

AD-A219 465

# ENVIRONMENTAL ASSESSMENT

---

## GREGORY DIVERSION CHANNEL MAINTENANCE DREDGING MISSISSIPPI RIVER POOL 20 LEWIS COUNTY, MISSOURI

OCTOBER 1989

---



US Army Corps  
of Engineers  
Rock Island District

DTIC  
ELECTE  
MAR 15 1990  
S B D

ENVIRONMENTAL STATEMENT A

Approved for public release

89 10 19 184



REPLY TO  
ATTENTION OF:

CENCR - PD - E

DEPARTMENT OF THE ARMY  
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS  
CLOCK TOWER BUILDING—P.O. BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

①

ENVIRONMENTAL ASSESSMENT  
GREGORY DIVERSION CHANNEL MAINTENANCE DREDGING  
MISSISSIPPI RIVER POOL 20  
LEWIS COUNTY, MISSOURI

DTIC  
ELECTE  
MAR 15 1990  
S B D

OCTOBER 1989

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

ENVIRONMENTAL ASSESSMENT  
 GREGORY DIVERSION CHANNEL MAINTENANCE DREDGING  
 MISSISSIPPI RIVER POOL 20  
 LEWIS COUNTY, MISSOURI

TABLE OF CONTENTS

| <u>Subject</u>  | <u>Page</u> |
|---|-------------|
| I. Project Purpose and Need for Action  | EA-1        |
| II. Project Description   | EA-1        |
| III. Alternatives   | EA-1        |
| IV. Affected Environment  | EA-2        |
| V. Environmental Impacts of the Preferred Alternative                           | EA-3        |
| VI. Environmental Impacts of Nonpreferred Alternative                           | EA-6        |
| VII. Probable Adverse Environmental Effects Which Cannot Be Avoided             | EA-6        |
| VIII. Relationship Between Short-Term Use and Long-Term Productivity            | EA-7        |
| IX. Any Irreversible or Irrecoverable Commitments if the Project Is Implemented | EA-7        |
| X. Relationship to Land-Use Plans   | EA-7        |
| XI. Compliance with Environmental Quality Statutes                              | EA-7        |
| XII. Public Involvement and Coordination  | EA-9        |

List of Tables

| <u>Title</u>   | <u>Page</u> |
|--|-------------|
| I. Compliance of the Preferred Plan with WRC-Designated Environmental Statutes | EA-8        |

List of Plates

| <u>No.</u> | <u>Title</u>     |
|------------|------------------|
| 1          | Location Plan    |
| 2          | Plan and Profile |
| 3          | Plan and Profile |

ATTACHMENTS:

Finding of No Significant Impact (FONSI)  
 Pertinent Correspondence  
 Distribution List

EA-i



|                       |                                     |
|-----------------------|-------------------------------------|
| Accession For         |                                     |
| NTIS GRA&I            | <input checked="" type="checkbox"/> |
| DTIC TAB              | <input type="checkbox"/>            |
| Unannounced           | <input type="checkbox"/>            |
| Justification         |                                     |
| By <i>per Form 50</i> |                                     |
| Distribution/         |                                     |
| Availability Codes    |                                     |
| Dist                  | Avail and/or Special                |
| <i>A-1</i>            |                                     |

ENVIRONMENTAL ASSESSMENT  
GREGORY DIVERSION CHANNEL MAINTENANCE DREDGING  
MISSISSIPPI RIVER POOL 20  
LEWIS COUNTY, MISSOURI

I. PROJECT PURPOSE AND NEED FOR ACTION

A. Project Authority. Gregory Drainage District provides interior drainage for nearly 8,000 acres of agricultural lands and surrounding watershed in Lewis County, Missouri. The runoff, however, is a source of the sediment which necessitates routine maintenance of the drainage channels to maintain proper flow. Maintenance dredging of Gregory ditch will create a uniform drainage system that flows from the District's pump station to the Mississippi River. The proposed project would be funded under the authority of the Rivers and Harbors Act of 1930 which authorizes construction and maintenance of the 9-foot Mississippi River navigation channel.

B. Background Information. In order to comply with the National Environmental Policy Act of 1969, this Environmental Assessment (EA) was prepared to address impacts associated with construction and utilization of new dredged material placement sites along the Mississippi River.

II. PROJECT DESCRIPTION

The Gregory Drainage District has a pumping station located 4.4 miles upstream of Lock and Dam 20 at O'Farrell Lake. The outlet channel for the pump station, Gregory drainage ditch, currently empties into the Mississippi River downstream of Lock and Dam 20. The diversion channel was constructed in 1936 with a pump station installed in 1977 at O'Farrell Lake to increase the efficiency of the drainage system. The channeling effort was made somewhat easier since Hawkin's Slough was an existing natural slough from O'Farrell Lake to the river. This slough became the blueprint for the modified drainage ditch that it is today.

III. ALTERNATIVES

A. Preferred Alternative. The Gregory drainage ditch flows from O'Farrell Lake to its outlet below Lock and Dam 20 near Canton, Missouri (T. 62 N., R. 6 W., sec. 1, 12, 13, 24, 25) (see plate 1). Although the channel has been dredged many times in the past as part of routine maintenance, the work has been done by dragline, with the material being placed on the banks of the channel.

The proposed project involves routine maintenance dredging along the 24,000 feet of Gregory drainage channel from the pump station to the river. Both hydraulic and mechanical means will be used to clean cut the channel. The hydraulically dredged material will be pumped into several agricultural fields along the channel; the mechanically removed material will be side cast along the bank of the ditch.

The first 3,500 feet of channel near Lock and Dam 20 will be dredged mechanically by dragline. Between 13,000-14,000 cubic yards of material will be excavated and side cast onto the adjacent bank. Bulldozers or endloaders will be used to spread the material to grade.

The remainder of the channel will be dredged hydraulically. The channel will be restored to a 30-foot bottom width (26-foot for the mechanical removal portion) with an average depth of 3.7 feet, requiring the removal of approximately 113,000 cubic yards of material. The disposal site locations and configurations are presented in plates 2 and 3. The estimated quantities for each site are presented below:

|        |                    |
|--------|--------------------|
| Site 1 | 28,167 cubic yards |
| Site 2 | 28,174 cubic yards |
| Site 3 | 27,407 cubic yards |
| Site 4 | 28,522 cubic yards |

B. No Action Alternative. The No Action alternative means that Gregory drainage ditch would be left in its present condition. Without dredging, the channel will continue to silt in and eventually become shallow enough for vegetation to grow within it. The efficiency of the pumping station will continue to decrease until the channel is no longer functional as a drainage system.

The No Action alternative is the least desirable of the alternatives and only would be considered if a cost-effective plan could not be developed.

#### IV. AFFECTED ENVIRONMENT

The project location is in the northeast corner of the state in a rural setting. The channel winds through a mosaic of bottom land forest remnants and intensively farmed agricultural lands. The lower reach is located in the vicinity of the city of Canton, Missouri.

## V. ENVIRONMENTAL IMPACTS OF THE PREFERRED ALTERNATIVE

A. Air and Noise Quality. The project is principally located in a rural area where an increase in travel to the placement site will have a minimal effect on existing air and noise levels. Minor impacts to the air quality within the project vicinity are common during such construction projects. However, this area is uninhabited, so the temporary increase in exhaust fumes from heavy equipment operating in the area will not affect human populations. Since the construction and dredging phases are short-term in duration, there will be no permanent impacts to the environment or local wildlife populations.

The completed project would have no impact on noise levels in the project vicinity. Low-level noise would be emitted from the dredge during daylight hours for several weeks, with additional noise generated by heavy machinery during the construction of the containment areas in the agricultural fields.

B. Aquatic Community. Although dredging of the existing channel will have a temporary effect on water quality, completion of the overall project should benefit the aquatic community as a whole. Resident benthic and mussel communities will be disrupted by the dredging operations. However, benthic organisms are quick to recover from such disturbances and will soon repopulate the channel. Mussels and fish populations will benefit from the channel cleanout, since the end result will improve flow conditions through the channel.

C. Terrestrial Habitat and Wildlife. In addition to the common bottom land forest community of cottonwood and silver maple tree species, Kentucky coffee tree, Ohio buckeye, and northern pecan species are common along the project boundaries. Nettles, poison ivy, and trumpet creeper are common species found in the understory growth. Terrestrial wildlife is typical of that found elsewhere in the Mississippi River bottom land forests. Common large mammals are white-tailed deer, raccoon, opossum, skunk, gray squirrel, and others. Wild turkey and pheasant are two game birds common in the area, along with numerous species of songbirds associated with bottom land forests. Waterfowl, primarily ducks and geese, use the channel for nesting and during the migratory stopover and wintering seasons.

The effect to these species will be a disruption of daily activities during the construction phase of the project. Other wildlife, such as muskrat, beaver, and the numerous songbird species, which may move through and around the project area, should only be affected to the extent of travel disruption. Overall impacts to the surrounding wildlife populations would be minimal and temporary.

D. Endangered Species. Correspondence with the U.S. Fish and Wildlife Service and the Missouri Department of Conservation under the Fish and Wildlife Coordination Act determined that the project would have no effect on threatened or endangered species or sensitive communities (see attached

Pertinent Correspondence). This coordination fulfills the compliance requirement of the Endangered Species Act (16 U.S.C. 1531, et seq.).

E. Water Quality. One of the major impacts to water quality will be the temporary increase in turbidity and suspended solids levels created during the dredging operation. Some material will be carried out to the river during this flushing of the channel. However, the system will soon reach an equilibrium between the river and channel, and the overall impact is minimal and temporary. Section 401 Water Quality Certification has been applied for from the State of Missouri by letter dated June 6, 1989.

F. Water Conservation. Not applicable to this study area.

G. Manmade Resources. The Gregory drainage ditch is a manmade system that is designed to channel water out of the agricultural fields within the district. Although originally a natural slough, the channel has been modified by dredging and the installation of a pumping station. It now serves as a manmade drainage system to carry water from O'Farrell Lake over to the Mississippi River. Impacts to the drainage district will be positive and beneficial upon completion of the project, since the pumping station will operate more efficiently.

H. Aesthetic Values. The appearance of the area will not be significantly affected. The preferred disposal areas would not suffer any adverse impacts from placement of dredged material, as the material would be placed on cultivated ground.

I. Cultural Resources. On 5 days between March and June 1989, a Corps of Engineers archeologist performed an intensive survey on the four areas to be used for the placement of dredged material. The archeological survey included archival background research. This investigation was conducted to determine if the four dredged material placement areas contained historic properties eligible to be listed, or listed on, the National Register of Historic Places.

As a result of the investigations, two sites were documented with the Archaeological Survey of Missouri as prehistoric habitation sites 23LE311 and 23LE312. The configurations of the dredged easement areas were designed to avoid these historic properties and to result in a No Effect determination. The report entitled Cultural Resource Investigations Phase I Archeological Survey for the Proposed Gregory Diversion Ditch Dredge Material Placement Easements, Lewis County, Missouri describes the Section 106 compliance carried out in accordance with the National Historic Preservation Act of 1966 (as amended in 1980) and Missouri's Guidelines for Contract Cultural Resource Survey Reports and Professional Qualifications distributed by the Missouri State Historic Preservation Office (SHPO).

The report was presented to the SHPO for review. On August 24, 1989, the SHPO concurred with the Corps of Engineers' No Effect determination for the proposed undertaking, based upon the stipulation that:

... if the currently defined project area or scope of project related activities is changed or revised, or cultural materials are encountered during construction, the Missouri Historic Preservation Program must be notified and appropriate information relevant to such changes, revisions, or discoveries be provided for further review and comment, in order to ascertain the need for additional investigations.

The SHPO concurrence letter is located in the Pertinent Correspondence as documentation of Natural Historic Preservation Act compliance.

J. Community Cohesion. The rural nature of the project and the limited residential and other development in the area indicates that there will be no adverse impacts to community cohesion by implementing this project. Owners of the proposed placement site lands would not be expected to oppose the necessary easements.

K. Community or Regional Growth. No significant effects to community or regional growth would result from the proposed channel maintenance.

L. Displacement of People. No residential relocations would be necessitated by the project.

M. Employment and Labor Resources. The maintenance dredging would have limited short-term impacts on employment in the project vicinity. No permanent effect on area employment would result.

N. Displacement of Farms. Approximately 113,000 cubic yards of material is scheduled to be removed hydraulically. Therefore, about 40 acres of cropland would be removed from production for two growing seasons while the dredged material is placed in the containment sites. After the material has dried out, the berms will be leveled and the containment sites graded so that the land can be returned to production. The increased elevation might improve drainage and possibly improve yields.

A Farmland Conversion Impact Rating was completed in conjunction with the USDA Soil Conservation Service to fulfill compliance with the Farmland Protection Policy Act (see attached Pertinent Correspondence). Evaluation of the placement sites determined that the land is considered prime and unique farmland, but the total acreage affected only represents 0.1 percent of the total farmland in the county. Furthermore, the containment sites serve a temporary function, with the land ultimately being returned to producing crops.

O. Property Values and Tax Revenues. The preferred disposal site would be filled to a depth between 1.5 and 2 feet. Following the disposal of the dredged material, the affected agricultural land could be less prone to drainage problems. Consequently, a slight increase in the value of this parcel of land could occur.

Although tax revenues could be affected by a change in the area property values, no significant impact to area tax revenues would be expected by implementing this project.

P. Public Facilities and Services. The proposed project would positively impact public facilities and services. The drainage district would benefit from increased pumping station efficiency and reduced expenditures.

Dredging would improve recreational fishing in the channel due to increased depth and flow from the pump station to the river.

Q. Life, Health and Safety. The existing channel poses no threat to the life, health, or safety of landowners, recreationists, or others in the vicinity.

R. Business and Industrial Development. A slight increase in business and industrial activity would be noticed during project construction. However, no long-term effects on business or industrial activity would result. The project would not require any business or industrial relocations.

#### VI. ENVIRONMENTAL IMPACTS OF NONPREFERRED ALTERNATIVE

The environmental impacts of the No Action alternative are minimal. Gradual sedimentation of the channel will only affect the usefulness of the channel as a drainage ditch. If left unmaintained, the channel would eventually become established as an emergent wetland.

#### VII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Disruption of the aquatic community during the dredging operation will have minor adverse impacts which cannot be avoided. However, completion of the project will ultimately benefit the aquatic community. Recommendations from the Missouri Department of Conservation and the U.S. Fish and Wildlife Service to overdredge numerous segments of the channel to create deep water areas as refuges for fish will be incorporated into the project. The maintenance dredging in conjunction with overdredging aforementioned will offset any impacts to the aquatic community caused by the project, and, in the long run, will improve the habitat for resident fish populations.

The agencies also recommended replanting the bankline with mast trees to revegetate the existing bankline. However, this recommendation is not feasible since the channel maintenance in the future may require the use of a dragline. The dragline will need the working distance available at present to manipulate the boom of the dragline. On the other hand, the

Corps recommends that the area be reseeded with a native grass mixture to establish grassland habitat along the channel.

#### VIII. RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

The long-term productivity of Gregory drainage network is jeopardized by the continued sedimentation of the channel. Periodic maintenance is necessary to keep the system operational. The fields used for placement of the dredged material will be out of production temporarily but may benefit by an increase in productivity due to the addition of silty material that is high in nutrients.

#### IX. ANY IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS IF THE PROJECT IS IMPLEMENTED

Fuel consumed, manpower expended, and the commitment of construction materials are considered irretrievable.

#### X. RELATIONSHIP TO LAND-USE PLANS

Much of the land adjacent the project boundaries has been logged and cleared for crop production. The land use of the affected area will probably remain as follows. The disposal sites will be bermed to completely contain the dredged material. The agricultural field will return to production after the material has dried and can be tilled again. Several small wetland complexes lie adjacent to the proposed disposal sites but will not be affected by the dredging operations.

The bankline will revegetate both naturally and by post-dredging seeding as soon as the project is completed. A functional drainage system will be restored which is necessary since it is the most efficient way to move water from the pumping plant to the river.

#### XI. COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES

Compliance with WRC-Designated Environmental Statutes that have not been specifically addressed earlier in this report are covered in table EA-1.

TABLE EA-1

Compliance of the Preferred Plan with  
WRG-Designated Environmental Statutes

| <u>Federal Policies</u>   | <u>Compliance</u> |
|---|-------------------|
| Archaeological and Historic Preservation Act,<br>16 U.S.C. 469, et seq.           | Full compliance   |
| Clean Air Act, as amended, 42 U.S.C. 165h-7, et seq.                              | Full compliance   |
| Clean Water Act (Federal Water Pollution Control<br>Act), 33 U.S.C. 1251, et seq. | Full compliance   |
| Coastal Zone Management Act, 16 U.S.C. 1451, et seq.                              | Not applicable    |
| Endangered Species Act, 16 U.S.C. 1531, et seq.                                   | Full compliance   |
| Federal Water Project Recreation Act, 16 U.S.C.<br>460-1 (12), et seq.            | Full compliance   |
| Fish and Wildlife Coordination Act, 16 U.S.C.<br>661, et seq.                     | Full compliance   |
| Land and Water Conservation Fund Act, 16 U.S.C.<br>4601, et seq.                  | Not applicable    |
| Marine Protection Research and Sanctuary Act,<br>33 U.S.C. 1401, et seq.          | Not applicable    |
| National Environmental Policy Act, 42 U.S.C.<br>4321, et seq.                     | Full compliance   |
| National Historic Preservation Act, 16 U.S.C.<br>470a, et seq.                    | Full compliance   |
| Rivers and Harbors Act, 33 U.S.C. 401, et seq.                                    | Full compliance   |
| Watershed Protection and Flood Prevention Act,<br>16 U.S.C. 1001, et seq.         | Full compliance   |
| Wild and Scenic Rivers Act, 16 U.S.C. 1271, et seq.                               | Not applicable    |
| Farmland Protection Policy Act, 7 U.S.C. 4202, et seq.                            | Full compliance   |

## XII. PUBLIC INVOLVEMENT AND COORDINATION

Coordination with the public and governmental agencies has been maintained during the planning process. Under the Fish and Wildlife Coordination Act, the Missouri Department of Conservation, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service were contacted by letter (see attached Pertinent Correspondence). The agencies agree with the evaluation that the net effect of the proposed action would not be significant. Individual agency concerns have been addressed earlier in this report.

Additional coordination for this EA is accomplished by circulating it for review and comment by various individuals and local, State, and Federal agencies as shown on the distribution list.

FINDING OF NO SIGNIFICANT IMPACT

GREGORY DIVERSION CHANNEL  
MAINTENANCE DREDGING  
MISSISSIPPI RIVER POOL 20  
LEWIS COUNTY, MISSOURI

Having reviewed the information contained in this Environmental Assessment, I find that the maintenance dredging of the Gregory diversion channel will have no significant adverse effects on the environment. This project is not a major Federal action and therefore preparation of an Environmental Impact Statement (EIS) is not required. This determination may be reevaluated if warranted by later developments.

Factors that were considered in making this determination that an EIS was not required are:

a. The project involves maintenance dredging of an existing drainage system to improve the flow of water to the river.

b. Impacts to local wildlife and aquatic communities will be minimal and temporary. Minor impacts will be offset by over dredging several reaches of the channel to improve fisheries habitat. The banks of the channel will be reseeded with native grasses for wildlife habitat

c. No significant environmental, social, economic, or cultural impacts are anticipated as a result of implementing the proposed project.

\_\_\_\_\_  
Date

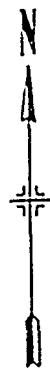
John R. Brown  
Colonel, U.S. Army  
District Engineer

MISSOURI

GREGOR DRAINAGE DISTRICT

ROTT ISLAND

HANCOCK COUNTY  
ADAMS COUNTY



PROJECT  
LOCATION

ILLINOIS

NELSON ISLAND

MEYER

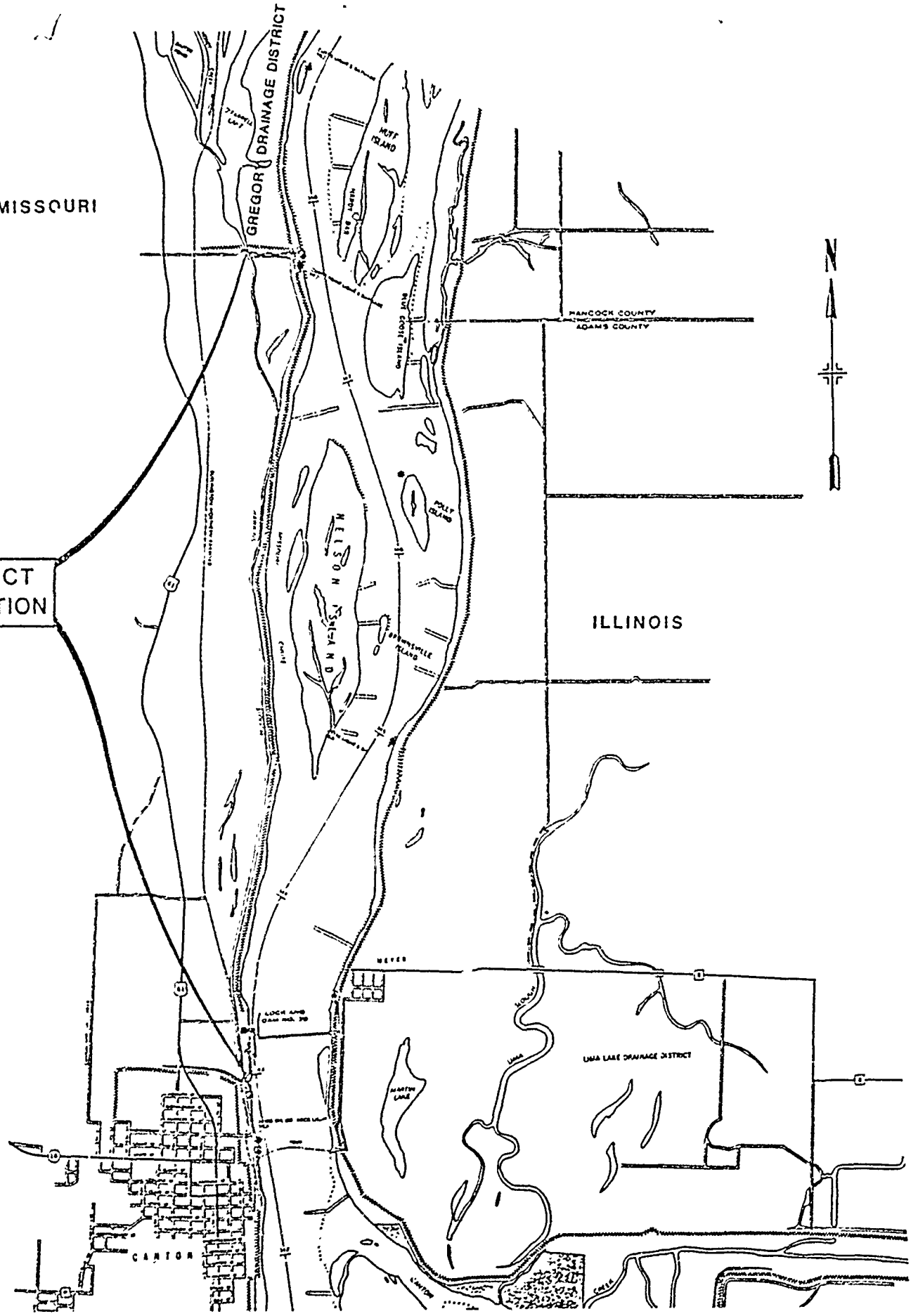
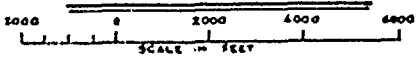
LOCK AND  
DAM NO. 30

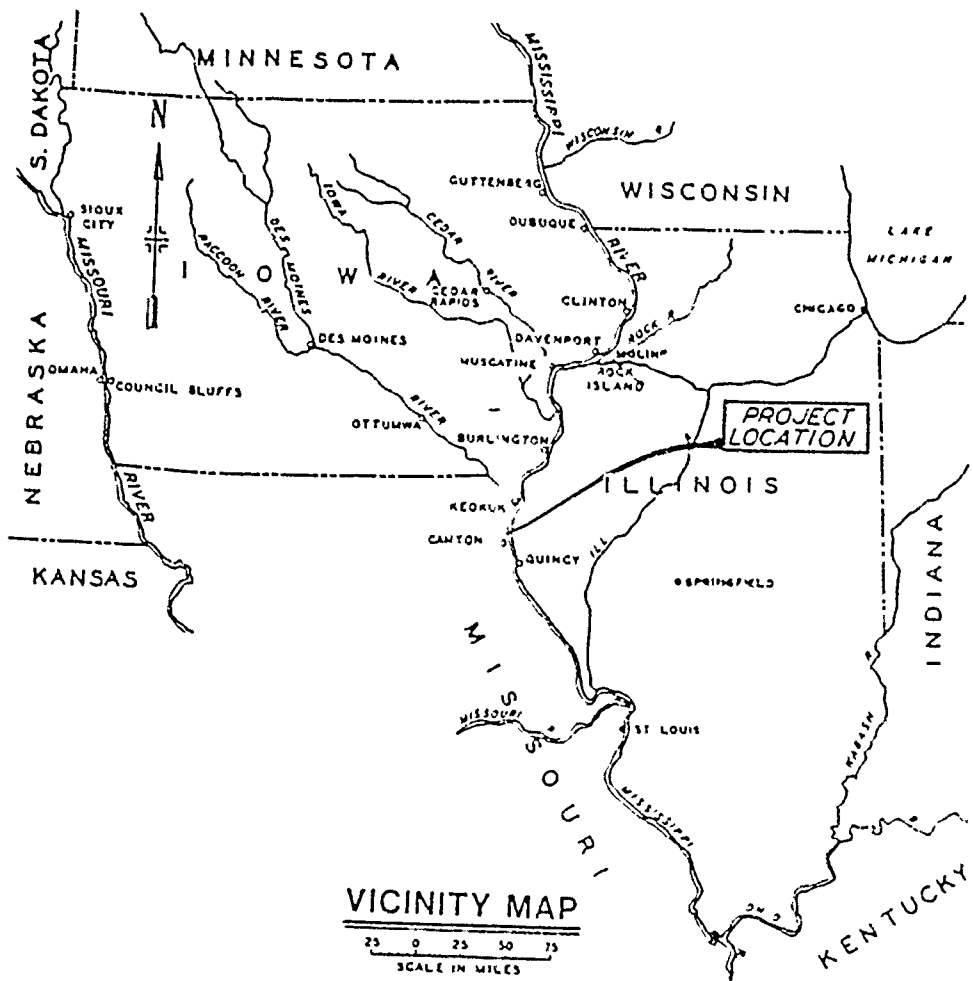
LINA LAKE DRAINAGE DISTRICT

MARTIN LAKE

CANTON

LOCATION PLAN





SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS IN THIS SET AS INDICATED ON EACH INDIVIDUAL TITLE BLOCK

|                         |  |
|-------------------------|--|
| Prepared by:            | U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND |
| Submitted by:           | CHIEF, DESIGN BR.                        |
| Chief, HYDRAULICS BR.   |  |
| Chief, GEOTECHNICAL BR. |  |
| Recommended by:         |  |
| Chief ENGINEERING DIV.  |  |
| Approved by:            |  |
| COL. CORPS OF ENGINEERS | 01101                                    |

|              |
|--------------|
| Designed by: |
| Drawn by:    |
| Checked by:  |
| Reviewed by: |
| Approved by: |

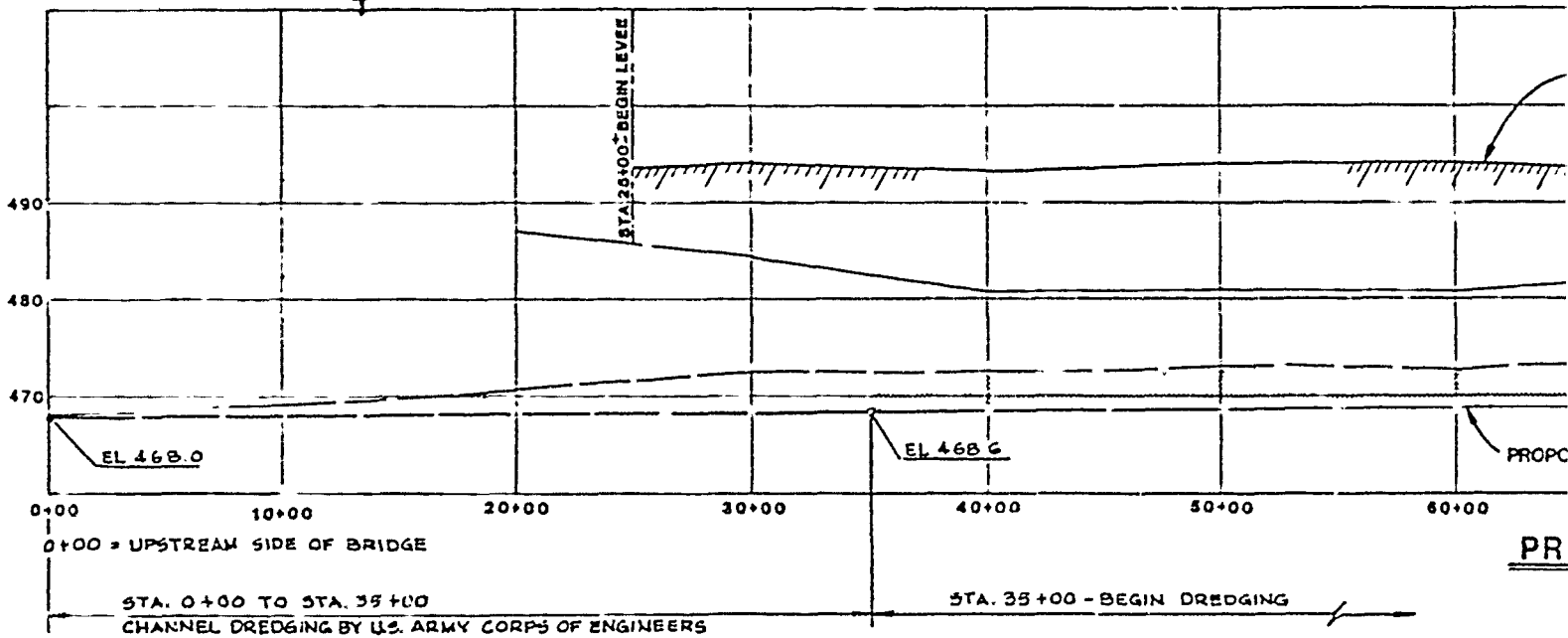
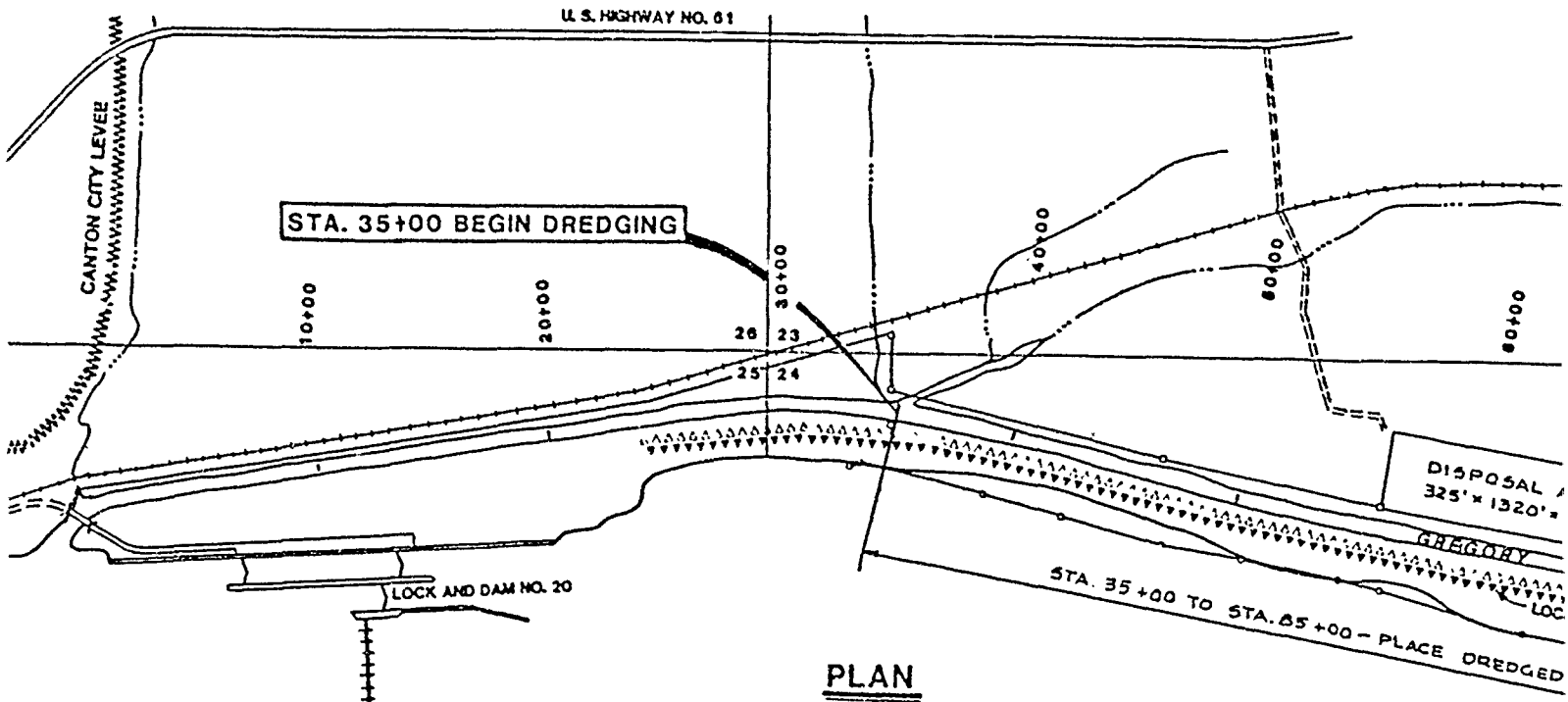


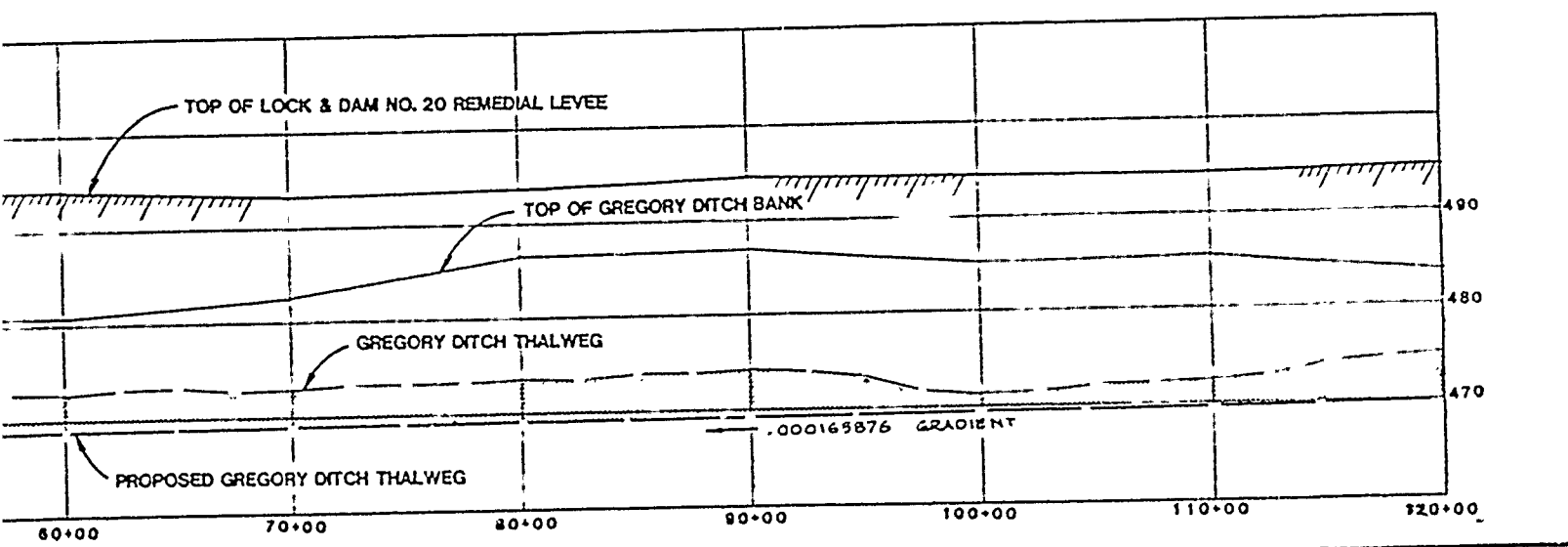
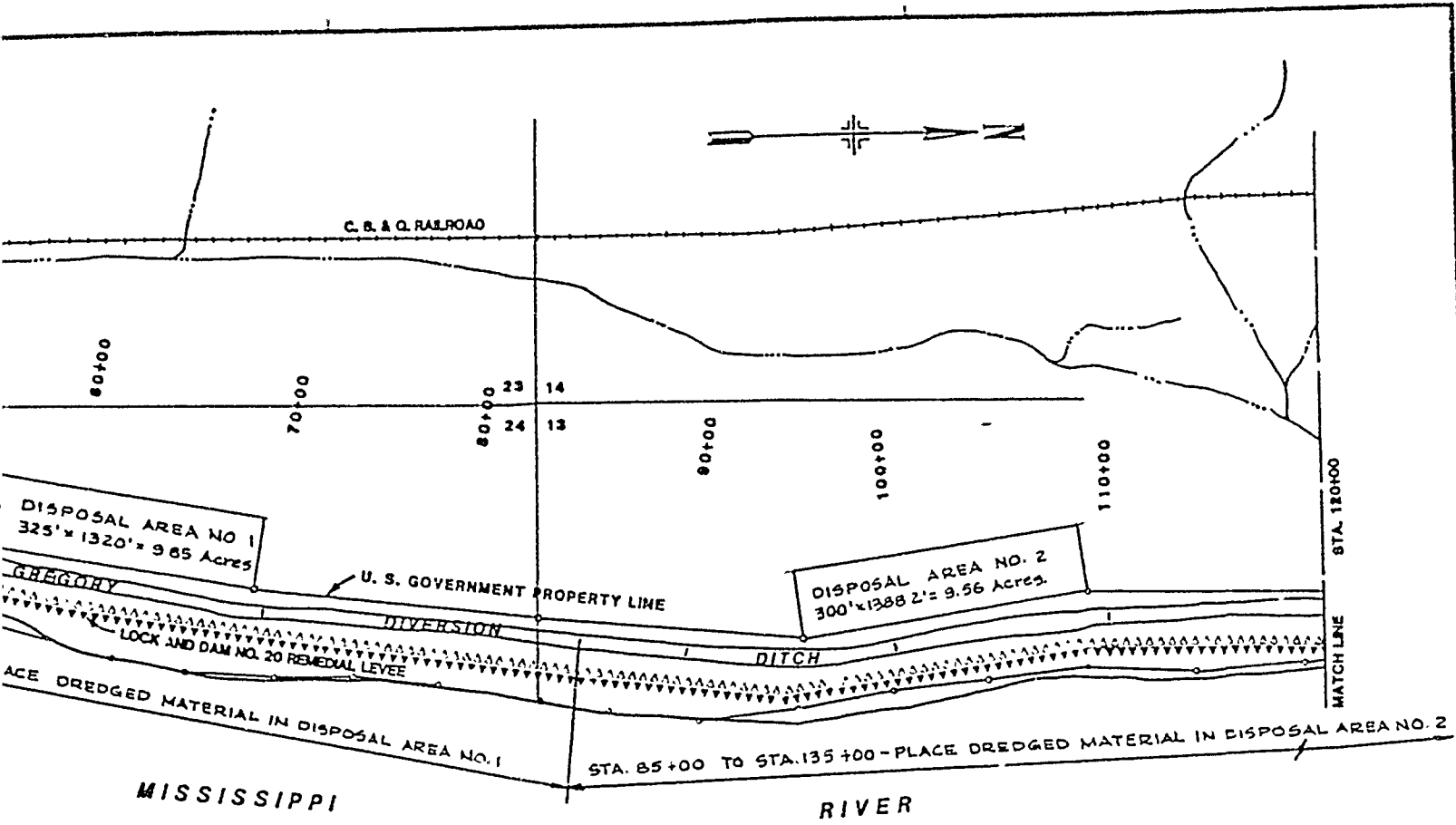
MISSISSIPPI RIVER  
LOCK AND DAM NO. 23  
GREGORY DIVERSION DITCH  
CHANNEL DREDGING  
LOCATION PLAN AND INDEX

Plate 1.

| Revisions |              |      |          |
|-----------|--------------|------|----------|
| Symbol    | Descriptions | Date | Approved |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |
|           |              |      |          |

U. S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS





**PROFILE**

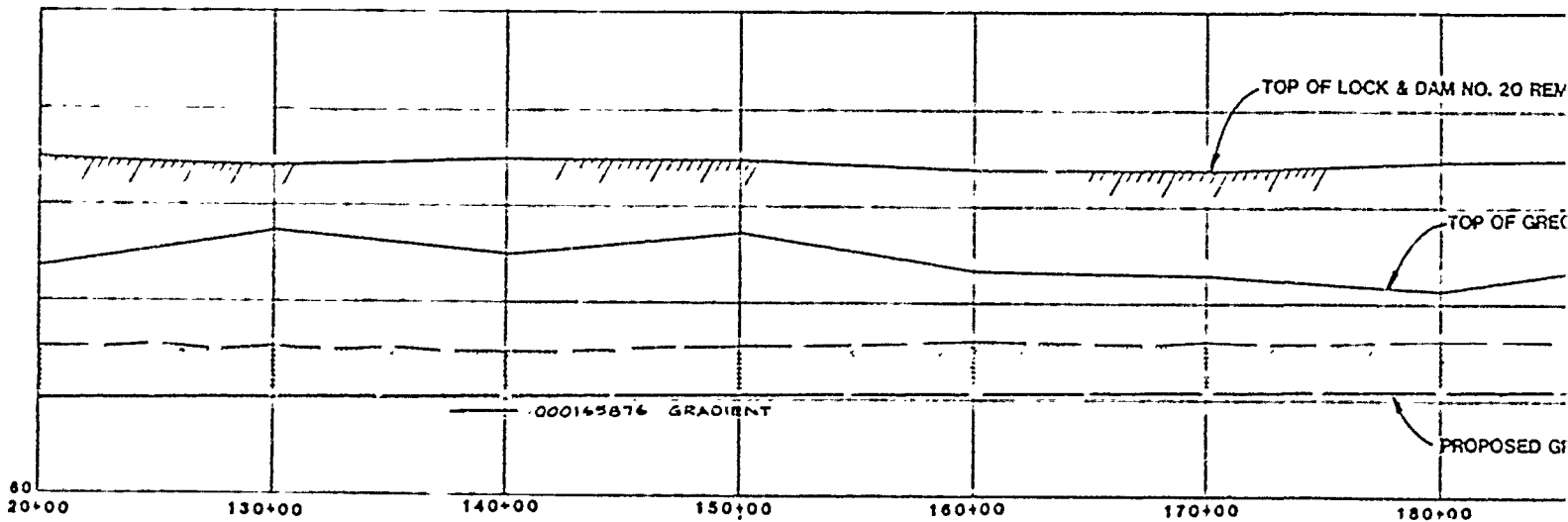
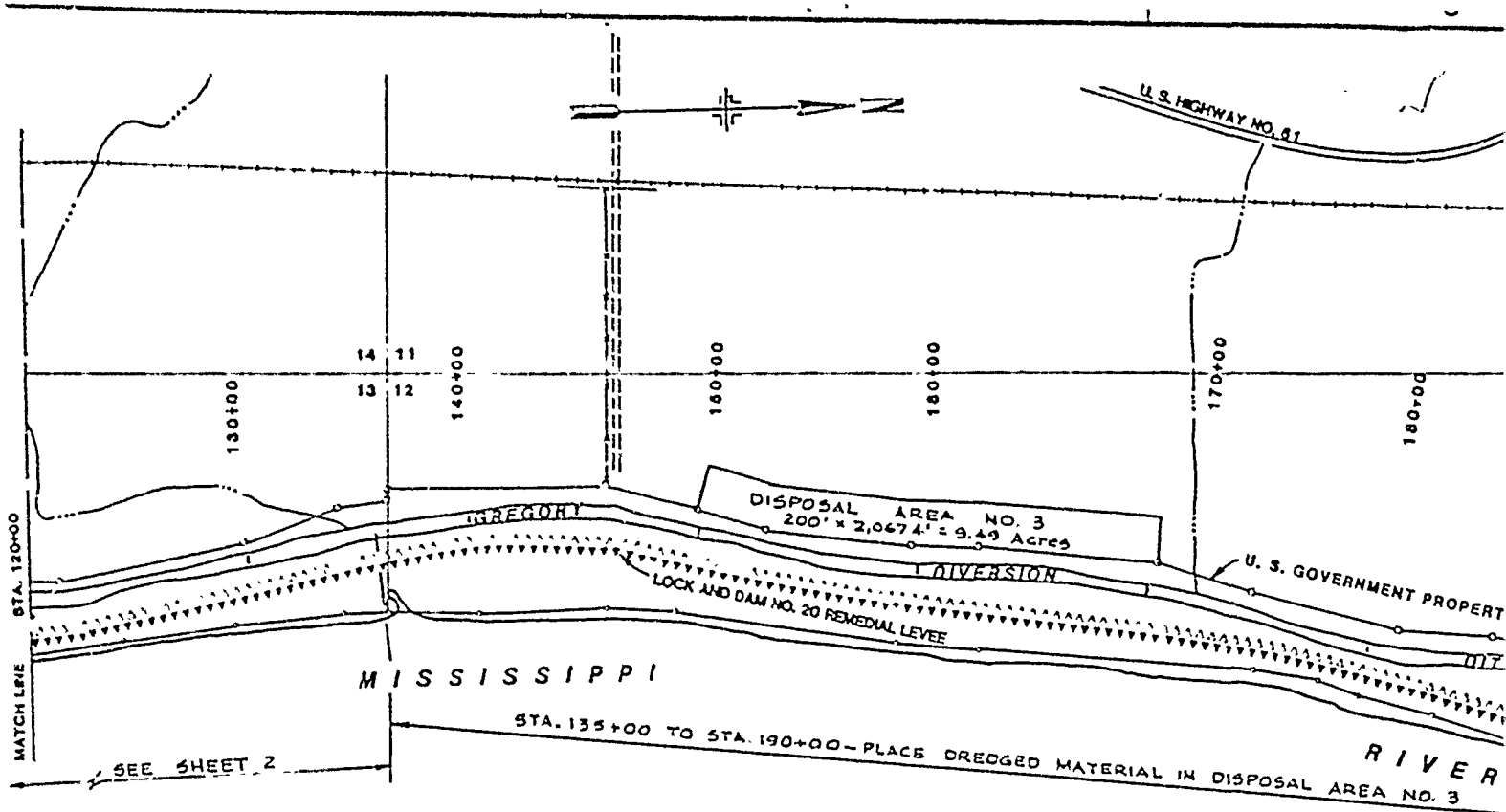
**NOTES**

1. DISPOSAL AREAS, INCLUDING THE DIKES AND WEIRS WILL BE CONSTRUCTED AND MAINTAINED BY THE U.S ARMY CORPS OF ENGINEERS.
2. THE DREDGE CUT SHALL HAVE A TOP WIDTH OF 30', IT IS ANTICIPATED THAT THE SIDE SLOPES MAY SLOUGH.

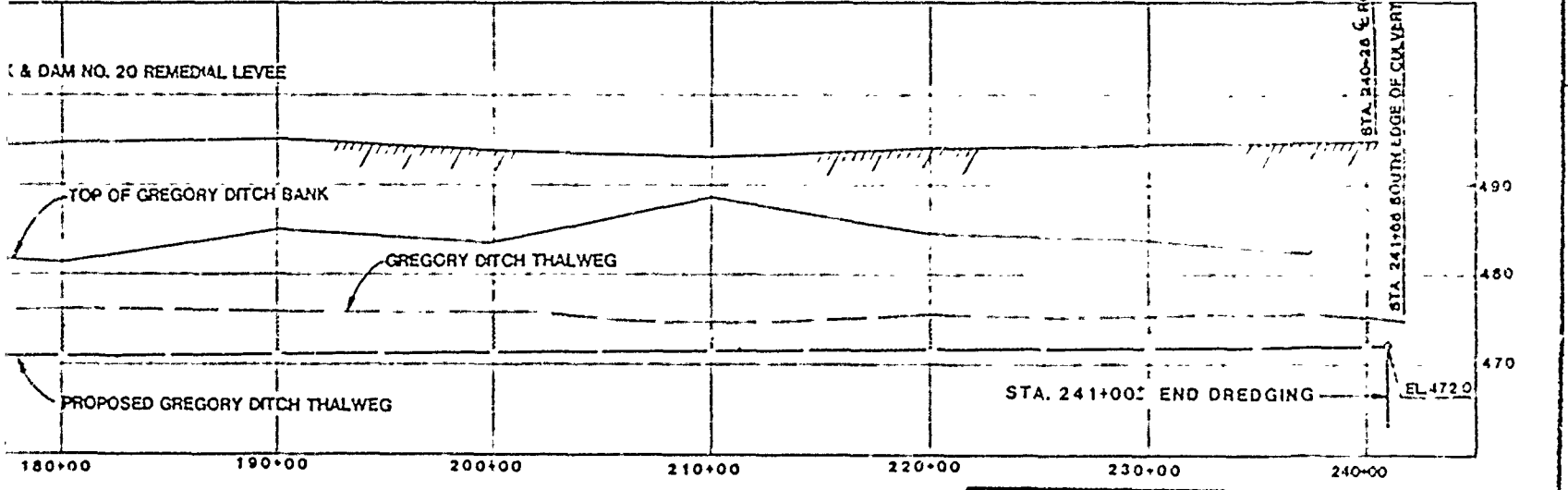
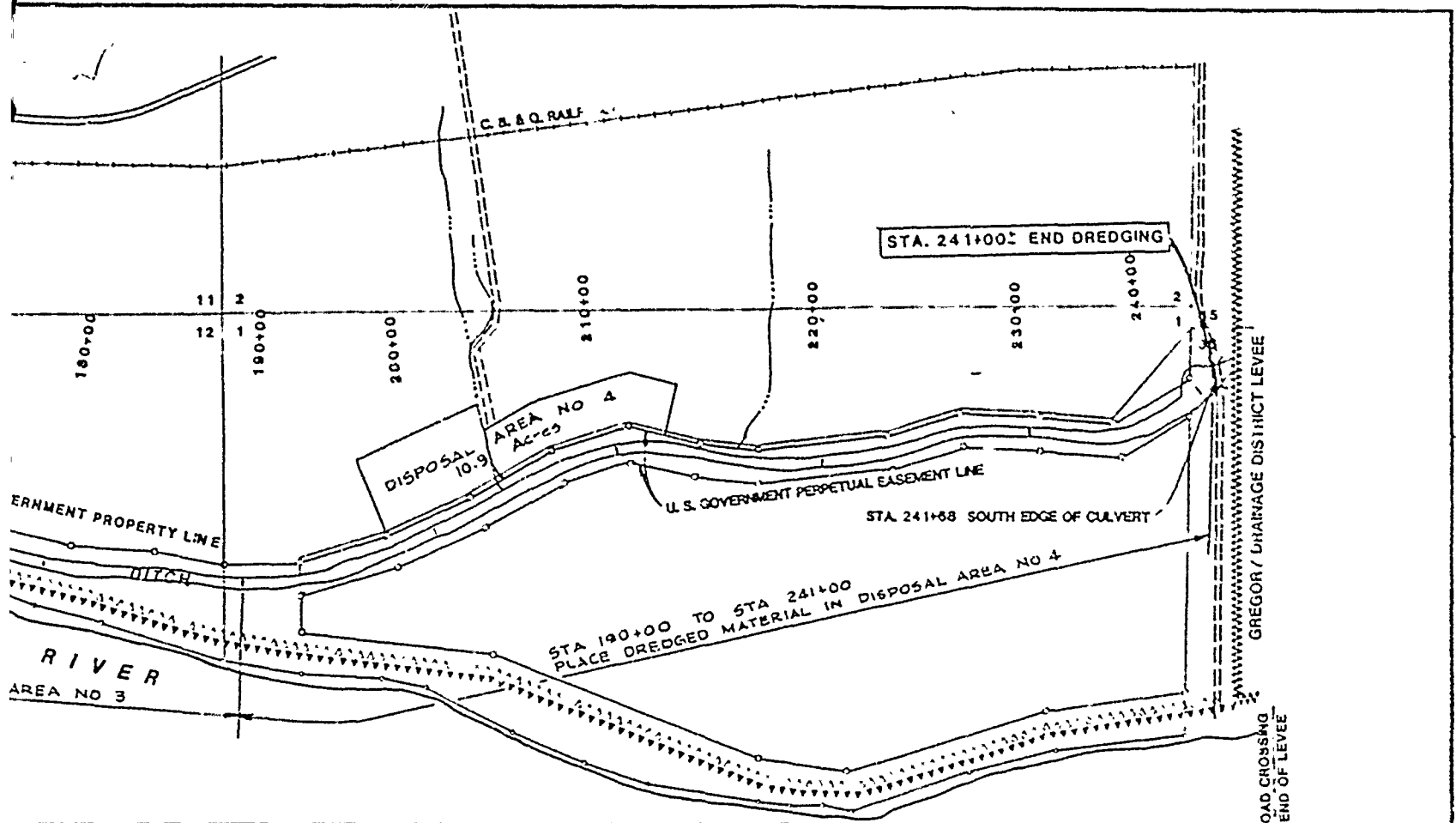
| Symbol | Description | Date | Approved |
|--------|-------------|------|----------|
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |
|        |             |      |          |

**U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS**

|              |  |
|--------------|--|
| Designed by: | <br><b>MISSISSIPPI RIVER<br/>LOCK AND DAM NO. 20<br/>GREGORY DIVERSION DITCH<br/>CHANNEL DREDGING<br/>PLAN AND PROFILE</b> |
| Drawn by:    |  |
| Checked by:  |  |
| Reviewed by: |  |
| Approved by: |  |



**PROFILE**



**PROFILE**

| Revisions |             |      |          |
|-----------|-------------|------|----------|
| Symbol    | Description | Date | Approved |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |
|           |             |      |          |

U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS

Designed by:  
Drawn by:  
Checked by:  
Reviewed by:  
Approved by:

**MISSISSIPPI RIVER  
LOCK AND DAM NO. 20  
GREGORY DIVERSION DITCH  
CHANNEL DREDGING  
PLAN AND PROFILE**

Plate 3.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

March 28, 1989

Colonel Neil A. Smart, USA  
U.S. Army Engineer District, Rock Island  
ATTN: Planning Division  
Clock Tower Building - P.O. Box 2004  
Rock Island, Illinois 61204-2004

Dear Colonel Smart:

RE: Maintenance Dredging of Gregory Chute, Lewis County,  
Missouri

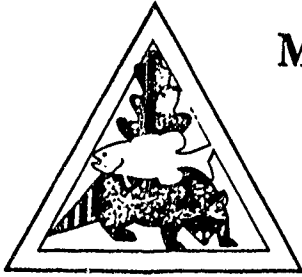
In response to your request, we have reviewed the information provided to us on the project referenced above. We have no objections to the project at this time, but reserve the right to comment otherwise upon review of the Environmental Assessment.

Thank you for the opportunity to comment.

Sincerely yours,

A handwritten signature in cursive script that reads "Lawrence M. Cavin".

Lawrence M. Cavin  
Chief, Environmental Review  
and Coordination



# MISSOURI DEPARTMENT OF CONSERVATION

MAILING ADDRESS:  
P.O. Box 180  
Jefferson City, Missouri 65102-0180

STREET LOCATION:  
2901 West Truman Boulevard  
Jefferson City, Missouri

Telephone: 314/751-4115  
JERRY J. PRESLEY, Director

April 25, 1989

Mr. Dudley M. Hanson  
Chief, Planning Division  
Rock Island District, Corps of Engineers  
P. O. Box 2004  
Rock Island, Illinois 61204

Re: Gregory Diversion Ditch

Dear Mr. Hanson:

In response to your March 13, 1989 letter, members of the Department staff made an onsite inspection of the area involved in the proposed cleanout of Gregory Diversion Ditch, Lewis County, Missouri. The following comments are based on that letter and plans provided:

1. There was some difficulty in locating the disposal sites in the field. It appears that Disposal Site #4 would be located in a wooded area, while your letter indicated disposal sites would be in agricultural areas.
2. We were surprised to see that a majority of the U. S. Government owned land along the ditch was essentially devoid of vegetation. There would appear to be an opportunity to restore riparian wetland vegetation along a major part of the ditch. We would recommend the government owned lands be planted with woody wetland vegetation such as pin oak. Since the maintenance will be hydraulic dredging, the need for a cleared right-of-way on both sides of the ditch is not apparent.
3. To restore some aquatic habitat, we urge you to consider overdredging the ditch at 200 ft. to 250 ft. intervals. Overdredging to a depth of 10 feet would assure winter survival of fishes in the ditch.
4. During the field tour, staff noted that fill material had recently been placed along the west ditch bank in the vicinity of the bridge to Lock and Dam 20. We do not recall commenting on a Section 404 for the placement of this fill material. Was the material placed by Corps of Engineers or other interests?

## COMMISSION

JEFF CHURAN  
Chillicothe

JAY HENGES  
Earth City

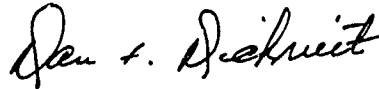
JOHN POWELL  
Rolla

RICHARD REED  
East Prairie

Mr. Dudley M. Hanson  
April 25, 1989  
Page Two

I hope these thoughts will be of value as you further refine your plans. We would hope to have an opportunity to further interact with your staff or review plans placed on current aerial photographs. If there are questions, please contact William H. Dieffenbach at the above address.

Sincerely,



DAN F. DICKNEITE  
ENVIRONMENTAL ADMINISTRATOR

cc: U. S. Fish and Wildlife Service  
Rock Island, Illinois



# United States Department of the Interior

FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:

ROCK ISLAND FIELD OFFICE (ES)

COM: 309/793-5800

1830 Second Avenue, Second Floor

FTS: 386-5800

Rock Island, Illinois 61201

May 22, 1989

Colonel Neil A. Smart  
District Engineer  
U.S. Army Engineer District  
Rock Island  
Clock Tower Building, P.O. Box 2004  
Rock Island, Illinois 61204-2004

Dear Colonel Smart:

This refers to your letter of March 13, 1989 requesting our comments on the maintenance dredging project for the Gregory Drainage Ditch, Lewis County, Missouri. We have reviewed the project information and the comments provided by the Missouri Department of Conservation. We concur with their comments and recommend that riparian vegetation be restored along the drainage ditch and overdredging be conducted at 200-250 feet intervals to a depth of 10 feet.

### Endangered Species

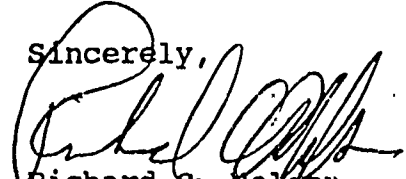
To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal Agencies are required to obtain from the Fish and Wildlife Service information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. Therefore, we are furnishing you the following list of species which may be present in the concerned area:

| <u>Classification</u> | <u>Common Name</u> | <u>Scientific Name</u>                    | <u>Habitat</u>                   |
|-----------------------|--------------------|---|----------------------------------|
| Endangered            | Indiana Bat        | <u>Myotis sodalis</u>                     | Caves and<br>Riparian<br>Habitat |
| Endangered            | Bald Eagle         | <u>Haliaeetus</u><br><u>leucocephalus</u> | Breeding<br>Wintering            |

Since no riparian vegetation is proposed to be removed, the project will not affect the endangered species.

This precludes the need for further action on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. Should this project be modified or new information indicate endangered species may be affected, consultation should be initiated.

Sincerely,



Richard E. Nelson  
Field Supervisor

cc: MDOC (Dieffenbach)

JM:hw



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

555 Vandiver Drive  
Columbia, Missouri  
65202

August 24, 1989

RE:  
Lewis County, Missouri  
Gregory Drainage Ditch Maintenance Dredging  
Temporary Containment Area for Dredging  
Farmland Conversion Impact Rating

Department of the Army  
U.S. Army Engineer District, Rock Island  
Clock Tower Building, P.O. Box 2004  
Rock Island, Illinois 61204-2004

The farmland conversion impact rating for the site  
referenced above is attached.

Sincerely,

*Richard L. Tommons*

Bruce W. Thompson  
State Soil Scientist

Attachment



The Soil Conservation Service  
is an agency of the  
Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| PART I (To be completed by Federal Agency)   |  | Date Of Land Evaluation Request  |  | 8-7-89  |  |
| Name Of Project<br>Gregory Drainage Ditch Maintenance                              |  | Federal Agency Involved  |  | Corps of Engineers  |  |
| Proposed Land Use<br>Dredging  |  | County And State   |  | Lewis, Missouri   |  |
| <del>Temporary Containment Area for Dredging</del>                                 |  | Date Request Received By SCS   |  | 8-10-89   |  |
| PART II (To be completed by SCS)   |  | Does the site contain prime, unique, statewide or local important farmland?<br>(If no, the FPPA does not apply - do not complete additional parts of this form). |  | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                           |  |
| Major Crop(s)<br>CORN - SOYBEANS   |  | Farmable Land In Govt. Jurisdiction<br>Acres: 322,800 %  |  | Acres Irrigated<br>NONE   |  |
| Name Of Land Evaluation System Used<br>LEWIS CO LESA                               |  | Name Of Local Site Assessment System   |  | Average Farm Size<br>320  |  |
|  |  |  |  | Amount Of Farmland As Defined in FPPA<br>Acres: 189,400 %                                     |  |
|  |  |  |  | Date Land Evaluation Returned By SCS<br>8-24-89   |  |
| PART III (To be completed by Federal Agency)                                       |  | 10 Acres Each  |  | Alternative Site Rating   |  |
|  |  |  |  | Site A Site B Site C Site D   |  |
| A. Total Acres To Be Converted Directly  |  | 4 separate sites   |  | 40  |  |
| B. Total Acres To Be Converted Indirectly  |  |  |  | 160   |  |
| C. Total Acres In Site   |  |  |  | 200   |  |
| PART IV (To be completed by SCS) Land Evaluation Information                       |  |  |  |   |  |
| A. Total Acres Prime And Unique Farmland   |  | 200  |  |   |  |
| B. Total Acres Statewide And Local Important Farmland                              |  | 0  |  |   |  |
| C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted            |  | 0.1056%  |  |   |  |
| D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value |  | 12.4   |  |   |  |
| PART V (To be completed by SCS) Land Evaluation Criterion                          |  |  |  |   |  |
| Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)              |  | 93   |  |   |  |
| PART VI (To be completed by Federal Agency)  |  | Maximum Points   |  |   |  |
| Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))          |  |  |  |   |  |
| 1. Area In Nonurban Use  |  | 15   |  |   |  |
| 2. Perimeter In Nonurban Use   |  | 10   |  |   |  |
| 3. Percent Of Site Being Farmed  |  | 20   |  |   |  |
| 4. Protection Provided By State And Local Government                               |  | 0  |  |   |  |
| 5. Distance From Urban Builtup Area  |  | 10   |  |   |  |
| 6. Distance To Urban Support Services  |  | 10   |  |   |  |
| 7. Size Of Present Farm Unit Compared To Average                                   |  | 5  |  |   |  |
| 8. Creation Of Nonfarmable Farmland  |  | 5  |  |   |  |
| 9. Availability Of Farm Support Services   |  | 5  |  |   |  |
| 10. On-Farm Investments  |  | 10   |  |   |  |
| 11. Effects Of Conversion On Farm Support Services                                 |  | 0  |  |   |  |
| 12. Compatibility With Existing Agricultural Use                                   |  | 0  |  |   |  |
| TOTAL SITE ASSESSMENT POINTS   |  | 160  |  | 90  |  |
| PART VII (To be completed by Federal Agency)                                       |  |  |  |   |  |
| Relative Value Of Farmland (From Part V)   |  | 100  |  | 93  |  |
| Total Site Assessment (From Part VI above or a local site assessment)              |  | 160  |  | 90  |  |
| TOTAL POINTS (Total of above 2 lines)  |  | 260  |  | 183   |  |
| Site Selected: (A)   |  | Date Of Selection 8/30/89  |  | Was A Local Site Assessment Used?<br>Yes <input type="checkbox"/> No <input type="checkbox"/> |  |
| Reason For Selection:  |  |  |  |   |  |

THE 4 SITES WILL BE USED AS TEMPORARY CONTAINMENT SITES FOR DREDGED MATERIAL.

JOHN ASHCROFT  
Governor

G. TRACY MEHAN III  
Director



STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS, RECREATION, AND HISTORIC PRESERVATION

P.O. Box 176  
Jefferson City, MO 65102  
314-751-2479

Division of Energy  
Division of Environmental Quality  
Division of Geology and Land Survey  
Division of Management Services  
Division of Parks, Recreation,  
and Historic Preservation

August 24, 1989

Mr. Dudley M. Hanson  
Chief, Planning Division  
Department of the Army  
Rock Island District, COE  
P.O. Box 2004  
Rock Island, Illinois 61204-2004

RE: Proposed Dredge Material Placement Areas (COE), Canton Vicinity, Lewis  
County, Missouri

Dear Mr. Hanson:


In response to your letter dated 02 August 1989 concerning the above referenced project, the Historic Preservation Program has reviewed the information provided and has determined that no property listed on or determined eligible for inclusion in the National Register of Historic Places will be affected by the proposed undertaking. Therefore, we have no objections to the initiation of project activities.

However, if the currently defined project area or scope of project related activities is changed or revised, or cultural materials are encountered during construction, the Missouri Historic Preservation Program must be notified and appropriate information relevant to such changes, revisions, or discoveries be provided for further review and comment, in order to ascertain the need for additional investigations.

If I can be of further assistance, please write or call 314/751-7860.

Sincerely,

HISTORIC PRESERVATION PROGRAM



Michael S. Weichman  
Senior Archaeologist

MSW:nc

cc: Ron Deiss

DISTRIBUTION LIST FOR  
ENVIRONMENTAL ASSESSMENT  
GREGORY DIVERSION CHANNEL  
MAINTENANCE DREDGING  
MISSISSIPPI RIVER POOL 20  
LEWIS COUNTY, MISSOURI  
DISTRIBUTION -- EXTERNAL

NO  
COPIES\*

HONORABLE CHRISTOPHER BOND, UNITED STATES SENATOR  
815 OLIVE ST. ROOM 224, ST LOUIS MO 63101

HONORABLE JOHN C. DANFORTH, UNITED STATES SENATOR  
815 OLIVE STREET, ST LOUIS MO 63103

HONORABLE HAROLD L VOLKMER, REPRESENTATIVE IN CONGRESS  
FEDERAL BUILDING-ROOM 370, 801 BROADWAY  
HANNIBAL MO 63401-4353-4353

DIRECTOR, ADVISORY COUNCIL ON HISTORIC PRESERV  
OLD PO BLDG #809, 1100 PENNSYLVANIA AVENUE NW  
WASHINGTON DC 20004

DIRECTOR, US DEPT OF COMMERCE  
OFFICE OF ENVIRONMENTAL AFFAIRS, ROOM 3425  
WASHINGTON DC 20235

OFFICE OF ENVIRONMENTAL PROJ REVIEW, DEPARTMENT OF INTERIOR 18  
MS 4239-MIB, 18TH & C STREETS NW - ROOM 4241  
WASHINGTON DC 20240

DR DAVID CLAPP, OFFICE OF THE DIRECTOR  
CNTR FOR ENV HEALTH&INJ CONTROL/F 2, CENTERS FOR DISEASE CONTROL  
ATLANTA GA 30333

MR VALDAS J ADAMKUS - ADMINISTRATOR, US ENVIRONMENTAL PROTECTION AGCY 3  
230 S DEARBORN ST, CHICAGO IL 60604

REGIONAL ENGINEER, FERC REGIONAL OFFICE  
FEDERAL BLDG - 31ST FLOOR, 230 S DEARBORN ST  
CHICAGO IL 60604

MR RICHARD NELSON - FIELD SUPRVR, U.S.FISH & WILDLIFE SERVICE  
1830 SECOND AVE. - 2ND FLOOR, ROCK ISLAND,IL 61201

MR MORRIS KAY, ADMINISTRATOR 3  
US ENVIRON PROT AGENCY-REG VII, 726 MINNESOTA AVE  
KANSAS CITY KS 66101

\*SINGLE COPIES DISTRIBUTED EXCEPT AS INDICATED

DISTRIBUTION -- EXTERNAL

NO  
COPIES\*

MR JAMES C GRITMAN-REGIONAL DIRECTO, U.S.FISH AND WILDLIFE SERVICE  
FEDERAL BLDG FORT SNELLING, TWIN CITIES MN 55111

DIRECTOR, FEDERAL EMERGENCY MANAGEMENT AGENCY  
REGION VII, 911 WALNUT STREET - ROOM 300  
KANSAS CITY MO 64106

REGIONAL ADMINISTRATOR, FEDERAL HIGHWAY ADMN - REG 7  
PO BOX 19715, KANSAS CITY MO 64141

STATE DIRECTOR, FARMERS HOME ADMIN - USDA  
PARKDALE PLAZA, 555 VANDIVER DR - TERRACE LEVEL  
COLUMBIA MO 65201

REGIONAL DIRECTOR, REGION VIII  
FEDERAL RAILROAD ADMINISTRATION, 2903 FEDERAL OFFICE BLDG  
KANSAS CITY MO 64106

LEE W LARSON - W/CR2, NWS CENTRAL REGION HYDR  
601 E 12TH STREET - ROOM 1836, KANSAS CITY MO 64106

STATE CONSERVATIONIST, SOIL CONSERVATION SERVICE  
555 VANDIVER DRIVE, COLUMBIA MO 65201

2

COMMANDER, DEPARTMENT OF TRANSPORTATION  
SECOND COAST GUARD DISTRICT, 1430 OLIVE STREET  
ST LOUIS MO 63101

DISTRICT CHIEF - WRD, GEOLOGICAL SURVEY  
1400 INDEPENDENCE RD - MS 200, ROLLA MO 65401

REGIONAL FORESTER, FOREST SERVICE  
US DEPT OF AGRICULTURE, 310 W WISCONSIN AVE-SUITE 500  
MILWAUKEE WI 53203

2

HONORABLE JOHN ASHCROFT, GOVERNOR OF MISSOURI  
STATE CAPITOL, JEFFERSON CITY MO 65101

LOIS POHL - COORDINATOR, MO FED ASSISTANCE CLEARINGHOUSE  
TRUMAN BUILDING - ROOM 760, PO BOX 809  
JEFFERSON CITY MO 65102

\*SINGLE COPIES DISTRIBUTED EXCEPT AS INDICATED

DISTRIBUTION -- EXTERNAL

NO  
COPIES\*

DIRECTOR, DIV OF COMMERCE & INDUSTRIAL DVLP  
PO BOX 118, 100 E CAPITOL  
JEFFERSON CITY MO 65101

CHARLES R MICHAEL-DIRECTOR, RIVER BASIN PLNG/POLICY UNIT  
DEPT OF NATURAL RESOURCES, PO BOX 176  
JEFFERSON CITY MO 65102

DIRECTOR, MISSOURI NATURAL RESOURCES COUNCIL  
PO BOX 176, JEFFERSON CITY MO 65101

DIRECTOR, MISSOURI DEPT OF AGRICULTURE  
JEFFERSON BUILDING, JEFFERSON CITY MO 65102

MR GORDON FARABEE, MISSOURI DEPT OF CONSERVATION  
RR 1 BOX 55, PALMYRA MO 63461

MR WILLIAM DEIFFENBACH, MISSOURI DEPT OF CONSERVATION  
PO BOX 180, JEFFERSON CITY MO 65101

MR JERRY J PRESLEY - DIRECTOR, DEPARTMENT OF CONSERVATION  
PO BOX 180, JEFFERSON CITY MO 65102

MR ROBERT DOBBINS, MISSOURI DEPT OF CONSERVATION  
RR 1 BOX 198, ELSBERRY MO 63343

ROBERT HUNTER - CHIEF ENGINEER, MISSOURI STATE HIGHWAY DEPT  
STATE HIGHWAY COMMISSION BLDG, PO BOX 270  
JEFFERSON CITY MO 65101

DIRECTOR, MISSOURI STATE PARK BOARD  
STATE OFFICE BUILDING, 1204 JEFFERSON  
JEFFERSON CITY MO 65101

FREDERICK A BRUNNER PH.D P.E., STATE HISTORIC PRESERVATION OFCR  
DEPT OF NATURAL RESOURCES, PO BOX 176  
JEFFERSON CITY MO 65102

HONORABLE JAMES MURPHY, MISSOURI SENATOR  
3742 UPTON STREET, ST. LOUIS, MO 63116

\*SINGLE COPIES DISTRIBUTED EXCEPT AS INDICATED

DISTRIBUTION -- EXTERNAL

NO  
COPIES\*

DISTRICT ENGINEER, DISTRICT 3  
MISSOURI STATE HIGHWAY COMMISSION, HANNIBAL, MO 63401

BOARD OF JUDGES, LEWIS COUNTY COURT HOUSE  
MONTICELLO, MO 63457

CHAIRMAN, COUNTY BOARD OF SUPERVISORS  
COURT HOUSE, LEWIS COUNTY  
MONTICELLO, MO 63457

COUNTY ATTORNEY, COURT HOUSE  
LEWIS COUNTY, MONTICELLO, MO 63457

COUNTY CLERK, LEWIS CNTY COURT HOUSE  
MONTICELLO, MO 63457

COUNTY ENGINEER, COURT HOUSE  
LEWIS COUNTY, MONTICELLO, MO 63457

LEWIS COUNTY HIGHWAY DEPT., MONTICELLO, MO 63457

AMERICAN WATERWAYS OPERATORS INC, ATTN MR HERMAN J MOLZAHN  
1600 WILSON BLVD - SUITE 1000, ARLINGTON VA 22209

SOIL & WATER DISTRICTS COMM., P.O. BOX 1368  
2010 MISSOURI BLVD, JEFFERSON CITY, MO 65102

CANTON PUBLIC LIBRARY, CANTON MO 63435

PAUL HANSEN, IZAAK WALTON LEAGUE  
UPPER MISSISSIPPI REGNL OFC, 6601 AUTO CLUB ROAD  
MINNEAPOLIS MN 55438

JANE ELDER, THE SIERRA CLUB  
214 N HENRY ST SUITE 203, MADISON WI 53703

CANTON PRESS-NEWS JOURNAL, CANTON, MO 63435

THE LEWIS COUNTY JOURNAL, CANTON, MO. 63435

\*SINGLE COPIES DISTRIBUTED EXCEPT AS INDICATED

DISTRIBUTION -- EXTERNAL

NO  
COPIES\*

STATION KHQA-TV, QUINCY IL 62301

RADIO STATION KQCA-FM, CANTON, MO 63435

MARION LAMBERT, C/O ELIOT STATE BANK  
JACKSONVILLE IL 62650

RICHARD & PHYLLIS MCDONALD, #7 SUMMER CREEK  
QUINCY IL 62301

PAUL N WHEELER, FERTILE ACRES  
ROUTE 1-BOX 19, ALTONA IL 61414

RALPH BARKLEY, RR #1  
CANTON MO 63435

JAMES & IRENE CALDWELL, RR #2  
CANTON MO 63435

\*SINGLE COPIES DISTRIBUTED EXCEPT AS INDICATED

DISTRIBUTION -- INTERNAL

COMMANDER, US ARMY ENGINEER DISTRICT, ROCK ISLAND,  
CLOCK TOWER BLDG., ROCK ISLAND, IL 61204-2004

ATTN: CENCR-DE                   CENCR-PD-E  
      CENCR-RE                   CENCR-PD-P  
      CENCR-ED                   CENCR-CD  
      CENCR-ED-D                 CENCR-OD  
      CENCR-ED-H                CENCR-IM-C (3)  
      CENCR-PA  
      CENCR-PD (2)