundance in areas which contain critical fish spawning habitat. Further, shifting the streamside vegetation away from species preferred by beaver will be the most humane and cost efficient way to reduce beaver damage in critical fishery reaches.
3. Scope of the Management Activities. People wanted to be assured that the fish habitat management activities wouldn't mean clearing significant portions of streams. The variance language itself states that the areas to be treated will be mostly tributaries to the Brule River and areas along the Upper Brule River. These areas are not normally recreated and are not highly visible. Fisheries managers will identify critical fish spawning reaches and only those areas will be targeted.

4. Follow-Up/Monitoring of Treatment Sites. Several people expressed concern about being sure there is follow-up monitoring of the treatment sites to ensure the projects are successful. Annual monitoring will be done by fisheries staff with ongoing advice from BRSF forestry staff, as these areas are all critical fishery reaches. If sufficient natural regeneration is not established within five years, conifers will be planted to accelerate the streambank recovery process. Also, updates, including photos of the treatment sites will be available at the spring/fall property meetings and as requested.