



Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-4010

November 14, 2011

Headquarters
U.S. Army Corps of Engineers
CECW-P (SA)
7701 Telegraph Road
Alexandra, VA 22315-3860

RE: Marsh Lake Ecosystem Restoration Project

Dear Theodore A. Brown,

The Minnesota Department of Natural Resources (MNDNR) and the U.S. Army Corps of Engineers have been coordinating and planning for the restoration of the Marsh Lake ecosystem in western Minnesota for more than a decade. The culmination of these efforts, as well as ample public outreach, is the *Feasibility Report and Environmental Assessment (EA)* for the Marsh Lake Ecosystem Restoration Project (Proposed Project) prepared by the U.S. Army Corps of Engineers.

On November 10, 2011 the MNDNR completed its Record of Decision on the Proposed Project to satisfy state environmental review requirements. The MNDNR has made a negative declaration on the need for a state Environmental Impact Statement.

The MNDNR fully supports the analysis and conclusions contained in the EA and the implementation of the project components included in Alternative Plan 4. An improved Marsh Lake ecosystem would be an essential step forward in increasing Minnesota's wildlife and aquatic species populations. The MNDNR looks forward to continued collaboration with your agency in working to implement this important restoration project.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Colvin', is written over a faint, larger signature.

Steve Colvin, Supervisor
Minnesota Dept. of Natural Resources
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St. Paul, MN 55155-4025
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United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240



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Mr. Theodore A. Brown, P.E.
Chief, Planning and Policy Division
Directorate of Civil Works
Headquarters
U.S. Army Corps of Engineers
CECW-P (SA)
7701 Telegraph Road
Alexandria, VA 22315-3860

RE: Chief of Engineers and the Report of the District Engineer on the Marsh Lake Ecosystem Restoration Project, Minnesota

Dear Mr. Brown:

The U.S. Department of the Interior (Department) has reviewed the U.S. Army Corps of Engineers (Corps), Chief of Engineers Report, and supporting documents on the Marsh Lake Ecosystem Restoration Project in Minnesota.

Our U.S. Fish and Wildlife Service (FWS) previously provided comments to the Corps St. Paul district office under the Fish and Wildlife Coordination Act (FWCA). The Department has no further comments and no objections to the proposed project.

We appreciate the opportunity to provide comments. If you have any questions or need further assistance related to the FWCA, please contact Richard Davis, FWS, at 612-725-3548 (ext. 2214) or email Richard_Davis@fws.gov.

Sincerely,

Willie R. Taylor
Director, Office of Environmental Policy
and Compliance



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OCT 31 2011

REPLY TO THE ATTENTION OF:

E-19J

Theodore A. Brown
Chief, Planning and Policy Division
U.S. Army Corps of Engineers – Headquarters
CECW-P (SA)
7701 Telegraph Road
Alexandria, Virginia 22315

RE: Feasibility Report and (Final) Environmental Assessment for the Marsh Lake Ecosystem Restoration Project / Proposed Report of the USACE Chief of Engineers / Minnesota Department of Natural Resources Environmental Assessment Worksheet: Big Stone, Lac qui Parle, and Swift Counties, Minnesota

Dear Mr. Brown:

The U.S. Environmental Protection Agency has received U.S. Army Corps of Engineers (USACE) correspondence dated October 11, 2011, requesting EPA's review of and comments on the (Final) Feasibility Report and Environmental Assessment (hereby referred to as the Final EA) and the proposed report of the Chief of Engineers for the proposed Marsh Lake Ecosystem Restoration Project. The overall goal of the Marsh Lake Ecosystem Restoration Project is a "return of the Marsh Lake area ecosystem to a less degraded and more natural and functional condition."

Objectives proposed to meet this goal include reducing sediment loading to Marsh Lake, restoring natural fluctuations to the hydrologic regime of Marsh Lake, restoring the Pomme de Terre River to its original course and floodplain, reducing sediment resuspension within Marsh Lake, increasing native plant cover and diversity within Marsh Lake, restoring aquatic habitat connectivity between Marsh Lake, the Pomme de Terre River, and Lac Qui Parle, reduction of non-native fish within Marsh Lake, and increasing diversity and abundance of native fish within Marsh Lake and the Pomme de Terre River.

EPA has reviewed the Final EA for the aforementioned project. This letter provides our comments on the Final EA, pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

The Final EA presents proposed actions by USACE to restore Marsh Lake to a more natural and functional condition. USACE's preferred alternative is referred to in the document as "Alternative Plan 4", which maximizes benefits in relation to cost and meets planning objectives. Specifically, USACE's preferred alternative proposes the following restoration measures:

1. **Restoration of the Pomme de Terre River into its existing natural channel.** During construction of the Marsh Lake Dam, the Pomme de Terre River was rerouted in a channelized fashion between 1936 and 1939 to outlet into Marsh Lake. In order to reconnect the river to its natural channel, two earthen cut-off dikes are proposed to be constructed to force the river flow back to the natural channel. Approximately 11,500' of natural channel will receive restored flow. This measure will reduce sediment loading to Marsh Lake as the river will no longer outlet into Marsh Lake directly upstream of the Marsh Lake Dam; the river will flow east of, and connect to, the outlet channel of the Marsh Lake Dam (the Minnesota River). Restoration will also remove fish habitat fragmentation by allowing native fish from Lac qui Parle to access the high quality spawning habitat of the Pomme De Terre River, and will also allow the river to have access to its natural floodplain. A 450' long vehicular bridge over the restored river channel is proposed to be constructed to maintain access to the Marsh Lake Dam.
2. **Breaching of the dike at the abandoned fish pond located south and downstream of the Marsh Lake Dam.** Dike breaching will allow connectivity between the pond and Lac qui Parle/Minnesota River, will allow fish access to the pond area, and will provide shorebird habitat during low water levels.
3. **Construction of water control structures (stop log structures) at the existing Marsh Lake Dam to allow drawdowns.** Modifications as proposed to the Marsh Lake Dam will allow for active water level management within the lake. Water level management is proposed in spring/summer conditions as needed to allow for controlled drawdowns to encourage emergent aquatic plants to germinate and establish. Winter drawdowns are also proposed to reduce water levels and dissolved oxygen within the lake to impose hypoxia stress and winter kill on invasive carp, which currently dominate the lake.
4. **Installation of gated culverts at three existing culvert locations along Louisburg Grade Road.** A total of seven existing deteriorating 60" diameter culvert pipes at three locations are proposed to be replaced with concrete box culverts with stop log water control structures. New culverts with stop log structures are proposed to allow management of water levels upstream of the culverts in the upper part of Marsh Lake. Higher water levels can be managed in upper Marsh Lake to allow for spawning of desirable northern pike and improve survivability of young fish in early spring. Removal or lowering of the stop log structures later in the season would allow access between upper Marsh Lake and Marsh Lake to promote a native fishery within Marsh Lake.
5. **Construction of a fishway at the existing Marsh Lake Dam.** The rock ramp/riffle fishway as proposed will allow year-round fish passage between Marsh Lake, Lac Qui Parle, and the Pomme de Terre River.

Overall, the Final EA adequately identifies and assesses potential impacts associated with the Preferred Alternative. Minor impacts to (placement of fill into) existing wetlands and waters are proposed in order to implement the preferred alternative measures. Specifically, restoration of the Pomme de Terre River will require construction of two earthen cut-off dikes (Diversion Dikes A & B) to redirect the river flow back to its existing natural channel. A third area of fill (road raising along 225th Ave. SW) is proposed to prevent movement of water between Marsh Lake and the Pomme de Terre River through a low area on the east side of Marsh Lake.

The two Diversion Dikes are to be installed within the channelized portion of the Pomme de Terre River and its floodplain; in addition to fill within the current river channel, it appears likely that the diversion dikes will also be built in adjacent floodplain wetland areas. The placement of fill material into wetlands and/or the Pomme de Terre River waterways will require coordination and permitting from several of Minnesota's state regulatory agencies. From information provided with the document and appendices, it appears that permitting coordination and dialogue has begun with appropriate divisions of both the Minnesota Pollution Control Agency and the Minnesota Department of Natural Resources. Additional coordination with local government units may be required under the Minnesota Wetland Conservation Act. EPA expects that if wetland mitigation is required, it will meet mitigation requirements of the regulatory agencies' standards and ratios.

Additional fill to wetlands and waters is associated with both the new vehicular bridge to be installed over the Pomme de Terre River and with four proposed rock grade control structures to be installed in the original channel of the Pomme de Terre River. During installation of these grade control structures, care should be taken to select access points and staging areas that minimize damage to adjacent wetlands and floodplain forests, and to minimize in-stream and downstream sedimentation during installation.

Modification of the existing Marsh Lake Dam for installation of water control structures and a fishway will also require installation of large boulders and rocks as well as riprap within the outlet channel of Marsh Lake at the dam. Additional proposed recreation facilities such as fishing platforms to be installed along Marsh Lake will also require fill to the lake.

Replacement of the existing culverts along Louisburg Grade Road will require installation of new concrete box culverts and riprap armoring upstream and downstream of the new culverts. If water velocities and engineering allow, EPA recommends that armor rock be removed during final design. Additionally, multiple cell concrete box culverts (EPA assumes four-sided culverts) are proposed for installation. As the purpose of the new culverts and associated stop log structures is to manage water levels in upper Marsh Lake to promote a healthy, native fishery within Marsh Lake, EPA recommends that culverts be designed to allow fish and other aquatic organism passage and to ensure continuity of the aquatic habitat (by not restricting or altering water depth, flow, or velocity). As the purpose of the new culverts is to allow for installation of stop-log structures on the culvert, EPA assumes that bottomless culverts cannot be used. If four-sided box culverts must be used, they should be embedded a minimum of two feet into the bottom of the lake.

EPA recommends you review design considerations developed by the River and Stream Continuity Partnership at:

http://www.streamcontinuity.org/pdf_files/MA%20Crossing%20Stds%203-1-11.pdf.

Construction plans (Appendix N) currently label fill materials to be used as “random fill.” EPA expects that this “random fill” will be clean, inert material. As construction plans are finalized, EPA recommends that notations of “random fill” be modified to specify fill type(s).

To further minimize impacts to wetlands and sensitive aquatic habitats, EPA recommends the following measures be implemented during construction:

- Winter construction, if/when feasible;
- Minimize widths of temporary access roads/paths;
- Use removable materials for construction of temporary access roads/paths (e.g. timber/swamp mats) in lieu of “fill” materials such as stone, riprap, or wood chips;
- Use timber/swamp mats to distribute the weight of construction equipment in order to minimize soil rutting and compaction;
- Use vehicles and construction equipment with wide tires or rubberized tracks, or low ground-pressure equipment, to further minimize wetland impacts during construction;
- Use long-reach excavators, where appropriate, to avoid driving, traversing, or staging in wetland or floodplain areas;
- Use cofferdams and dam/pump arounds to isolate work areas from active flow;

EPA also hereby reiterates comments from our June 16, 2011, correspondence in which we noted that the lower channelized portion of the Pomme de Terre River supports a diverse mussel community, including two state-listed mussel species (the elktoe and black sandshell). EPA supports the Monitoring and Adaptive Management plan to be implemented by the Minnesota DNR (MnDNR) to monitor and evaluate the response of native mussels in the restored portion of the Pomme de Terre River. EPA encourages MnDNR to harvest mussels from the portion of channel to be abandoned and to relocate them into the restored portion of river channel.

Additionally, prior to any tree removal required by project implementation, bald eagle nesting trees should be inspected and verification of the location and status of the nest should be completed prior to completing any construction within 660’ of the nest site. Construction timelines should also be developed to minimize impacts to colonial water-nesting bird species, particularly during prime nesting times.

Except for temporary localized water, sediment/erosion control, and noise quality impacts associated with construction, the Final EA identifies that no significant permanent environmental impacts are anticipated to result as a result of implementation of the proposed Preferred Alternative. EPA commends the level of detail provided in your Final EA, particularly in the Feasibility Report Appendices.

Thank you for the opportunity to review and comment upon the Final Feasibility Report and Environmental Assessment. We are available to discuss our comments with you in further detail if requested. **Please send us the signed Finding of No Significant Impact (FONSI) when it becomes available.** If you have any questions about this letter, please contact Ms. Liz Pelloso, PWS, of my staff at 312-886-7425 or via email at pelloso.elizabeth@epa.gov.

Sincerely,



Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

cc: Richard Davis, US Fish and Wildlife Service-Twin Cities Field Office
Michael Wyatt, USACE-St. Paul District
Kevin Molloy, Minnesota Pollution Control Agency
Karen Kromar, Minnesota Pollution Control Agency
Tom Hovey, Minnesota Department of Natural Resources
Erik Carlson, Minnesota Department of Natural Resources