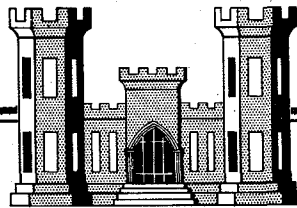


**REVISION OF  
MASTER PLAN  
FOR  
RESOURCE MANAGEMENT**

**POOLS 11-22  
9-FOOT CHANNEL NAVIGATION PROJECT**



**CHAPTER V  
THE MISSISSIPPI RIVER  
POOL 14**

**U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS  
JULY 1969**

-ER

ENGW-PV (22 May 70) 1st Ind  
SUBJECT: Revision of Master Plan for Resource Management, Upper  
Mississippi River, Pools 11-22, Nine-Foot Channel  
Navigation Project

DA, Office of the Chief of Engineers, Washington, D. C. 20314 6 Jan 71

TO: Division Engineer, North Central

The revised Master Plans for Pools 13, 14, 15 and 16 are approved subject to the comments expressed by NCDPD-ER in the basic letter and to the following.

a. Chapter IV, Pool 13, Section V, Plate V 1.2. The tabulation of total existing picnic tables listed under the item of camping appears to be in error.

b. Chapter V, Pool 14, Section VI, par. 7a(4), page VI-4 and Section VII, par. 2, page VII-1. The Corps can participate in the construction of new areas in accordance with provisions of PL 89-72 as further implemented by ENGOW-Y 5 Aug 65 letter. Such letter is referenced in paragraph 3d. of the basic letter.

c. Chapter VII, Pool 16.


(1) Section IV, Plate IV-4.3. Shady Creek Public Use Area. The site layout plan should be revised to separate camping, an over-night use, from picnicking, a day-use per the criteria shown in ER 1130-2-312.

(2) Section V, Plate V 1.2. The tabulation of total existing parking units listed under the item of day use and total existing picnic tables listed under the item of camping appears to be in error.

d. In the interest of enhancement of the environmental quality of the recreation areas a program of landscape planting of such areas should be initiated at an early date.

FOR THE CHIEF OF ENGINEERS:

wd all incl

  
LOUIS G. FEIL  
Chief, Planning Division  
Directorate of Civil Works

NCDPD-ER (22 May 70) 2nd Ind

SUBJECT: Revision of Master Plan for Resource Management, Upper  
Mississippi River, Pools 11-22, Nine-Foot Channel Navigation  
Project

DA, North Central Div., Corps of Engineers, 536 S. Clark St., Chicago,  
Illinois 60605 26 Jan 1971

TO: District Engineer, Rock Island

Forwarded for appropriate action.

FOR THE DIVISION ENGINEER:

*James W. Gilland*

JAMES W. GILLAND  
Colonel, Corps of Engineers  
Deputy Division Engineer for  
Civil Functions



DEPARTMENT OF THE ARMY  
NORTH CENTRAL DIVISION, CORPS OF ENGINEERS  
536 SOUTH CLARK STREET  
CHICAGO, ILLINOIS 60605

NCDPD-ER

22 May 1970

SUBJECT: Revision of Master Plan for Resource Management, Upper  
Mississippi River, Pools 11-22, Nine-Foot Channel Navigation  
Project

Chief of Engineers  
ATTN: ENGCW-PV

1. Chapters IV, V, VI and VII of the subject master plan (Pools 13, 14, 15 and 16) are forwarded, recommending approval, subject to the following comments.
2. The land use zoning and forestry management objectives indicated on the plastic overlays with the base maps are important features of this master plan. These overlays provide guides for achieving rational long range resource management on project lands and waters. Preparation of these land use zoning and forestry management overlays involved detailed analysis of resources and extensive coordination efforts which warrant special mention in the narrative portion of the plan. As indicated in Chapter I, General Information, the last chapter of the master plan, Chapter XIV, will contain a summary of the complete master plan. Chapter XIV should contain a section to emphasize the fact that the most significant long range value of this master plan can be realized through appropriate implementation of the land use zoning and forestry management features of the plan.
3. The chapters of the master plan covering the individual pools do not present sufficient data on recommended recreational facility expansion. It is suggested, therefore, that Chapter XIV should provide a consolidated detailed analysis of all works specifically recommended in Pools 11 thru 22, to include the following:

a. Existing Facilities Operated by the Corps.

- (1) Provide site plans indicating expansion needed to meet increased demand, or modifications needed to improve site design or user control.

NCDPD-ER

22 May 1970

SUBJECT: Revision of Master Plan for Resource Management, Upper  
Mississippi River, Pools 11-22, Nine-Foot Channel Navigation  
Project

(2) Provide detailed cost estimates including costs of site preparation, landscaping and signs.

b. Dredging.

(1) Identify by pool and river mile all dredging proposed in support of recreational boating.

(2) Provide detailed information on length, width and depth of channel that should be provided and explain if dredge spoil can be used beneficially.

(3) Provide cost estimates for each site.

c. New Sites.

This master plan contains specific recommendations for development of new sites even though at this time no local agencies have indicated an intent to cost share. For these new sites, provide detailed cost estimates including special items of cost associated with development such as bridges, railroad crossings and fencing.

d. Programming.

Establish priorities for recommended improvement of existing facilities. Indicate which improvements will be programmed for development under current policy prior to 30 June 1976. (See OCE letter ENGOW-Y dated 5 August 1965, subject: Implementation of the Federal Water Project Recreation Act (P.L. 89-72) in Previously Authorized Projects.)

4. Items discussed or proposed in this master plan do not in any way conflict with the current concept of a National Recreation Area for the Upper Mississippi River. In fact, this master plan and the related resource maps could very well serve as the framework for a more elaborate development and management plan should the National Recreation Area become a reality.

FOR THE DIVISION ENGINEER:

4 Incl (trip)  
as fwd sep

CF:

District Engineer, Rock Island

*James W. Gillard*  
JAMES W. GILLARD  
Colonel, Corps of Engineers  
Deputy Division Engineer for  
Civil Functions



DEPARTMENT OF THE ARMY  
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS  
CLOCK TOWER BUILDING  
ROCK ISLAND, ILLINOIS 61201

ADDRESS REPLY TO  
DISTRICT ENGINEER

REFER TO FILE NO. NCRED-PB

6 August 1969

SUBJECT: Revision of Master Plan for Resource Management,  
Upper Mississippi River, Pools 11-22, Nine-Foot  
Channel Navigation Project

Division Engineer, North Central

1. Chapter V, Pool 14, of the subject master plan is submitted in accordance with Engineer Manual 1130-2-302.
2. This chapter of the master plan contains specific information concerning the administration and development of the resources within the pool.
3. It is recommended that chapter V of the master plan for resource management of the Mississippi River 9-foot channel navigation pools be approved.

2 Incls (6 cys)

1. Narrative, Pool 14
2. Maps, Pool 14

WALTER C. GELINI  
Colonel, Corps of Engineers  
District Engineer

cc: District File w/o incls  
Engrg Div w/o incls  
Plan Br (Environ. Res) w/o incls ✓

NCRED-PB

30 January 1970

SUBJECT: Revision of Master Plan for Resource Management,  
Upper Mississippi River, Pools 11-22, Nine-Foot  
Channel Navigation Project

Division Engineer, NCD

1. Transmitted herewith are 6 sets of revised pages and plates for the following chapters of the subject master plan to supersede like-numbered pages and plates in copies of report in NCD.

a. Chapter III, Pool 12, pages IV-3, V-1, VI-3 and VI-4; plates V-1.1 and V-1.2

b. Chapter IV, Pool 13, pages IV-5 and V-1; plates V-1.1 and V-1.2

c. Chapter V, Pool 14, pages IV-3, IV-4 and V-1; plates V-1.1 and V-1.2.

2. These revisions are in accordance with telephone conversations with Mr. Carl Brown of your office.

3 Incls (6 sets each)  
Rev. pgs & plates for  
Chap. III, IV & V

JAMES E. BUNCH  
Colonel, Corps of Engineers  
District Engineer

cc: District File w/o incls  
Engrg Div w/o incls  
Plan Br (Environ. Res.) w/o incls

REVISION OF MASTER PLAN  
FOR  
RESOURCE MANAGEMENT

POOLS 11-22  
NINE-FOOT CHANNEL NAVIGATION PROJECT

CHAPTER V  
THE MISSISSIPPI RIVER, POOL 14

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REVISION OF MASTER PLAN  
FOR  
RESOURCE MANAGEMENT

POOLS 11-22  
NINE-FOOT CHANNEL NAVIGATION PROJECT

CHAPTER V  
THE MISSISSIPPI RIVER, POOL 14

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<u>NUMBER</u>	<u>TITLE</u>
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II-3.1	Locks and Dam No. 14
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REVISION OF MASTER PLAN  
FOR  
RESOURCE MANAGEMENT

POOLS 11-22  
NINE-FOOT CHANNEL NAVIGATION PROJECT

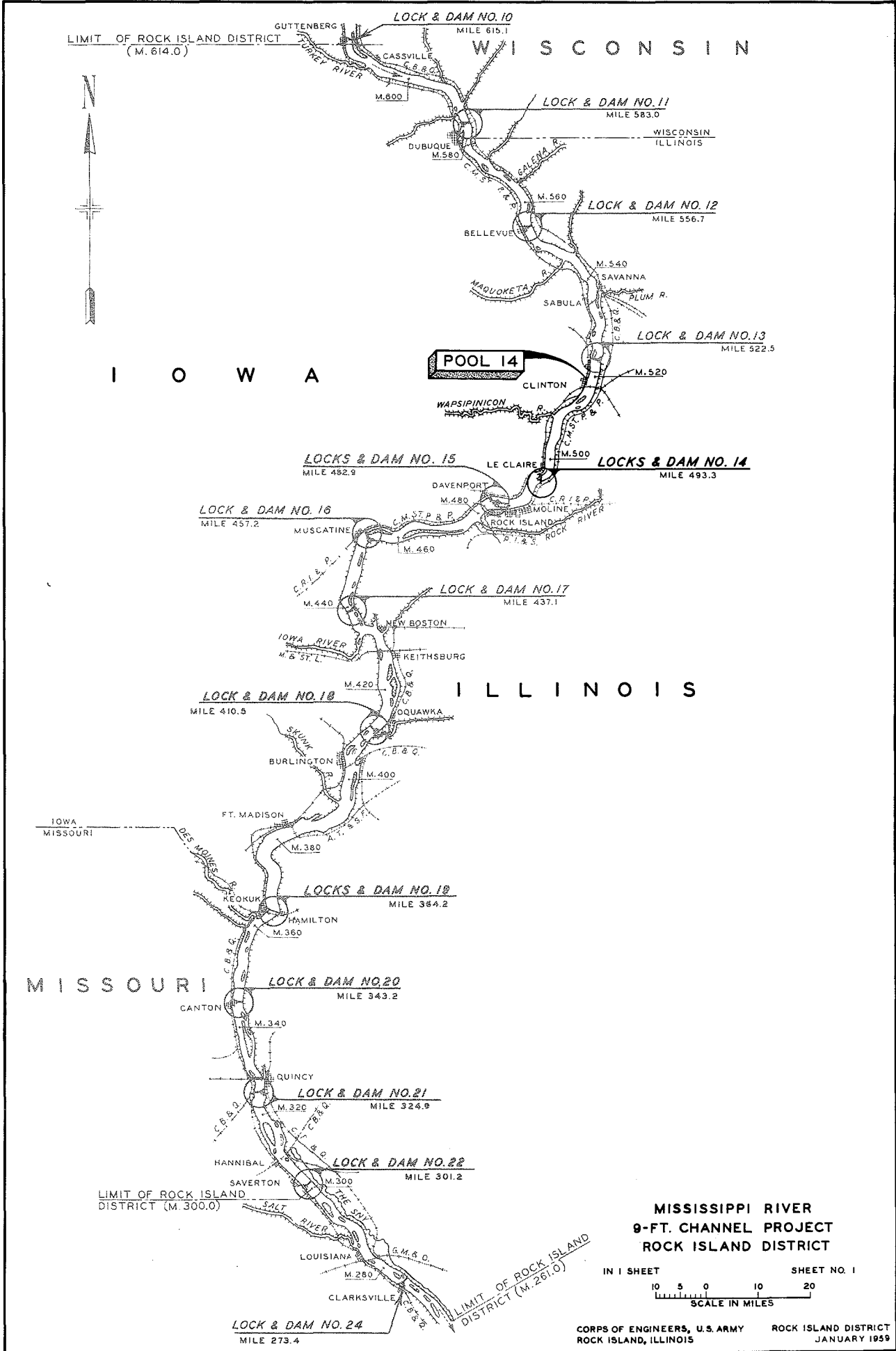
CHAPTER V  
THE MISSISSIPPI RIVER, POOL 14

SECTION I

INTRODUCTION

As noted in chapter I, a Master Plan is developed to provide a sound instrument of guidance for the administration and operation of land and water resource projects; to assure sound resource management; and to coordinate activities with interested Federal, State, and local agencies. Pool 14, one of the series of navigation pools on the Upper Mississippi River, and within the limits of the Rock Island District, is treated under such master planning requirements. Plate I-1.1 locates the pool with reference to others of the navigational system in the Rock Island District, U. S. Army Corps of Engineers.

*(Could refer to base maps?)*



## SECTION II

### DESCRIPTION OF PROJECT

1. General. Considering the numerical sequence of navigation pools progressing downstream, pool 14 is the fourth of such units contained within the limits of the Rock Island District. Extending between river miles 493.2 and 522.5 - 4 miles below LeClaire, Iowa, to 3 miles above Clinton, Iowa - the pool covers a distance of 29.2 river miles measured along a determined sailing line. Parts of Whiteside and Rock Island counties border the pool on the eastern, or Illinois shore, and portions of Clinton and Scott counties on the western, or Iowa side.

2. Topography and geology. In pool 14 the river has returned to the generally narrower confines which characterized pools 11 and 12 and does not repeat the broad expanse of its upstream counterpart, pool 13. The highlands, bordering the shores, remain impressive in a rolling, wooded type of terrain. The narrow flood plain supports small farm plots, pasture areas and woodlands and is relatively extensive only immediately below Clinton, Iowa.

Nine minor creeks and one major tributary - the Wapsipinicon River, in Iowa - join the waters of the Mississippi within the limits of the pool. The creeks, while having rapid response to heavy rainfall and runoff, have little effect on pool levels. The Wapsipinicon River in flood stages, however, does affect pool levels below the confluence point. Recurrent high water stages on any pool tributaries may pose localized siltation problems to resource management. Islands, far less numerous than in previous pools, are generally heavily timbered.

In the upper reaches of the pool the river follows a course which was originally excavated by a much larger glacial stream. Subsequent glacial action, culminating in the melting of the last ice sheet of some 13,000 years ago, partially filled the river valley leaving the original river bed far below the present bottom. Loess and decayed vegetable matter, leached from the highlands and deposited on the bottoms and islands over centuries of flood periods, have established fertile soil conditions.

A geological change in the river begins some 12 miles below lock and dam No. 13, opposite Camanche, Iowa. At this point the original river continued another 10 miles in a

southerly direction to the present Rock River valley, some 30 miles above the existing confluence of the Rock and Mississippi Rivers. During the last ice age a barrier was formed across the channel in the Camanche area, diverting the water flow along the edge of the glacier in a new path to the southwest. The original course was left a vast marsh, to become known as the Marais d'Osier (Sea of Willows), and which was gradually drained and given to farmlands as settlers were attracted to the area. Prior to agricultural development, the area abounded in wildlife and European royalty journeyed to America for the hunting the marsh afforded. A levee, carrying Illinois State Highway 84, has been constructed across the old course in the diversion area and becomes a matter of concern in times of flood since the river then tends to partially revert to its original channel. A levee across the lower valley of the original channel prevents flood waters of Rock River from inundating that portion of the ancient Mississippi River bed.

The slow cutting of the new channel created a narrow and shallow stream extending from the site of Camanche, Iowa, to the present mouth of Rock River, a distance of some 32 river miles. The uneven wearing of the new river bed left areas of rock at shallow depths and created rapids which curtailed navigation during low flows - a situation which persisted into modern times. A particularly hazardous stretch of rapids was by-passed in 1922, as part of the 6-foot channel project, by the construction of the LeClaire Canal and appurtenant lock (river mile 493.0). The lateral canal extended some 3 miles along the Iowa shore.

Most of pool 14, therefore, is a "young" river in terms of geologic time. Underlying rock strata, from lock and dam No. 13 to the "new" stretch of river, is Maquoketa Shale with Niagaran Dolomite thereon to navigation locks and dam No. 14, the construction of which eliminated the problem of rapids.

3. Locks and dam No. 14. The existing structure, located at river mile 493.3, is one of 12 installations in the Rock Island District which were constructed as part of the canalization project of the Upper Mississippi River. The single 110-foot by 600-foot lock lies along Smith's Island, near the Iowa shore, 4 miles downstream of LeClaire, Iowa. No provision has been made for a future auxiliary lock, which is the rule at most other installations.

The movable section of the dam consists of 4 roller gates and 13 tainter gates, adjusted as necessary to maintain and

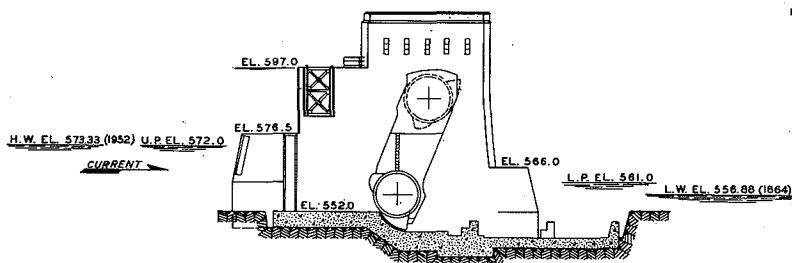
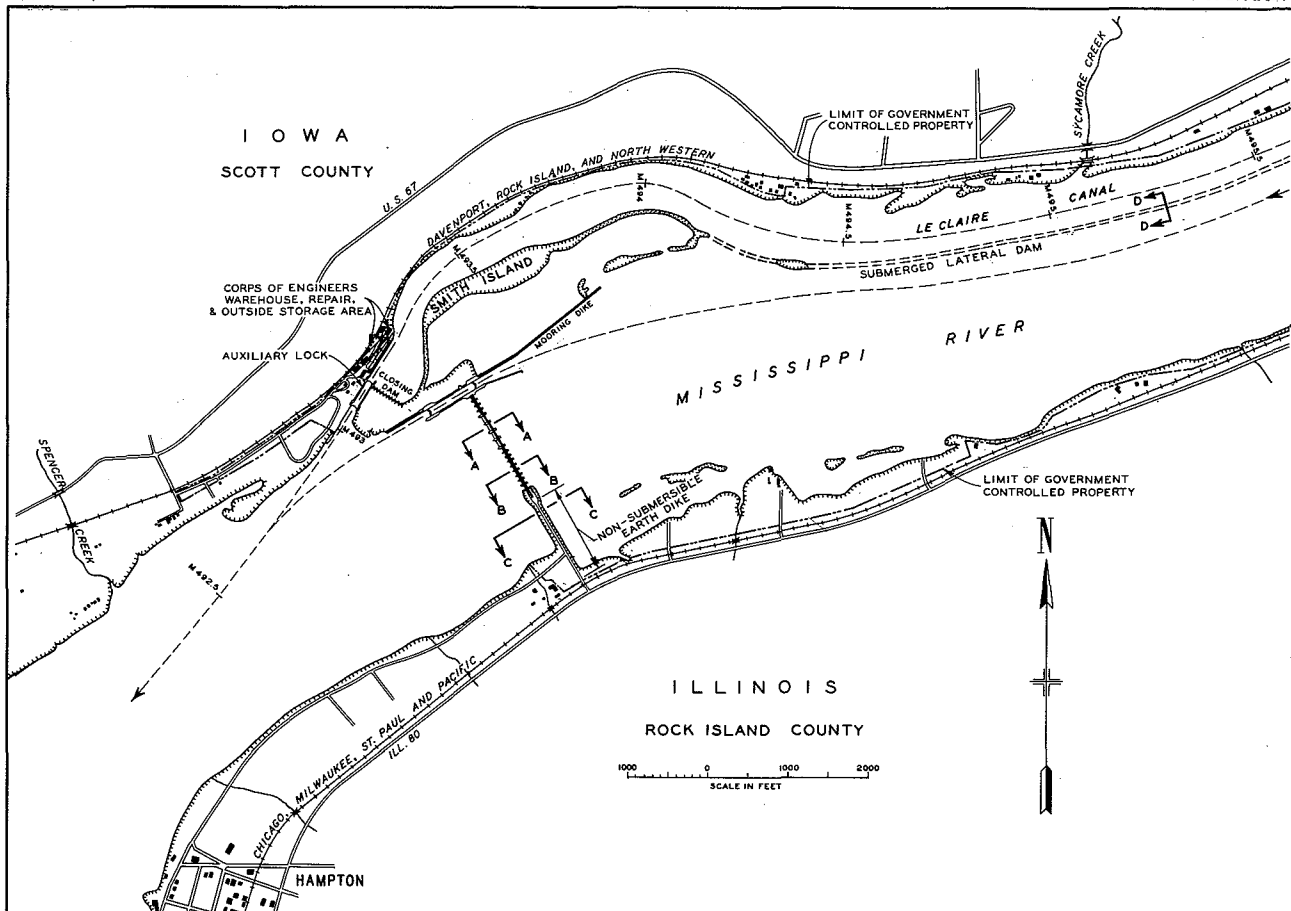
control the impounded pool. The remainder of the dam is composed of an earthen dike extending to high ground in Illinois.

The original 80-foot by <sup>370</sup>~~520~~-foot LeClaire lock lies on the opposite side of the island, at the mouth of the lateral canal, along the Iowa shore. This lock can no longer be used for commercial river traffic since the immediate upstream water area is being used as mooring and storage for the Rock Island District floating plant. However, beginning with the 1969 recreation season, the lock will be operated on weekends and holidays for the passage of pleasure craft. Immediately adjacent to the LeClaire lock is the LeClaire Base - a warehouse area and supply depot for the Rock Island District.

A plan and relative location of the navigation structures is shown on plate II-3.1 and on chart No. 91 of the Upper Mississippi River navigation charts.

4. Pool 14. Extending in a north to northeasterly direction above the dam, the pool is 29.2 river miles in length, has a drainage area of 88,400 square miles, and varies from 1,000 to 2,800 feet in width under normal flow conditions. The authorized water elevation (flat pool) is established at 572.0 feet above mean sea level (1912 adj.). Low water of record, since the dam became operable, was recorded at elevation 569.16, or 2.84 feet below the authorized flat pool level. High water of record (April 1965) reached elevation 577.08, or 5.03 feet above the normal pool elevation at the dam.

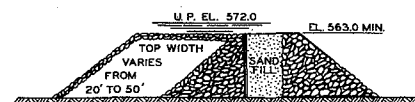
Maintenance dredging, largely in the upper third of the pool, has amounted to 2,643,500 cubic yards of material since the pool was established. Disposal sites, however, have not coincided with areas conducive to future or additional recreational space.



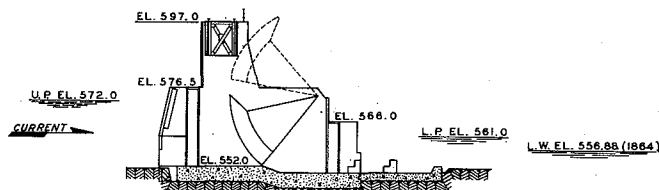
SECTION A-A

## NOTE:

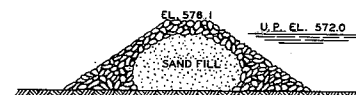
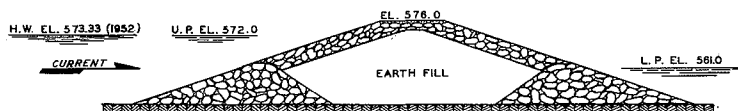
AVAILABLE DIMENSIONS OF LOCKS:  
 MAIN LOCK 600' X 110'  
 CONTROLLING DEPTH 13.5' AT NORMAL POOL  
 NORMAL LIFT 11 FEET.  
 AUXILIARY LOCK 320' X 80'  
 CONTROLLING DEPTH 10.8' AT NORMAL POOL  
 NORMAL LIFT 11 FEET



SECTION D-D



SECTION B-B

SECTION OF CLOSING DAM  
FOOT OF SMITH ISLAND

SECTION C-C

## REFERENCES:

1. ELEVATIONS BASED ON MEAN SEA LEVEL DATUM (1912 ADJUSTMENT).
2. RIVER MILEAGE ORIGINATES AT MOUTH OF OHIO RIVER.

**MISSISSIPPI RIVER  
 RIVER AND HARBOR PROJECT  
 LOCK & DAM NO. 14  
 NEAR LE CLAIRE, IOWA**

SCALE AS SHOWN  
 ROCK ISLAND DISTRICT  
 30 JUNE 1961

10 0 20 40 60  
 SCALE IN FEET



## SECTION III

### POOL RESOURCES

1. General. The existing physical resources of the pool are examined and analysed on both a qualitative and quantitative basis. Present and proposed management, usage, operational procedures, and recommended developments are to be predicated on such pertinent factors.

As noted in chapter I, paragraph 7b, page II-5, acreage figures contained herein have been calculated from Master Plan maps for recreation and general land use planning and are not to be considered accurate for legal purposes. Significant variance may exist between the acreages given and the official records maintained by the Real Estate Division of the Rock Island District Office.

2. Water. Similar to the other navigation pools of the system, pool 14 contains the general characteristics of both a river and a shallow lake in its 10,450 surface acres at the authorized flat pool elevation. No significant pollution of waters, either from municipal or industrial sources, has been reported. However, an industrial concentration, including an atomic power plant, is centering in the vicinity of Cordova, Illinois, river mile 503.0, and may present a source of potential pollution. Also, the bordering watersheds feeding the pool and tributary streams, offer a potential source of agricultural pollutants.

Approximately 11%, or 1,190 surface acres are channel waters with a minimum depth of 9 feet. The remaining 89%, or 9,260 surface acres are considered as off-channel waters, vary in depth, and may present navigation hazards to recreational boating - especially in the upper reaches.

3. Land. The Federal Government acquired 6,615 acres in fee land for the 9-foot channel project within the pool, representing both mainland and island real property. Of this original acquisition, 5,100 acres remain above the flat pool elevation established by dam No. 14 and is administered by the Corps of Engineers. Certain other lands were owned by the Federal Government prior to the 9-foot channel project, assigned to the Department of the Interior, and managed by the Bureau of Sport Fisheries and Wildlife. Some 666 acres of such land remains above the flat pool elevation and continues under Bureau administration. In addition, 4,480 acres

5,166

of Corps administered lands have been outgranted to the Bureau for fish and wildlife management purposes only under provisions of the General Plan and Cooperative Agreement. Identifiable accretions to Government property totaled 46 acres through 1964.

Flat pool shoreline (mainland and islands) totals 277 miles with 151 miles controlled by the Corps of Engineers, 38 miles by the Bureau of Sport Fisheries and Wildlife, and 88 miles by other than Federal agencies.

Some 117 islands are contained within the pool limits and have a combined area of 3,167 acres above flat pool. All such land, with the exception of 662 acres, is owned in fee by the Federal Government.

Existing laws permit the granting of leases on project lands for agricultural purposes, generally for a 5 year period, and are renewable at the option of Government administrators and the lessee. No such leases are presently in force within the pool limits.

4. Vegetation. Most Federal property is concentrated in the upper two-thirds of the pool with vegetative cover generally distributed towards a dense classification. Of the 5,766 acres of Federal lands, administered by the Corps of Engineers and the Bureau of Sport Fisheries and Wildlife, 92%, or 5,279 acres, is classified as dense, 6%, or 357 acres as sparse, and 2%, or 130 acres, as open.

Cottonwood, willow, locust, maple, and red birch are the most common species in the lower areas while oak, ash, American elm, walnut, cedar, hickory, hackberry, wild cherry, and linden favor the somewhat higher elevations.

The timber management program, instituted in 1941, allows for the select harvesting of mature trees chosen and marked by District personnel. A total of 373,210 board feet of timber was sold between October 1950 and February 1967 to private interests and represented an income to the Government of \$4,130.21. The controlled harvesting program is designed to increase annual yields and to improve timber quality and species composition.

5. Wildlife. A wide variety of wildlife is attracted to and supported by the habitat established by the pool and its environs. However, no wildlife sanctuaries have been located on either land or water areas within the pool limits.

a. Birds. The water areas, as part of the "Mississippi Flyway", host some 19 species of ducks and 4 species of geese during the spring and fall migratory periods. Timber conditions offer ideal nesting habitat for the wood duck, and an occasional pair of mallard, blue-wing teal, coot, hooded merganser, or Canadian geese will nest in the area.

The grebe, American egret, bittern, gull, gray partridge and numerous other shore and song birds are either resident or migratory visitors. The red-tailed hawk is fairly common and the bald eagle is often observed.

b. Animals. Small animal populations are represented by: raccoon, skunk, weasel, opossum, mink, muskrat, beaver, fox, squirrel, rabbit, woodchuck, and by otter and badger on occasion. The white-tailed deer, classified as a big game animal, is also found in the area.

Muskrat, common to abundant in the upper two-thirds of the pool, will vary in number from year to year depending largely on water elevations. Beaver, in the same general area, have likely reached stable concentrations as have mink, which are not numerous. Deer, occupying the timbered bottomlands of the river and its tributaries, have wide distribution but are relatively low in number. Reccoon and squirrel are generally abundant in the timbered areas, but will vary widely in number because of changes in habitat caused by fire, flood, or timber harvest. Populations of all animals are considerably less than those of pool 13 because of comparable habitat area.

The watersnake is the most common and widely distributed of a variety of non-poisonous reptiles in the area. The timber and massasagua rattlesnake, along with the copperhead - poisonous and fairly common in the days of the early settlers - are now seldom encountered.

6. Fish. Species to be found in pool waters are much the same as in previous pools and include: walleye, northern, sauger, perch, bluegill, freshwater drum, crappie, white bass, channel catfish, bullhead, carp, buffalo, and paddlefish. The catch varies with the seasons, climatic conditions, and water elevation. No creel census is available on the sport fisheries classification to indicate the species most often taken. Corps of Engineers' reports for 1968 indicate a catch of 70,000 pounds in the sport fisheries category, and 95,000 pounds for commercial endeavor, with an average of 3.8 man-hours of effort expended.

7. Recreation. Shoreline recreational potential is somewhat limited since few sizeable or suitable areas of Federal land exist within the pool limits. Access to Federal lands is also generally non-existent. One public use area has been established by the Corps of Engineers in Illinois with basic facilities for camping and day-use activities.

8. Historical and archaeological. Clinton, Iowa, was once the home of several of the largest sawmills on the Upper Mississippi River. Beaver Slough was first dredged in 1923 to provide a secondary channel and access to manufacturing plants on the mainland. A historic steamboat has been converted to a showboat, circa the 1890's, and is moored on the riverfront as a tourist attraction.

Albany, Illinois, was the home of Captain Stephen B. Hawks, a famous rafter of the early river days.

Marias d'Osier valley, which follows the Whiteside-Rock Island County line, marks the course of the original Mississippi River channel which carried southward to join the present Rock River valley, a distance of 13 miles. At a still earlier period of geologic time the river turned eastward in this area to join the present Illinois River near the site of Hennepin, Illinois.

The Wapsipinicon River was navigated extensively during the early development of the northeastern interior section of Iowa.

LeClaire, Iowa, the head of the Rock Island rapids prior to the 9-foot channel project, was named for Antoine LeClaire - a French-Indian pioneer and co-founder of the present city of Davenport on the downstream Iowa shore. The Hall of Fame "Green Tree", on the river bank, was the meeting place of rivermen operating the packets on the St. Louis-St. Paul run. The gigantic American elm had attained a circumference of nearly 14 feet and a spread of 100 feet before it succumbed to Dutch elm disease and was removed in 1967. The "Lone Star", last paddlewheel steamboat to ply the waters of the Upper Mississippi River, is now permanently berthed near the site of the famous tree. The town, along with Port Byron on the opposite Illinois shore, was the home of many steamboat pilots skilled in guiding boats and rafts through the 15 miles of downstream rapids. LeClaire was also the boyhood home of William F. "Buffalo Bill" Cody, born near the outskirts of the town in 1845.

Ways and means of providing for navigation over the 15 miles of rapids was long sought by the Government and early shipping interests. The first reconnaissance study was made in 1829 by Lt. N. B. Buford; another in 1836 by Capt. H. M. Shreve; and still another in 1837 by Lt. Robert E. Lee, then a recent West Point graduate, assisted by 2nd Lt. Montgomery C. Meigs. Rock excavation, to provide a 4-foot channel was begun in 1854 and completed in 1906. A part of the 6-foot channel project, completed in 1922, was the construction of the LeClaire Canal and appurtenant lock below the town of LeClaire along the Iowa shore. The 9-foot channel project of the 1930's finally obliterated the treacherous rapids and ended the colorful reign of the rapids pilots who had for so long pitted their skills against the fury and treachery of the mighty river.

Indian mounds exist on high ground on both sides of the river, but none are located on Government property. Some excavation and investigation has taken place in the past by amateurs, but none of a full-scale scientific nature. It is believed that more than one Indian culture may be represented, including the Effigy Mound Builders whose works have been traced from St. Paul, Minnesota, to Baton Rouge, Louisiana, along the Mississippi and also the Ohio River valley.

## SECTION IV

### FACTORS AFFECTING RESOURCE USE

1. General. Pool 14, extending from below LeClaire, Iowa, to above Clinton, Iowa, comprises another stretch of the navigation stairway of the Upper Mississippi River. It differs from its upstream counterparts inasmuch as most of its course follows a newer geologic path and is consequently narrower with a more constricted flood plain. On sizeable city, Clinton, Iowa, is located on the pool shores and is a manufacturing center with river facilities to serve its commerce. Shoreline recreational potential, although present, is not as extensive as in previous pools. Plate IV-2.1, graphically portrays the commercial activities of lock No. 14 over a period of nearly two decades.

2. Zone of influence. The primary zone of influence is assumed to be two counties in width, extending inland approximately 50 miles, and following both sides of the river the length of the District. The total population of all counties within this zone is given in chapter I; however, it is considered impractical to attempt an enumeration of populations by pools since a given pool may span several counties.

Only one major urban area - the city of Clinton, Iowa, with a 1960 census of 33,589 - is located on the shores of the pool.

Other centers of population located within the pool limits (1960 census) are: Fulton, Illinois, 3,387; Albany, Illinois, 637; Camanche, Iowa, 2,225; Cordova, Illinois, 502; Princeton, Iowa, 580; Port Byron, Illinois, 1,153; LeClaire, Iowa, 1,546; and Rapids City, Illinois, 675. Residents of the Clinton-Fulton area are in position to make use of the recreational facilities of two pools.

3. Economic conditions. Commercial docks are located at: Clinton, Iowa; Fulton, Illinois; river mile 508.6; and near LeClaire, Iowa. Other shore lands, except those under Federal ownership, are largely given to agricultural pursuits. However, the generally narrow flood plain does not permit extensive operations of this type. Clinton, Iowa, a manufacturing city of significance, offers an excellent city park with a panoramic view of the river and surrounding countryside. Other population centers within the pool, with the exception of Rapids City, offer boat launching facilities for the benefit of residents and visitors. Most of the

shoreline, except for an Iowa area near the center of the pool, is above the normal high water elevation; consequently, comparatively little shoreline land is under Federal ownership. Title to most of the island property, however, is vested in the Federal Government. Industrial-zoned lands, totaling 39 acres, have been provided at river mile 498.2 (Iowa); 503 (Iowa); and 510.3 to 510.8 (Iowa), with 1.8 acres presently occupied. Should the 12-month navigation season - currently under study - prove feasible, further interest in industrial development may be realized.

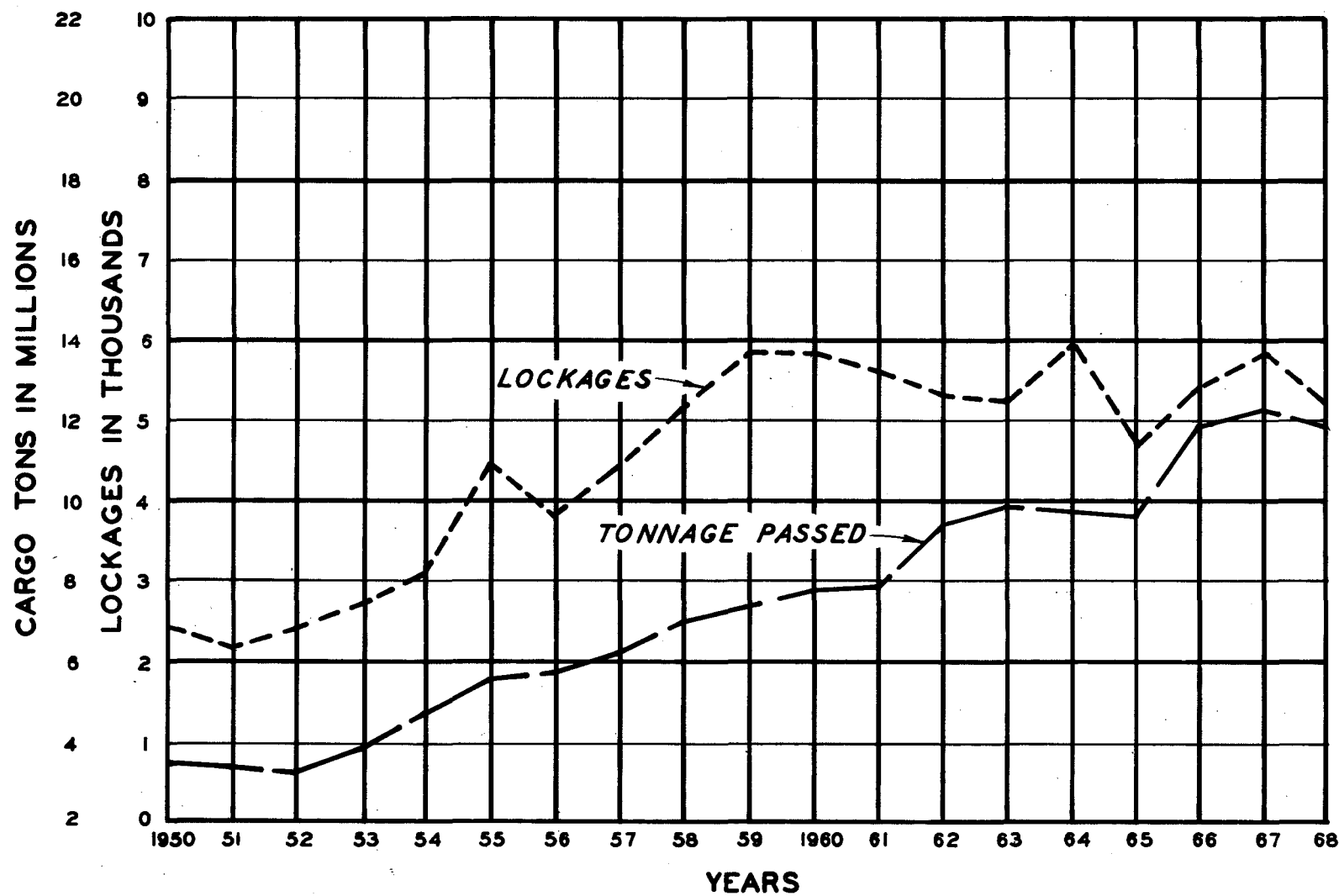
4. Accessibility. Although railroads closely parallel both shores of the pool, passenger service is available only to Clinton, Iowa, on east-west lines. Bus service, however, is available to the other river towns within the pool limits. Scheduled airlines serve Clinton, Iowa, only, while restricted airfields are located at Port Byron and Albany, Illinois. River access by road exists at 20 points in Iowa and 15 in Illinois, with 4 in each State leading to Government property. No scheduled excursion or sightseeing boats are known to originate from pool ports. Three fixed highway bridges and one draw-span railroad bridge cross the river within the pool limits. One of the three highway bridges, located two miles downstream of LeClaire, Iowa, carries Interstate 80 traffic between the east and west coasts of the United States.

The Great River Road is being planned to extend from the Canadian border to the Gulf of Mexico. The road will follow, as closely as possible, the entire length of the Mississippi River along both shores and offer outstanding scenic attractions. Federal Highway 67 in Iowa and State Highway 84 in Illinois, both designated as segments of the Great River Road, accomplish this purpose in the lower third of the pool where the river is generally visible to travelers.

5. Existing recreational facilities.

a. A number of sites, along the shores of the pool, have been developed for recreational purposes on both Federal and non-Federal lands. Of the 25 recreation sites developed by the Rock Island District Corps of Engineers on the Mississippi River, plate IV-2.2, one is located within the limits of pool 14.

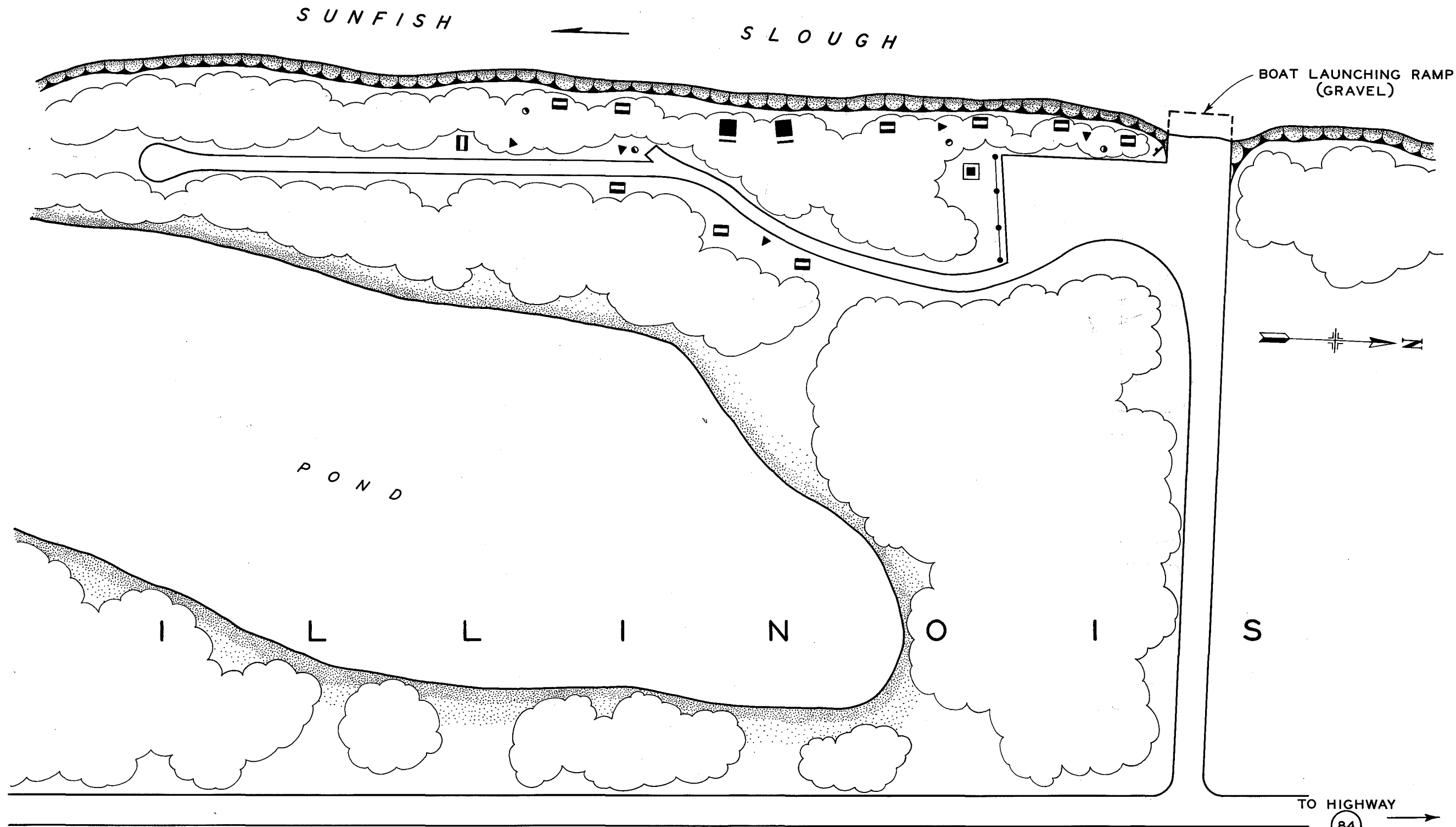
Chart no. → Cattail Slough Public Use Area. A 4-acre development by the Corps of Engineers, plate IV-2.3, is located on the Illinois shore opposite Clinton, Iowa, river mile 517.7.



LOCK NO. 14







**LEGEND**

- PICNIC TABLE
- TRASH CONTAINER
- FIREPLACE
- SIGN
- WELL
- SANITARY UNIT
- EXISTING VEGETATION

**UPPER MISSISSIPPI RIVER**  
REVISED MASTER PLAN  
CATTAIL SLOUGH PUBLIC USE AREA  
POOL 14, RIVER MILE 517.7

**SITE PLAN**  
SCALE IN FEET  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS  
ROCK ISLAND DISTRICT  
JUNE 1969

Facilities include a graveled launching ramp, parking for approximately 10 car-trailer units, 10 picnic tables, 5 pedestal fireplaces, 4 trash containers, a well, and 2 pit-type toilets. Campers also make use of the area although no specific camping facilities are provided.

b. Other facilities. Except as noted, other public recreational accommodations on the shores of the pool are maintained on non-Federal lands: A city park at river mile 522.5, Iowa; a marina at river mile 521.2, Iowa; a recreation site at river mile 520.4, Iowa; a marina at river mile 520.3, Illinois; marinas at river miles 519.9 and 519.3, Iowa; a boat launching ramp at river mile 519.1, Iowa; a marina at river mile 518.8, Iowa; a park recreational site at river mile 518.5, Iowa; a recreational boat dock at river mile 517.4, Iowa; a boat launching ramp at river mile 513.4, Illinois; a small-boat harbor at river mile 512.2, Iowa; a boat launching ramp at river mile 511.7, Iowa; a small-boat dock at river mile 507.9, Illinois; a small-boat dock at river mile 507.8, Iowa, on Federal land; a public hunting area at river mile 505.8, Iowa, on Federal property; a public use area operated by the Izaak Walton League on Federal land, river mile 503.3, Iowa; a small-boat dock at river mile 503.2, Illinois; a commercial recreation site at river mile 502.9, Illinois; marinas at river miles 502.5 and 502.4, Iowa; a boat launching ramp at river mile 502.3, Iowa; a small-boat launching ramp at river mile 497.7, Illinois; a small-boat dock at river mile 497.6, Iowa; a boat launching ramp at river mile 497.1, Iowa; a small-boat dock at river mile 495.7, Iowa; and a marina at river mile 494.8, Iowa, on Federal property.

6. Water quality. Water entering pool 14 is considered to be of good quality, however, the overall quality of the water throughout the pool varies considerably. The quality of the water, for several miles downstream from the industrial complex near Clinton, Iowa, is somewhat degraded by industrial wastes. While only one major population center is located within pool limits several small population centers and urbanization along the shoreline create some localized water quality problems. Agricultural pollutants from a major tributary again presents a future threat to the water quality of the pool. Even with the somewhat degraded water quality conditions of the pool, the water is considered satisfactory for most water-oriented recreational activities.

*no mention  
of Columbia  
powerplant*

7. Climatic conditions. The prevailing climate varies but slightly with that of previous pools in an average annual precipitation of 33 inches and a growing season of 170 days. Summer winds are from the southwest to west and from west to north during the winter months with a mean annual temperature of 50°F. Average temperatures are 63°F. in the summer and 27°F. in winter. The navigation season extends over a period of 8 to 10 months, depending on winter icing conditions. In recent years the modern and increasingly powerful towboats have been able to continue operations during the early freezing periods. Studies are presently underway, by the Corps of Engineers, as to ways and means of providing a full 12-month navigation season.

## SECTION V

### CURRENT AND ANTICIPATED RECREATIONAL USE

Pool 14 ranks in fourth place, in terms of public recreational attendance, among the 12 navigational pools existing within the limits of the Rock Island District of the Corps of Engineers. Visitations for 1968 numbered nearly 381,000 persons and attendance ranged from a low of 2,905 in January to a high of 68,994 in August. The pool and its environs are not as suitable to the winter recreational activities of hunting and ice fishing as are the upper pools.

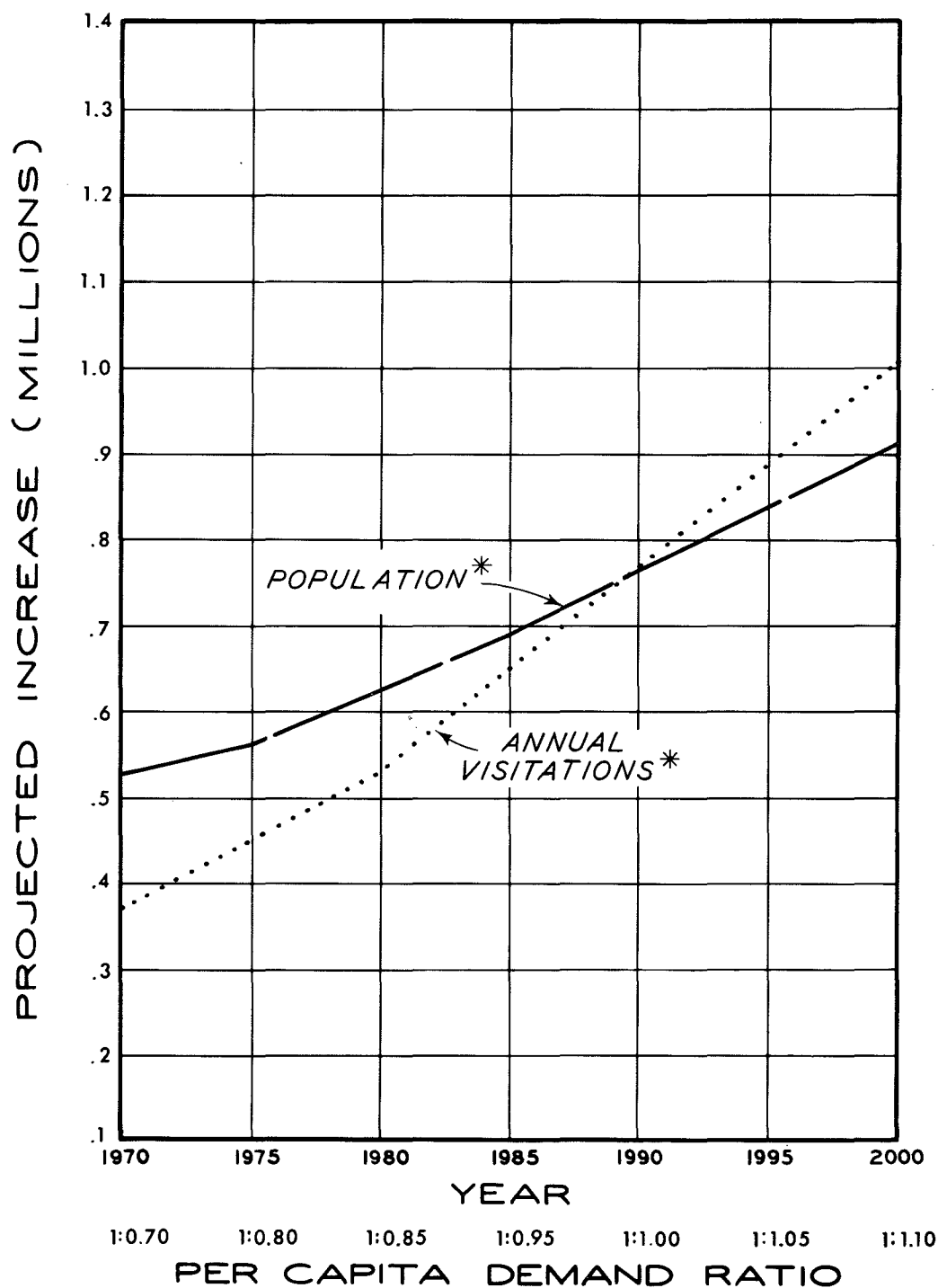
Plate V-1.1 graphically presents anticipated population increases and corresponding expected recreational demand within the primary zone of influence - the area two counties in width (approximately 50 miles) extending inland on each side of the pool. The per capita use ratio is calculated on past reported visitations and the projected 1970 population and is expected to hold relatively constant for the immediate future.

Plate V-1.2 enumerates recreational facilities established, maintained, and recommended by Federal agencies as well as those located by private individuals and non-Federal governmental bodies. Non-Federal installations are considered only if situated immediately adjacent to the river and may or may not be located on lands leased or outgranted by the Federal Government.

Recommended additional Federal facilities are detailed and explained in Section VI of this Master Plan and are considered necessary to partially satisfy increasing public demand for recreational opportunities. While new projects are subject to the provisions of the Federal Water Project Recreation Act of 9 July 1965 (Public Law 89-72), the minor area recommended along the lower wall of Lock No. 13 should not be bound by such restrictions.

Proposed non-Federal facilities are those known to be scheduled for completion within the near future by State, County, or municipal entities.

Future requirements, based on projected population increases and expected public demand and participation, are calculated on criteria established in ER 1130-2-312 for facility utilization. On this basis it is apparent that present requirements are not being served in most instances, nor will standards be met with the addition of facilities currently recommended and proposed.



\* PRIMARY ZONE - AREA TWO COUNTIES  
IN WIDTH (APPROX. 50 MILES) EXTENDING  
INLAND ON EACH SIDE OF POOL.

POOL 14  
MISSISSIPPI RIVER  
PROJECTED  
POPULATION & VISITATIONS

# POOL 14 1969 EXISTING AND PROPOSED FACILITY DATA

	EXISTING FEDERAL FACILITIES	EXISTING NON-FEDERAL FACILITIES	TOTAL EXISTING FACILITIES	*RECOMMENDED FEDERAL FACILITIES	**PROPOSED NON-FEDERAL FACILITIES	TOTAL PROJECTED FACILITIES	†TOTAL REQUIREMENTS FOR ANTICIPATED DEMAND			
							1970	1980	1990	2000
<b>DAY - USE</b>										
PARKING (UNITS)	10	26	36	22	0	22	95	134	193	252
PICNIC TABLES	10	19	29	14	0	14	95	134	193	252
FIREPLACES	5	0	5	8	0	8	47	67	96	126
POTABLE WATER	1	2	3	1	0	1	3	4	6	8
SHELTERS	0	0	0	0	0	0	28	39	57	94
<b>BOAT LAUNCHING</b>										
PARKING (UNITS)	10	225	235	0	0	0	90	130	190	250
RAMPS	1	16	17	0	0	0	9	13	19	25
CONCESSIONS, FUEL, ETC.	0	14	14	0	0	0	-	-	-	-
<b>SANITATION</b>										
PIT TOILETS	2	8	10	4	0	4	4	6	8	10
FLUSH TOILETS	0	24	24	0	0	0	NONE PROPOSED UNDETERMINED			
TRAILER STATIONS	0	0	0	0	0	0				
<b>CAMPING</b>										
PARKING SPURS (GRAVEL)	0	20	20	0	20	20	50	71	103	134
PICNIC TABLES	0	20	20	0	20	20	50	71	103	134
FIREPLACES	0	10	10	0	20	20	50	71	103	134

\* SUBJECT TO PL 89-72. REFERENCE: PAGE VI-3

\*\* SCHEDULED FOR COMPLETION IN 1971

† BASED ON ER 1130-2-312 CRITERIA:

- 1 PICNIC TABLE PER 4000 ANNUAL VISITORS
- 1 PARKING SPACE PER TABLE
- 1 FIREPLACE PER 2 DAY-USE PICNIC TABLES
- 1 FIREPLACE PER CAMP SPUR
- 1 SHELTER PER 225 WEEK-END DAY VISITORS
- 1 LAUNCHING RAMP PER 40,000 ANNUAL VISITORS
- 10 CAR-TRAILER PARKING SPACES PER RAMP
- 2 PIT TOILETS PER 3000 WEEK-END DAY VISITORS
- 1 CAMP SPUR PER 7500 ANNUAL VISITORS

## NOTES:

1. Primitive camping is permitted on Federal property - shorelands, islands, and sandbars.
2. No supervised river swimming areas are operated.
3. Road access to the river exists at 35 rural locations within the 156 miles of mainland shoreline.

## SECTION VI

### POOL RESOURCE MANAGEMENT

1. General. In keeping with the stated purpose of a Master Plan, the various physical features of the pool as well as plans for utilization and development of the scenic, biologic, and recreational potential require examination and analysis in depth. Orderly and controlled resource protection and development is the basic purpose of a management program.

2. Land use zoning. Section VI, chapter I, describes and outlines the zoning classifications established to meet the criteria of a Master Plan development. Except for an Iowa area in the approximate center of the pool, comparatively little mainland property is owned by the Federal Government. Islands, too, are less numerous than in previous pools and are not all under Federal ownership as has been the general rule.

Of the 5,766 acres of Federal land remaining above flat pool, 89%, or 5,100 acres are administered by the Corps of Engineers and 11%, or 666 acres by the Bureau of Sport Fisheries and Wildlife. The Bureau has also been assigned administrative responsibility for the wildlife resource on 88%, or 4,480 of the 5,100 acres of Corps controlled lands. No wildlife sanctuaries, however, have been established on Federal property within the pool.

Land use classifications have been assigned to all Federal property irrespective of the agency having administrative control. The various categories include: 4,922 acres, or 85% of total Federal lands, recreation-undeveloped; 696 acres, or 12%, recreation-developed; 62 acres, or 0.2%, recreation-commercial; 3 acres, or 0.05%, quasi-private; 37 acres, or 0.8%, special use; 9 acres, or 0.15%, for houseboat mooring sites; 39 acres, or 0.8%, for industrial use. No areas for private use have been reserved or exist within the pool limits.

3. Water zoning. Except for houseboat mooring sites, partially a land feature, detailed water zoning is not considered in the concept of the Master Plan. Of the total 10,450 surface acres of water at flat pool, some 1,190 acres are channel waters maintained at a minimum 9-foot depth for craft of considerable draft, such as towboats and barges. Submerged wing dams and stump fields in off-channel areas, as indicated on the navigation charts, will not generally



present navigation hazards to small pleasure boats in the lower and middle reaches of the pool, but may in upper areas. No practical purpose would be served in publishing water depths in the questionable upper reaches since shifting sandbars and changing currents would soon render such information obsolete. Explicit and definitive water zoning will become necessary, at least in certain areas, as population and water recreational use increases.

No wildlife sanctuaries have been established on any area of pool waters.

4. Timber management. Subsection 3 of section VIII, chapter I, describes and details the forest resource existing on Federal lands in the Mississippi River reach of the Rock Island District and administered by the Corps of Engineers. Management objectives extend to lands outgranted to the Bureau of Sport Fisheries and Wildlife under the General Plan and Cooperative Agreement, but not to lands wholly administered by the Bureau.

Each base map of the Master Plan features a transparent overlay depicting the relative forest cover, specie association, canopy and understory densities, and management objectives. The management program, currently under extensive study, may modify or revise objectives presently indicated. Section III, paragraph 4, of this chapter, also covers forest densities by acreages and percentages.

Management objectives for the 5,100 acres of timber resource on Federal lands, administered by the Corps of Engineers, are defined as: 850 acres, or 17%, for recreation-developed; 139 acres, or 3%, for recreation-undeveloped; 3,500 acres, or 68%, for wildlife-waterfowl; 543 acres, or 11%, for wildlife-upland game; and 68 acres, or 1%, for timber-sawlogs. No timber-pulpwood or timber-special products categories are designated in the pool timber resource.

5. Wildlife management. Federal ownership of certain lands, within the limits of the present pool, was vested in the Department of the Interior, Bureau of Sport Fisheries and Wildlife, prior to the construction of the 9-foot channel project, and remain under such jurisdiction. In addition, other lands acquired in fee by the Federal Government for the Corps of Engineers and the 9-foot channel project, have been outgranted to the Bureau for fish and wildlife management purposes only. ~~In some pools~~ the Bureau has, in turn, outgranted certain of these lands to the bordering States

for similar purposes, however, ~~no such transfer of responsibility has been a policy in pool 14.~~ Regardless of assigned wildlife management activities, the Corps of Engineers retains basic administration, the right of road use, and the harvest and sale of merchantable timber. Federal lands administered by the Corps and Bureau, as well as Corps lands outgranted to the Bureau, are enumerated in paragraph 2 of this section.

6. Shoreline ownership. Of the 277 miles of shoreline contained within the pool limits at the established flat pool water elevation, 151 miles are owned in fee by the Federal Government. The Corps of Engineers administers 82 miles of mainland and 69 miles of island shoreline; the Bureau of Sport Fisheries and Wildlife has jurisdiction over 5 miles of mainland and 33 miles of island shoreline; and another 69 miles of mainland and 19 miles of island shoreline are controlled by other than Federal agencies.

7. Additional recreational developments.

a. Corps of Engineers. Two additional sites, one indicated on the land use transparent overlay and one not shown, are recommended for development to further serve the increasing public demand for outdoor recreation. Another site, indicated on the overlay for chart No. 93, is rescinded inasmuch as the State of Iowa and the Clinton County Conservation Board plan to cooperate in developing the area. One stretch of dredging is also recommended.

(1) An area (not shown on the overlay) adjacent to the downstream end of the land wall of lock No. 13, river mile 522.3, is popular among fishermen and attracts numerous visitors. Road access, parking, and sanitary facilities only are recommended for a minor recreational development which should not exceed \$7,000 in construction costs. No plan of the suggested facility is incorporated as part of this section of the Master Plan.

(2) A public use area, plate VI-4.1, as yet unnamed, is recommended at river mile 516.1 on the Illinois shore. Designed as a day-use area, the site would include a parking area, 12 picnic tables, 8 fireplaces, a well, 2 pit-type toilets, and 12 trash containers. Development costs are estimated at \$8,300.

(3) Dredging is recommended in Sunfish Slough, river mile 516.8, leading from Beaver Slough along the Iowa shore. Recreational fishing access would be provided to the large bodies of water existing on the interior of Beaver Island. Costs of such work have not been estimated.

(4) The recommended Rock Creek Recreation Area, river mile 508.8, indicated on the transparent land use overlay for chart No. 93, will be developed by the State of Iowa in cooperation with the Clinton County Conservation Board and is detailed in the paragraphs covering State and County activities.

~~Present laws and regulations prohibit the Corps of Engineers from initiating new recreational developments to be developed at Government expense. Existing Federal lands may be outgranted or leased to responsible non-Federal entities for recreational installations approved by the Corps of Engineers, but no part of construction, maintenance, or improvement costs maybe borne by the Federal Government.~~

b. Bureau of Sport Fisheries and Wildlife.

The Bureau has no present plans to develop facilities within the limits of the pool.

c. States.

(1) Iowa. The State plans to cost-share, with the Clinton County Conservation Board, in the development of the Rock Creek Recreation Area, river mile 508.8, on the Iowa shore. Preliminary cost estimates for facility development are \$20,000, although final plans have not been completed.

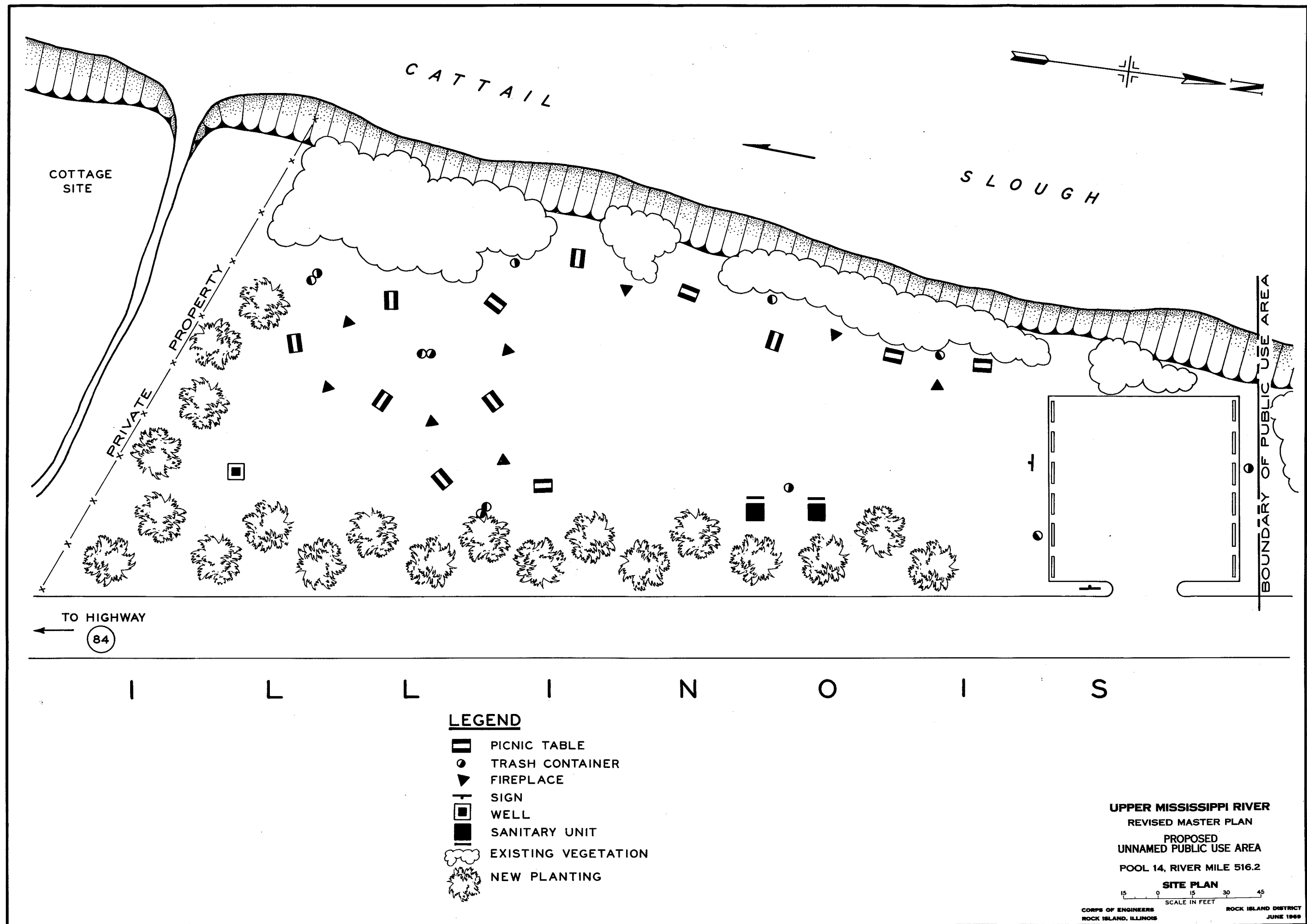
(2) Illinois. The State has no present plans to request the use of Federal lands for recreational developments. Suitable areas under Government ownership actually do not exist along the Illinois shore within the pool limits.

d. Counties.

(1) Clinton (Iowa). The County Conservation Board will cost-share with the State of Iowa in the development of the Rock Creek Recreation Area as previously outlined under State activities.

(2) Scott (Iowa). No suitable Federal lands exists on the County shoreline within the limits of the pool.

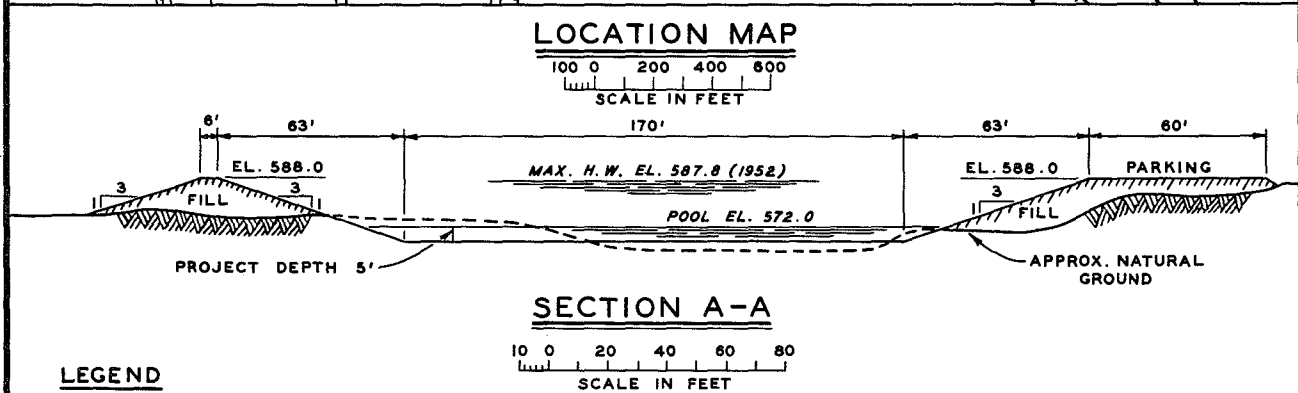
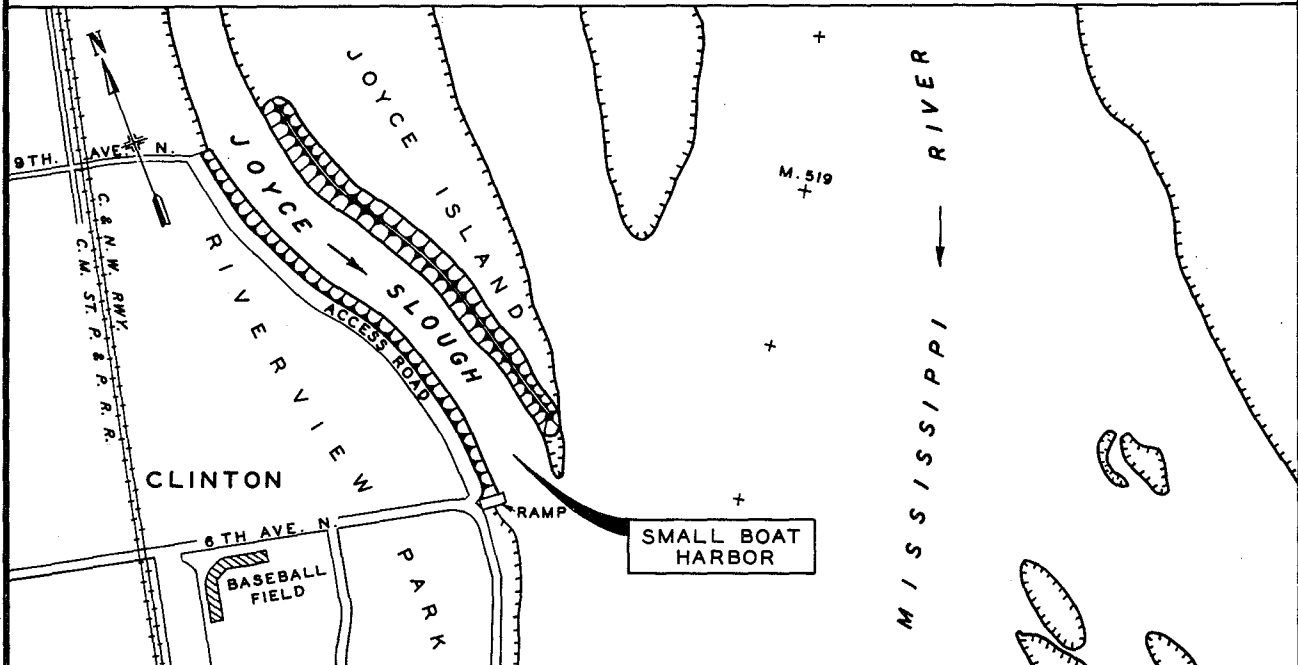
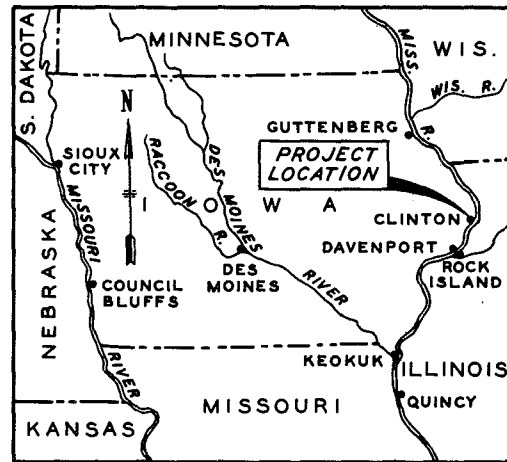
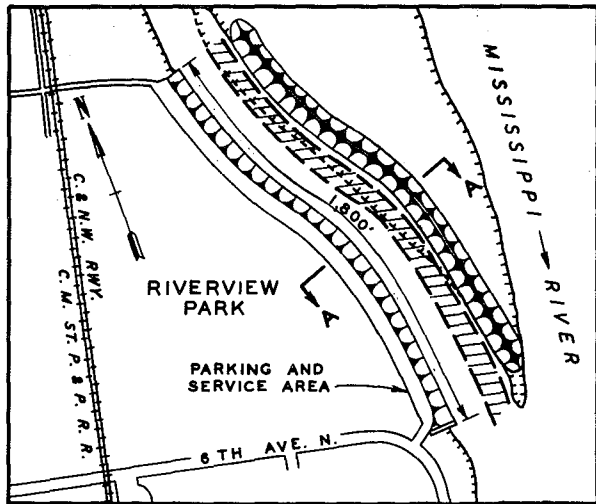
(3) Whiteside and Rock Island (Illinois). Although State law permits the formulation of county conservation boards, none have been established in either of these counties. Moreover, Federal shoreline ownership is all but nonexistent in each county within the pool limits.



e. Municipal.

Plate VI-5.1 locates the small-boat harbor authorized for Clinton, Iowa, by the River and Harbor Act of 1962. Planning funds have not been made available.

Of the 9 communities situated on the shores of the pool, only 3 are located adjacent to Federally-owned property which is, in general, unsuited for recreational development by reason of elevation or area size.



## LEGEND

DREDGING

MILEAGE ORIGINATES AT MOUTH OF OHIO RIVER

ELEVATIONS BASED ON MEAN SEA LEVEL DATUM (1912 ADJUSTMENT)

MISSISSIPPI RIVER  
RIVER AND HARBOR PROJECT  
CLINTON, IOWA  
SMALL BOAT HARBOR

SCALES AS SHOWN

ROCK ISLAND DISTRICT

30 JUNE 1963

SECTION VII  
OPERATION AND MAINTENANCE

1. Pool Manager-Ranger. The need for and suggested duties of a manager-ranger are outlined and explained in chapter I, section IX, Project Administration. Although most of the mainland shoreline in pool 14 is devoid of Federally-owned lands, a sizeable area does exist both upstream and downstream of the Wapsipinicon River containing, in part, a State-managed wildlife area. The specialized services of a manager-ranger, therefore, are considered as warranted in supervising existing recreational facilities, protecting the forest resource, and the general administration of Government interests.

2. Recreation facilities maintenance. Under the existing restrictions of Public Law 89-72, no new recreational sites may be developed by the Corps of Engineers at Federal expense. Installations presently operative, however, may be improved, expanded, and maintained to the extent possible with funds requested and allocated.

Responsibility for new construction and general maintenance, within present site limits, rests with the Operations Division of the Rock Island District which maintains a crew of 6 persons charged with accomplishing such field work. Maintenance and construction on the various recreational areas within the District continues throughout the year with additional and temporary personnel employed as needed. The supervisor of the group also acts as the contracting officer in the selection of individuals who accept seasonal appointments for trash and garbage removal, grass cutting, etc.

## SECTION VIII

### SUMMARY AND RECOMMENDATIONS

1. General summary. Recreational potential is quite limited along most of the mainland shoreline of the pool since Federal ownership of shorelands is not extensive. Industry is beginning to concentrate on non-Federal lands, especially in the vicinity of Cordova, Illinois, and pool lands may be highly industrialized in the future. Scenic and recreational values need to be studied and protected for the demands of an expanding population with increasing means, mobility, and leisure time. Recreational visitation figures are considered to be high in view of the comparatively limited facilities available.

2. Recommendations.

a. Consideration is strongly recommended towards the establishment of the manager-ranger position as outlined and explained in chapter I, section IX, paragraph 2. An individual operating in this capacity would save considerable time and effort of District Office personnel, improve liaison with other Federal and non-Federal agencies, protect Federal property from unauthorized use, be instrumental in minimizing vandalism, and establish closer public relations.

b. Authority for the fishing area development immediately below lock No. 13 and for the unnamed day-use area (section VI, Pool Resource Management, paragraph 7) is recommended to keep pace with the rapidly growing demand for outdoor recreational facilities. As previously indicated, Federal ownership of shorelands is not extensive within the pool confines.

c. The suggested dredging of Sunfish Slough (chart No. 95) would provide access to the water areas of Beaver Island and provide a considerable expanse of recreational fishing and hunting. The project is particularly recommended in consideration of the proximity of the area to a major population concentration.

d. Approval is recommended for the zoning of Federal lands as indicated on the transparent overlays accompanying the base charts of the pool Master Plan. The concept of a master plan allows for flexibility and is subject to continual review and revision. All areas of priority, therefore, are liable to reclassification if demand and circumstances so dictate.



e. Timber management objectives, as depicted on the overlays, are recommended for implementation through sound silvicultural practices. However, and as previously explained, the district timber management program is presently under study and objectives, as shown, are subject to future modification or revision.

While Dutch elm disease has seriously decimated the American elm stand throughout the pool, no removal program of affected trees on Federal lands is contemplated since costs would be prohibitive.

### 3. Suggested future recreation facilities.

a. The slough complex lying between the mouth of the Wapsipinicon River (Iowa), river mile 506.8, to the Rock Creek area, river mile 509.2, is especially suited for float-marked canoe trails. The Steamboat Slough area (Iowa), river miles 503.0 to 505.6, is also excellent for this type of recreation.

b. A considerable area of Federal land extends both upstream and downstream of the Wapsipinicon River (Iowa), mostly heavily timbered. The area is outstanding for the establishment of nature and hiking trails which could have vegetative specimens identified as an educational feature. Access roads, however, would need to be constructed.

c. The upper part of Smith's Island, between the LeClaire Canal and the main river channel, is heavily wooded and well suited to the establishment of nature trails. Fishing jetties might also be located along the canal shore and the interior lagoon.

d. Vantage points for sightseers, artists, and photographers might be located at areas of outstanding scenic attraction, especially those affording an advantageous view of the spectacular autumn coloring for which the river shores and hills are noted. Specific locations would need to be established by seasonal survey.

e. The Cattail Slough Public Use Area can be considerably enlarged and expanded downstream as population and demand for recreational facilities increases. A culvert at the river will need to be placed to provide drainage for the interior lagoon and to support an access road to the lower area. Hard surfacing of roadways, lights, and water-borne sewage disposal should be considered in an expansion program. Future spoil disposal from channel dredging could

be used to advantage on existing low areas towards the lagoon to create additional camping space. A sealed bulletin-board type of display could be erected with posted information on hunting and fishing regulations, vandalism warning, littering appeal, and identified specimens of the flora and fauna of the area. The proximity of private residences likely precludes the necessity of emergency phone facilities. Provision for postage-free cards, addressed to the District Office, for comments and requests for recreational brochures might also be considered.


f. A considerable area of Federal land exists around the private concessionaire operating on leased property at river mile 507.8 on Shaft Creek (Iowa). The possibility of extensive recreational development in the area has been brought to the attention of the Clinton County Conservation Board. An access road, partly on Federal property, presently exists.

g. A sizeable area of Federal property also exists downstream of the leased site at river mile 503.3 (Iowa). The Scott County Conservation Board has been advised of the recreational potential in this instance. An access road, partially on Federal land, exists in the upper portion of the area.

SECTION IX  
REVIEW OF PLAN


1. Real Estate Division.

Pursuant to paragraph 5b of ER 405-2-835, the Master Plan was submitted for review and the Real Estate Division concurs that the material was prepared in accordance with sound real estate acquisition, management and utilization practices.

  
C. E. KELLEY, Attorney  
Chief, Real Estate Division

2. Operations Division.

Sections of this Master Plan, which have a direct or indirect bearing upon the operation and maintenance of the Mississippi River, have been coordinated with the Operations Division.

  
ROBERT E. CLEVENSTINE  
Chief, Operations Division