Form 1100-001
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NATURAL RESOURCES BOARD AGENDA ITEM

Item No. 8.B.2

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

FOR: SEPTEMBER **BOARD MEETING**

TO BE PRESENTED BY: Steve Schram (WDNR) and Mark Brouder, USFWS, Bayfield

SUMMARY:

The Wisconsin DNR and the US Fish and Wildlife Service have a joint plan for brook trout restoration in Lake Superior. This plan involves a series of various projects under unified goals and objectives. The Natural Resources Board has not been recently updated about the progress made toward the goals of this plan. Key staff members from each agency will provide an update on the progress of the various projects that have been developed as part of the joint plan.

RECOMMENDATION: Information Item

LIST OF ATTACHED MATERIALS:

No	☑	Fiscal Estimate Required	Yes ☐	Attached
No	☑	Environmental Assessment or Impact Statement Required	Yes ☐	Attached
No	☑	Background Memo	Yes ☐	Attached

APPROVED:

Mike Haggs/DAS — 13 August 2008
Bureau Director, — Date

[signature] — 13 August 2008
Administrator, — Date

[signature] — 9/4/08
Secretary, Matt Frank — Date

cc: Laurie J. Ross - AD/8

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: September 4, 2008 FILE REF: 3600

TO: Natural Resources Board Members

FROM: Matthew Frank, Secretary

SUBJECT: Lake Superior Brook Trout Restoration Plan update

In 2005 the Wisconsin Department of Natural Resources and the US Fish and Wildlife Service produced a joint plan to restore brook trout with "coaster" life history 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

Steve Schram, 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.

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 use 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 it's 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).

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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.