

**DRAFT ENVIRONMENTAL ASSESSMENT**

**BIG SANDY LAKE  
BEACH EXPANSION  
SANDY LAKE RECREATION AREA  
AITKIN COUNTY, MINNESOTA**

**ST. PAUL DISTRICT  
U.S. ARMY CORPS OF ENGINEERS  
March 2009**

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SANDY LAKE RECREATION AREA  
AITKIN COUNTY, MINNESOTA**

**March 2009**

**TABLE OF CONTENTS**

<u>SECTION</u>	<u>PAGE</u>
1.0 SUMMARY .....	2
1.1 RELATIONSHIP TO ENVIRONMENTAL REQUIREMENTS .....	2
2.0 NEED FOR AND OBJECTIVE OF ACTION .....	3
3.0 ALTERNATIVES CONSIDERED .....	3
3.1 NO ACTION .....	3
3.2 ALTERNATIVES ELIMINATED FROM FURTHER STUDY .....	3
3.3 PROPOSED ALTERNATIVE .....	4
4.0 AFFECTED ENVIRONMENT .....	5
4.1 SOCIAL AND ECONOMIC ENVIRONMENT .....	5
4.2 NATURAL RESOURCES .....	5
4.3 CULTURAL RESOURCES .....	6
5.0 ENVIRONMENTAL EFFECTS .....	6
5.1 SOCIAL AND ECONOMIC .....	6
5.2 NATURAL RESOURCES .....	7
5.3 CULTURAL RESOURCES .....	8
5.4 CUMULATIVE EFFECTS .....	8
6.0 COORDINATION .....	9
7.0 REFERENCES CITED .....	9
 EXHIBIT 1 - CORRESPONDENCE	
 EXHIBIT 2 - SECTION 404(b)(1) EVALUATION	
 FINDING OF NO SIGNIFICANT IMPACT	

## **DRAFT ENVIRONMENTAL ASSESSMENT**

### **BIG SANDY LAKE BEACH EXPANSION SANDY LAKE RECREATION AREA AITKIN COUNTY, MINNESOTA**

#### **1.0 SUMMARY**

The proposed project would be completed under the authority of the Flood Control Act of 1944, which authorizes the development of recreational facilities at the Sandy Lake Recreation Area. The proposed project would include an expansion of the wet portion of the existing beach by an area approximately 70 feet wide and 60 feet long. Aquatic plants within the expanded area and a minimum of 2 feet of sediment would be removed, and no more than 350 cubic yards of washed sand would be placed in the water so that the area would be within  $\pm$  3 inches of the preconstruction elevation. In addition, a 4,400-square-foot portion of the existing beach would be excavated to remove fine material. The resulting depression would be filled with no more than 82 cubic yards of washed sand placed to an average depth of 6 inches. No excavation would occur in the upland area adjacent to the wet portion of the new beach, but two trees may be removed.

Several alternatives were proposed but rejected. The no-action alternative involved the maintenance of the existing beach. Another alternative included the features of the proposed alternative as well as an upland beach expansion; the possibility of the presence of archeological resources in the upland area led to its elimination. An additional alternative entailed placing a sand blanket over the expanded area without any excavation. This alternative was eliminated because of concerns that it would require long-term maintenance.

An environmental review indicates the impacts associated with the proposed action would not significantly affect the quality of the human environment because the probable effects in the area would be short-term and minor. Therefore, an environmental impact statement will not be prepared.

In accordance with the Clean Water Act of 1977 and 40 CFR part 230, a Section 404(b)(1) evaluation was prepared. A State Water Quality Certificate (Section 401) has been applied for and will be obtained before construction.

#### **1.1 RELATIONSHIP TO ENVIRONMENTAL REQUIREMENTS**

The proposed action would be in compliance with Federal environmental laws, Executive Orders and policies, and State and local laws and policies including the Clean Air Act, as amended; the Clean Water Act, as amended; the Endangered Species Act of 1973, as amended; the Fish and Wildlife Coordination Act of 1958, as amended; the Land and Water Conservation Fund Act of 1965, as amended; the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; Executive Order 11988 - Floodplain

Management; Executive Order 11990 - Protection of Wetlands; and Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The project would not result in the conversion of farmland to nonagricultural uses. Therefore, the provisions of the Farmland Protection Policy Act of 1981 do not apply to this project. The proposed action would not conflict with any State of Minnesota air quality implementation plans.

## **2.0 NEED FOR AND OBJECTIVE OF ACTION**

The Sandy Lake Recreation Area is situated at the outlet of Big Sandy Lake, about 120 miles north of Minneapolis, Minnesota (Figure 1). The recreation area offers camping, boating, swimming, picnicking, fishing and playground areas.

The existing public beach was constructed in 1985. The project consisted of dredging a 150-foot-long by 100-foot-wide area and placing 1,200 cubic yards of sand in the resulting depression. The upland portion of the existing beach received a sand blanket and was not excavated to protect buried archeological resources. An environmental assessment and Section 404(b)(1) evaluation were completed for the existing beach, and the Finding of No Significant Impact (FONSI) was signed on August 23, 1985.

The existing beach has received increasingly heavy use since its construction. The campground is full every weekend from Memorial Day through Labor Day, and the beach area becomes very crowded on most weekends beginning June 1. Sandy Lake has the only public beach in the area, and many noncampers come to the day-use area to use the beach. The Flood Control Act of 1944 provides the basic authority to develop and operate recreational facilities at the Sandy Lake Recreation Area. The purpose of the proposed work is to increase available public beach at the Sandy Lake Recreation Area.

## **3.0 ALTERNATIVES CONSIDERED**

### **3.1 NO ACTION**

The no-action alternative would simply involve the maintenance of the existing beach at its current size and location. As a result of the heavy use of the beach, the upland area of the existing beach has required sand nourishment on average every 3 years, which will continue as necessary as a part of each of the alternatives. The no-action alternative was not selected because an expansion of the wet area of the beach is needed.

### **3.2 ALTERNATIVES ELIMINATED FROM FURTHER STUDY**

An alternative eliminated during planning included all the features of the proposed alternative with the addition of an expanded upland sand beach area adjacent to the proposed wet beach area. The expanded dry beach area would have been about 70 feet wide by 60 feet long. This upland area would have been regraded, removing up to about 2 feet of soil in places that

would have totaled less than 50 cubic yards of material. The excavated soil would have been used as fill in landscaping projects in the park. About 100 cubic yards of washed sand would have been placed on the dry portion of the beach.

This alternative was eliminated because the proposed excavated upland area likely contains extensive archeological resources. Any excavation would have required cultural mitigation. This mitigation work would have been expensive, and leaving artifacts undisturbed is preferred to data recovery (mitigation) efforts. Eliminating this alternative was acceptable; the wet portion of the beach receives the most public use and expansion of the dry area is less important.

Another eliminated alternative involved the expansion of the wet portion of the beach by an area 70 feet wide and 60 feet long, as with the proposed alternative, but the area would not have been excavated to remove fine materials prior to the placement of washed sand. Aquatic plants within the expanded area would have been removed, likely by hand using a cable and rakes. A sand blanket would have been placed over the area with no more than 200 cubic yards of washed sand up to a depth of about 18 inches.

This alternative was eliminated because of the likelihood that further action would be necessary to keep the new beach in its proposed condition. It is highly likely that this alternative would require regular aquatic plant removal because, by not excavating the fine material, the soft, mucky bottom would perpetuate weed growth. This alternative might also increase the likelihood of swimmer's itch. The minor changes to this alternative in the proposed alternative are meant to promote a more permanent solution and decrease the probability and impacts of obligatory future maintenance. Although this alternative would result in less turbidity during construction because no excavation would take place, the regular removal of aquatic vegetation would result in continuing disturbances, causing future cumulative impacts to the area.

### **3.3 PROPOSED ALTERNATIVE**

The existing boundary of the wet portion of the beach is about 70 feet wide by 140 feet long. The proposed alternative would include the expansion of the wet portion by an area approximately 70 feet wide and 60 feet long (see Figure 1). The area would be excavated a minimum of 2 feet to remove fine materials, which would be replaced with washed sand. Aquatic plants within the expanded area would be removed, most likely through the excavation process, but removal of plants could possibly be conducted by hand or by using a mechanical plant harvester. No more than 350 cubic yards of washed sand would be placed in the water to cover the excavated area. Sand would be placed to an average depth of 2 feet, and the elevation of the finished beach would be within 3 inches of the preconstruction elevation. Some continued aquatic plant removal could be necessary in the new beach.

The proposed alternative would also include repair to a portion of the existing beach. A 4,400- square-foot area would be excavated to remove fine material. The resulting depression would be filled with washed sand. No more than 82 cubic yards of sand, placed to an average depth of 6 inches, would be placed in the water to fill and cover the excavated area.

No excavation would occur in the upland area adjacent to the wet portion of the new beach. However, a small 8-inch ash and a 20- to 24-inch oak might be removed. The ash tree is a sucker growing out of an old stump, and the oak would only be removed if it appears to be unhealthy. It is likely that the oak tree would not be removed.

#### **4.0 AFFECTED ENVIRONMENT**

##### **4.1 SOCIAL AND ECONOMIC ENVIRONMENT**

The population of Aitkin County, Minnesota, in 2000 was 15,301, compared to 12,425 in 1990. As of 1999 the median family income was \$37,290, and 12.4 percent of individuals had an income below the poverty level. The unemployment rate was 4.2 percent. In 2000, the industry accounting for more employment than any other was education, health and human services. This category was followed in descending order by arts, entertainment, recreation, accommodation, and food services; manufacturing; retail trade; and construction. The economy of Aitkin County relies heavily on tourism and recreation, as does much of northern Minnesota.

##### **4.2 NATURAL RESOURCES**

Big Sandy Lake has a surface area of 6,526 acres with a littoral zone of 3,067 acres (MnDNR 1995). The maximum depth is 84 feet. The dominant bottom substrates in less than 4 feet of water are gravel, sand, and muck. It is a eutrophic lake, and aquatic plants are abundant and grow to a maximum depth of about 8 feet. The mean Secchi depth reading - a measure of water turbidity or clarity - is about 4 feet.

Walleye and northern pike tend to be the most important game fish in the lake, but both species have slow growth rates here and the average sizes of these fish are relatively small. The lake does not have a large population of sunfish. Big Sandy Lake's dense wild rice and muck or sand habitat and exposure to wind and waves are not conducive to sunfish reproduction and survival (MnDNR 1995). Large yellow perch are present in good numbers; however, many are infected with parasites making them undesirable to most anglers.

Dense rice beds are located in several areas of the lake. These rice beds are an important food and cover resource used by waterfowl and other birds.

A survey conducted in 2004 by Corps of Engineers staff revealed that the proposed beach expansion site currently contains abundant aquatic vegetation. Vegetation at the site is approximately 75 percent wild rice (*Zizania aquatica*); 15 percent mix of coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia macrorhiza*), and possibly elodea; and 10 percent Giant Bur-reed (*Sparganium eurycarpum*).

### **4.3 CULTURAL RESOURCES**

The area around Sandy Lake Dam was first checked for cultural resources in 1975 in connection with construction of the comfort station at the Sandy Lake Recreation Area. Prehistoric and historic archeological site 21AK11 was recorded at that time as existing throughout the Corps fee title lands where the dam maintenance building, sewage treatment plant, and comfort station had been and were being constructed (Johnson 1975). A 1977-1978 shoreline survey of Big Sandy Lake revisited the site 21AK11 area and conducted additional testing to define the horizontal limits of site 21AK11 on Corps fee title land (Hudak and Ready 1979). The 1977 testing revealed intact prehistoric (Blackduck, Sandy Lake) archeological deposits in the campground and recreation area and south of the dam and maintenance buildings. Historic archeological deposits from both the old Libby town site and from dam construction and operations were found in these areas as well as north of the dam at the former schoolhouse. Phase II testing at site 21AK11 in 1985 resulted in a determination that the site was eligible for the National Register of Historic Places (Harrison 1987). In 2004, Phase II testing in the upland area south of the existing Sandy Lake swimming beach located Late Prehistoric and historic artifacts from 0 to 25 centimeters below the surface and undisturbed Archaic archeological deposits below the plow zone (former garden area) from 30 to 60 centimeters deep (Florin 2004). In addition to archeological site 21AK11, the Sandy Lake Dam itself is eligible for listing on the National Register as part of the multiple property Headwaters Dams structures.

### **5.0 ENVIRONMENTAL EFFECTS**

As specified by Section 122 of the 1970 Rivers and Harbors Act, the categories of impacts listed in table EA-1 were reviewed and considered in arriving at the final determination. In accordance with 40 CFR part 230, a Section 404(b)(1) evaluation has been prepared and is included in Exhibit 2 of this environmental assessment. A FONSI may be signed after the public review period has elapsed and any issues have been resolved

### **5.1 SOCIAL AND ECONOMIC**

#### **Recreation**

The no-action alternative would have a minor negative long-term effect on recreation in the project area. As populations continue to increase, it is likely that overcrowding at the existing beach would become more of a problem in the future.

The proposed alternative would have a minor positive long-term effect on recreation over the no-action alternative. The proposed alternative would reduce overcrowding at the existing beach or at least allow people to use the beach who on any given day under current conditions would have been unable to do so.

## **Environmental Justice**

Environmental Justice is a national goal and is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The proposed project would be constructed on public lands; no acquisition of private lands would occur. Public involvement, via distribution of information concerning the proposed project, has and will continue to be an integral part of planning for this project to ensure that concerns of all people will be fully considered in the decision-making process.

## **5.2 NATURAL RESOURCES**

### **Aquatic Habitat**

The no-action alternative would have no effect on aquatic habitat.

The proposed alternative would have a minor negative long-term effect on aquatic habitat within Big Sandy Lake. The aquatic habitat within the extended beach area would have very little value because of the minimal substrate and plant diversity that would occur there and because of the continual human disturbance. The effect is considered minor because it would occur over a small area relative to Big Sandy Lake, and the overall effect on aquatic habitat would be minimal.

### **Water Quality**

The no-action alternative would have no effect on water quality.

The proposed alternative would have a slight negative effect on water quality during construction. During excavation of the fine material and placement of the sand, minor increases in turbidity would occur. This effect would quickly dissipate after construction.

### **Biological Productivity**

The no-action alternative would have no effect on biological productivity.

The proposed alternative would have a minor negative long-term effect on biological productivity within Big Sandy Lake. Biological productivity within the extended beach area would be greatly reduced because of the negative impacts on aquatic habitat. This effect is considered minor because the activity would likely have no measurable effect on biological productivity in Big Sandy Lake.

## Threatened and Endangered Species

Only one federally-listed endangered species – the Canada lynx (*Lynx canadensis*) – and one federally-listed threatened species – the grey wolf (*Canis lupus*) are known to occur in the general project area. Because of the small scope of the project and continual human disturbance in the project site, the proposed project will have no effect on any federally listed threatened or endangered species. The U.S. Fish and Wildlife Service concurs with this determination of no effect (copy of letter included in Exhibit 1 - Correspondence). No State-listed species have been sighted in the immediate project area, and listed species surrounding the project area do not inhabit the type of habitat that this project will impact. A copy of this report will be sent to the Minnesota Department of Natural Resources; if it has any concerns for State-listed species, the Corps will take them into consideration before making a project decision or signing a FONSI.

### 5.3 CULTURAL RESOURCES

As of June 30, 2008, no National Register of Historic Places listed properties are in or near the Sandy Lake swimming beach expansion area. However, Sandy Lake Dam itself and archeological site 21AK11 in the vicinity of the dam and adjacent recreation area have both been determined eligible for inclusion on the National Register. The dam structure will not be affected by the proposed swimming beach expansion. Archeological site 21AK11 is found throughout the Sandy Lake Project operations area and the Sandy Lake Recreation Area including the upland area at the dry portion of the existing swimming beach. Initially, bank shaping and topsoil removal with sand replacement were proposed to create an extension of the dry portion of the existing swimming beach. This earthwork was dropped from the beach expansion plans when it was determined that data recovery mitigation of that portion of site 21AK11 would be required prior to dry beach construction. Expanding the wet portion of the existing beach with no earthwork in the upland area will eliminate adverse effects to site 21AK11; therefore, no mitigation should be necessary. Coordination with the Minnesota State Historic Preservation Office (SHPO) resulted in a concurrence of no effect on historic properties by the proposed wet beach area expansion (copy of coordination letter included in Exhibit 1 - Correspondence).

### 5.4 CUMULATIVE EFFECTS

The Big Sandy Area Lakes Watershed Management Plan (1993) lists alteration to shoreline vegetation as a cause for concern in relation to the risk of declining water quality and shoreline aesthetics in these lakes. Shoreline development is a major problem for Minnesota lakes, and much of the suitable shoreline on Big Sandy Lake has been developed. The proposed project would contribute to the cumulative negative effects of shoreline development such as losses of aquatic vegetation for fish and wildlife habitat. Expanding only the wet portion of the existing swimming beach should result in no additional loss of portions of National Register of Historic Places-eligible site 21AK11.

## 6.0 COORDINATION

Coordination with the public and government agencies has been maintained throughout the planning process (see Exhibit 1 – Correspondence). The U.S. Fish and Wildlife Service and the Minnesota Department of Natural Resources were contacted by telephone. Neither agency identified any areas of special concern. The Fish and Wildlife Service indicated in a letter that, based on the type of work proposed and on the habitat requirements of listed species that may be sighted in the area, the project would have no effect on threatened or endangered species and that no further action on this project under Section 7 of the Endangered Species Act of 1973, as amended, would be required. A letter explaining the project and its effect on National Register sites was sent to the SHPO. The SHPO concurred with the determination of no effect.

This environmental assessment was sent to interested citizens and the following agencies:

### Federal

Environmental Protection Agency  
Fish and Wildlife Service  
National Park Service  
Natural Resources Conservation Service

### State of Minnesota

Department of Health  
State Historic Preservation Officer  
Department of Natural Resources  
Pollution Control Agency  
State Archaeologist  
Board of Water and Soil Resources

### Other

Aitkin County Engineer  
Upper Mississippi Waterways Association

## 7.0 REFERENCES CITED

Minnesota Department of Natural Resources. 1995. Lake Information Report, Big Sandy.  
(URL: <http://www.dnr.state.mn.us/lakefind/showreport.html?downum=01006200>)

Big Sandy Area Lakes Watershed Management Project. 1993. Big Sandy Area Lakes Watershed Management Plan. 36 pp.

Florin, Frank. 2004. Letter Report – Phase III Mitigation (Data Recovery) for Comfort Station Expansion and Phase II Testing of Proposed Beach Expansion at the Sandy Lake Recreation Area. Letter dated December 22, 2004, to the St. Paul District, U.S. Army Corps of Engineers under contract No. W912ES-04-P-0111 and Mod. P00001.

Harrison, Christina. 1987. *Report on Phase II Archaeological Testing at 21 AK 11, Big Sandy Lake, Aitkin County, Minnesota*. Archaeological Research Services, Minneapolis. Prepared for the St. Paul District, U.S. Army Corps of Engineers, under contract Nos. DACW37-85-M-1141 and DACW37-85-M-1488.

Hudak, G. Joseph, and Timothy L. Ready. 1979. *Cultural Resources Inventory of Lands Adjacent to Big Sandy Lake*. 2 vols. Science Museum of Minnesota, St. Paul. Submitted to the St. Paul District, U.S. Army Corps of Engineers under contract No. DACW37-77-C-0097.

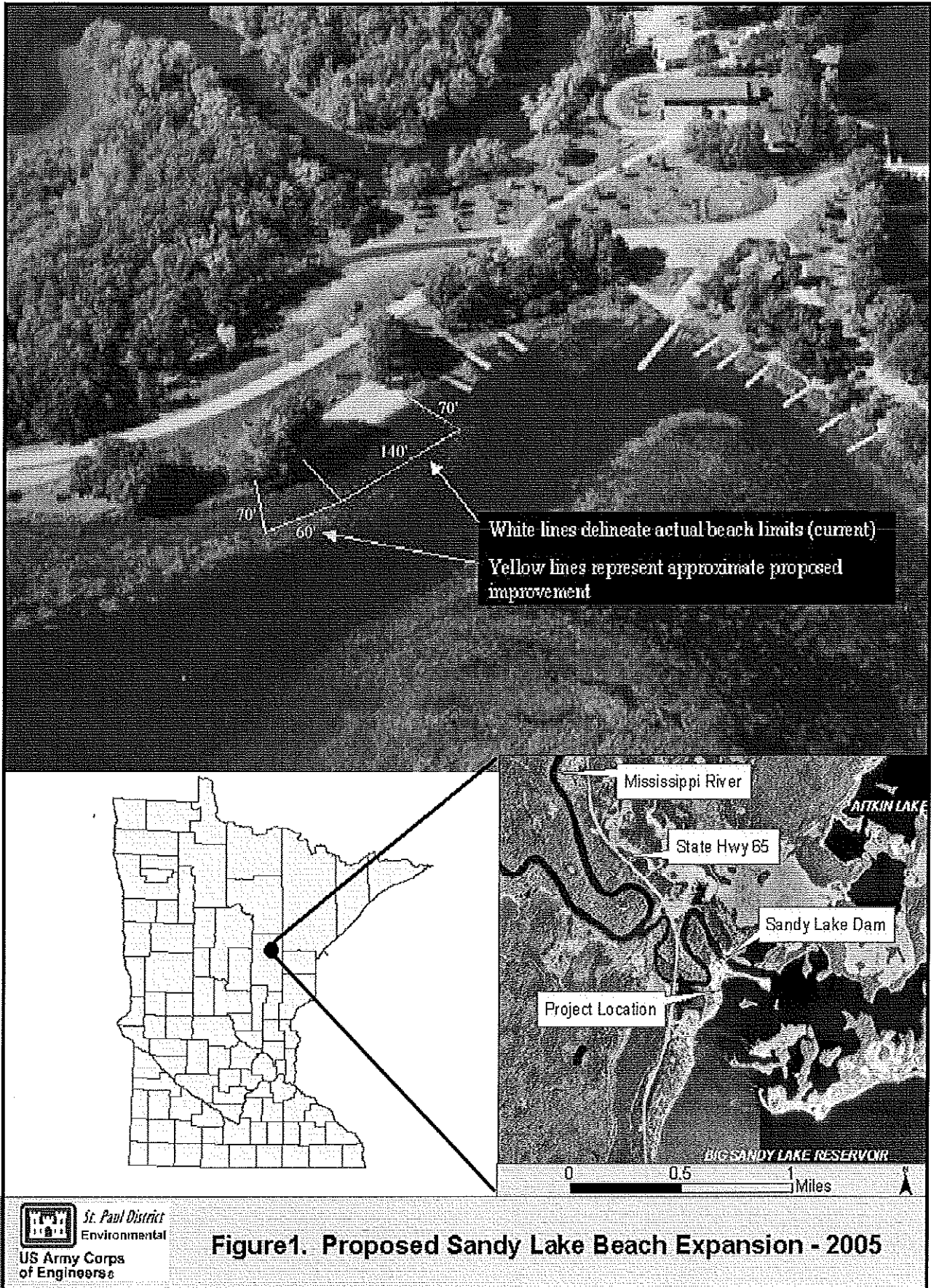
Johnson, Elden. 1975. *Report on Test Excavations at the Sandy Lake Dam, Minnesota*. University of Minnesota, Minneapolis.

Table EA-1. Environmental Assessment Matrix.

Section 122 of the River and Harbor and Flood Control Act of 1970 (Public Law 91-611)

PARAMETER	MAGNITUDE OF PROBABLE EFFECTS													
	NO-ACTION ALTERNATIVE						PROPOSED ALTERNATIVE							
	BENEFICIAL			NO EFFECT	ADVERSE			BENEFICIAL			NO EFFECT	ADVERSE		
	SIGNIFICANT	SUBSTANTIAL	MINOR		MINOR	SUBSTANTIAL	SIGNIFICANT	SIGNIFICANT	SUBSTANTIAL	MINOR		MINOR	SUBSTANTIAL	SIGNIFICANT
<b>A. SOCIAL EFFECTS</b>														
1. Noise Levels				X							X			
2. Aesthetic Values				X							X			
3. Recreational Opportunities					X					X				
4. Transportation				X							X			
5. Public Health and Safety				X							X			
6. Community Cohesion (Sense of Unity)				X							X			
7. Community Growth and Development				X							X			
8. Business and Home Relocations				X							X			
9. Existing/Potential Land Use				X							X			
10. Controversy				X							X			
<b>B. ECONOMIC EFFECTS</b>														
1. Property Values				X							X			
2. Tax Revenue				X							X			
3. Public Facilities and Services				X							X			
4. Regional Growth				X							X			
5. Employment				X							X			
6. Business Activity				X							X			
7. Farmland/Food Supply				X							X			
8. Commercial Navigation				X							X			
9. Flooding Effects				X							X			
10. Energy Needs and Resources				X							X			
<b>C. NATURAL RESOURCE EFFECTS</b>														
1. Air Quality				X							X			
2. Terrestrial Habitat				X							X			
3. Wetlands				X							X			
4. Aquatic Habitat				X								X		
5. Habitat Diversity and Interspersion				X							X			
6. Biological Productivity				X								X		
7. Surface Water Quality				X								T		
8. Water Supply				X							X			
9. Groundwater				X							X			
10. Soils				X							X			
11. Threatened or Endangered Species				X							X			
<b>D. CULTURAL RESOURCE EFFECTS</b>														
1. Historic Architectural Values				X							X			
2. Prehistoric and Historic Archeological Values				X							X			

T: Temporary effect



**EXHIBIT 1**  
**CORRESPONDENCE**



MINNESOTA HISTORICAL SOCIETY  
STATE HISTORIC PRESERVATION OFFICE

May 13, 2005

Mr. Terry Birkenstock  
Chief, Environmental Analysis Branch  
U.S. Army Corps of Engineers  
190 5<sup>th</sup> Street East  
St. Paul, MN 55101-1638

RE: Big Sandy Lake Beach Expansion, Sandy Lake Recreation Area  
T50 R24 S25, Aitkin County  
SHPO Number: 2005-1672

Dear Mr. Birkenstock:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

We conclude that the proposed project work will have no adverse effect on site 21AK0011, which is eligible to the National Register.

Please contact us at (651) 296-5462 if you have any questions regarding our review of this project.

Sincerely,

Britta L. Bloomberg  
Deputy State Historic Preservation Officer

cc: Natalie Weyaus, Mille Lacs THPO



MINNESOTA HISTORICAL SOCIETY  
STATE HISTORIC PRESERVATION OFFICE

May 8, 2008

Regulatory Branch  
Attn: Terry J. Birkenstock  
U.S. Army Corps of Engineers  
190 5<sup>th</sup> Street East  
St. Paul, MN 55101-1638

RE: Changes to proposed Big Sandy Lake Beach Expansion, Sandy Lake Recreation Area  
Aitkin County T50 R24 S24  
SHPO Number: 2008-1819  
(Cross-reference number: 2005-1672)

Dear Mr. Birkenstock:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

We have one concern regarding this proposal. Sandy Lake is a reservoir, and there is potential for submerged resources. What consideration has been given to this potential?

Contact us at 651-259-3455 with questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dennis A. Gimmetstad', written over a horizontal line.

Dennis A. Gimmetstad  
Government Programs & Compliance Officer



MINNESOTA HISTORICAL SOCIETY  
STATE HISTORIC PRESERVATION OFFICE

June 23, 2008

Mr. Terry Birkenstock  
Chief, Environmental & Economic Analysis Branch  
U.S. Army Corps of Engineers  
190 5<sup>th</sup> Street East  
St. Paul, MN 55101-1638

RE: Proposed Big Sandy Lake Beach Expansion, Sandy Lake Recreation Area  
T50 R24 S25 SE, Aitkin County  
SHPO Number: 2008-1819 (2005-1672)

Dear Mr. Birkenstock:

We have received and reviewed the materials included with your letter of 22 May 2008.

Based on this and other available information, we conclude that **no properties** listed on or eligible for listing on the National Register of Historic Places will be affected by this project.

Please contact our Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Britta L. Bloomberg'.

Britta L. Bloomberg  
Deputy State Historic Preservation Officer



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Twin Cities Field Office

4101 East 80th Street

Bloomington, Minnesota 55425-1665

MAR 15 2005

Mr. Terry Birkenstock, Chief  
Environmental and Economic Analysis Branch  
Saint Paul District  
U.S. Army Corps of Engineers  
190 Fifth Street East  
Saint Paul, Minnesota 55101-1638

Dear Mr. Birkenstock:

This responds to your February 24, 2005, letter regarding the proposed expansion of the beach area at the Sandy Lake Recreation Area in Aitkin County, Minnesota. The Saint Paul District is proposing to expand the existing beach area by 3,600 square feet, using no more than 100 cubic yards of washed sand. We have reviewed the information included with your letter and provide the following comments under the consultation requirements of section 7 of the Endangered Species Act of 1973, as amended.

There are three federally listed as threatened species that occur in the general project area: the bald eagle (*Haliaeetus leucocephalus*), gray wolf (*Canis lupus*), and Canada lynx (*Lynx canadensis*). The wolf and the lynx are highly mobile, year long residents of the area. The bald eagle is a seasonal resident with established breeding areas; however, there are no known eagle nests within the project impact area. We concur with your determination that the expansion of the beach at this recreation area will have no effect on federally-listed species in the project area. This precludes further action as required under the Endangered Species Act of 1973. If new information becomes available that indicates that listed species may be affected, consultation must be reinitiated.

We appreciate this opportunity to provide our comments. Please contact Mr. Paul Burke, of this office, by calling (612) 725-3548, at extension 205, if you have any questions, or if we can be of further assistance.

Sincerely,

Dan P. Stinnett  
Field Supervisor

**EXHIBIT 2**

**Preliminary  
SECTION 404(b)(1) EVALUATION**

## Preliminary

### SECTION 404(b)(1) EVALUATION

#### BIG SANDY LAKE BEACH EXPANSION SANDY LAKE RECREATION AREA AITKIN COUNTY, MINNESOTA

##### I. PROJECT DESCRIPTION

**A. Location:** The Sandy Lake Recreation Area is situated at the outlet of Big Sandy Lake, about 120 miles north of Minneapolis, Minnesota.

**B. General Description:** The existing beach has received increasingly heavy use since its construction. The campground is full every weekend from Memorial Day through Labor Day, and the beach area becomes very crowded on most weekends beginning June 1. Sandy Lake has the only public beach in the area, and many noncampers come to the day-use area to use the beach.

The proposed alternative is the expansion of the wet portion of the existing beach (see Figure 1 in the Environmental Assessment). Aquatic plants within the expanded area would be removed. The area would be excavated to a minimum depth of 2 feet and replaced with washed sand to provide suitable swimming conditions. Some continual aquatic plant removal may be needed at the new beach site. The proposed alternative also includes a proposal to repair the existing beach. In this area, fine materials would be excavated from a portion of the existing wet beach and replaced with washed sand. No excavation would occur in the upland area adjacent to the wet portion of the new beach.

**C. Authority and Purpose:** The Flood Control Act of 1944 provides the basic authority to develop and operate recreational facilities at the Sandy Lake Recreation Area. The purpose of the proposed work is to increase available public beach at the Sandy Lake Recreation Area.

**D. General Description of Dredged or Fill Material:** The material placed in the expanded beach area and existing beach repair area would be washed sand from an existing local quarry. No more than 350 total cubic yards would be used as fill for expanding the wet beach. Approximately 82 cubic yards would be used to repair a portion of the existing beach.

**E. Description of the Proposed Discharge Sites:** The proposed beach expansion is adjacent to the existing beach and would cover an area 70 feet wide by 60 feet long. The proposed expansion area is currently shoreline aquatic habitat. A survey conducted in 2004 by Corps of Engineers staff revealed that the proposed beach site currently contains abundant aquatic vegetation. Vegetation at the site is approximately 75 percent wild rice (*Zizania aquatica*); 15 percent mix of coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia macrorhiza*), and possibly elodea; and 10 percent Giant Bur-reed (*Sparganium eurycarpum*). A 4,400-square-foot portion of the existing beach would be repaired. This area is currently wet

beach created in 1985 by placing washed sand over the substrate. The project would likely be constructed over a period of a few days after the recreation season in September or October 2009.

**F. Description of Disposal Method:** Sand would be placed with mechanical equipment such as a skid loader, or small front-end loader.

## II. FACTUAL DETERMINATIONS

**A. Physical Substrate Determinations:** The bottom of the proposed expansion site has a slope of about 6 percent. The existing substrate is best described as sandy muck, and the proposed project would convert that to all sand. Proposed repair areas in the existing beach also have a sandy muck substrate that would be converted to sand. Minor movement of the fill material is anticipated. Because of limited wave action and minor sand erosion, the wet portion of the existing beach has not required sand nourishment. Benthic organisms in the proposed expansion area would be buried. No special actions would be taken to minimize impacts.

### **B. Water Circulation and Fluctuation Determination**

**1. Water:** The proposed action would not have a measurable long-term effect on water salinity, chemistry, clarity, color, odor, taste, dissolved oxygen levels, nutrients, eutrophication, or temperature. A minor temporary decrease in water clarity would occur during the placement of the material.

**2. Current Patterns and Circulation:** The proposed action would not have an effect on current velocity and patterns, stratification, the hydrologic regime, or normal water level fluctuations.

**3. Actions Taken to Minimize Impacts:** No special actions would be taken to minimize the effects of the proposed project on current patterns or flow.

**C. Suspended Particulate/Turbidity Determination:** The use of washed sand would minimize the suspension of particulate matter or a corresponding increase in turbidity. No effects are anticipated on the chemical or physical properties of the water column.

**D. Contaminant Determinations:** No contaminated material would be placed or disturbed at the proposed site.

**E. Aquatic Ecosystem and Organism Determination:** The proposed project would have a minor negative effect on the aquatic ecosystem of Big Sandy Lake because of the small impact area. Effects on plankton or wildlife are unlikely. The proposed project would have a minor negative effect on nekton because of a loss of habitat and continual human disturbance. Benthic aquatic organisms and aquatic plants within the footprint of the beach expansion area would be destroyed, however. The site is a vegetated shallow area, and the removal of wild rice

at the site would be a negative impact. Wild rice is an important resource that is being managed in many areas to provide wildlife habitat and food for human consumption.

The proposed project would have no effects on any federally-listed threatened or endangered species or their critical habitat. The U.S. Fish and Wildlife Service concurs with this determination (see correspondence in the Environmental Assessment).

#### **F. Proposed Disposal Site Determinations**

1. **Mixing Zone:** The proposed activity would have a minimal mixing zone. The particle size of the washed sand would be large enough to remain where it is placed.

2. **Compliance with Applicable Water Quality Standards:** Mechanical placement of the sand and its relatively coarse particle size would ensure that State water quality standards would not be violated. Short-term increases in turbidity would occur during construction. No long-term water quality impacts would occur.

3. **Potential Effects on Human Use Characteristics:** Because of the present and projected human use characteristics, the existing physical conditions, the proposed construction methods, and the clean fill material, this proposed action would improve current human use characteristics by providing increased recreation capacity. The proposed actions would have no adverse effects on municipal or private water supplies, recreational or commercial fisheries, navigation, or national historic monuments or similar preserves. The proposed project has been coordinated with the Minnesota State Historic Preservation Office (see correspondence in the Environmental Assessment).

**G. Cumulative Effects on the Aquatic Ecosystem:** The Big Sandy Area Lakes Watershed Management Plan (1993) lists alteration to shoreline vegetation as a cause for concern in relation to the risk of declining water quality and shoreline aesthetics in these lakes. Shoreline development is a major problem for Minnesota lakes, and much of the suitable shoreline on Big Sandy Lake has been developed. The proposed project would contribute to the cumulative negative effects of shoreline development such as losses of aquatic vegetation for fish and wildlife habitat. Expanding only the wet portion of the existing swimming beach should result in no additional loss of portions of National Register of Historic Places-eligible site 21AK11.

#### **H. Secondary Effects on the Aquatic Ecosystem**

No significant secondary effects on the aquatic ecosystem would be expected from the proposed action.

### III. FINDING OF COMPLIANCE WITH RESTRICTIONS ON DISCHARGE

1. No significant adaptations of the guidelines were made relative to this evaluation.
2. The proposed fill activity would comply with the Section 404(b)(1) guidelines of the Clean Water Act. The placement of fill is required to provide the desired benefits, and the proposed alternative is the least environmentally damaging practicable alternative.
3. The proposed fill activity would comply with State water quality standards. The disposal operation would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.
4. The proposed projects would not harm any endangered species or their critical habitat.
5. The proposed fill activities would not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing. The proposed activities would not adversely affect plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic life and other wildlife would not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity, and stability and on recreational, aesthetic, and economic values would not occur.
6. Because of the small nature of the impact area (less than 0.1 acre), no special actions would be taken to minimize the potential for adverse impacts.
7. On the basis of this evaluation, I specify that the proposed disposal site complies with the requirements of the guidelines for discharge of fill material.

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Date

Jon L. Christensen  
Colonel, Corps of Engineers  
District Engineer

DRAFT

Finding of No Significant Impact

Planning, Programs and Project Management Division  
Environmental and Economic Analysis Branch

DRAFT

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, the St. Paul District, Corps of Engineers, has assessed the environmental impacts for the following proposed project:

BIG SANDY LAKE  
BEACH EXPANSION  
AITKIN COUNTY, MINNESOTA

The proposed project would be completed under the authority of the Flood Control Act of 1944, which authorizes the development of recreational facilities at the Sandy Lake Recreation Area. The proposed project would include the expansion of the wet portion of the existing beach by an area about 70 feet wide and 60 feet long. Aquatic plants within the expanded area would be removed, and a minimum of 2 feet of sediment would be excavated. Up to 350 cubic yards of washed sand would be placed in the water so that the final elevation is within 3 inches of the preconstruction elevation. The proposed action would also include repair to a portion of the existing wet beach. Approximately 4,400 square feet of the existing beach would be excavated to remove fine materials and covered with up to 82 cubic yards of washed sand to an average depth of 6 inches. No excavation would occur in the upland area adjacent to the wet portion of the new beach, but two trees might be removed.

This Finding of No Significant Impact is based on the following factors: the proposed project would have minor long-term negative effects on aquatic habitat and biological productivity, a minor long-term positive effect on recreational opportunities, and no impact on threatened and endangered species or the cultural environment.

The environmental review process indicates that the proposed action does not constitute a major Federal action significantly affecting the quality of the environment. Therefore, an environmental impact statement will not be prepared.

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Date

Jon L. Christensen  
Colonel, Corps of Engineers  
District Engineer