

SUBJECT: Progress Report on the joint WDNR - USFWS Lake Superior Brook Trout Restoration Plan

FOR: MARCH 2011 BOARD MEETING

TO BE PRESENTED BY / TITLE: Peter M. Stevens (WDNR-Bayfield) and Mark Brouder (USFWS-Ashland)

SUMMARY:

In 2005, the Wisconsin DNR and the US Fish and Wildlife Service developed a joint plan for brook trout restoration in Lake Superior. This plan involves a series of projects under a unified set of goals and objectives. Currently, rehabilitation and restoration efforts are underway on five priority streams: the Bois Brule River, Bark River, Raspberry River, Whittlesey Creek and Graveyard Creek. Key staff members from each agency will provide an update on the progress made since an update to the Board in September 2008. It will include goals of the plan and information on various projects being conducted on the five priority streams that were identified as part of the joint plan.

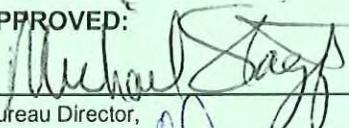
RECOMMENDATION: Information Item

LIST OF ATTACHED MATERIALS:

No Fiscal Estimate Required
No Environmental Assessment or Impact Statement Required
No Background Memo

Yes Attached
Yes Attached
Yes Attached

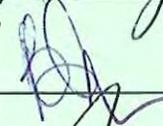
APPROVED:



Bureau Director,

3-10-2011

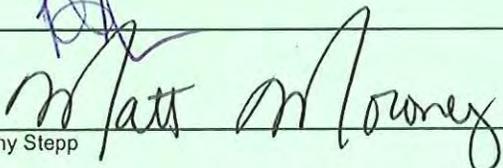
Date



Administrator,

3/11/11

Date



Secretary, Cathy Stepp

3/11/11

Date

cc: NRB Liaison
DNR Rules Coordinator

DATE: March 10, 2011

FILE REF: 3600

TO: Natural Resources Board

FROM: Cathy Stepp, Secretary

SUBJECT: Lake Superior Brook Trout Restoration Plan Update

In 2005 the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service produced a joint brook trout restoration plan for the "coaster" life history of brook trout in Lake Superior and tributaries. As part of that plan, brook trout rehabilitation efforts are currently underway on five priority streams:

1. Brule River
2. Bark River
3. Raspberry River
4. Whittlesey Creek
5. Graveyard Creek

The complete Wisconsin Lake Superior Brook Trout Plan may be downloaded as a pdf file from:

<http://dnr.wi.gov/fish/lakesup/documents/lakesuperiorbasinbrooktroutplan.pdf>

Peter Stevens, Lake Superior Fisheries Team Supervisor and Mark Brouder, Project Leader of the Ashland National Fish & Wildlife Conservation Office of the U.S. Fish & Wildlife Service will give an update to the Board on the current status of the projects within the plan and on the future direction of this joint project. This update will be brief and is designed to highlight progress made in the five priority streams named in the Brook Trout Restoration Plan since the most recent report to the Natural Resources Board in September 2008.

This item is presented for information purposes only.

BACKGROUND

Brook trout (*Salvelinus fontinalis*) were once common in most of the basin's available cold-water habitat, including tributaries and along rocky coastlines, until their populations declined in the 1880's due to over-exploitation and habitat loss. Today's remaining populations are typically only able to sustain themselves in headwater reaches and seldom utilize the lakeshore habitat, where they could grow more quickly and reach larger sizes. For purposes of this plan, we will use a working definition of "coaster" brook trout as brook trout that inhabit the lake shore waters for at least part of their lives.

This plan describes the life history, threats, and management of brook trout in Wisconsin's portion of the Lake Superior basin and its tributaries, and suggests a goal, objectives and tactics to protect and rehabilitate depleted populations. It was jointly

written by the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service. The plan's goals are: To protect and improve self-sustaining brook trout populations and their habitat in Wisconsin's Lake Superior Basin and attempt to establish several populations that exhibit life history diversity (both stream resident and migratory 'coaster' life history types).

Brook trout that grow to a larger size in coastal waters of Lake Superior likely resulted from a combination of environmental and genetic factors. Possibilities include:

- A genetically inherited anadromous life history strategy, in which fish spend most of their adult lives in the lake but migrate into tributary streams to spawn.
- Environmentally based patterns of habitat use, in which fish exhibit growth and behavioral traits characteristic of the waters they inhabit.

Within their native range, brook trout are known to express a broad spectrum of reproductive life histories and behaviors. Current knowledge/thought for brook trout in Lake Superior suggests that most brook trout in Lake Superior are probably capable of expressing the migratory life history trait under the appropriate conditions. In Wisconsin, coaster brook trout may be a stream source brook trout that enter the lake environment, grow faster than their river dwelling siblings, and return to reproduce (life history variant). Lake spawning populations are known to exist elsewhere in Lake Superior although no historical evidence exists in Wisconsin waters.

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Component areas of the joint plan include: 1. Stream habitat and watershed health, 2. Harvest management (restrictive harvest regulations), 3. Rehabilitation stocking, 4. Genetics management, 5. Life history and management, 6. Species interactions, and 7. Outreach.