Buckhorn

15

BUCKHORN LAKE

PUBLIC USE PLAN
DM 17

LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY
LOUISVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 59
LOUISVILLE, KENTUCKY 40201

ORLPD-R

1 August 1972

SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

Division Engineer, Ohio River
ATTN: ORDPD-R

1. Inclosed are eight copies of subject design memorandum.

2. This report has been revised in accordance with the comments in the 1st Indorsement, Public Use Plan, Design Memorandum No. 17, Buckhorn Lake, Kentucky, 29 December 1971.

3. The Below Damsite was initially rejected as a campsite. However, after further review it was concluded by this office and ORDPD-R that the limited developable lands at Buckhorn justifies the campground development. Paragraph 8-14 has been adjusted accordingly to reflect justification of the campground.

FOR THE DISTRICT ENGINEER:

W. E. Leegan

1 Incl (8 cys)
as

W. E. LEEGAN
Chief, Planning Division

RECEIVED
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BUCKHORN
RESERVOIR

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ORDPD-R (1 Aug 72) 1st Ind
SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

DA, Ohio River Division, Corps of Engineers, P.O. Box 1159, Cincinnati, Ohio 45201 27 September 1972

TO: HQDA (DAEN-CWP-V), Washington, D.C. 20314

Approval is recommended.

FOR THE DIVISION ENGINEER:

DONALD T. WILLIAMS
Chief, Planning Division

1 incl (8 cys)
3 cys wd

DAEN-CWP-V (1 Aug 72) 2nd Ind
SUBJECT: Design Memorandum No. 17, Public Use Plan Buckhorn Lake, Kentucky

DA, Office of the Chief of Engineers, Washington, DC 20314 21 Nov 72

TO: Division Engineer, Ohio River

1. Design Memorandum 17 is approved subject to the following comments.

a. Page 1, paragraph 1-20. The referenced EM should be ER 1120-2-400.

b. Page 14, paragraph 8-20. The referenced ER 1130-2-312 has been superseded by EM 1110-2-400.

c. Page 19, paragraph 8-45 and Exhibit D. A real estate design memorandum should be prepared and processed in accordance with Change 2, ER 1110-2-1150.

d. Plate 2 and Appendix A, pages A-2 and A-3. The designation of land use priorities should be discontinued. Plate 2 should be revised to conform with land use designations shown in ER 1165-2-400, paragraph 9d and Change 1 to ER 1120-2-400.

e. Plates 4 through 9. In future recreation design memorandums where the recreation facilities are to be depicted on aerial photographs, the top of the minimum pool, seasonal pool and flood control pool should be shown.

f. Plate 4. Reference paragraph 11d(2)(a) of ER 1110-2-400, 7 July 1972. Locating a sewage treatment plant adjacent to a fishing platform is not good engineering practice. Also, in accordance with paragraph 13b of the referenced ER, a discussion of the type and degree of sewage treatment, location of effluent outfall, and information as to relationship to state water quality standards (paragraph 11d) should be included in the design memorandum. In addition, it appears that the plate should be revised to show the emergency spillway encompassed within the project boundary.

g. Plate 6. There is no indication on this plate or in the text as to the method of handling sewage at Buckhorn State Park, specifically the lodge and restaurant. Information regarding the method of disposal should be included in the design memorandum.

h. Plate 7. The location of the proposed water treatment plant is not shown. It is suggested, if at all possible, that the plant be located above the top of the flood control pool.

2. The Division Engineer should assure himself that the above comments and guidance are satisfactorily carried out.

FOR THE CHIEF OF ENGINEERS:

wd all incl

for Norman E. Jacobson
IRWIN REISLER
Chief, Planning Division
Directorate of Civil Works

ORDPD-R (1 Aug 72) 3rd Ind
SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

DA, Ohio River Division, Corps of Engineers, P.O. Box 1159, Cincinnati, Ohio 45201 28 November 1972

TO: District Engineer, Louisville, ATTN: ORLPD-R

Referred for information and compliance. Appropriate plates and revised pages containing the requested material are to be furnished the Division Office by 8 January 1973.

FOR THE DIVISION ENGINEER:

DONALD T. WILLIAMS
Chief, Planning Division

ORLPD-R (1 Aug 72) 4th Ind
SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

DA, Louisville District, Corps of Engineers, P. O. Box 59, Louisville, Kentucky 40201 5 January 1973

TO: Division Engineer, Ohio River Division, ATTN: ORDPD-R

1. Reference 2d Indorsement, paragraphs 1a and 1b: page 1, paragraph 1-20 and page 14, paragraph 8-20 have been corrected to read ER 1120-2-400 and EM 1110-2-400, respectively.

2. Reference 2d Indorsement, paragraph 1c: A copy of the 2d Indorsement has been routed to Real Estate. A Design Memorandum will be prepared by Real Estate Division upon final approval of DM No. 17.

3. Reference 2d Indorsement, paragraph 1d: Planning Division has reviewed ER 1165-2-400, paragraph 9d and change 1 to ER 1120-2-400 and has concluded the land use priorities generally agree with the regulations. It should be noted there are currently no agencies such as the Boy Scouts interested in leasing land. Also, there are no areas available to manage as a wildlife or forest preserve because of the Corps' land purchasing policy during the period in which the project was constructed.

4. Reference 2d Indorsement, paragraph 1e: Planning Division concurs.

5. Reference 2d Indorsement, paragraph 1f:

a. Planning Division agrees that a sewage treatment plant near a fishing platform is not an ideal situation. This point is discussed in paragraph 8-41 of DM 17. However, Engineering Division studied the Dam Area and determined the proposed location was the only feasible area to locate the plant. In order to provide flush toilets in the workshop and later in the camp area, Planning Division thought it necessary to compromise and place the plant near the shop and fishing platform.

b. Effluent line is shown on plate 4. If necessary, the effluent line can be extended on downstream below the campsites near the Corps property line. The sewage treatment plant includes primary and secondary treatment with extended aeriation and chlorination of the effluent. The plant is designed to meet state water quality regulations.

c. The spillway, partially shown on plate 4, is not designated for public use. Therefore little would be gained by redoing the plate to include the entire property line in this area.

6. Reference 2d Indorsement, paragraph g: The sewage treatment plant for the Buckhorn State Park Lodge is a primary-secondary treatment plant with extended aeriation and chlorination of the effluent.

ORLPD-R 5 January 1973

SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

7. Reference 2d Indorsement, paragraph n: In a revised plan, a water treatment plant has not been proposed for the Leatherwood site. It is intended to design the area for primitive camping and day use to reduce the operations expense. The continuous problems with vandalism and difficult access to the area suggest basis for the proposed design solution.

FOR THE DISTRICT ENGINEER:

1 Incl (8 cys)
DM No. 17

W. E. LEEGAN
Chief, Planning Division

Buckhorn Lk
FC 89-2
OP
Copy # 15

ORDPD-R (1 Aug 72) 5th Ind
SUBJECT: Design Memorandum No. 17, Public Use Plan, Buckhorn Lake, Kentucky

DA, Ohio River Division, Corps of Engineers, P.O. Box 1159, Cincinnati, Ohio 45201 15 January 1973

TO: District Engineer, Louisville, ATTN: ORLPD-R

Information furnished in the preceding indorsement is satisfactory except for the following. The effluent line, shown on Plate 4, is to extend below the campsite before it is discharged into the stream.

FOR THE DIVISION ENGINEER:

L. A. Farrey
for DONALD T. WILLIAMS
Chief, Planning Division

1 incl (8 cys)
all cys w/

CF:
DAEN-CWP-V (w/5 cys incls)

15-16-01

PUBLIC USE PLAN
DESIGN MEMORANDUM NO. 17
BUCKHORN LAKE, KENTUCKY

U.S. Army Engineer District, Louisville
P.O. Box 59
Louisville, Kentucky 40201

November 1971

PUBLIC USE PLAN
DESIGN MEMORANDUM NO. 17
BUCKHORN LAKE, KENTUCKY

SUMMARY

This study was initiated to evaluate the present and future recreational demands at Buckhorn Lake and compare these demands with the planned facilities in the presently approved DM No. 7B, in order to determine if that design memorandum is still valid as a basis for supplying facilities at the public use areas at this lake.

Based on preliminary work it was determined that DM No. 7B was inadequate because the initial and future planned facilities were not adequate to meet public demand and the public demand for types of outdoor recreation have changed since DM No. 7B was published. In addition, Buckhorn Lake is at a point in time in which a total design for Corps and State lands is required if the land around the lake is to be maintained in such a manner as to preserve the mountain wilderness type atmosphere of the area. For these reasons DM 7B should no longer be used as the basis for determining present or future recreation demands.

Buckhorn Lake is a category A project as defined in ENGCW-Y letter dated 5 August 1965, SUBJECT: Implementation of the Federal Water Project Recreation Act (PL 89-72) in previously authorized projects. Therefore, in order to provide needed recreational facilities to meet present demand, a program has been outlined in this design memorandum to provide the necessary facilities to meet the recreational demand of 1980 by Fiscal Year 1976 after which cost sharing by local interests will be required for further improvement under the Code 711 program. The total estimated cost involved in this program (64.7 thousand) is to be spread over a five year period. Ultimate development costs are expected to reach 228.5 thousand for Federal expenditure. This design memorandum has been coordinated with ORLRE as required in ER 405-2-835.

PERTINENT PROJECT DATA

Drainage Area

Damsite	409 sq mi
Mouth of Middle Fork Kentucky River	559 sq mi
Lock and Dam 14, Kentucky River	2,610 sq mi
Mouth of Kentucky River	6,935 sq mi

Dam

Type of Embankment	Rock fill with earth core
Total Length	1,020 feet
Top Elevation	877 Feet
Maximum Height	162 feet
Crow width	30 feet
Side Slopes	1 on 2.5

Spillway

Type	Cut through right abutment with control gates
Slide gates (No.)	4
Vertical life gates	20 ft x 33 ft
Top of gate elevation	840 msl
Base width of cut	150 feet

Outlet Works

Type	Concrete semi-elliptcal shape conduit
Size	14 ft x 14 ft
Control gates	3
Control gates, size	5.5 ft x 11 ft
Inlet invert elevation	724
Discharge capacity	
Permanent pool level	4,200 cfs
Flood control pool level	8,900 cfs

Lake

Lake	Elevation	Area (Acres)	Capacity (Acre-Feet)
Permanent Pool	757	555	10,300
Seasonal Pool	782	1,230	---
Flood Control Pool	840	3,610	168,048
Allocated to Flood Control	757–840	---	157,748

PUBLIC USE PLAN
DESIGN MEMORANDUM NO. 17
BUCKHORN LAKE, KENTUCKY

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EXHIBITS

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PUBLIC USE PLAN
DESIGN MEMORANDUM NO. 17
BUCKHORN LAKE, KENTUCKY

SECTION I – INTRODUCTION

1–10 Authority. The Buckhorn Lake project is a unit in the comprehensive flood control plan adopted by the Flood Control Act approved 28 June 1938, Public Law No. 761, 75th Congress, Chapter 795, 3rd Session (H.R. 10618). The development of flood control reservoir areas for recreational purposes was authorized by Section 4 of the Flood Control Act, approved 22 December 1944, as amended by the Flood Control Act approved 24 July 1946, Public Law 526, 79th Congress, 2nd Session, (H.R. 6597).

1–20 Purpose of DM 17. The purpose of this study is to evaluate the existing approved master plan (Design Memorandum No. 7B) and propose any necessary changes to completely utilize the public use areas under present design criteria and ultimate project user demand. This study is authorized under EM 1120-2-400

1–30 Prior Pertinent Design Memoranda Reference. Reference is made to the following previously issued Design Memorandum. Of the listed Design Memorandums, 7 and 7B form the basis for the present policy of recreational development at Buckhorn Lake and are the most pertinent to this study.

Number	Description	Date
1	General Design	May 1956
2	Reservoir Outlet	June 1956
3	Real Estate	June 1956
4	Concrete Aggregates	August 1956
5	Dam and Spillway	June 1957
6	Real Estate	December 1957
7	Preliminary Master Plan	February 1958
7B	Master Plan	September 1961
8	Real Estate	April 1960
9	Low Flow Regulation	October 1958
10	State and County Roads	October 1958
11	Reservoir Clearing	November 1958
12	Relocation Electric Power and Telephone Lines	November 1958
13	Relocation Foot Bridges	June 1959
14	School Relocation	June 1959
15	Relocation Otter Creek	August 1959
16	Relocation County Bridge at Dry Hill	January 1960

1–40 Scope of Study. This memorandum will examine and evaluate recreation development, management and the environmental resources of Buckhorn Lake. Recreation development will be studied by comparing present and future demand as related to existing and planned facilities. An evaluation of the Master Plan 7B will determine the accuracy of its proposed future facilities. Necessary changes in facility number or type will be recorded in this DM. Management guidelines will be outlined and specific management recommendations will be made for each recreation site. Environmental guidelines will be established to promote wise utilization of the area resources. Recreational development will be governed by environmental guidelines which provide for minimal negative impact on lake and area ecology.

SECTION II – PROJECT DESCRIPTION

2–10 General. Buckhorn Lake is a unit in the comprehensive plan for flood control and other purposes in the Ohio River Basin. It provides primarily for the reduction in flood stages at all points downstream from the lake.

2–20 Location and Accessibility. The present accessibility to the lake area is fair. However, access to the southwestern shoreline of the lake requires travel over narrow gravel mountain roads. Highway 15 is an improved two lane highway catching East-West traffic from the Mountain Parkway at Campton. The Daniel Boone Parkway is presently under construction from London to Hazard, Kentucky. Upon completion it will be an excellent route for North-South traffic traveling Interstate 75. State roads 28, 30 and 257 are narrow mountain blacktop roads which do not facilitate high speed traffic. However, the roads are adequate to serve present lake traffic. Figure 1 shows principle access routes.

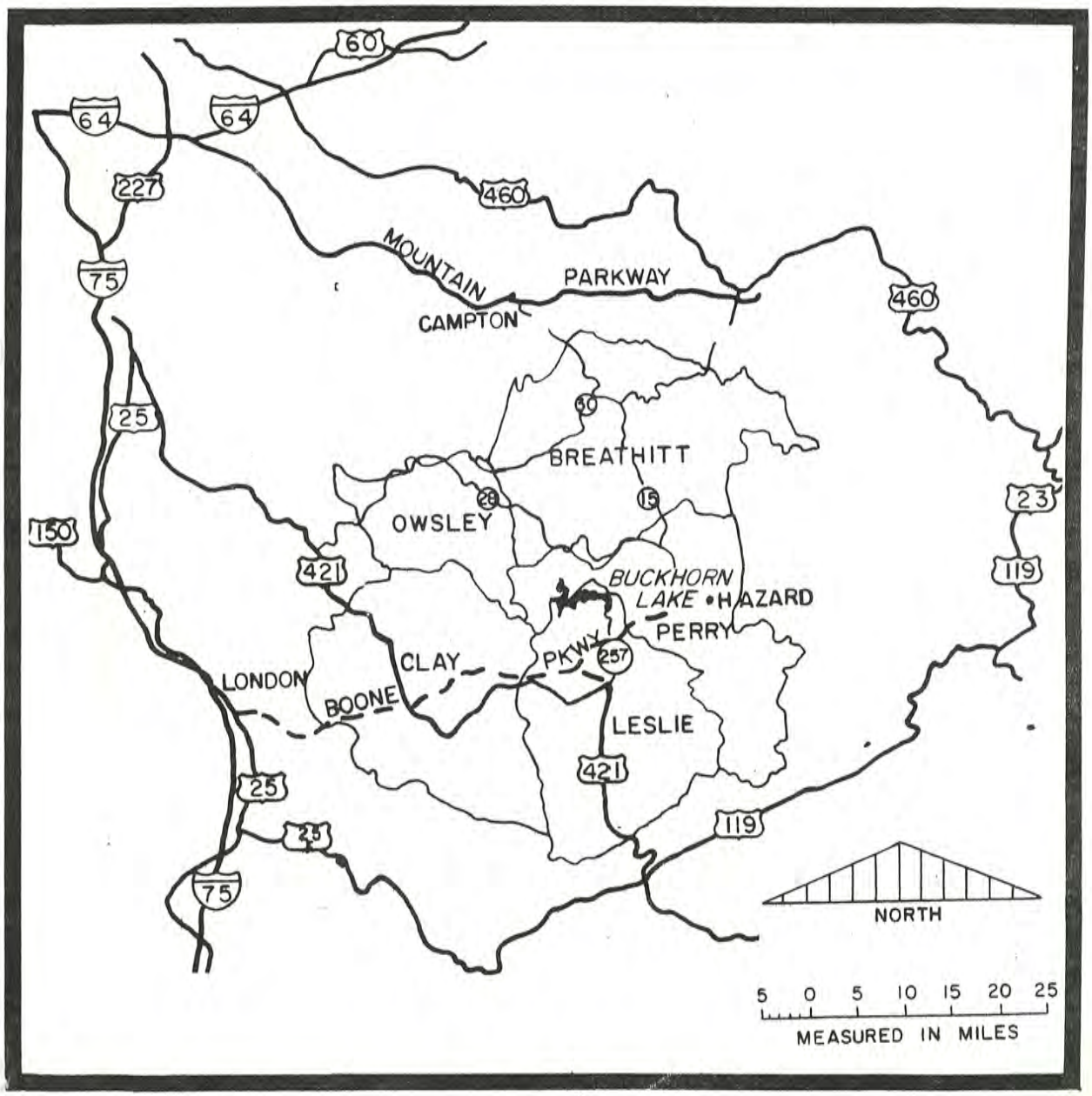


FIGURE 1

Fee line = 121 miles
Easement line = 42 miles

2–30 Real Estate. Project lands consist of 4,970 acres in fee and 915 acres with flowage easements. Water area is as follows: Minimum pool 550 acres; seasonal or recreation pool 1,250 acres; and flood control pool 2,360 acres. There are seven areas developed for public use totaling 1,100 acres. They are Site 1 – Below Dam (13A); Site 2 – Gays Creek (115A); Site 4 – Buckhorn State Park (742A); Site 5 – Leatherwood (27A); Site 7 – Trace Branch (35A); Site 8 – Confluence (39A); and Site 9 – Buckhorn Ramp (129A). Sites 3 and 6, Otter Creek and Elkhorn Creek, 40 and 135 acres, respectively, are presently not developed for recreation use.

2–40 Description of Lake Area. Buckhorn Lake is situated in an area of deep valleys with precipitous slopes surrounded by high ridges. Elevations range from 3,200 feet above sea level to a river bed elevation of 620 feet at Beattyville. The relatively few flat areas within the lake area lie immediately along some of the creek beds. These few areas are linear and small in acreage. The gradient of the Middle Fork stream bed is about 5.4 feet per mile in a 40 mile reach above the damsite, and about 2.2 feet per mile downstream from the damsite, to its mouth. The stream bed is chiefly loose rock and coarse gravel.

2–50 Status of the Project. Buckhorn Lake was completed and went into operation December 1961. During the first summer season, the recreation pool at 782 elevation was not reached. Since 1962 the lake has been within two feet of seasonal pool approximately 80 percent of the recreation season. Elevation 839.4 has been the maximum elevation of the flood pool to date.

Total visitation to the reservoir since January 1961 through December 1970 was approximately 3.1 million. Figure 2a illustrates annual visitation since 1961.

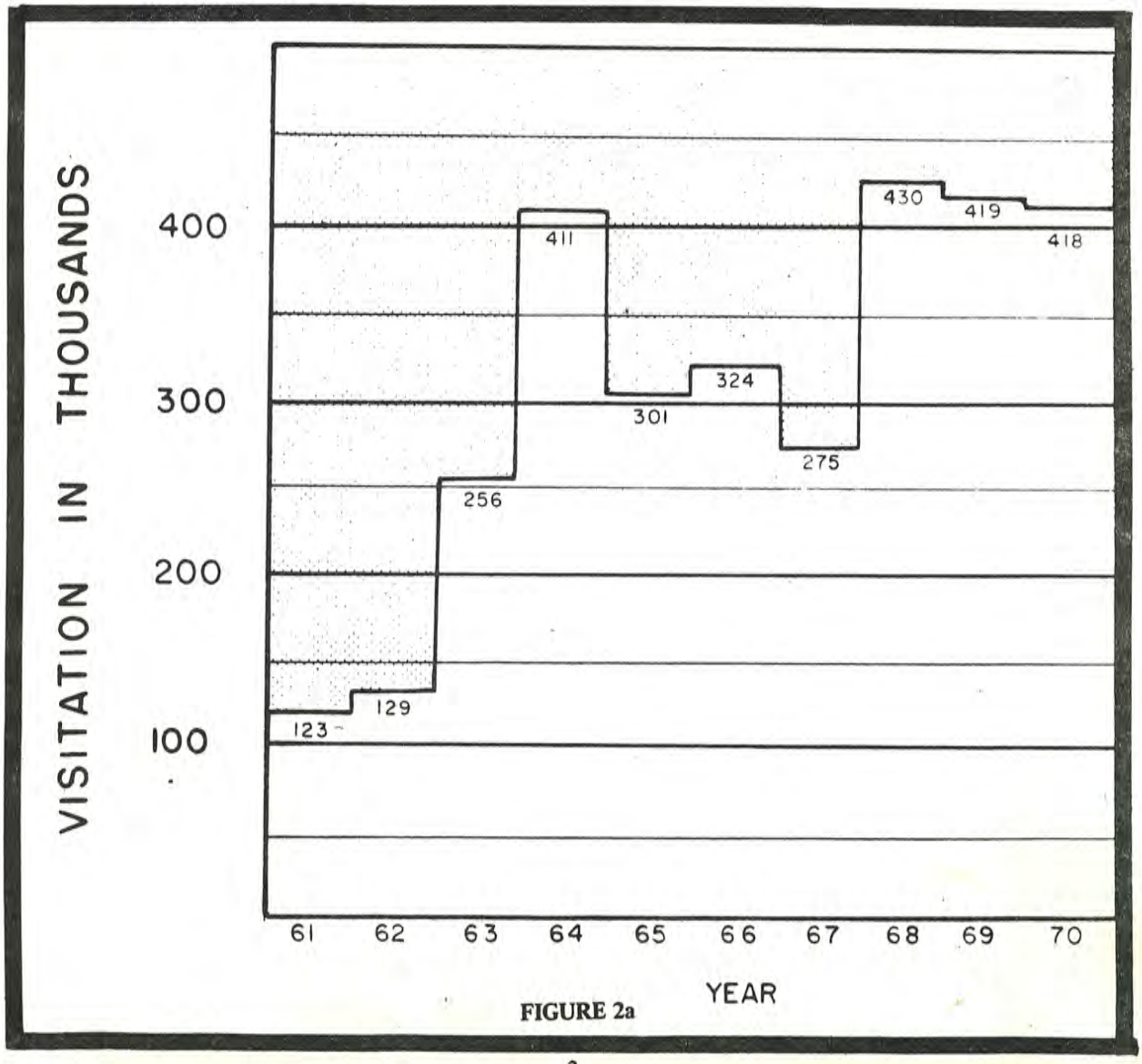


FIGURE 2a

SECTION III – PROJECT AREA RESOURCES

3–10 General. Buckhorn Lake is situated in the mountaineous area of Eastern Kentucky. Vegetation cover of the area is a mixed pine-hardwood forest. The forest has been cut over in most of the project area. The upland areas adjoining the creek bottoms are too steep for successful agricultural cultivation. Farming is of a subsistance and part time nature. Coal mining is the principle source of rural income. Figure 2 shows the general lay of the land surrounding Buckhorn Lake.

3–20 Fishing and Hunting Resources. Buckhorn Lake provides an excellent habitat for a high quality fishery. Principal sport species include white bass, rock bass, bluegull, longear sunfish, smallmouth bass, spotted bass, largemouth bass and white crappie. The Kentucky Department of Fish and Wildlife carries out an active fisheries program which includes stocking of sport and forage fish, fish population and harvest studies and an enforcement program. Stocking records listing species and quantities have been maintained and are available from the Department of Fish and Wildlife Resources.

Wildlife resources values are moderated over the project area. The primary forest and upland game species hunted are bobwhite quail, cottontail rabbit, grouse, and grey and fox squirrel.

Project lands and waters excluding specific use recreation lands are under a license agreement with the Commonwealth of Kentucky for management and development of fish and wildlife resources. Two public use areas scheduled for future development, Otter Creek – Site 3, and Elkhorn Creek – Site 6, are included in the license on an interim basis. These areas are subject to withdrawal of all or any part of the area for recreational development subject to 30 days notice by the District Engineer. A copy of the license is included as **Exhibit A.**

FIGURE 2

SECTION IV – FACTORS INFLUENCING RESOURCE DEVELOPMENT

4–10 Region Served. Buckhorn Lake plays an integral role in the daily recreation experience of residents living in Breathitt, Clay, Leslie, Owsley, Perry and Harlen Counties. Some of the major urban areas which use Buckhorn Lake for weekend recreation or for a vacation area are Lexington, Kentucky and the Cincinnati, Ohio area. The 1970 Buckhorn State Park Lodge visitation statistics indicate 48.9 percent of the guests were from Kentucky, 30.3 percent from Ohio, 7.6 percent from Indiana and 2.5 percent from Illinois. The remaining 10.7 percent were from eleven other states. These figures are indicative of the visitation to the lake area.

4–20 Population. For this report Perry, Leslie, Breathitt, Owsley, Clay and Harlan Counties comprise the Buckhorn Lake area. The total population of the area decreased from approximately 184,000 in 1950 to 139,000 persons in 1960. The 1970 census revealed a further decline to 121,500. These figures indicate that the population of the area is declining at a decreasing rate. The median age of the area population in 1960 was 21.9 as compared to a 29.5 national median. The area is rural in nature.

4–30 Existing and Planned Related Recreation Areas. The Daniel Boone National Forest, immediately south of Buckhorn and Natural Bridge State Park, 40 miles north offer similar outdoor recreation activities (hiking, camping, swimming, picnicking and fishing) in a mountaineous setting. Booneville Lake and Red River Lake are proposed lakes which lie 20 and 40 miles, respectively, from Buckhorn Lake. These proposed lakes will offer the same recreation opportunities as Buckhorn and are expected to attract even greater visitation than Buckhorn due to the larger recreation areas that they will provide.

SECTION V – EVALUATION OF EXISTING FACILITIES

5–10 Existing User Demand. The existing user demand can be reflected in the minimum existing design requirements when current visitation (1969 and 1970) is used as a basis for computations.

$$SDL = \frac{(Y) \times (AP)}{N} \times \frac{.60}{T}$$

WHERE:

Y = Percent of total participation expected to occur during recreation season

AP = Annual participation in the activity for the past year

N = Number of weeks in the normal recreation season (15)

.60 = Percent of weekly participation in the activity expected to occur on a normal summer Sunday

T = Turnover factor for the activity

SDL (Boating) = 733

SDL (Camping) = 833

SDL (Fishing) = 278

SDL (Picnicking) = 625

SDL (Swimming) = 542

5–11 Minimum Existing Design Requirements (MEDR).

$$MEDR = \frac{SDL(Activity)}{P}$$

WHERE:

P = The number of persons per unit, site or parking space, whichever is applicable

MEDR (Boating) = 244 Car Trailer Spaces

MEDR (Launching) = 9 Launching Lanes

MEDR (Camping) = 208 Camp Units

MEDR (Fishing) = 111 Car Trailer Spaces

MEDR (Picnicking) = 156 Picnic Units (156 Parking Spaces)

MEDR (Swimming) = 135 Parking Spaces

MEDR (Swimming) = 54,200 Square Feet

5–20 Existing Supply. Determinations of existing user supply can be made by tabulating the type and number of facilities present at Buckhorn Lake. See Exhibit I. for breakdown of Existing Supply by Site.

5–21 Summary of Expenditures through Fiscal Year 1970. Following is a tabulation of monies spent for recreational development through Fiscal Year 1970.

Site	Regular Construction Funds	Code 710 & 711 Funds	Code 712 Funds	APW Funds
Squabble Creek – Site 1				
Comfort Station – Pit	6,800			
Water Supply		9,400		
E&D and S&A	1,400			
APW		4,400		10,200
	8,200	13,800		10,200
				32,200
Gays Creek – Site 2				
Roads	44,400			
Parking	22,200			
Ramps	12,700			
Comfort Station – Pit	5,100			
Well	400			
Concrete Tables	1,500			
Camp Units		10,000		
Water Supply		24,600		
E&D and S&A	17,300			
APW		2,900		10,400
	103,600	37,500		10,400
				151,500
Leatherwood – Site 5				
Roads	26,500			
Parking	13,300			
Ramps	7,600			
Comfort Station – Pit	6,200			
Concrete Tables	2,500			
E&D and S&A	11,200			6,000
APW				10,200
	67,300			16,200
				83,500
Trace Branch – Site 7				
Roads	12,700		5,000	
Parking	6,400			
Ramps	3,700			
Toilets	4,900			
Capped Well	400			
Concrete Tables	2,500			
E&D and S&A	6,100	10,300	1,600	
Water Supply		23,000		
APW				10,200
	36,700	33,300	6,600	10,200
TOTAL				86,800

Site	Regular Construction Funds	Code 710 & 711 Funds	Code 712 Funds	APW Funds
Confluence – Site 8				
Roads	21,200		9,500	
Parking	10,600			
Ramps	6,100			
Comfort Station – Pit	4,800			
Camp Units				
Capped Well	400			
E&D and S&A	9,600	11,700	2,600	
Water Supply		25,900		
APW				10,200
	52,700	37,600	12,100	10,200
				112,600
Buckhorn Ramp – Site 9				
Roads	15,700			
Parking	7,800			
Ramps	40,000			
Concrete Tables	2,800			
E&D and S&A	13,300			
APW		200		10,200
	79,600	200		10,200
				90,000
TOTALS	**348,100**	**122,400**	**18,700**	**67,400**
				556,600

5–30 Quality of Existing Facilities

5–31 Parking Facilities. Generally, the parking facilities and boat ramps at Buckhorn Lake are adequate for normal summer Sunday demand. However, parking overloads occur during periods of peak use at the more heavily used sites – Gays Creek, the State Park and the Dam site. All parking lots are in need of some landscaping in order to reduce the massive appearance of the parking lots and provide buffer areas between the visitors and vehicular traffic.

5–32 Camping Facilities. Facilities for camping are provided at three locations: Below Dam – Site 1, Gays Creek – Site 2 and Trace Branch – Site 7. The Corps manages the Below Dam site and the Commonwealth manages Gays Creek. At this point in time it has not been determined which agency will manage Trace Branch. Camping spurs, grills and picnic tables are provided at each site as part of a camp unit. Drinking water is provided at Gays Creek and Trace Branch. There are presently no flush comfort stations at the camp areas. However, the State of Kentucky is planning to enlarge the camping facilities at Gays Creek and provide flush toilets and a shower facility as shown on Plate 5. The quality of maintenance has been poor at Gays Creek; however, the additional facilities should encourage better control and management practices.

Flooding over the camp facilities and restrooms occurs each year requiring removal of silt deposits. The silt removal and other maintenance requirements resulting from flooding is an extensive annual maintenance problem.

As well as camping at the listed camp areas, there is considerable shoreline camping at Buckhorn. Until this year only 52 camp units were provided at Buckhorn. This figure is below the current demand for camping as reflected from visitation statistics. In addition, the intensive shoreline camping and weekly observation of use of camp areas indicate more visitors desire to participate in camping, than reflected by the visitation statistics.

5–33 Picnic Facilities. Picnic facilities are provided at six locations: Buckhorn Ramp – Site 9; Gays Creek – Site 2; Buckhorn State Park – Site 4; Leatherwood – Site 5; Trace Branch – Site 7 and Confluence – Site 8. Although the quality of picnicking varies at each site, it is generally satisfactory overall. As indicated in Table 1, the quantity of facilities available does not meet the present demand during normal summer weekends.

5–34 Swimming Facilities. One beach is provided at the Buckhorn State Park Lodge. The beach area is approximately 30,000 square feet which is well below the 54,000 square feet of beach required to meet the present demands. The State of Kentucky is planning to add a swimming pool to the present lodge complex. This addition will satisfy the present demand for swimming. Swimming occurs at all the boat ramp sites and is considered a safety hazard. The limited supply and access to the beach from the upper reaches of the lake explains the primary reason for the swimming around boat docks.

5–40 Evaluation of Existing Demand and Supply

5–41 Boating and Fishing. Based on table 1, parking is generally adequate for normal summer Sunday use. On heavy use Sundays, parking areas are full at some sites. The heavier use at some sites is due to the accessibility and development of the sites on the northeast side of the lake.

5–42 Camping. The present camp facilities combined with the additional units being constructed or planned by Leslie County and the State of Kentucky will total 100 camp units. This figure is well below the present demand. However, there are no existing lands adjacent to Buckhorn Lake ideal for expansion of camp areas. For this reason, it is recommended that management of all existing camp areas be intensified. Although camping demand cannot be fully met, wise campground management will enable a visitor to experience a quality camping experience.

5–43 Picnicking. Picnic facilities and areas are not sufficient to meet the present demand. There is an overlap of use with campers. Additional areas need to be provided specifically for picnicking. The quality of picnicking is considered adequate to satisfy public demand.

5–44 Swimming. The present demand for beach area is approximately 54,000 square feet while the existing beach is only 30,000 square feet. The difference in supply and demand should be equalized by the addition of a pool at the Buckhorn Lodge. Although the practice of swimming at or near a boat launching ramp is prohibited, it is still a frequent occurrence at Buckhorn.

SECTION VI – EVALUATION OF EXISTING SUPPLY

6–20 Initial Planned User Supply

6–21 Tabulation of Planned Facilities. The site plans in DM 7B indicate the following facilities were to be provided.

Boating and Fishing	24 Foot Boat Ramps
	242 Car-Trailer Spaces
Camping	15 Units
Picnicking	90 Units
Swimming	No Facilities Planned

A breakdown by site can be found in Exhibit I

SECTION VII – PROJECTED USER DEMAND

7–10 Annual Visitation to Project. Using presently approved methods of determining project visitation, it is estimated that 620,000 visitors will annually use the facilities at this project.

7–11 Effective Design Load (EDL). To determine the type and quality of facilities needed, six activities were considered. These are sightseeing, swimming, picnicking, camping and boating and fishing. Sightseers are estimated to comprise 40 percent of visitation and will normally benefit from facilities which are considered for other activities. The effective design load is:

$$EDL = \frac{.75 \times AV \times .60}{N \times T}$$

WHERE:

.75 = Percent of annual visitation expected to use facilities during recreation season

N = Number of weeks in normal recreation season (15)

.60 = Percent of weekly visitation on a normal summer Sunday

T = Turnover factor

.58 = Percent of total visitors excluding sightseers

$$EDL = \frac{.75 \times 620{,}000 \times .60\ V.58}{15} = 10.787 = 10.790$$

7–20 Specific Design Loads (SDL). Design loads for specific uses or the number of persons to design for in a particular activity are derived by:

SDL = EDL x p = 10,790 x p

EDL = Effective design load

p = Participation in percentage of EDL for specific activity

T = Turnover factor

Activity	P*	T
Boating	.22	2.5
Camping	.10	1
Fishing	.10	3
Picnicking	.15	2
Swimming	.13	2

*Based on current participation rates at Buckhorn Lake.

SDL (Boating) = 949 persons

SDL (Camping = 1,079 persons

SDL (Fishing) = 360 persons

SDL (Picnicking) = 809 persons

SDL (Swimming) = 701 persons

7–30 Minimum Ultimate Design Requirement (MUDR). From the SDL(Activity) a determination can be made as to the minimum ultimate design requirements. That is, the minimum number of parking units or parking spaces required for an activity.

$$MUDR = \frac{SDL\ (Activity)}{p}$$

WHERE:

p = Number of persons per unit, area or car, whichever is applicable

MUDR (Boating Parking) = 316 Car Trailer Spaces

$$\frac{949\ \text{Boaters}}{3\ \text{Boaters/CTS}} = 316$$

MUDR (Campers) = 270 Camp Units

$$\frac{1{,}079\ \text{Campers}}{5\ \text{Campers/Camp Unit}} = 270$$

MUDR (Fishermen) = 144 Car Trailer Spaces

$$\frac{360 \text{ Fishermen}}{2.5 \text{ Fishermen/CTS}} = 144$$

MUDR (Picnicking) = 202 Picnic Units

$$\frac{809 \text{ persons}}{5 \text{ Picnickers/Picnic Units}} = 202$$

MUDR (Swimmers Parking) = 175 Parking Spaces

$$\frac{701 \text{ Swimmers}}{4 \text{ Swimmers/Parking Spaces}} = 175$$

MUDR (Swimmers Beach Area) = 70,700 Sq Ft

$$\frac{701 \text{ Swimmers} \times 100}{\text{Sq Ft Beach/Swimmer}} = 70{,}100$$

7–40 Minimum Land Requirements for Ultimate Development (MLR).

$$\text{MLR} = \text{MUDR(Activity)} \times 4^*$$

WHERE:

MUDR = Minimum ultimate design requirements for a specific activity

S = Spaces or units per acre

MLR (Boaters Parking) = 96 Acres

$$\frac{316 \text{ CTS} \times 10}{33 \text{ CTS/Acre}} = 96$$

MLR (Campers) = 340 Acres

$$\frac{270 \text{ Camp Units} \times 10}{8 \text{ Units/Acre}} = 340$$

MLR (Fishermen) = 44 Acres

$$\frac{144 \text{ CTS} \times 10}{33 \text{ CTS/Acre}} = 44$$

MLR (Picnickers) = 202 Acres

$$\frac{202 \text{ Picnic Units} \times 10}{10 \text{ Picnic Units/Acre}} = 202$$

MLR (Swimmers Parking) = 20 Acres

$$\frac{175 \text{ Parking Spaces} \times 10}{87 \text{ Parking Spaces/Acre}} = 20$$

MLR (Swimmers Beach) = 3 Acres

$$\frac{701 \text{ Swimmers}}{430 \text{ Swimmers/Acre}} = 3$$

TOTAL LAND = 705 Acres

*The acreage figures set forth for S (Spaces or units per acre) represent only land required for development to meet the needs of a given activity. Substantial additional acreage will be needed to separate the activities and to provide the open space necessary for quality recreational experiences. Normally, only ten percent of a land area should be developed for intensive use for various recreational activities, one from another, and to provide open spaces for hiking, sightseeing and other related activities.

SECTION VIII – REVISED DEVELOPMENT PLAN

8–10 General. The initial step in formulating the revised development plan is to compare present demand, present supply and ultimate demand with the facilities planned in DM 7B. Below is a table summarizing those items.

Item	Present Demand	Present Supply	Initial *Planned Facilities	Ultimate Demand	Future Required Facilities
Boating and Fishing Parking Spaces	244	302	242	316	14
Boat Launching Ramps	6	6	7	——	——
Number 12 Foot Lanes	9	14	14	16	2
Camp Units	208	75	15	270	195
Picnic Units	156	138	90	202	46
Picnic Parking Space	156	160	60	202	46
Swimming Parking Spaces	135	100	0	175	40
Swimming Beach, Sq Ft	54,100	30,000	0	70,100	40,100

Table 1

*DM 7B

8–20 Basic Assumptions. Following are basic assumptions used in preparing revised development plans for Buckhorn Lake.

(1) Criteria set forth in ER 1130-2-312 will be used as a basis for proposed revision to CDM 8B (C–1). In conjunction with this, facilities shown in recreation facilities, standard plans, Louisville District, will be used as a basis for construction specifications. In the event facilities other than those shown in "Recreation Facilities" are proposed appropriate descriptions and drawings of such facilities will be included as part of this study. Current approved methods of estimating annual visitation will be used in computer estimated annual visitation.

(2) It is noted that any future development at Otter Creek – Site 3 and Elkhorn Creek – Site 6 requires 50-50 cost sharing by a lessee who will assume management responsibilities. There is no such lessee at this point in time.

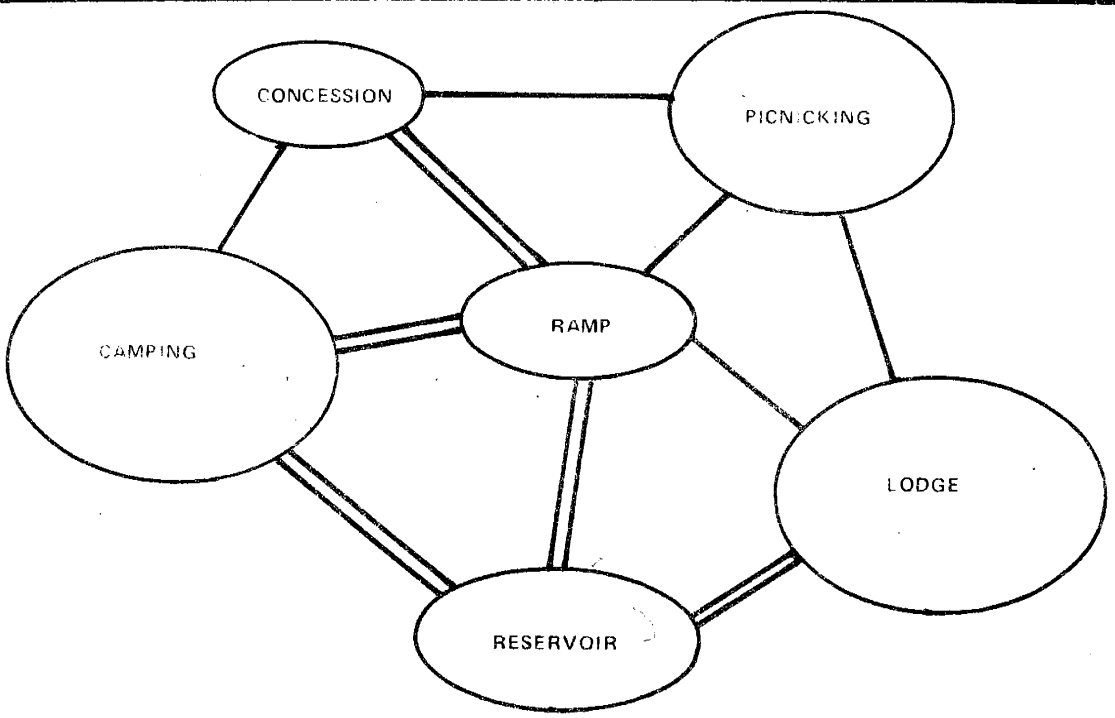
(2) Although 1,100 acres of land are presently available for recreation use, the mountainous topography eliminates approximately 50 percent of the land for recreation development. Consequently, the 705 acres stated as the Minimum Land Requirement is not satisfied by the 1,100 acres available at Buckhorn. Thus, the difference of 705 acres and (1,100 acres times 50 percent) or 155 acres of usable land is indicative of the additional land for recreation currently needed.

8–30 Ideal Site-Use Relationships. In order to arrive at a workable design for Buckhorn Lake, a basic or ideal site-use relationship is based on factors and priorities unique to this particular project.

The demands at Buckhorn are for increased camping, picnicking and lodge facilities for overnight guests at the State Park area. Proposed site development of Buckhorn Lake is oriented towards these three activities. Related activities as illustrated will also increase. All development will progress at a rate which management can facilitate. It should be noted that little additional space is available on the existing lands to meet future demands for increased facilities. Figure 3 shows the considered ideal site-use relationships with the above factors considered.

8–40 Individual Site Development. Following are specific proposals for the future development of the nine public use areas at Buckhorn Lake.

8–41 Below Dam – Site 1 (Plate 4). Site 1 is comprised of 13 acres of creek bottom land, below the dam. Figure 4 shows the general lay of the land and the existing facilities. The recreation activities at the site are fishing, camping and picnicking. In addition, the maintenance building, the service and maintenance center for the lake, is located on the Below Dam site. Although it is not desirable to have maintenance and recreation facilities on one 13 acre site, the limited initial purchase of lands and the lack of rolling or level topography for development at Buckhorn limit opportunities for ideal recreation design. As an alternative, landscape planning is used to screen



IDEAL SITE RELATIONSHIP

FIGURE 3

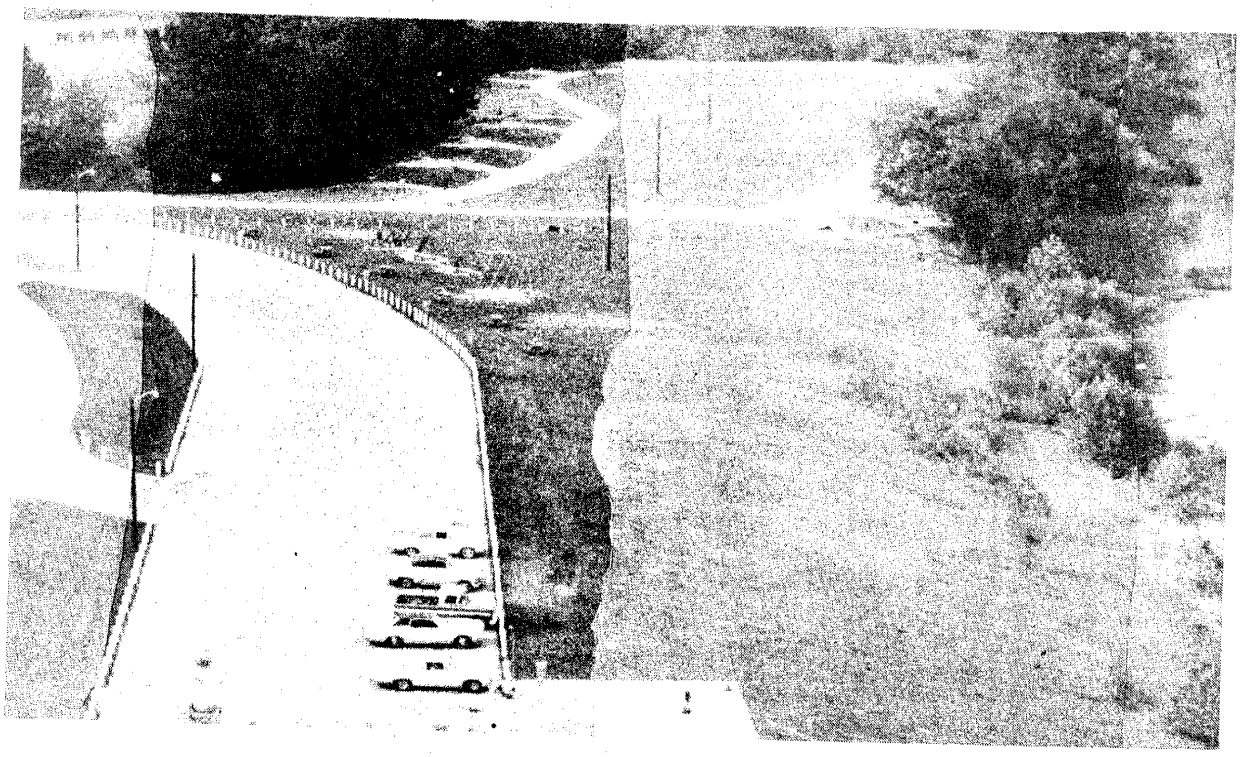


FIGURE 4

and picnic units. It should be noted the Below Dam campsite is not an ideal campsite. However, it is the only site feasible for the Corps to operate at this point in time. In addition, it is one of three sites with the physical characteristics suitable for camping. The other sites are Gays Creek and Trace Branch. Below Dam is the only camp area feasible for the Corps to provide modern toilet facilities. These facts combined with the Corps recreation lands purchasing policy of minimal lands during the late 1950's justifies the use of the Below Dam site as a camping area.

8–42 Gays Creek – Site 2 (Plate 5). Site 2 includes 15 acres of creek bottom land. The site is planned exclusively for camping with the exception of four picnic units near the ramp. The State of Kentucky presently manages 26 units built by the Corps plus random camping near the lake as illustrated in figures 5 and 6. Maintenance at Gays Creek is inadequate. As shown in figure 7, visitors park in any desired fashion, in addition, toilet facilities are not clean or regularly maintained. Even though maintenance problems exist, Gays Creek offers the greatest potential for meeting future camping demands of any presently owned public access site. The potential is due to the flat creek bed and relatively good access from highway 28. The State of Kentucky is in the process of constructing 26 additional camp sites, a wash building, and sanitation system as shown on plate 5. The additional facilities are expected to be completed by June of 1973.

8–43 Otter Creek – Site 3. Otter Creek is a mountainous 40 acre area with difficult access from land or water. The site lies in a linear manner along Otter Creek more or less perpendicular to the lake body. The lay of the land and access makes the area very difficult to manage. Because of e problems stated, and negligible land purchased above elevation 845 for recreation, it is recommended the area remain in an interim Fish and Wildlife Management License.

Future recreation demands can be more adequately met at other locations on the lake. If recreation demands are not as predicted in this report and an agency becomes interested in the development of Otter Creek, reconsideration by this office will be given to the site.

FIGURE 5

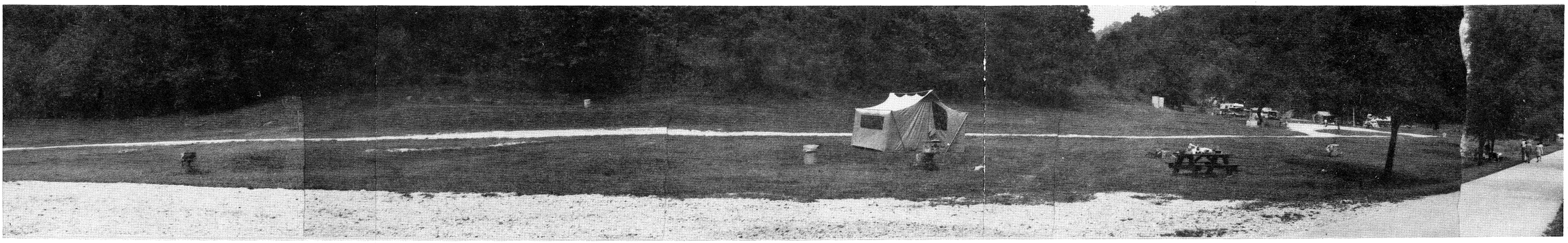


FIGURE 6

FIGURE 10

FIGURE 7

8–44 Buckhorn State Park – Site 4 (Plate 6). Buckhorn State Park, figure 8, is the primary recreation area on the lake. The 742 acre park includes a 24 unit lodge, a marina, boat slips, rental boats, 4 lane boat ramp, a beach and shelter house with picnic facilities. The State Park, situated in a unique mountainous setting, is one of the most accessible sites on the lake. From a design, management and aesthetic analysis, the area is the most ideal location on the lake for recreation development. A present threat to the area is private development across the lake above the Leatherwood site. The development presents two negative aspects from the viewpoint of public recreation. Without control of the land, any quantity or quality of structures could be built destroying the visual aesthetics of this mountain lake. The Leatherwood peninsula offers an opportunity for shoreline picnicking and hiking in a mountain area with overlook sites along the trail system. Further discussion of this site can be found in Section 8–45.

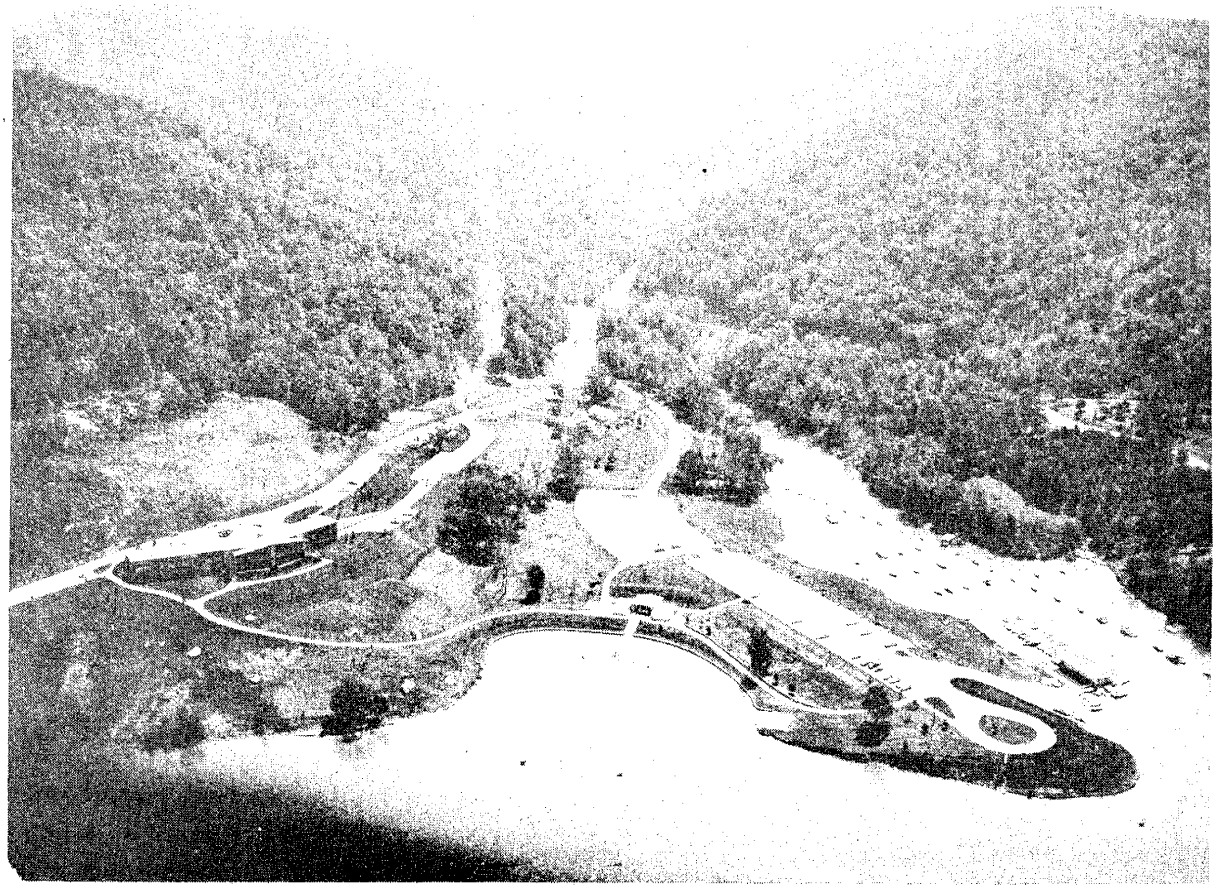


FIGURE 8

8–45 Leatherwood, Site 5 (Plate 7) The existing 27-acre Leatherwood site includes ten picnic units, a pit toilet, a two-lane boat ramp, and a floating boat dock. The site, accessible by a Leslie County road, is a linear strip of land along Leatherwood Creek. Expansion of recreation facilities is presently limited by the small acreage of the site. With the addition of 276 acres of land on the upper Leatherwood peninsula, as recommended by the State of Kentucky and this office, these limitations would be decreased.

The Commonwealth is in the process of developing a Master Plan for the upper Leatherwood site. This plan includes six miles of hiking trails, two overlooks and 26 camping units. As shown in Table 1, the additional camping units offered by this acreage would help satisfy the existing demand for this type of facility. Thirty to forty percent of this land is considered usable land. It would thereby provide up to two-thirds of the 155 acres necessary to meet present land requirements as discussed in Section 8–20(2).

It is not presently feasible for Corps personnel to manage the existing Leatherwood site for camping or picnicking, as the site is isolated and not readily accessible. Maintenance is also hampered by vandalism. Commonwealth personnel, however, are presently located at Buckhorn State Park, directly across the lake from the Leatherwood site, and have the resources to overcome the current management limitations experienced by the Corps.

The Commonwealth has shown a great interest in the purchase of the upper Leatherwood peninsula site, to protect their estimated $6 million investment in Buckhorn State Park. The basic function of this park is to provide a mountain forest recreation setting for the park visitors, and this function is currently being threatened by private cabin development in the area of the upper Leatherwood site. If this area is not permanently protected by acquisition, the unspoiled mountain forest view from the lodge and the immediate State Park area will be damaged.

The Commonwealth has agreed to cost share the purchase of the 276 acres of the upper Leatherwood Site. A letter stating the Commonwealth's intention is inclosed in Exhibit D with the Real Estate Appraisal. As indicated by the appraisal report, the cost to the Corps is estimated at $104,000, half of the total acquisition cost of $208,000. It is recommended that this land be acquired in order to meet the stated demands for additional facilities and environmental protection of the existing Leatherwood site and overall environmental integrity of the lake's mountain scenery.

8–46 Elkhorn Creek – Site 6. Elkhorn Creek is a linear strip of land which includes 135 acres. The site generally lies out of site of the lake and poses problems for development and management. Like Otter Creek, all development must be confined to a small strip of land along the creek and access to the area by land is via a small mountain road. The area is away from the lake, eliminating boater picnicking and camping. There is presently no interest by other agencies for managing or sharing the cost of developing the area and it is not feasible at this time for the Corps to manage recreation development at the Elkhorn site. For these reasons it is recommended the area be kept in an Interim Fish and Wildlife agreement with the State of Kentucky. At a later point in time, if the recreation demands exceed the present predictions the area could be reevaluated by this office for primitive type camping and picnicking.

8–47 Trace Branch – Site 7 (Plate 9). Trace Branch, figure 9, is a 35 acre site in the upper reaches of Buckhorn Lake. Facilities at the site include 26 camp units, a two lane boat ramp, eight picnic units, drinking water, a boat launching

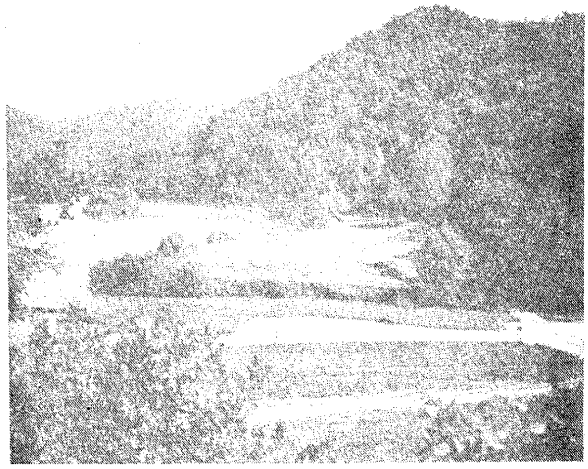


Figure 9.

dock, and pit toilets. The carrying capacity of the area is considered to be at its saturation point. The channel at Trace Branch is narrow (approximately 150 feet) and the water is murky for the entire year. In addition, there is an annual maintenance problem of removing siltation from the toilet, parking and camping facilities. The combination of a saturated carrying capacity of the land, the water quality, and the excessive maintenance suggest future development not be implemented at the site.

8–48 Confluence – Site 8 (Plate 9). Confluence is a 39 acre access site in the upper reaches of the lake. Like Trace Branch the site is situated on a narrow channel with turbid water throughout the recreation season. The problems of maintenance after flooding are similar to those at Trace Branch. the area presently has 16 picnic units with 14 additional units planned, a boat loading dock, a two lane boat ramp, a pit toilet and drinking water. The capacity for development at the site is considered to be at the saturation point. No further development is recommended. A low water crossing is currently under construction immediately above the Confluence site. Upon completion, the crossing will provide a more immediate route to Trace Branch and should stimulate camping activity. The road and crossing will be completed during the 1972 Fiscal Year. Figure 10 is a panoramic view of the Confluence site.

8–49 Buckhorn Ramp – Site 9 (Plate 4). The Buckhorn Ramp Site is situated on an extremely steep hillside for recreation facilities. Figure 11 shows the topographical conditions of the five acres. The site development includes a two lane boat ramp and eight picnic units. The mountainous topography limits any further development of recreation facilities. Site 9 is the only access site which the Corps ownership extends to the top of the mountain. Although the mountain (or foothill) is too steep for any structural development, a possibility exists for establishing a five mile foot trail. The construction of the trail is not recommended if a trail system is established on the above Leatherwood Site as proposed by the State of Kentucky. Inclosed as part of Site 9 is the fill area, figure 12, immediately south of the spillway. The fill area provides an ideal picnic area for boaters. Proposed development includes a vault toilet, ten picnic units, and a boat loading dock.

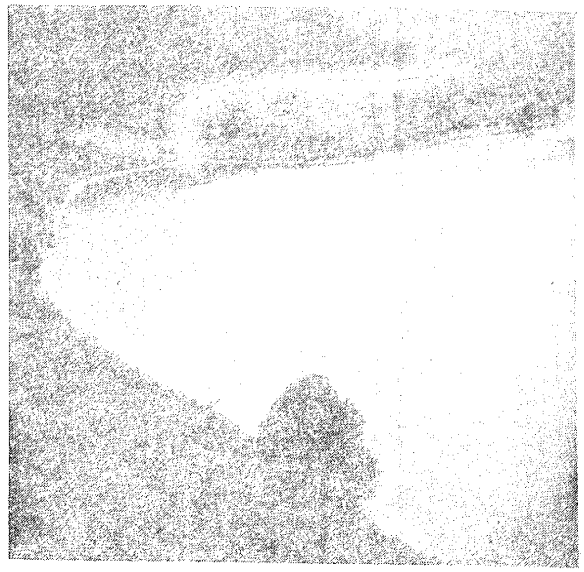


Figure 12.

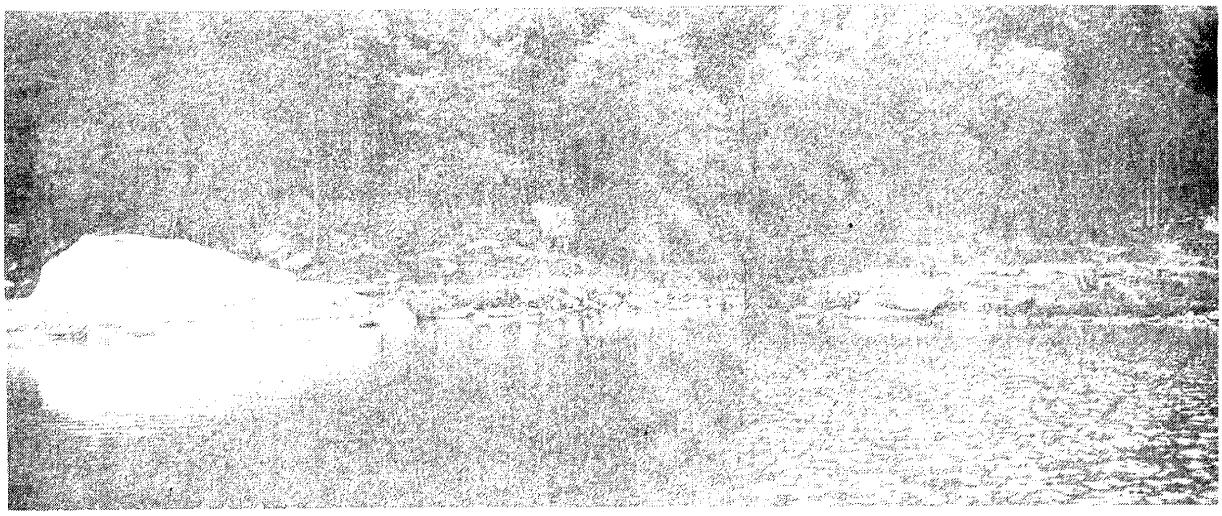


Figure 11.

SECTION IX – PLAN IMPLEMENTATION

9–10 General. The Commonwealth of Kentucky and the Corps have monies appropriated through fiscal year 1972 for the provision of recreation facilities. Upon completion of these facilities, the critical item for providing recreation to meet future demands will be the availability of land suitable for development. For this reason all facilities in this DM will be proposed for future development except those with monies currently appropriated.

9–20 Items to be Accomplished with Funds on Hand by Corps.

Below Dam – Site 1

Add drinking fountain and water lines to camp area below dam

Trace Branch – Site 7

26 Camp units, a vault toilet and drinking fountain are currently being constructed.

Confluence – Site 8

Low water crossing to be completed and 15 picnic units to be added

9–30 Items to be Accomplished with Funds on Hand by Commonwealth of Kentucky

Gays Creek – Site 2

Addition of 26 camp units, a wash house, and sewage treatment system

Buckhorn State Park – Site 4

Swimming pool at lodge; hard surface recreation court; playground equipment; picnic shelter with toilets; 60 open boat slots; fishing pier; additional parking and landscaping

9–40 Detailed Cost Estimate – Facility Development. Following are detailed cost estimates for facility development. Prices are based on January 1971 price levels.

COMBINED
COST ESTIMATE FOR BUCKHORN LAKE — ALL SITES — 11/11/71 — 11/11/71

DESCRIPTION OF WORK	UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
			(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
ACCESS FACILITIES										
ROADS (TYPE D)	LIN. FT.	10.00					3000	30.0	3000	30.0
RECREATION STRUCTURES										
BOATING LOADING DOCKS	EACH	2500.00					1	2.5	1	2.5
CAMPING FACILITIES (DRIVE-IN)	EACH	300.00					26	7.8	26	7.8
FISHING PLATFORM	JOB	25000.00					1	25.0	1	25.0
PICNIC FACILITIES	EACH	100.00					14	1.4	14	1.4
SANITARY FACILITIES										
COMFORT STATIONS (FLUSH)	EACH	20000.00					1	20.0	1	20.0
COMFORT STATIONS (PRE-FAB VAULT)	PAIR	2000.00					3	6.0	3	6.0
UTILITIES										
DRINKING FOUTAINS	JOB	1000.00					1	1.0	1	1.0
SEWAGE TREATMENT PLANT	JOB	46200.00	1	46.2					1	46.2
WATER TREATMENT PLANT	JOB	25000.00					1	25.0	1	25.0
SITE PREPARATION										
TREE	JOB	10.00	1	0.0					1	0.0
TREE PLANTING (7 FT -10 FT)	EACH	20.00	35	0.7					35	0.7
MISCELLANEOUS FACILITIES										
DEVELOPMENT BY OTHERS	JOB	0.00	1	0.0	1	0.0			2	0.0
DRINKING FOUNTAINS	JOB	0.00	1	0.0					1	0.0
NO ADDITIONAL DEVELOPMENT PLANNED	JOB	0.00	1	0.0					1	0.0
NO DEVELOPMENT PLANNED	JOB	0.00	2	0.0					2	0.0

SUMMARY OF ALL SITES

SUBTOTAL	46.9				118.7		165.6
CONTINGENCIES 15 PERCENT	7.0				17.8		24.8
CONSTRUCTION COST	53.9				136.5		190.5
ENG. DESIGN, SUP. AND ADMIN. 20 PERCENT	10.8				27.3		38.1
TOTAL DEVELOPMENT COST	64.7				163.8		228.5

TABLE 11

COST ESTIMATE FOR BUCKHORN LAKE — SITE 1 BELOW DAM — 11/11/71 — 11/11/71

DESCRIPTION OF WORK	UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
			(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN TOUSANDS OF DOLLARS)			
RECREATION STRUCTURES										
* FISHING PLATFORM	JOB	25000.00					1	25.0	1	25.0
PICNIC FACILITIES	EACH	100.00					4	0.4	4	0.4
SANITARY FACILITIES										
COMFORT STATIONS (FLUSH)	EACH	20000.00					1	20.0	1	20.0
UTILITIES										
** SEWAGE TREATMENT PLANT	JOB	46200.00	1	46.2					1	46.2
SITE PREPARATION										
TREE PLANTING (7 FT -10 FT)	EACH	20.00	20	0.4					20	0.4
MISCELLANEOUS FACILITIES										
DRINKING FOUNTAINS	JOB	0.00	1	0.0					1	0.0
BELOW DAM — SUBTOTAL				46.6				45.4		92.0
CONTINGENCIES 15 PERCENT				7.0				6.8		13.8
CONSTRUCTION COST				53.6				52.2		105.8
ENG, DESIGN, SUP, AND ADMIN, 20 PERCENT				10.7				10.4		21.2
TOTAL DEVELOPMENT COST				64.3				62.7		127.0

*Refer to Carr Fork Tailwater Fishing Platform for General Design Detailed Design to be completed at a future date. Refer to Exhibit K.

**Sewage Plant includes:

4,000 gallon aeration unit	1,500 LF 6" sewer
11,000 gallon 2nd aeration unit	90 LF 4" sewer
20,000 gallon tertiary unit	285 LF 1½" plastic force main
	4 Manholes

TABLE 2

COST ESTIMATE FOR BUCKHORN LAKE	SITE 2 GAYS CREEK								11/11/71	11/11/71
DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
FACILITIES DEVELOPMENT BY OTHERS		JOB	0.00	1	0.0					1	0.0
GAYS CREEK	SUBTOTAL										
	CONTINGENCIES 15 PERCENT										
	CONSTRUCTION COST										
	ENG. DESIGN, SUP. AND ADMIN. 20 PERCENT										
	TOTAL DEVELOPMENT COST										

TABLE 3

COST ESTIMATE FOR BUCKHORN LAKE	SITE 3 OTTER CREEK								11/11/71	11/11/71
DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
NO DEVELOPMENT PLANNED		JOB	0.00	1	0.0					1	0.0
OTTER CREEK	SUBTOTAL										
	CONTINGENCIES 15 PERCENT										
	CONSTRUCTION COST										
	ENG. DESIGN, SUP. AND ADMIN. 20 PERCENT										
	TOTAL DEVELOPMENT COST										

TABLE 4

COST ESTIMATE FOR BUCKHORN LAKE	SITE 4 BUCKHORN STATE PARK	11/11/71	11/11/71

DESCRIPTION OF WORK	UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
			(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN TOUSANDS OF DOLLARS)			
FACILITIES DEVELOPMENT BY OTHERS	JOB	0.00			1	0.0			1	0.0
SUBTOTAL										
CONTINGENCIES 15 PERCENT										
CONSTRUCTION COST										
ENG. DESIGN, SUP. AND ADMIN, 20 PERCENT										
TOTAL DEVELOPMENT COST										

BUCKHORN STATE PARK

TABLE 5

COST ESTIMATE FOR BUCKHORN LAKE	SITE 5 LEATHERWOOD	11/11/71	11/11/71

DESCRIPTION OF WORK	UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
			(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN TOUSANDS OF DOLLARS)			
ACCESS FACILITIES										
* ROADS (TYPE D)	LIN. FT.	10.00					3000	30.0	3000	30.0
RECREATION STRUCTURES										
CAMPING FACILITIES (DRIVE-IN)	EACH	300.00					26	7.8	26	7.8
SANITARY FACILITIES										
** COMFORT STATIONS (PRE-FAB VAULT)	PAIR	2000.00					2	4.0	2	4.0
UTILITIES										
DRINKING FOUTAINS	JOB	1000.00					1	1.0	1	1.0
WATER TREATMENT PLANT	JOB	25000.00					1	25.0	1	25.0
SUBTOTAL								67.8		67.8
CONTINGENCIES 15 PERCENT								10.2		10.2
CONSTRUCTION COST								78.0		78.0
ENG. DESIGN, SUP. AND ADMIN, 20 PERCENT								15.6		15.6
TOTAL DEVELOPMENT COST								93.6		93.6

LEATHER - WOOD

*Refer to Louisville District Standards for Roads.
**Prefab: 1 hole and urinal for men's closet
1 hole for women's closet

TABLE 6

COST ESTIMATE FOR BUCKHORN LAKE — SITE 6 ELKHORN CREEK — 11/11/71 — 11/11/71

DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
NO DEVELOPMENT PLANNED		JOB	0.00	1	0.0					1	0.0
ELKHORN CREEK	SUBTOTAL										
	CONTINGENCIES 15 PERCENT										
	CONSTRUCTION COST										
	ENG, DESIGN, SUP, AND ADMIN, 20 PERCENT										
	TOTAL DEVELOPMENT COST										

TABLE 7

COST ESTIMATE FOR BUCKHORN LAKE — SITE 7 TRACE BRANCH — 11/11/71 — 11/11/71

DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
SITE PREPARATION TREE		EACH	20.00	10	0.2					1	0.0
TRACE BRANCH	SUBTOTAL				0.0						0.0
	CONTINGENCIES 15 PERCENT				0.0						0.0
	CONSTRUCTION COST				0.0						0.0
	ENG, DESIGN, SUP, AND ADMIN, 20 PERCENT				0.0						0.0
	TOTAL DEVELOPMENT COST				0.2						0.0

TABLE 8

COST ESTIMATE FOR BUCKHORN LAKE	SITE 8 CONFLUENCE					11/11/71				11/11/71
DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
NO ADDITIONAL DEVELOPMENT PLANNED		JOB	0.00	1	0.0					1	0.0
CONFLUENCE	SUBTOTAL										
	CONTINGENCIES 15 PERCENT										
	CONSTRUCTION COST										
	ENG. DESIGN, SUP. AND ADMIN. 20 PERCENT										
	TOTAL DEVELOPMENT COST										

TABLE 9

COST ESTIMATE FOR BUCKHORN LAKE	SITE 9 DAM SITE					11/11/71				11/11/71
DESCRIPTION OF WORK		UNIT OF WORK	UNIT COST	INITIAL FEDERAL QUANTITY	INITIAL FEDERAL COST	INITIAL NON-FEDERAL QUANTITY	INITIAL NON-FEDERAL COST	FUTURE QUANTITY	FUTURE COST	TOTAL QUANTITY	TOTAL COST
				(COSTS IN THOUSANDS OF DOLLARS)				(COSTS IN THOUSANDS OF DOLLARS)			
RECREATION STRUCTURES											
BOATING LOADING DOCKS		EACH	2500.00					1	2.5	1	2.5
PICNIC FACILITIES		EACH	100.00					10	1.0	10	1.0
SANITARY FACILITIES											
COMFORT STATIONS (PRE-FAB VAULT)		PAIR	2000.00					1	2.0	1	2.0
SITE PREPARATION											
TREE PLANTING (7 FT -10 FT)		EACH	20.00	15	0.3					15	0.3
BUCKHORN DAM	SUBTOTAL				0.3				5.5		5.8
	CONTINGENCIES 15 PERCENT				0.0				0.8		0.9
	CONSTRUCTION COST				0.3				6.3		6.7
	ENG. DESIGN, SUP. AND ADMIN. 20 PERCENT				0.1				1.3		1.3
	TOTAL DEVELOPMENT COST				0.4				7.6		8.0

TABLE 10

SECTION X – ADMINISTRATION AND MANAGEMENT

10–10 Regulations. Buckhorn Lake will be administered in accordance with the provisions of "Title 36, Chapter III, Part 311, Federal Code of Regulations" and the applicable State policy (see Exhibit E).

10–20 Administrative and Management Organizations

a. Corps of Engineers. The organizational chart, figure 13 depicts the structure of those elements within the Louisville District which have administrative and lake management responsibilities. The responsibilities of these organizational elements will be in general accord with EM 1130-2-400 and specifically as described in Louisville District Regulation DR 45-2-1.

b. Commonwealth of Kentucky. Figure 14 depicts the organizational structure of those elements within the Commonwealth of Kentucky which will have administrative and management responsibilities. The Department of Parks will have basic responsibility but will call on other State departments when needed.

10–30 Functional Responsibilities. The Corps of Engineers will be principally concerned with determining the nature and extent of the recreation development; preparing construction codes and requirements; initiation, coordination and reconciling activities relative to management policies and regulations; and relations with agencies and public relations in general. The Corps will also concern itself with reservoir regulations, operation and maintenance of dam structure area, and checking on compliance with terms of outgrant instruments.

The Commonwealth of Kentucky, under the lease agreement, will be principally concerned with Sites 2 and 4 in determining the nature and extent of recreation development, preparing construction codes and requirements. The Commonwealth is also required to submit an annual management plan to the District Engineer for his approval.

10–40 Land Use Management. Land Use, Plate 2, shows designations of land use for all project lands. It is intended to serve as a guide for any future development of land use consideration.

Fees and Charges. All fees and charges for use of undeveloped areas and facilities, whether managed by the state or Corps, will be consistent with the schedule of charges suggested in implementation of the Land and Water Conservation Fund Act of 1965. A copy of the Commonwealth of Kentucky schedule of fees and charges is included hereto as Exhibit .

Outgrant Coordination. Outgrants, leases, and easements to others for the use of project lands, and waters will be based on this Public Use Plan. All outgrants will be thoroughly reviewed by the District Engineer.

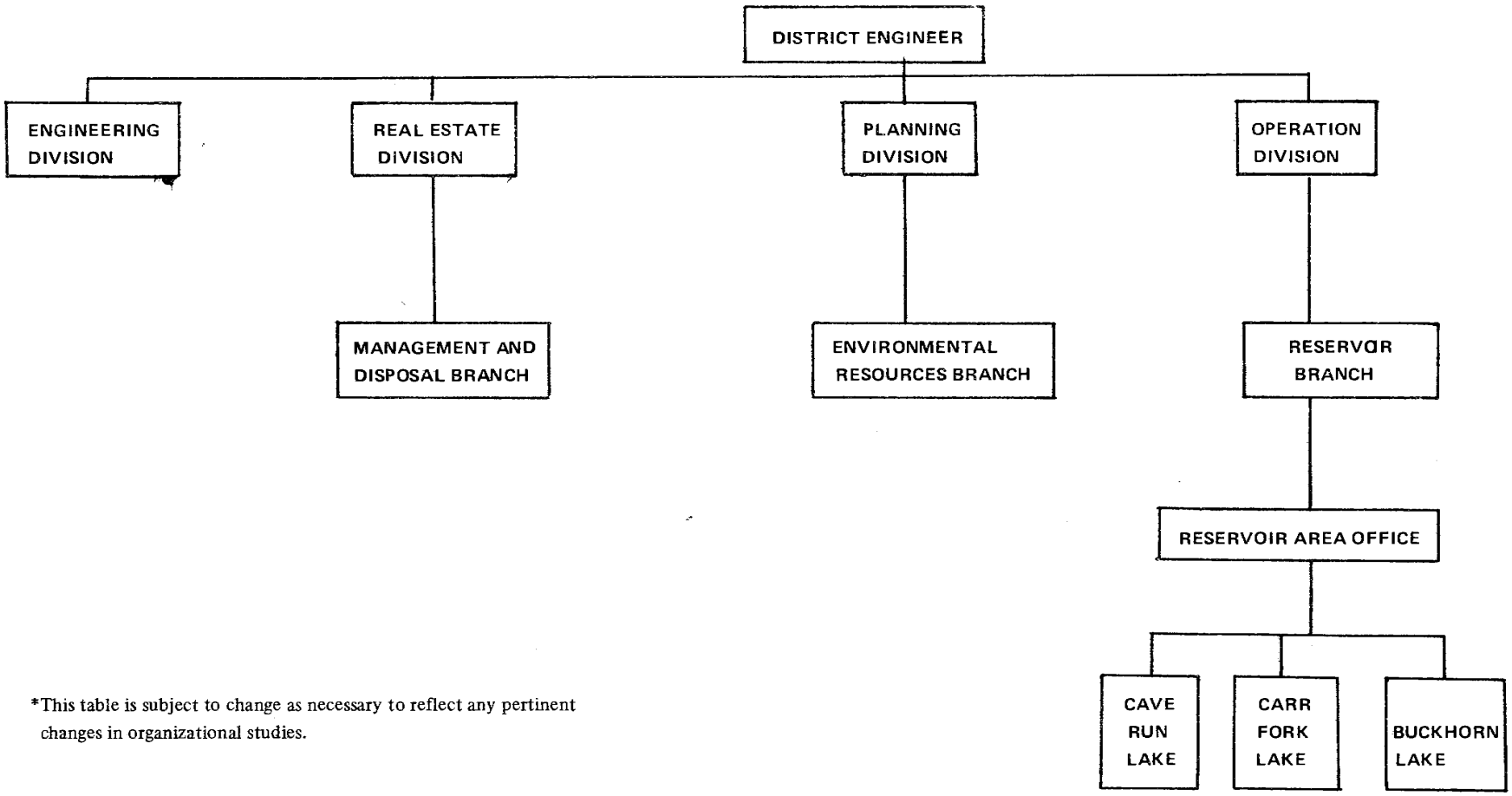
Encroachments. Those project lands abutting privately owned lands have been monumented as a means for guarding against encroachment onto project lands. The Corps will take all practical measures to prevent any encroachments on project lands, and will take prompt action to terminate any unauthorized uses.

Fire Control. The 10,334 acres of project lands are generally covered with timber which constitutes a major fire hazard. In this regard Corps reservoir management personnel should be adequately trained in fire prevention and control procedures and assigned definite duties in accordance with a specific plan for mobilization for fire suppression. Fire suppression should have priority over any other reservoir management duties.

Erosion Control. It shall be the responsibility of the reservoir management personnel to effect proper erosion control measures over all projects lands where corrective treatment becomes necessary for prevention of continuing or accelerating damage to natural features. Erosion control is also essential for preservation of reservoir siltation and for the assurance of maintaining water quality for enjoyment of certain recreational activities. Erosion control of lands leased to concessionaires will be the concessionaire's responsibility.

LOUISVILLE DISTRICT
CORPS OF ENGINEERS

DISTRICT ORGANIZATIONAL CHART FOR ADMINISTRATION
OF BUCKHORN LAKE, KENTUCKY*

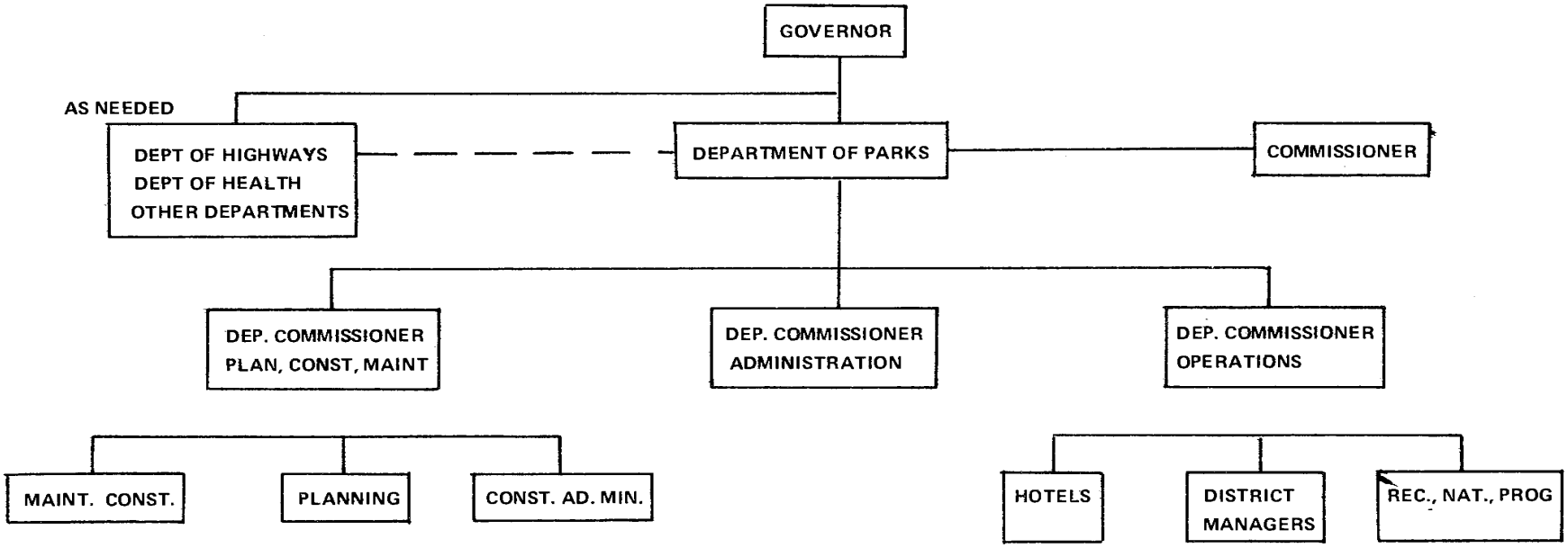


*This table is subject to change as necessary to reflect any pertinent changes in organizational studies.

FIGURE 13

COMMONWEALTH OF KENTUCKY

ORGANIZATIONAL CHART FOR ADMINISTRATION*
OF BUCKHORN LAKE, KENTUCKY



*This table is subject to change as necessary to reflect any pertinent changes in organizational studies.

FIGURE 14

Law Enforcement. Presently all project lands and water area fall under the jurisdiction of the Kentucky State Police, and certain local law officials.

Forestry Management. The forest resource on project lands will be managed, with due regard to good forestry practice in harvesting and protection. Concessionaires will coordinate their management programs on a continuing basis with the District Engineer to assure compatibility and maximum effectiveness in the public interest.

10–50 Water Use Management

Water Zoning. A water zoning plan to minimize conflicts between water skiing, boating, fishing, swimming and waterfowl refuge is included hereto as plates 2 and 3.

Permits for Community Boat Mooring Docks. Permits for community boat docks will be issued by the District Engineer. Applications for such permits should be formally considered only in cases which do not conflict with the general public interest.

License for Community Boat Launching Ramps. Applications for such licenses will be formally considered only when such use does not conflict with the interests of the general public.

Debris Control. Debris in the reservoir is dangerous to pleasure craft and when blown ashore often makes shoreline areas unsightly and unuseable. Therefore, if debris accumulates in the lake in volume enough to cause such conditions, a definite program for debris removal and subsequent disposal will be formulated and implemented by reservoir management personnel.

Health, Sanitation and Pollution Control. In promoting the adequate standards relating to health, sanitation and pollution control, all developments for public use will be thoroughly coordinated with the Kentucky Department of Health. It will be the responsibility of the Corps to initiate such coordination for any contemplated development on all project lands.

10–60 Estimate of Operation and Maintenance Costs – Ultimate Development. Following is a detailed estimate of manpower requirements, equipment, supplies, and utilities needed to perform services on ultimate development facilities at Buckhorn Lake. Estimates are based on a fifteen week season and the assumption that the Corps will operate the Trace Branch and Confluence sites.

The 88 campsites and 69 picnic units would require the services of a garbage packer truck and a three man crew consisting of a driver and two tippers. It is estimated that two crews of two men each would be required to perform necessary maintenance and clean up of the comfort stations and water treatment facilities. An estimated three temporary rangers would be required to provide necessaru surveillance to the visiting public. Four additional laborers would be required to perform necessary maintenance and mowing in Public Use Areas.

Four temporary employees would have to be used to collect entrance fees in the one area that would qualify as a class "B" camp ground, as authorized in Public Law 90-483, 90th Congress.

It is estimated that supply costs would increase about $2,500 and utilities would increase by $1,500 per year.

Additional equipment required as follows:

Additional staffing requirements (based on one calendar year):

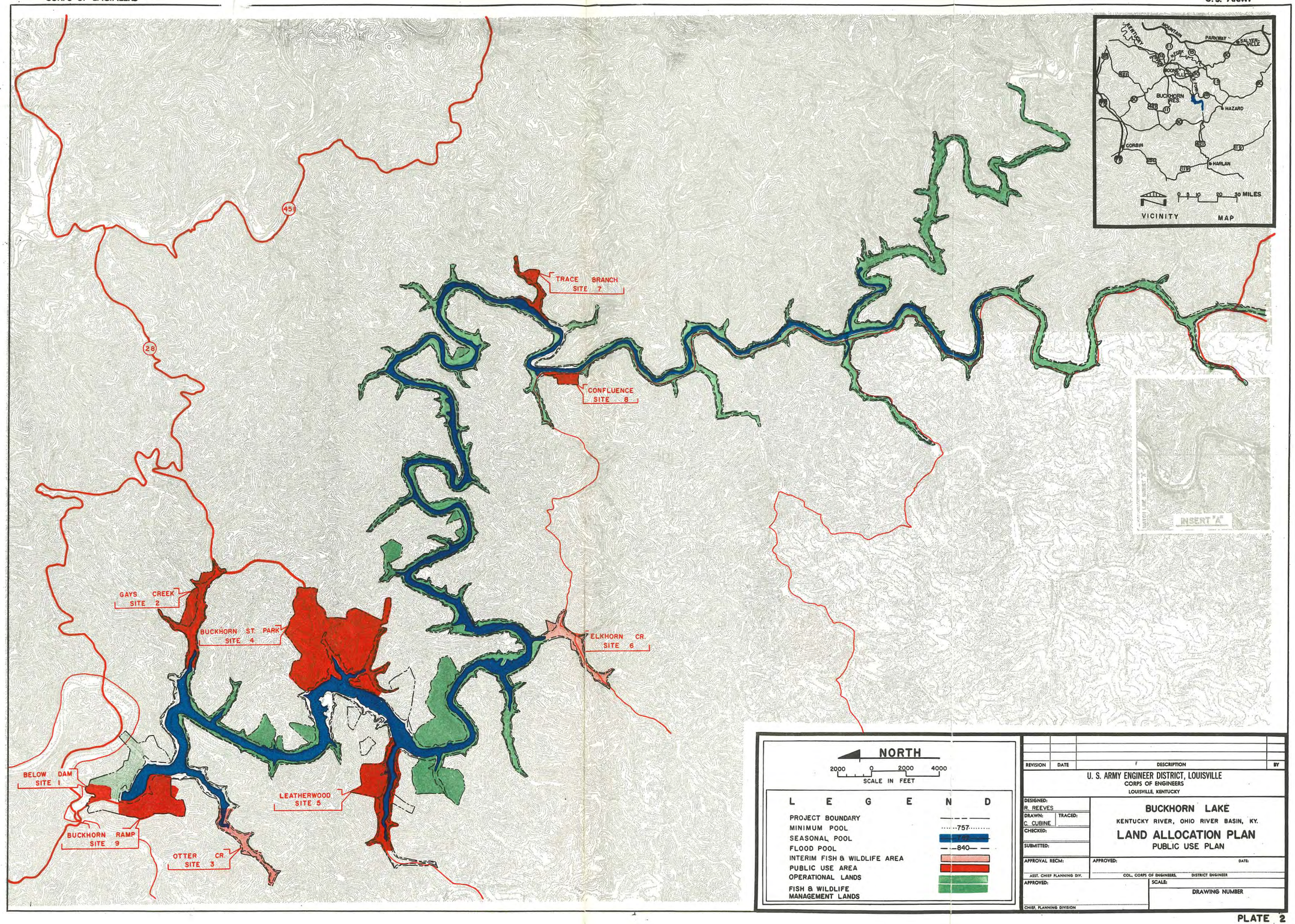
Title	Number	Full or Part Time
Laborers (Rangers, Mowers, Cleanup Men, etc.)	18	1/3 time

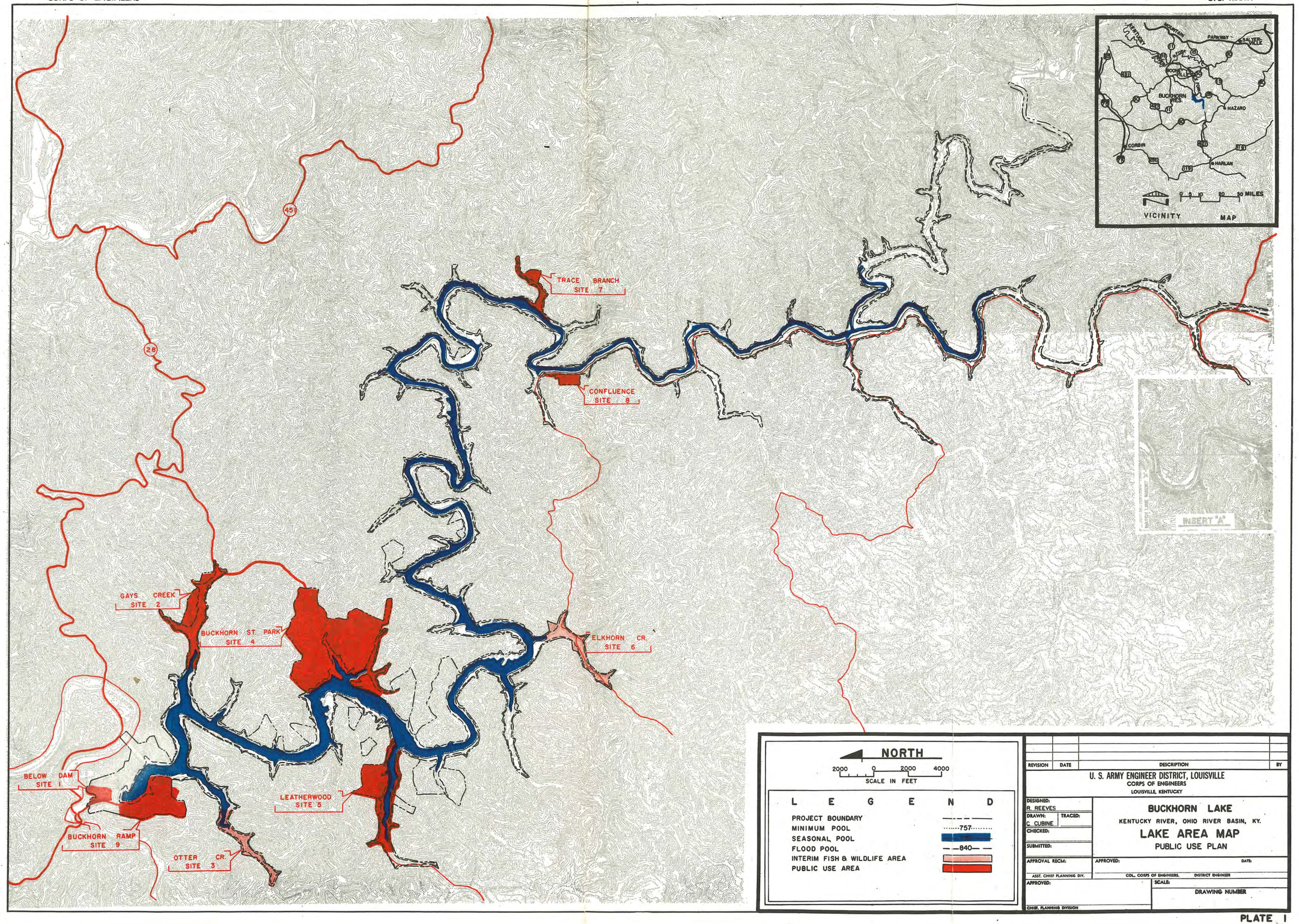
Item	Number	Unit Cost	Total Cost
Garbage, Packer Truck	1	$7,500	$ 7,500
Small Tractor Mowers	2	1,500	3,000
Pickup Truck	1	3,000	3,000
TOTAL			$13,500

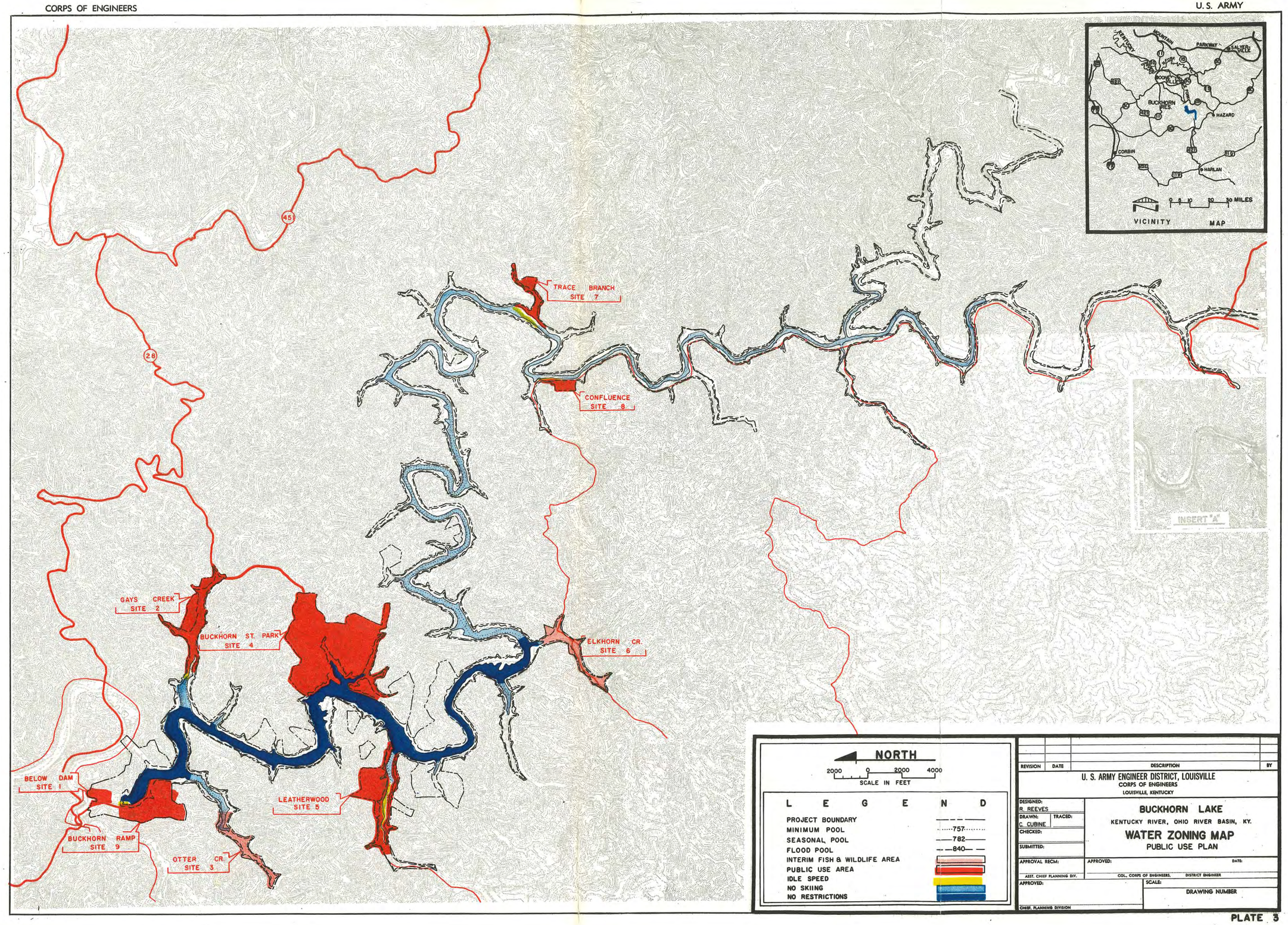
*All prices based on FY 1971 costs.

SECTION XI – CONCLUSIONS AND RECOMMENDATIONS

11–10 Conclusions and Recommendations. To adequately meet existing and future demands at Buckhorn, it is proposed the State of Kentucky continue developing their camping facilities at Gays Creek and the lodge facilities at Buckhorn State Park. To facilitate development of the lodge area, it is further recommended additional land across from the lodge be purchased to enhance recreation activities for the Buckhorn State Park visitors. The State park area combines the greatest number of qualities desirable for future development. On the other hand, the upper reaches of lake are considered to be at their saturation point for recreation development. The limiting factors are land available for expansion, annual flooding of recreation facilities, and poor water quality in the upper reaches of the lake. Quality improvements are recommended for the dam area as opposed to much expansion. A detail of recommendation by site is found in Section VIII of this report.


TRACE BRANCH
SITE 7
CONFLUENCE
SITE 8
GAYS CREEK
SITE 2
BUCKHORN ST. PARK
SITE 4
ELKHORN CR.
SITE 6
BELOW DAM
SITE 1
LEATHERWOOD
SITE 5
BUCKHORN RAMP
SITE 9
OTTER CR.
SITE 3
45
28
INSERT "A"
VICINITY MAP
BUCKHORN RES.
HAZARD
CORBIN
HARLAN
SALYERSVILLE
PARKWAY
0 5 10 20 30 MILES
NORTH
2000 0 2000 4000
SCALE IN FEET
L E G E N D
PROJECT BOUNDARY
MINIMUM POOL
757
SEASONAL POOL
FLOOD POOL
840
INTERIM FISH & WILDLIFE AREA
PUBLIC USE AREA
OPERATIONAL LANDS
FISH & WILDLIFE MANAGEMENT LANDS
REVISION
DATE
DESCRIPTION
BY
U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
DESIGNED: R. REEVES
DRAWN: C. CUBINE
TRACED:
CHECKED:
SUBMITTED:
APPROVAL RECM:
ASST. CHIEF PLANNING DIV.
APPROVED:
CHIEF, PLANNING DIVISION
BUCKHORN LAKE
KENTUCKY RIVER, OHIO RIVER BASIN, KY.
LAND ALLOCATION PLAN
PUBLIC USE PLAN
APPROVED:
DATE:
COL. CORPS OF ENGINEERS, DISTRICT ENGINEER
SCALE:
DRAWING NUMBER


TRACE BRANCH SITE 7
CONFLUENCE SITE 8
GAYS CREEK SITE 2
BUCKHORN ST PARK SITE 4
ELKHORN CR. SITE 6
BELOW DAM SITE 1
LEATHERWOOD SITE 5
BUCKHORN RAMP SITE 9
OTTER CR. SITE 3
45
28
VICINITY MAP
BUCKHORN RES.
HAZARD
CORBIN
HARLAN
MILES
INSERT "A"
NORTH
2000 0 2000 4000
SCALE IN FEET
L E G E N D
PROJECT BOUNDARY
MINIMUM POOL
757
SEASONAL POOL
FLOOD POOL
840
INTERIM FISH & WILDLIFE AREA
PUBLIC USE AREA
REVISION DATE DESCRIPTION BY
U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
DESIGNED: R. REEVES
DRAWN: C. CUBINE
TRACED:
CHECKED:
SUBMITTED:
APPROVAL RECM:
ASST. CHIEF PLANNING DIV.
APPROVED:
CHIEF, PLANNING DIVISION
BUCKHORN LAKE
KENTUCKY RIVER, OHIO RIVER BASIN, KY.
LAKE AREA MAP
PUBLIC USE PLAN
APPROVED:
DATE:
COL. CORPS OF ENGINEERS, DISTRICT ENGINEER
SCALE:
DRAWING NUMBER



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U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

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DRAWN: C. CUBINE
TRACED:
CHECKED:
SUBMITTED:

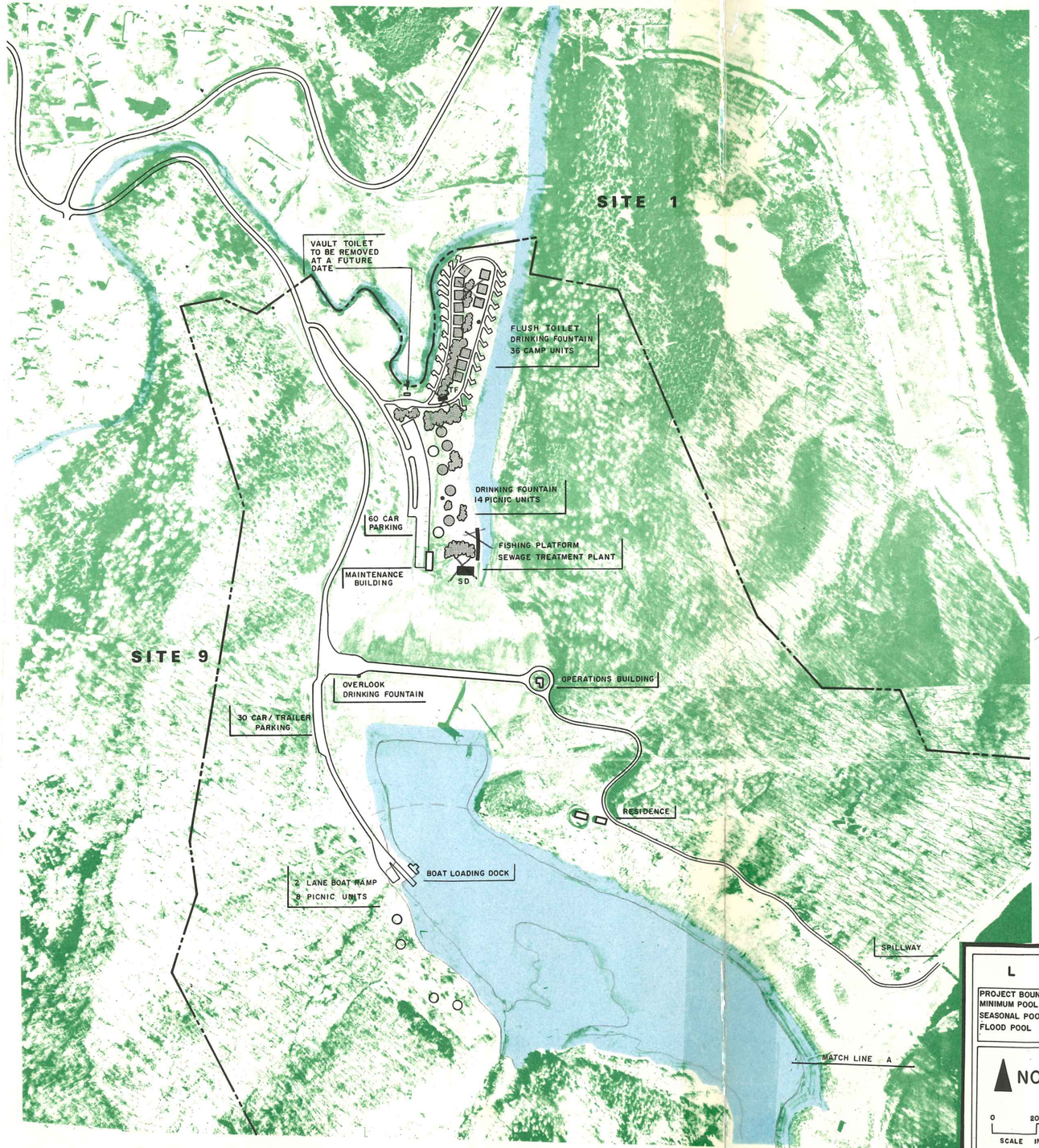
BUCKHORN LAKE

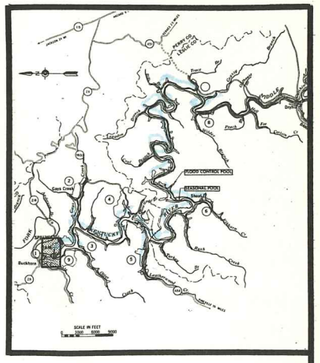
KENTUCKY RIVER, OHIO RIVER BASIN, KY.

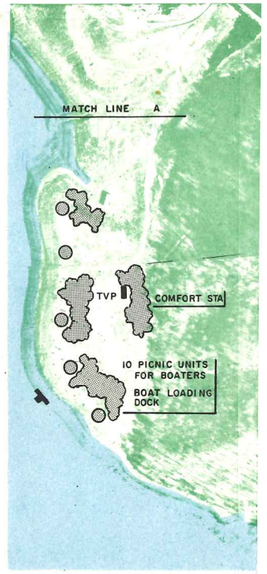
WATER ZONING MAP

PUBLIC USE PLAN

APPROVAL RECM: ASST. CHIEF PLANNING DIV.
APPROVED: COL., CORPS OF ENGINEERS, DISTRICT ENGINEER
DATE:
APPROVED: CHIEF, PLANNING DIVISION
SCALE:
DRAWING NUMBER







L E G E N D

PROJECT BOUNDARY	
MINIMUM POOL	757
SEASONAL POOL	782
FLOOD POOL	840

NORTH

0 200 400
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE-FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS (2)		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

DESIGNED: J. R. REEVES
DRAWN: C. B. DEGENER TRACED: J. C. CUBINE
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APPROVAL RECM:
ASST. CHIEF PLANNING DIV.
APPROVED:
CHIEF PLANNING DIVISION

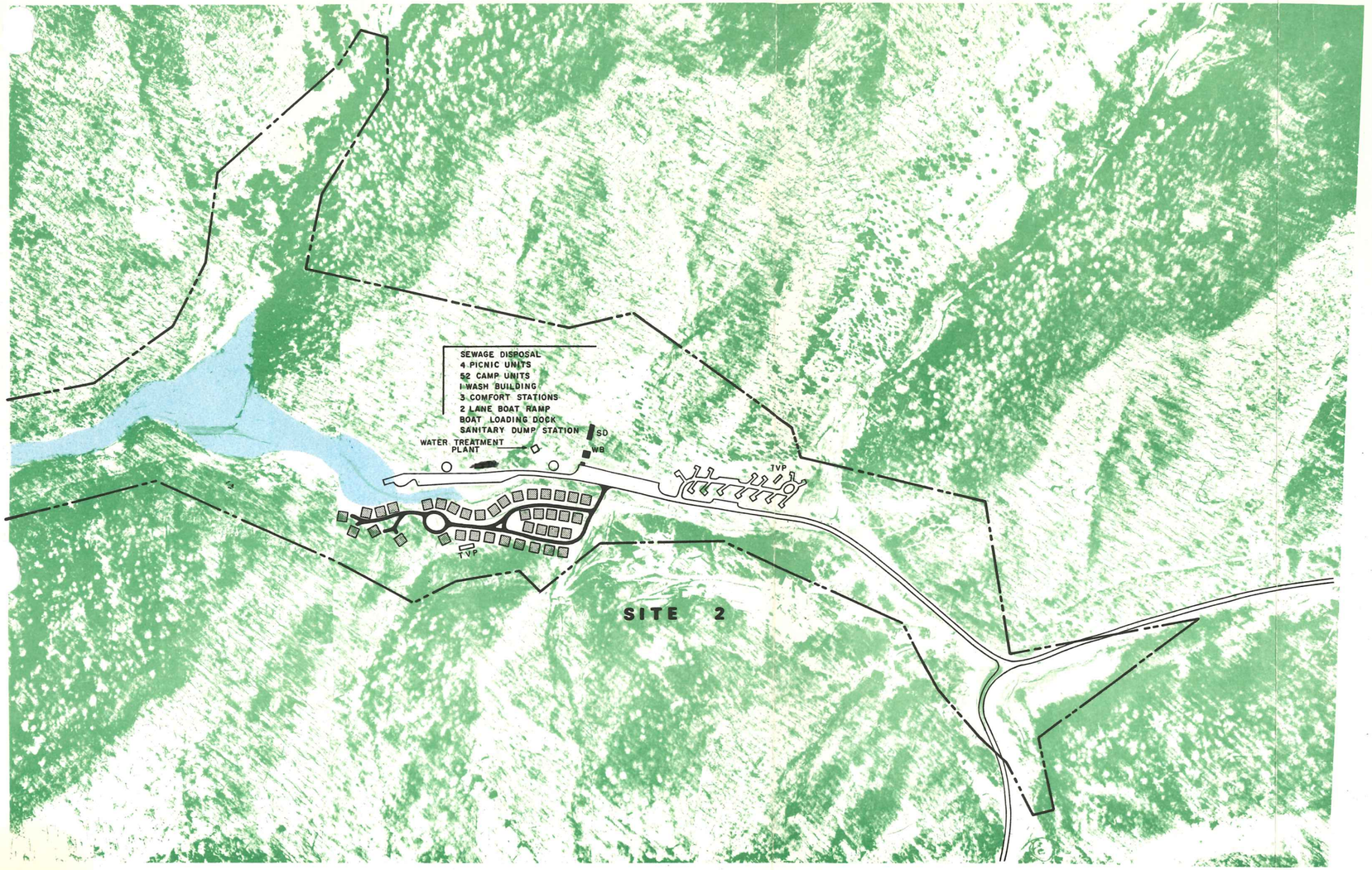
BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY

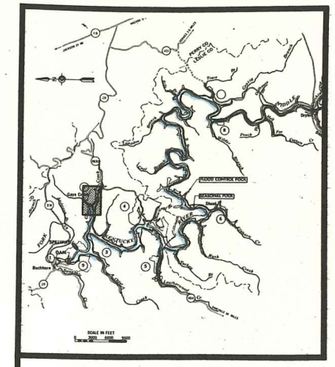
BELOW DAM SITE 1
BUCKHORN RAMP SITE 9

PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVED: DATE:
COL. CORPS OF ENGINEERS, DISTRICT ENGINEER

SCALE:
DRAWING NUMBER





L E G E N D

PROJECT BOUNDARY	
MINIMUM POOL	757
SEASONAL POOL	782
FLOOD POOL	840

NORTH

0 200 400
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE-FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS (2)		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

DESIGNED: J. R. REEVES
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SUBMITTED:
APPROVAL RECM:
ASST. CHIEF, PLANNING DIV.
APPROVED:
CHIEF, PLANNING DIVISION

BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY

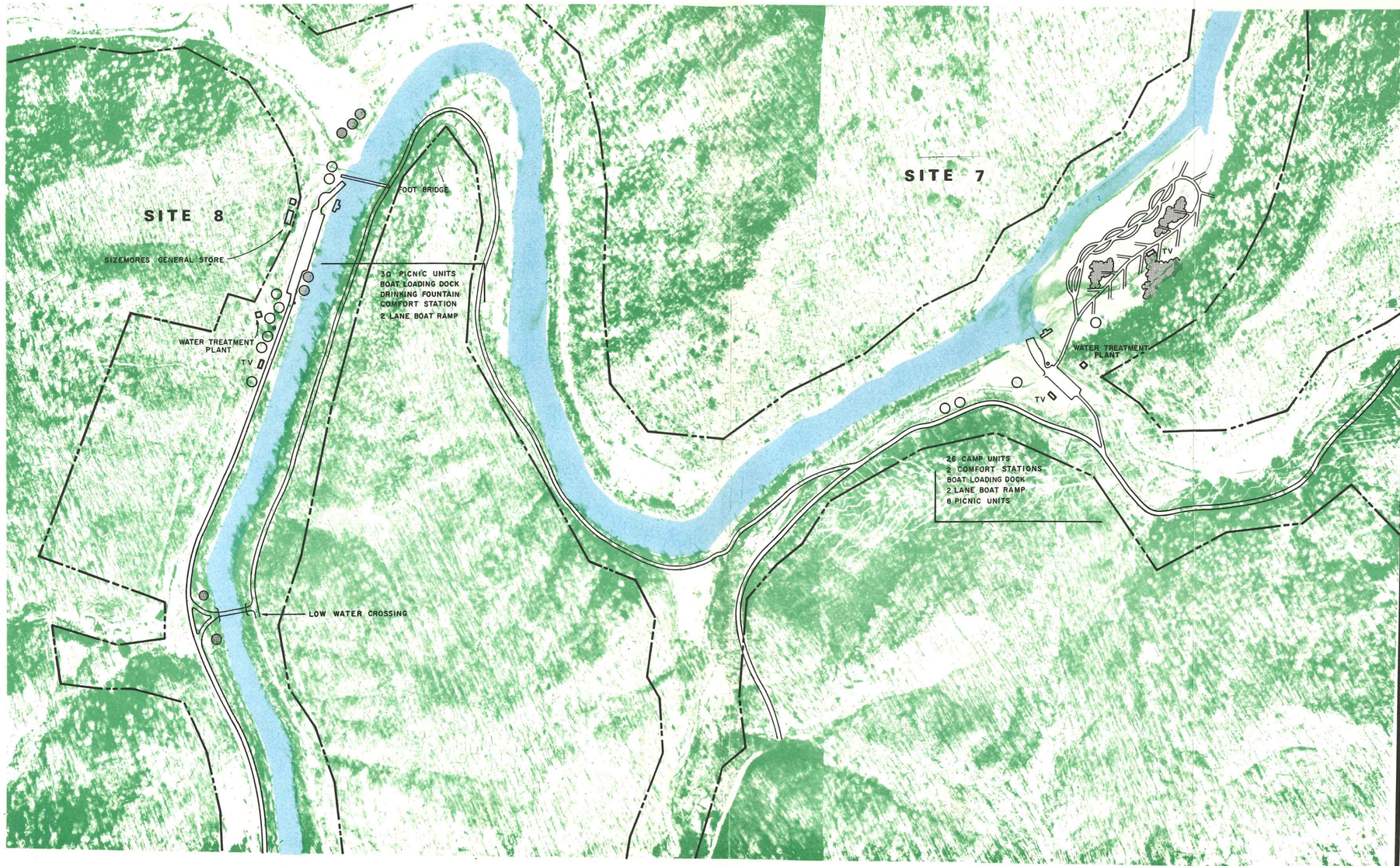
GAYS CREEK SITE 2

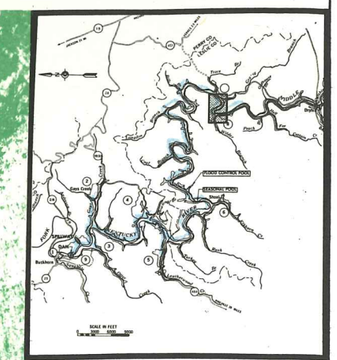
PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVED: DATE:
COL., CORPS OF ENGINEERS, DISTRICT ENGINEER

SCALE:

DRAWING NUMBER





L E G E N D

PROJECT BOUNDARY	
MINIMUM POOL	757
SEASONAL POOL	782
FLOOD POOL	840

NORTH

0 200 400
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE - FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS (2)		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

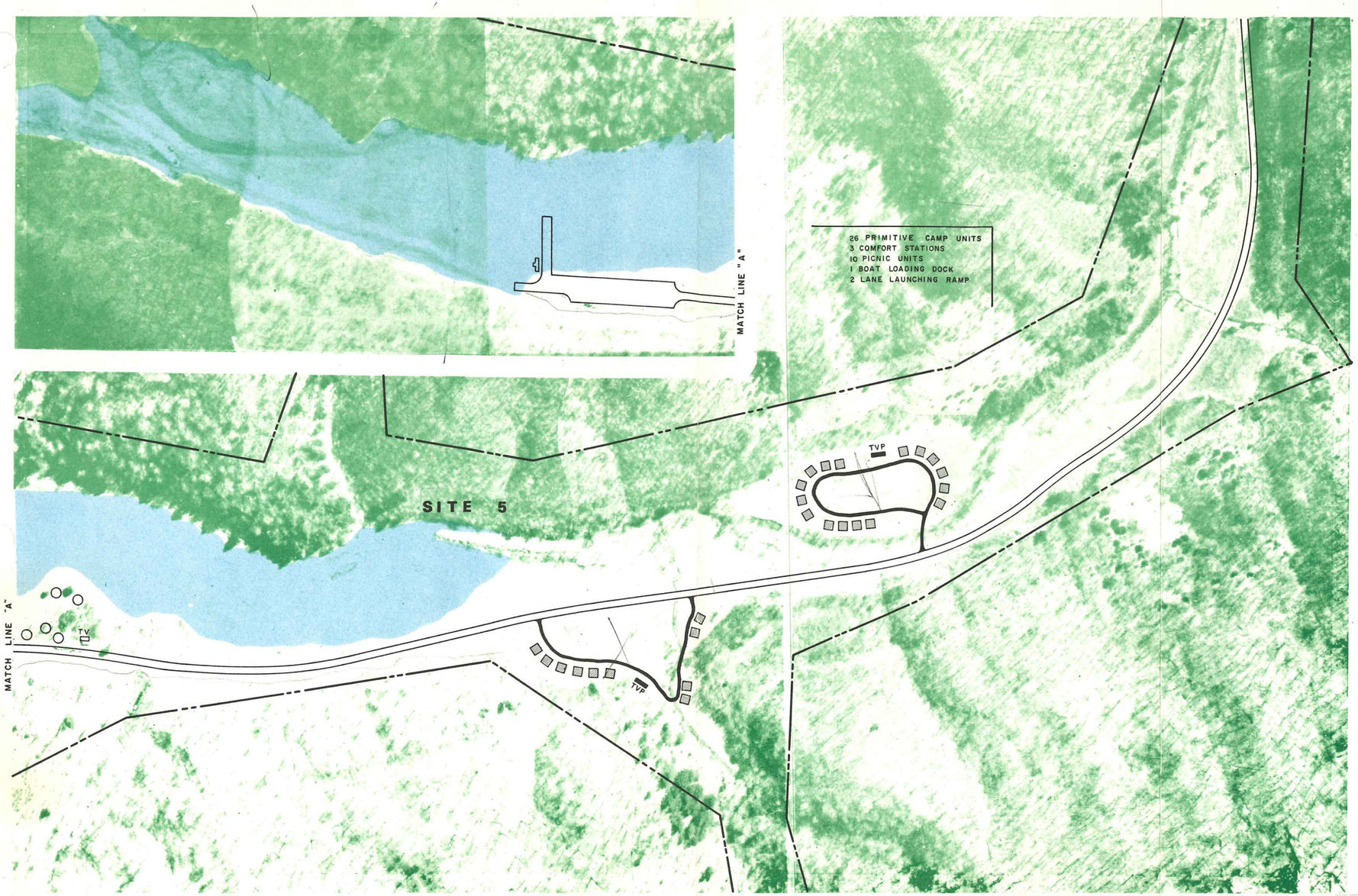
U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

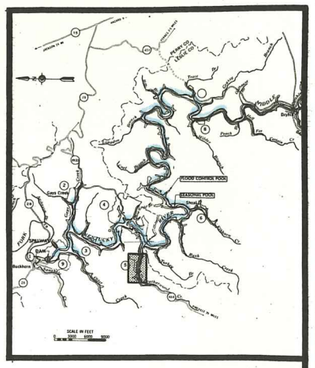
DESIGNED: J. R. REEVES
DRAWN: C. B. DEGENER TRACED: J. C. CUBINE
CHECKED:
SUBMITTED:
APPROVAL RECM: ASST. CHIEF PLANNING DIV.
APPROVED: CHIEF PLANNING DIVISION

BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY

TRACE BRANCH SITE 7
CONFLUENCE SITE 8
PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVED: DATE:
COL. CORPS OF ENGINEERS. DISTRICT ENGINEER
SCALE:
DRAWING NUMBER





L E G E N D

PROJECT BOUNDARY	
MINIMUM POOL	757
SEASONAL POOL	782
FLOOD POOL	840

NORTH

0 200 400
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE-FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS (2)		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

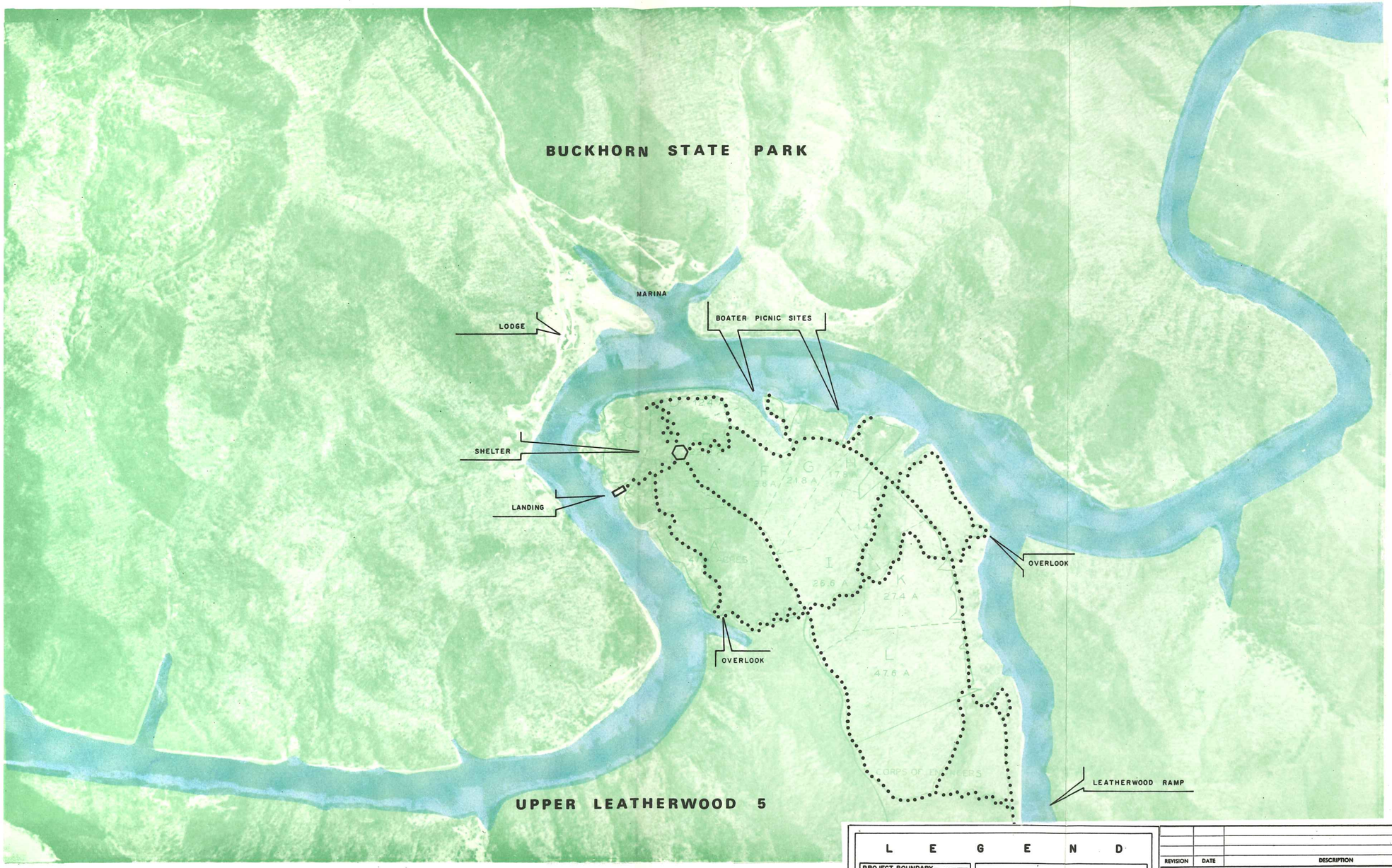
DESIGNED: J. R. REEVES
DRAWN: C. B. DEGENER TRACED: J.C. CUBINE
CHECKED:
SUBMITTED:

BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY

LEATHERWOOD SITE 5

PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVAL RECM: APPROVED: DATE:
ASST. CHIEF PLANNING DIV. COL. CORPS OF ENGINEERS, DISTRICT ENGINEER
APPROVED: SCALE:
CHIEF PLANNING DIVISION
DRAWING NUMBER



L E G E N D

PROJECT BOUNDARY	— · — · —
MINIMUM POOL	····757····
SEASONAL POOL	—782—
FLOOD POOL	– –840– –

NORTH

0 500 1000
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE - FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

DESIGNED: J. R. REEVES
DRAWN: C.B. DEGENER TRACED: J.C. CUBINE
CHECKED:
SUBMITTED:
APPROVAL RECM: ASST. CHIEF PLANNING DIV.
APPROVED: CHIEF, PLANNING DIVISION

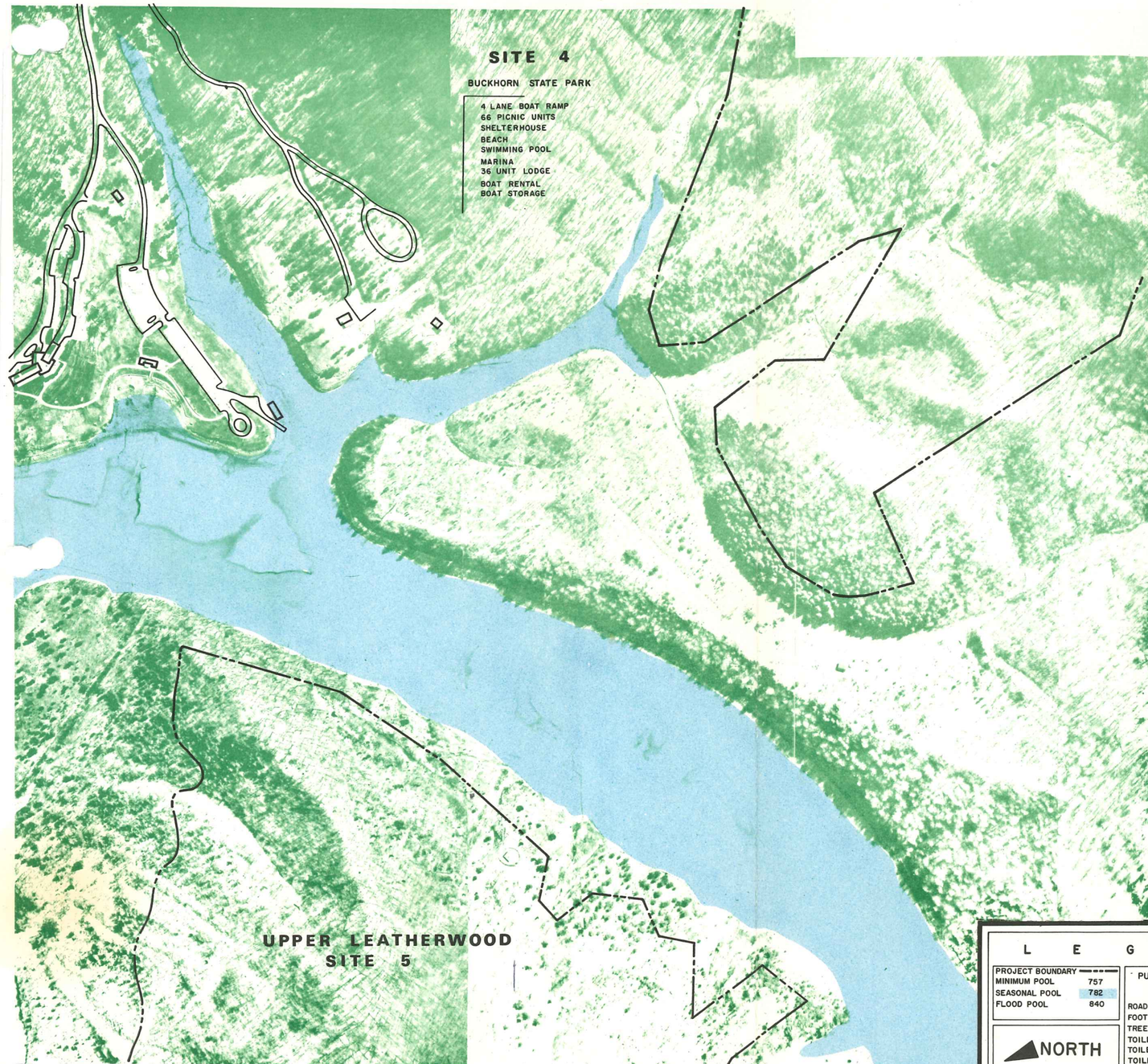
BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY

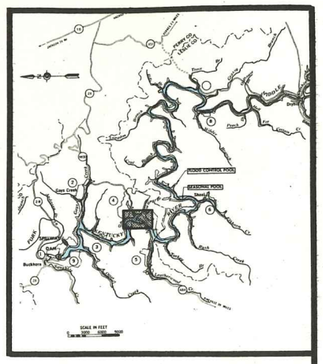
UPPER LEATHERWOOD SITE 5

PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVED: DATE:
COL., CORPS OF ENGINEERS, DISTRICT ENGINEER

SCALE:
DRAWING NUMBER





L E G E N D

PROJECT BOUNDARY	
MINIMUM POOL	757
SEASONAL POOL	782
FLOOD POOL	840

NORTH

0 200 400
SCALE IN FEET

PUBLIC ACCESS SITE DEVELOPMENT

	EXISTING	PROPOSED
ROADS AND PARKING		
FOOT TRAILS		
TREE COVER		
TOILETS - FLUSH	TF	TF
TOILETS - VAULT	TV	TV
TOILETS - PRE - FAB	TVP	TVP
SEWAGE DISPOSAL	SD	SD
PICNIC SHELTER	S	S
CAMP WASH BUILDING	WB	WB
BOAT LOADING DOCK		
PICNIC UNITS (2)		
CAMP UNITS		

REVISION	DATE	DESCRIPTION	BY

U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

DESIGNED: J. R. REEVES
DRAWN: C.B. DEGENER TRACED: J.C. CUBINE
CHECKED:
SUBMITTED:
APPROVAL RECM: ASST. CHIEF, PLANNING DIV.
APPROVED: CHIEF, PLANNING DIVISION

BUCKHORN RESERVOIR
MIDDLE FORK KENTUCKY RIVER, OHIO RIVER BASIN, KENTUCKY
BUCKHORN STATE PARK SITE 4

PUBLIC USE PLAN
LOUISVILLE DISTRICT, LOUISVILLE, KENTUCKY

APPROVED: COL., CORPS OF ENGINEERS, DISTRICT ENGINEER DATE:
SCALE:
DRAWING NUMBER

EXHIBIT A

FISH AND WILDLIFE LICENSE

DEPARTMENT OF THE ARMY

Contract No.
DACW-27-3-71-40

LICENSE

FOR FISH AND WILDLIFE MANAGEMENT PURPOSES IN THE BUCKHORN RESERVOIR AREA, KENTUCKY.

THE SECRETARY OF THE ARMY, under authority of Section 4 of the Act of Congress approved 22 December 1944, as amended (76 Stat. 1195; 16 U.S.C. 460d; 78 Stat. 899), hereby grants to the COMMONWEALTH OF KENTUCKY, acting by and through the Department of Fish and Wildlife Resources, whose address is Frankfort, Kentucky, hereinafter referred to as the licensee, a license for a period of twenty-five (25) years commencing on 1 July 1970 and ending on 30 June 1995, to use and occupy approximately 3482 acres of land and water areas under the primary jurisdiction of the Department of the Army in the Buckhorn Reservoir area for the purpose of implementing, operating and managing a fish and wildlife program in accordance with Exhibit "B", Wildlife Management Plan, attached hereto and made a part hereof, except, however, as this plan may be modified by this license and more particularly described as follows:

> Approximately 3290 acres of land and water on Buckhorn Reservoir Project as shown in green on Exhibit "A", attached hereto and made a part hereof, and
>
> Approximately 192 acres of land on Buckhorn Reservoir Project as shown in red on Exhibit "A", attached hereto and made a part hereof, which represents potential public use areas subject to withdrawal of all or any part of the area for recreational purposes upon 30 days' notice by the District Engineer.

THIS LICENSE is granted subject to the following conditions:

1. That the licensee, in the exercise of the privileges hereby granted, shall conform to such rules and regulations as may be prescribed by the Secretary of the Army to govern the public use of the said project area, and with the provisions of Section 4 of the Act of Congress approved 22 December 1944, as amended (76 Stat. 1195; 16 U.S.C. 460d).

2. That the licensee may construct upon said land such buildings, improvements, facilities, accommodations, fences, signs and other structures as may be necessary for the purposes of this license, and may plant seeds, shrubs and trees, provided that all such structures shall be constructed and the landscaping accomplished in accordance with plans approved by the District Engineer, U. S. Army Corps of Engineers, in charge of the administration of the property.

3. That the licensee shall administer and maintain the said property, for the purposes of this license, in accordance with the master plan for the said

project area and with an annual management program to be mutually agreed upon between the licensee and the said District Engineer, which may be amended from time to time as may be necessary. Such annual management program shall include, but is not limited to, the following:

a. Plans for management and development activities to be undertaken by the licensee or jointly by the Corps of Engineers and the licensee.

b. Budget of the licensee for carrying out the management and development activities.

c. Personnel to be used in the management of the area.

d. Plans for supervising, patrolling and policing the licensed areas, including the water areas.

4. That the licensee within its legal authority shall protect the property from fire, vandalism, and soil erosion, and may make and enforce such rules and regulations as are necessary in exercising the privileges granted in this license, provided that such rules and regulations are not inconsistent with those prescribed by the Secretary of the Army to govern the public use of the area.

5. That the licensee, in exercising its governmental or proprietary functions, may plant and harvest crops, either directly or by service contract or under sharecrop agreements with local farmers to provide: (a) food for wildlife and (b) necessary compensation to farmers under any sharecrop agreement. Recognizing that a poor crop season may result in a lack of food for wildlife in a given future year, the licensee will be allowed to provide a reasonable surplus which will be held in reserve against a future poor crop season or may be disposed of by the State and the proceeds from the sale held in reserve against a future poor crop season. In any event, the lands will not be used by the State for the production of crops or any other purpose soley to produce revenue to defray costs of management of the wildlife area. Lands within the licensed area, available for lease for agricultural or grazing purposes, will be leased by the District Engineer. Monies collected by the State and not used to provide food for wildlife in a poor crop season shall be paid to the District Engineer at five-year intervals. The licensee will establish and maintain adequate records and accounts and render periodic statements of receipts and expenditures in furtherance of its wildlife feeding program, as may be required by said District Engineer. The District Engineer shall have the right to perform audits of the licensee's records and accounts.

6. That the licensee may take, trap, remove, stock or otherwise control all forms of fish and wildlife within the said area, and may place therein such additional forms of fish and wildlife as it may desire from time to time,

and shall have the right to close the area, or any parts thereof from time to time to fishing, hunting or trapping, provided that the closing of any area to such use for fishing, hunting or trapping shall be consistent with the State laws for the protection of fish and wildlife; also, the licensee shall enforce the fish and game laws and such regulations as may be issued by the Department of Fish and Wildlife Resources and/or its Commissioner, which laws, orders and regulations are consistent with its state-wide program.

7. That the water areas of the project shall be open to public use generally, without charge, for boating, swimming, bathing, fishing and other recreational purposes, and that ready access to and exist from such water areas along the shores of the project shall be maintained for general public use when such use is determined by the Secretary of the Army not to be contrary to the public interest. However, no use of any area shall be permitted which is inconsistent with the State laws for the protection of fish and game.

8. That this license is subject to all existing and future easements, leases, licenses and permits heretofore granted or to be hereafter granted, by the United States concerning said lands; provided, however, that upon appropriate notification by the licensee to said District Engineer, the United States, insofar as may be consistent with other uses and purposes of the project, will not enter into any new easements, leases, licenses or permits, or renewals thereof, which will, in the opinion of the District Engineer, adversely affect the current operations of the licensee under the provisions of the license or which will conflict with the definitely scheduled program of the licensee for the expansion of its activities under the provisions of this license.

9. That the licensee shall not discriminate against any person or persons because of race, creed, color or national origin in the conduct of its operations hereunder. The grantee furnishes as part of this contract an assurance (Exhibit C) that he will comply with Title VI of the Civil Rights Act of 1964 (78 Stat. 240) and Department of Defense Directive 5500.11 issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations.

10. That no cuts or fills along the shore line shall be made by the licensee without the prior approval of the said District Engineer.

11. That the licensee shall comply promptly with any regulations, conditions, or instructions affecting the work hereby authorized if and when issued by the Federal Water Pollution Control Administration and/or the State water pollution control agency having jurisdiction to abate or prevent water pollution. Such regulations, conditions or instructions in effect or prescribed by the Federal Water Pollution Control Administration or State agency are hereby made a condition of this license.

12. That ingress to and egress from the project area shall be afforded the licensee over existing access roads, such interior roads as may be constructed, and at such additional places over Government-owned land as may be approved by said District Engineer. The licensee shall provide appropriate markings at its own expense.

13. That the right is hereby expressly reserved to the United States, its officers, agents, and employees, to enter upon the said land and water areas, at any time and for any purpose necessary or convenient in connection with river and harbor and flood control work, and to remove therefrom timber, or other material required or necessary for such work; to flood said premises when necessary, and/or to make any other use of said land as may be necessary in connection with public navigation and flood control, and the licensee shall have no claim for damages of any character on account thereof against the United States or any agent, officer or employee thereof.

14. That any property of the United States damaged or destroyed by the licensee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the licensee to the satisfaction of the said District Engineer.

15. That the United States shall not be responsible for damages to property or injuries to persons which may arise from, or be incident to, the exercise of the privileges herein granted, or for damages to the property of the licensee, or for damages to the property or injuries to the person of the licensee's officers, agents, servants or employees, or others who may be on said premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of said premises by the Government or flooding from any other cause, or arising from or incident to any other governmental activities on the said premises.

16. That this license may be relinquished by the licensee at any time by giving to the Secretary of the Army, through the said District Engineer, at least thirty (30) days' notice in writing.

17. That this license may be revoked by the Secretary of the Army in the event the licensee violates any of the terms and conditions of this license and continues and persists therein for a period of thirty (30) days after notice thereof, in writing, by the said District Engineer.

18. That on or before the date of expiration of this license or its relinquishment by the licensee, the licensee shall vacate the said Government premises, remove all property of the licensee therefrom, and restore the premises to a condition satisfactory to the said District Engineer. If, however, this license is revoked, the licensee shall vacate the premises, remove said property therefrom, and restore the premises as aforesaid within such time as the Secretary of the Army may designate. In either event, if the licensee shall fail or neglect to remove said property and so restore the premises, then said property shall become the property of the United States, without compensation therefor, and no claim for damages against the United States, or its officers, or agents shall be created by or made on account thereof.

19. If and when a General Plan is approved pursuant to Section 3 of the Fish and Wildlife Coordination Act, as amended (72 Stat. 566; 16 U.S.C. 663), this license will be amended to the extent necessary to conform to such General Plan.

IN WITNESS WHEREOF I have hereunto set my hand this 25 day of September 1970, by the direction of the Assistant Secretary of the Army.

SHERRY B. MYERS
Assistant for Real Property
OASA (I&L)

The above instrument, together with the provisions and conditions thereof, is hereby accepted this 23 day of June 1970.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH AND WILDLIFE RESOURCES

BY Merritt Clark
Commissioner

EXHIBIT B

FISH AND WILDLIFE MANAGEMENT PLAN

ISH & WILDLIFE
COMMISSION
BY DISTRICTS

BOYCE R. MCELYA, PADUCAH
R. P. CO ZLER, GREENVILLE
WARR ROSBOTTOM, LOUISVILLE
DR. JA SALATO, COLUMBIA
DR. FRED SCROGGIN, DRY RIDGE
JOHN FEATHERSTON, LEXINGTON
SAM GARNETT, HAZARD
ROBERT C. WEBB, GRAYSON
DR. J. L. BECKNELL, MANCHESTER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH & WILDLIFE RESOURCES
MINOR CLARK, COMMISSIONER

STATE OFFICE BLDG. ANNEX
FRANKFORT, KY. 40601
PHONE 564-3400

January 13, 1967

Colonel Robert P. Wessels
District Engineer
U. S. Army Engineer District
Louisville Corps of Engineers
P. O. Box 59
Louisville, Kentucky 40801

Dear Colonel Wessels:

You will find attached herewith the wildlife management plan for Buckhorn Reservoir in Perry and Leslie Counties.

Biologist Joe Bruna is now in the process of preparing a management plan for the Rough River Reservoir which will be submitted just as soon as it is completed and probably will be within the next two weeks.

Yours very truly,

DIVISION OF GAME

Arnold L. Mitchell

Arnold L. Mitchell
Director

ALM:vld

Enc.

WILDLIFE MANAGEMENT PLAN
FOR
BUCKHORN RESERVOIR

Purpose. To improve wildlife habitat so optimum wildlife populations may be provided to help absorb some of the ever increasing hunting pressures being exerted by the sportsmen throughout Kentucky.

Area Description. The Buckhorn Reservoir was created by the Corps of Engineers on the Middle Fork Kentucky River primarily for flood control. The Reservoir, which lies in Perry and Leslie Counties in Southeastern Kentucky, is generally narrow and deep with steep hillsides forming the banks. Oaks and hickories are the dominant species of mixed hardwoods that cover approximately three-fourths of the Corps held lands. Only 30 to 40 per cent of the 800 acres listed as agricultural land is actually tillable.

Forest Game Species. Of the 2,580 acres available for wildlife management, approximately 1,750 acres are forested. At present, the area supports moderate populations of raccoon, squirrel and grouse. Deer and wild turkey, which have been stocked in other areas of the counties involved, have been reported on Reservoir lands. Leaving the forested areas to its present natural ecological changes can be expected to enhance game species now present. Maintaining openings by periodic mowing or bushhogging would benefit deer and turkey populations. Where applicable, controlled burning might be beneficial on some of the steeper hillsides.

Farm Game Species. Before inundation, the moderately fertile sandy-loam bottom lands were used primarily to produce corn and garden stuffs. Huntable populations of rabbits and quail existed at that time. However, since the creation of the Reservoir and cessation of agricultural activities, the native

vegetative types are recurring. Quail and rabbits would benefit indirectly from the suggested forest game management practices. To insure maximum opportunities for increased populations, it is recommended that proper foods be planted on selected sites. Where possible, the Department of Fish and Wildlife Resources might enter into share-cropping agreements with the Department's share remaining in the field as available wildlife food.

Waterfowl. For all practical purposes, management for waterfowl is not feasible for this area. The Department attempted to increase waterfowl usage of the area in 1963 by providing feeding areas. The results were negative. Native woodducks nest in some of the sloughs so efforts should be made to preserve their nesting sites.

Personnel. The Reservoir lands will be under the supervision of the Area Wildlife Biologist for management and research and the Regional Director for enforcing wildlife laws and regulations.

Equipment. The Department will furnish necessary equipment or will finance by price contract to perform the habitat development.

Timber and Minerals. It is understood that the Department of Fish and Wildlife Resources makes no claim on the sale of timber or minerals. It is requested, however, that such sales be made only if not detrimental to wildlife habitat.

Posting. Proper signs, located at strategic points, will identify the area as open to public hunting.

Access. Access to the lake is limited to Department of Parks maintained boat ramps. Therefore, access to most of the hunting areas will be by boat.

Stocking of Wildlife. The Department has no immediate plans to stock game species. It is understood that any stocking of such species will be made only under the supervision of Department personnel.

WILDLIFE MANAGEMENT PLAN
for
BUCKHORN AND ROUGH RIVER RESERVOIRS

Division of Game

In keeping with a decision reached at a meeting of representatives of the Department of Parks, the Division of Forestry and the Department of Fish and Wildlife Resources, the Department of Fish and Wildlife Resources is prepared to assume the responsibility for managing wildlife species on all fee acreage outside of recreational areas on the Buckhorn River Project.

Past efforts of this Department in the vicinity of the reservoir have resulted in adequate stocking of all adapted game species and the acquisition of considerable knowledge regarding the management of woodland and farm food and cover vegetation. This Department, through its Forest Game, Farm Game and Waterfowl Restoration Projects will initiate surveys designed to serve as the basis for specific area management.

This plan will be changed and amended from time to time, but in general, the development will be as follows; insofar as compatible with Federal policy.

1. Sharecrop all open land that is tillable. Rent from such crops would be left on the land in most cases, or an equal value would be expended on the land if it were sold.
2. Retain all, or an adequate number of den trees and mast trees.
3. Try to obtain a wide variety of mast trees by retention of scarce species, release cutting, or possibly planting.
4. Additional stocking which may be deemed necessary in the future.
5. Manipulation of food and cover to create optimum habitat conditions.
6. The area, other than recreational area, would be open to public hunting during all legal open seasons, including crow and groundhog hunting all year.
7. Presently assigned Area Biologists will conduct the surveys and effect planned management operations.

Hunting. Statewide hunting regulations shall prevail on Reservoir lands, unless special regulations are deemed necessary for proper game management. License requirements will remain the same as for all public lands under state government. No special permit will be required. The Department will confer with the Corps on any regulations needed for safety.

Fire Control. A fire control system administed by the State Division of Forestry is established in each of the counties involved.

Game Inventories. A system of wildlife inventories has been established for the entire state, including the Reservoir area. Special research will be conducted when necessary.

Prepared by
Pete Troublefield
Biologist
January, 1967

FISHERY MANAGEMENT OF ROUGH RIVER AND BUCKHORN RESERVOIRS

Responsibility: The Kentucky Department of Fish and Wildlife Resources is willing to assume full responsibility for fishery management of Buckhorn and Rough River Reservoirs.

Reports Submitted: This department began cooperating with the U. S. Bureau of Sport Fisheries and Wildlife in 1956 in submitting reports on the fish and wild life aspects of Buckhorn and Rough River projects to the U. S. Corps of Engineers. These reports contain certain recommendations as to pool levels, downstream flows, etc., which would improve the fishing potential of the eventual reservoirs. Very satisfactory response was received from the U. S. Corps of Engineers on these recommendations, and as a result, these improvements were realized:

(a) Summer recreational pools for the major fishing months

(b) Minimum downstream flows to preserve tailwater fishes and fishing, as well as other project benefits.

(c) Certain timber clearing agreements.

Past and Present Fishery Projects: The Department of Fish and Wildlife Resources has had one principal fishery biologist and assistants working on pre- and post-impoundment studies of fish populations with emphasis on Buckhorn and Rough River projects. This has resulted in extensive data on fish populations compiled over a two-year period. On the basis of this data, stocking of the two reservoirs has proceeded. Largemouth bass have been stocked in both reservoirs because of deficiencies of this species noted in the pre-impoundment studies. Walleye fry have been stocked in limited numbers in the Rough River above the dam site. More extensive stocking of this species is planned for both lakes in the near future. Stocking with other species of fish will be carried out where need for them is recognized.

Fishing Regulations: Fishing in Buckhorn and Rough River Reservoir has been closed by Regulations KFWR-F-49 and KFWR-F-50 to allow an unmolested first spawning period after impoundment by the brood stock from the parent streams and the additional brood stock placed in the lake by this department. In addition, a minimum size limit of 12 inches has been imposed on largemouth bass in both lakes, and a 15 inch limit on walleye and 24 inch limit on musky are imposed in addition to the bass limit on Buckhorn Lake. The lakes will be open to fishing July 1, 1961, unless circumstances demand otherwise. The special size limits will probably be removed as soon as an adequate supply of each species is assured by spawning. This will probably take one year or more to determine. Other than refinements in these two regulations, statewide creel limits will prevail. Except where specified by regulation, there are no size limits on fishes. (Enclosure 3, fishing regulations digest).

Future Fishery Projects: Principal Fishery Biologist William R. Turner will continue his post-impoundment fish population work. In addition, bottom fauna studies are contemplated if time and expenditures allow.

Zoning: Zoning of the lakes for the various sports will be considered in joint meetings with other state departments having recreational responsibilities.

Commercial Fishing: Neither Rough River nor Buckhorn Reservoirs will be opened to commercial fishing until such time as this move seems feasible from a utilization of the existing fish population standpoint.

EXHIBIT C

PARK AND RECREATION LICENSE WITH STATE OF KENTUCKY

Contract No.
DA-15-029-CIVENG-63-266

DEPARTMENT OF THE ARMY
LICENSE
FOR PUBLIC PARK AND RECREATIONAL DEVELOPMENT
AND CONSERVATION PURPOSES
BUCKHORN RESERVOIR AREA, KENTUCKY

THE SECRETARY OF THE ARMY, under authority of Section 209 of the Flood Control Act of 1954, approved 3 September 1954 (68 Stat. 1248, 1266; 16 U.S.C. 460d), hereby grants to THE COMMONWEALTH OF KENTUCKY, a license for a period of fifty (50) years commencing on the date of execution hereof to use approximately 4,903 acres of fee-owned land and water areas under the primary jurisdiction of the Department of the Army in the Buckhorn Reservoir Area, substantially as shown shaded in green on Exhibit "A," Master Plan, Buckhorn Reservoir, attached hereto and made a part hereof, for public park, public recreational, fish and wildlife and forest management purposes. The Dam Site and Operations Area, substantially as shown shaded in red on Exhibit "A", attached hereto and made a part hereof, is not included in this license. The District Engineer, Corps of Engineers, in charge of the administration of the reservoir will monument the boundary of the licensed area at certain strategic points.

THIS LICENSE is granted subject to the following conditions:

1. That the licensee, in the exercise of the privileges hereby granted, shall conform to such rules and regulations as jointly prescribed by the District Engineer, Corps of Engineers, in charge of administration of the property, and the licensee, to govern the public use of the said reservoir area, and with the provisions of Section 209 of the Flood Control Act of 1954 (68 Stat. 1248, 1266).

2. That the licensee may construct upon said land such buildings, improvements, facilities, accommodations, fences, signs, wharves, piers, boat slips and other structures as may be necessary for the purposes of this license; and may plant seeds, shrubs, and trees, provided that all such structures shall be constructed and the landscaping accomplished in accordance with plans approved by the District Engineer, Corps of Engineers, in charge of the administration of the property; and, provided further, that no building or structure which, in the opinion of the said District Engineer, would be subject to flotation, shall be located below elevation 845 m.s.l.

3. That the licensee shall administer and maintain the said property, for the purposes of this license, in accordance with the Master Plan for the said reservoir area and with an Annual Management

Program to be mutually agreed upon between the licensee and the said District Engineer, which may be amended from time to time as may be necessary. Such Annual Management Program shall include, but is not limited to, the following:

a. Plans for management activities to be undertaken by the licensee or jointly by the Corps of Engineers and the licensee.

b. Budget of the licensee for carrying out the management activities.

c. Personnel to be used in the management of the area.

d. Harvesting of timber and reforestation.

e. Soil erosion prevention methods to be utilized.

f. Practices for prevention of despoilment of the licensed area by roads and waste materials.

g. Fire prevention plans.

4. That the licensee shall protect the property from fire, vandalism and soil erosion; and may make and enforce such rules and regulations as are necessary, and within its legal authority, in exercising the privileges granted in this license, including the regulation of boats operated thereon, provided that such rules and regulations are not inconsistent with those jointly prescribed to govern the public use of the reservoir area.

5. That the licensee, in exercising its Governmental or proprietary functions, may operate facilities and accommodations and provide services needed by the public directly, and may enter into concession agreements with third parties for providing needed services to the public, provided that any such agreements have the prior approval of the said District Engineer; and, provided further, that any profits obtained by the licensee from any such agreements or from operations by the licensee on the said Government property shall be utilized by the licensee in the further development of the area and that any profits not so utilized shall be paid to the said District Engineer at the expiration of each five-year period of this license. The licensee and its concessionaires may make reasonable charges for such services and for the use of such facilities and accommodations, provided that such charges shall have the prior written approval of the said District Engineer; and, provided further, that each individual shall have the right to

elect whether he desires to use such services without jeopardizing his privilege to use the reservoir area. No charge shall be made for admission to or for use of any facilities provided by the United States.

6. That the licensee may take, trap, remove or otherwise manipulate all forms of fish and wildlife; conduct any scientific research and operate research equipment upon the said lands and waters; and may place upon said lands and waters such additional forms of fish and wildlife as it may desire from time to time; and shall have the right to close the area to hunting, fishing and trapping; provided that the closing of any water areas to public use generally for hunting, fishing and trapping shall be consistent with the laws for the protection of fish and game of the Commonwealth of Kentucky.

7. That the licensee shall, within the limits of available funds, proceed immediately with the development of said lands for the purposes of this license and prosecute its program to completion in an orderly manner, and at a rate consistent with the needs of the public.

8. That this license is subject to all existing and future leases, easements, licenses and permits heretofore granted or to be hereafter granted by the United States on said lands; provided, however, that the United States, insofar as may be consistent with the other uses and purposes of the reservoir, will not enter into any new leases, easements, licenses, permits, or renewals thereof, which will affect the operations of the licensee or conflict with the scheduled program of the licensee for the operation of its Master Plan for development of the reservoir under the provisions of this license, provided further, however, that the final determination as to whether any such grant shall be made remains within the discretion of the Secretary of the Army.

9. That the licensee shall, at all times, use every means within its legal powers to prevent pollution of the reservoir and waters adjacent to the licensed area from any cause or source arising from the use and occupancy by said licensee and which may be inimical or injurious to public health or to animal or aquatic life.

10. That the licensee shall not discriminate against any person or persons because of race, religion, color or national origin in the conduct of its operations hereunder.

11. That the licensee, in exercising its Governmental or proprietary functions, may cut timber, either directly or by contract, as may be necessary to further the development and conservation of forests, and collect and utilize the proceeds of any sales of

timber in the development, conservation, maintenance and utilization of said lands. Any funds received by the licensee from the sale of timber and not so utilized will be paid to the United States of America at the expiration of each five (5) year period of the term of the license.

12. The licensee will establish and maintain adequate records and accounts and render periodic statements of receipts and expenditures in furtherance of its operation under this license as may be required by the said District Engineer.

13. That the right is hereby expressly reserved to the United States, its officers, agents and employees to enter upon the said land and water areas at any time and for any purpose necessary or convenient in connection with river and harbor and flood control work, and to remove therefrom timber or other material required or necessary for such work, to flood said premises when necessary and/or to make any other use of said land as may be necessary in connection with public navigation and flood control, and the licensee shall have no claim for damages of any character on account thereof against the United States or any agent, officer or employee thereof.

14. That any property of the United States damaged or destroyed by the licensee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the licensee to the satisfaction of the said District Engineer.

15. That the United States shall not be responsible for damages to property or injuries to persons which may arise from or be incident to the exercise of the privileges herein granted, or for damages to the property of the licensee, or for damages to the property or injuries to the person of the licensee's officers, agents, servants or employees, or others who may be on said premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of said premises by the Government or flooding from any other cause, or arising from or incident to any other Governmental activities on the said premises, and the licensee shall hold the United States harmless from any and all such claims.

16. That this license may be relinquished by the licensee at any time by giving to the Secretary of the Army, through the said District Engineer, at least ninety (90) days' notice in writing.

17. That this license may be revoked by the Secretary of the Army in the event the licensee violates any of the terms and conditions of this license and continues and persists therein for a period of ninety (90) days after notice thereof in writing by the said District Engineer.

Dept. of the Army License to
Commonwealth of Kentucky
Buckhorn Reservoir Area, Ky.

18. That on or before the date of expiration of this license or its relinquishment by the licensee, the licensee shall vacate the said Government premises, remove all property of the licensee therefrom and restore the premises to a condition satisfactory to the said District Engineer. If, however, this license is revoked, the licensee shall vacate the premises, remove said property therefrom, and restore the premises as aforesaid within such time as the Secretary of the Army may designate. In either event, if the licensee shall fail or neglect to remove said property and so restore the premises, then said property shall become the property of the United States without compensation therefor, and no claim for damages against the United States or its officers or agents shall be created by or made on account thereof.

IN WITNESS WHEREOF I have hereunto set my hand this 29th day of June, 1962, by direction of the Assistant Secretary of the Army.

Don H. Dragoo
DON H. DRAGOO
Major, GS
Mil Const and Real
Property, OASA(I&L)

The above instrument, together with the provisions and conditions thereof, is hereby accepted this 16th day of August, 1962.

Commissioner
Department of Parks

Contract No.
DA-15-029-CIVENG-63-266

SUPPLEMENTAL AGREEMENT NO. 4
TO DEPARTMENT OF THE ARMY
LICENSE
FOR PUBLIC PARK AND RECREATIONAL DEVELOPMENT
AND CONSERVATION PURPOSES
BUCKHORN RESERVOIR PROJECT, KENTUCKY

WHEREAS, the Commonwealth of Kentucky was granted a license, on 29 June 1962, to use approximately 4903 acres of land acquired in connection with the Buckhorn Reservoir Project for public park, public recreational, fish and wildlife, and forest management purposes; and

WHEREAS, said license was amended, by Supplemental Agreement No. 1, dated 3 February 1965, to withdraw approximately 4034 acres of land in view of the Commonwealth's inability to supply funds to maintain the scattered areas, leaving approximately 869 acres under license; and

WHEREAS, said license was amended, by Supplemental Agreement No. 2, dated 21 May 1965, to allow the licensee to charge admission, entrance, or user fees for entrance to or use of all or any part of the licensed premises or any facilities constructed thereon, provided prior written approval of the District Engineer is obtained in accordance with the Land and Water Conservation Fund Act of 1965 (78 Stat. 897), Executive Order 11200, dated 26 February 1965, and Title 43, Subtitle A, Part 18, Code of Federal Regulations; and

WHEREAS, said license was amended, by Supplemental Agreement No. 3, dated 9 August 1966, to delete Site No. 1, containing 12.5 acres of land, leaving 856.5 acres under license; and

WHEREAS, it is determined to be in the best interests of the Government and the licensee to modify the wording contained in Conditions Nos. 21 and 22 to the license, which conditions were added by Supplemental Agreement No. 2.

NOW THEREFORE, the said license, as amended by Supplemental Agreements Nos. 1, 2, and 3, is further amended in the following particulars:

a. Condition No. 21, as it appears in Supplemental Agreement No. 2, is deleted and the following Condition No. 21 is substituted in lieu thereof:

21. The amount of any fees to be charged by the licensee and all rates and prices charged by the licensee or its concessionaires for accommodations and services furnished or sold to the public shall be subject to regulations and the prior approval of the District

Engineer. The licensee shall, not less than 15 days prior to 30 April and 31 October of each year that this license remains in effect, submit to the District Engineer for approval a list of the fees, rates and prices proposed for the following six months. The licensee shall furnish justification for any proposed fee, rate, or price increase or decrease. The District Engineer will give written notice to the licensee of his approval of or objection to any proposed fee, rate, or price and will, if appropriate, state an approved fee, rate, or price for each item to which an objection has been made. The licensee and/or its concessionaires shall keep a schedule of such fees, rates, or prices posted at all times in a conspicuous place on the licensed premises.

b. Condition No. 22, as it appears in Supplemental Agreement No. 2, is deleted and the following Condition No. 22 is substituted in lieu thereof:

22. All monies received by the licensee from operations conducted on the licensed premises, including, but not limited to, entrance and admission fees and user fees and rental or other consideration received from its concessionaires, may be utilized by the licensee for the administration, maintenance, operation and development of the licensed premises. Any such monies not so utilized by the licensee or programmed for utilization within a reasonable time shall be paid to the District Engineer at the expiration of each five year period of this license. The licensee shall establish and maintain adequate records and accounts and render annual statements of receipts and expenditures to the District Engineer.

The said license, dated 29 June 1962, as previously amended by Supplemental Agreements Nos. 1, 2, and 3, in all other respects shall remain in full force and effect.

IN WITNESS WHEREOF I have hereunto set my hand this 24th day of February, 1967, by authority of the Secretary of the Army.

FRED MORGAN
Chief, Real Estate Division
Louisville District, Corps of Engineers
Louisville, Kentucky

The above Supplemental Agreement No. 4, together with all the conditions and provisions thereof, is hereby accepted this 14th day of February, 19 67.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF PARKS

By Robert L. Bell

1971 RATES AND OPERATIONS

(Kentucky Sales Tax Not Included)

BUCKHORN LAKE STATE RESORT PARK

Opening Date: All Year

BATHHOUSE

Open: May 30

Close: Labor Day

Rate: 25¢ coin operated locker (optional)

BEACH

Open: May 30

Close: Labor Day

Rate: 50¢ Rafts - Heavy Duty - per hour

BOAT DOCK/BOATS

Open: All Year

Rates:	Per Hour	Per Day	Change to Day Rate After	
Outboard Motors	$1.60	$ 8.00	5 hours	Gasoline (up to 6)
	2.40	12.00	5 hours	Gasoline (up to 9)
Fishing Boats	1.00	4.00	4 hours	
Fishing Boat and Motor	2.50	10.00	4 hours	Gasoline (up to 6)
	3.25	13.00	4 hours	Gasoline (up to 9)
Pontoon	5.00	25.00	5 hours	

NOTES: (1) A minimum charge of ONE HOUR applies to above rentals.
(2) On above rentals figure time (round off) to nearest 1/2 hour.

BOAT DOCKS/BOATS continued

Boat Launches	No charge	
Miscellaneous Items	$ .50	Each per day - Cushions, Life Jackets, Oars (set)
	.50	Per night - Lockers
	3.00	Per month - Lockers
	2.00	Per night - Lanterns
	1.25	Per night - Night running lights
Overnight Tie-Up (other than finger slips)	.50	Per night - Small boats (16 ft or less)
	1.50	Per night - Other boats (over 16 ft)
Buoy Line Rates	.50	Per ft per month boats overall length of 16 ft or less
	5.00	Per month minimum boats overall length of 16 ft or less
	.75	Per ft per month boats over 16 ft
	15.00	Per month minimum boats over 16 ft
Open Finger Slips	1.00	Overnight - Two boats (per boat)
	12.00	Per month - Two boats (per boat)
	2.00	Overnight - Single boat
	24.00	Per month - Single boat

CAMPING (Semi-Primitive - have water but no electricity)

Open: May 1

Close: November 15

Rate: $1.00 per campsite per night

GIFT SHOP

Open: May 1

Close: November 15

LODGE ROOMS

Open:	May 1		
Close:	November 15		
Rates:	$12.00	Single	Room Nos. 126 thru 137
	18.00	Double	147 thru 157

MEETING ROOMS, AUDITORIUM, ETC.

EXHIBIT D

REAL ESTATE APPRAISAL
UPPER LEATHERWOOD

DEPARTMENT OF THE ARMY
LOUISVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 59
LOUISVILLE, KENTUCKY 40201

APPRAISAL REPORT
UPPER LEATHERWOOD SITE
BUCKHORN LAKE

LOCATION

This site is located as indicated on mosaic furnished with requested and identified as tracts "A" through "L".

OWNERSHIP

Instead of 12 owners as indicated by tracts "A" through "L" there are at least 17 and possibly 18 (counted as 18 in this report).

PURPOSE OF APPRAISAL

The purpose of this appraisal is to estimate fair market value of the above 12 tracts - total of 276.00 acres.

HIGHEST AND BEST USE

Forest land and cabin sites.

DESCRIPTION OF PROPERTY

This property is mostly very steep, rough mountain land. There is very little merchantable timber. It appears that timber was cut 8 to 10 years ago. There is no access to this property except across the lake. At the present time, there are 9 cabins: One (1) cabin is under construction which will cost at least $18,000.00 when finished. Three (3) cabins have been built in the past two years and three (3) others were moved out of the lake area and rebuilt (most of these still have some finish work to be done). There is one combination barn and cabin that was moved out of the lake area and there is one cabin of no value. There are no septic systems as the Health Department has not given permits. Crude outside toilets are being used. There is no water available except from water collected in barrels from the roofs. All materials in the cabins were transported by boat across the lake and carried by hand from boat to cabin site. Including the sites on which the above 9 cabins are located there are about 21 more sites on which cabins could readily be built, counted as a total of 30

DESCRIPTION OF PROPERTY

sites at one acre per site in this report. All of these cabins are summer homes. For the purpose of this report no housing supplement has been estimated under Relocation Costs. Should any of these cabins become permanent homes before negotiations begin, this extra cost item would need to be considered.

As far as this appraiser could determine, there is no access from the land side.

SALES

Two sales of hill land were found that sold in the past year:

1. Virgil Raleigh and Harne Hensley bought 110.00 acres from Goman Williams on 11 January 1971 for $7,500.00. This property is located in Perry County, about 2-1/2 miles above Chavies on Lick Branch. All minerals were included.

2. George Wooten bought 75.00 acres from Levi Begley in July 1970 for $2,000.00. This property is located in Leslie County on Demps Branch of Bull Creek about 4.0 miles above Confluence. All minerals were included.

Several lot sales were reported to appraiser, but could not be located in Deed Books or verified. The sales on the lake, or nearby lake, reportedly are selling from $250.00 to $1,500 per lot for 0.5 to 1.0 acre lots.

APPROACH TO VALUE

The appraisal approach was MARKET DATA for land and COST for improvements. Based on the two above land sales which were not on the lake and general knowledge of lot sales for the area the following estimates of land value were made (including minerals):

30.00 Acres for Lots	@	$1,500.00 Per Acre	=	$ 45,000.00
246.00 Acres Land Only	@	$125.00 Per Acre	=	30,750.00
		TOTAL		$ 75,750.00

The value of the improvements were estimated based on Cost Approach with a total cost less depreciation estimated at: $ 60,000.00

TOTAL LAND AND IMPROVEMENTS $135,750.00

SEVERANCE

None

TOTAL COST ESTIMATE

LAND				
246.00	Acres	@	$ 125.00	$ 30,750.00
30.00	Acres	@	1,500.00	45,000.00
IMPROVEMENTS				
7 Cabins, 1 Barn and Cabin and 1 Barn				$ 60,000.00
TOTAL LAND AND IMPROVEMENT COST				$135,750.00
SEVERANCE				
Entire Taking				- 0 -
CONTINGENCIES				
Approximately 25 percent				$ 34,000.00
ACQUISITION EXPENSES				
18 Owners				$ 23,400.00
RELOCATIONS				
Under Title II of PL 91-646				$ 14,500.00
				$207,650.00
			SAY	$208,000.00

DATE: 10 January 1972

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF PARKS
STATE OFFICE BLDG. ANNEX, FRANKFORT, KENTUCKY 40601. PHONE 564-4260 (AREA CODE 502)

WENDELL H. FORD
GOVERNOR

EWART W. JOHNSON
COMMISSIONER

July 24, 1972

Mr. W. E. Leegan
Chief, Planning Division
U. S. Corps of Engineers
Louisville District
P. O. Box 59
Louisville, Kentucky 40201

ATT: ORLPD-R

Dear Mr. Leegan:

As you know the Department of Parks has been interested in preserving the land across the lake from Buckhorn lodge (commonly referred to as Upper Leatherwood Site).

My staff members have advised me that the Corps of Engineers would be interested in obtaining this land if the Department of Parks can cost share on a 50/50 basis. This is to advise you that the Department of Parks is in agreement with this proposal based on the gross appraisal report dated January 10, 1972.

Sincerely,

Ewart W. Johnson

Ewart W. Johnson
Commissioner

EWJ/jp

EVERY KENTUCKIAN COUNTS

EXHIBIT E

FEDERAL CODE OF REGULATION

§ 311.9 Access to water areas.

(a) Pedestrian access is permitted along the shores of the reservoir except in areas designated by the District Engineer or his authorized representative.

(b) Automobile access is permitted only over open public and reservoir roads.

(c) Access for the general public to launch boats is permitted only at the public launching sites designated by the District Engineer.

§ 311.10 Destruction of public property.

The destruction, injury, defacement, or removal of public property or of vegetation, rock, or minerals, except as authorized, is prohibited.

§ 311.11 Firearms and explosives.

Loaded rifles, loaded shotguns, loaded pistols and explosives of any kind are prohibited in the area, except when in the possession of a law enforcement officer or Government employee on official duty, when shotguns or rifles are being used for hunting during the hunting season as permitted under § 311.6 and when specifically authorized by the District Engineer.

§ 311.12 Gasoline and oil storage.

Gasoline and other inflammable or combustible liquids shall not be stored in, upon, or about the reservoir or shores thereof without the written permission of the District Engineer or his authorized representative.

§ 311.13 Sanitation.

Refuse, garbage, rubbish or waste of any kind shall not be thrown on or along roads, picnicking or camping areas, in the reservoir waters or on any of the lands around the reservoir, but shall be burned or buried, or disposed of at designated points or places designed for the sanitary disposal thereof.

§ 311.14 Advertisements.

Private notices and advertisements shall not be posted, distributed, or displayed in the reservoir area except such as the District Engineer or his authorized representative may deem necessary for the convenience and guidance of the public using the area for recreational purposes.

§ 311.15 Unauthorized solicitations and business activities.

No person, firm, or corporation, or their representatives shall engage in or solicit any business on the reservoir area without permission in writing from the District Engineer or in accordance with terms of a lease, license, or concession contract with the Department of the Army.

§ 311.16 Commercial operations.

All commercial operations or activities on the waters of the reservoir or on the lands under the control of the Department of the Army around the reservoir shall be in accordance with lease, license, or other agreements with the Department of the Army.

§ 311.17 Dogs.

(a) Dogs are not permitted in any of the ~~following~~ reservoir areas unless on a leash, in a pen, or under complete control of the owner or manager.

§ 311.18 Recreational activity programs.

(a) Special events such as water carnivals, boat regattas, music festivals, dramatic presentations, or other special recreational programs of interest to the general public are permitted in areas designated by the District Engineer or his authorized representative.

(b) A permit shall be obtained from the District Engineer or his authorized representative by the governmental or legally responsible private agency proposing to hold a special recreation program as indicated in this section. No charge will be made for this permit.

(c) The District Engineer in charge of the area shall have authority to revoke any permit granted under this section and to require the removal of any equipment upon failure of the permittee to comply with the terms and conditions of the permit or with the regulations in this part.

§ 311.19 Abandonment of personal property.

Abandonment of personal property on the land or waters of the reservoir area is prohibited. Personal property shall not be left unattended upon the lands and waters of the reservoir area except in accordance with the regulations prescribed in this part or under permits issued therefor. The Government assumes no responsibility for personal property and if such property is abandoned or left unattended in other than places designated in a permit issued therefor or under a regulation for a period in excess of 48 hours it will be impounded, and if not reclaimed by the owners thereof within ninety days will be sold, destroyed, converted to Government use, or otherwise disposed of as determined by the District Engineer or his designated representative.

311.20 Discriminatory Practices Prohibited

All project land and water areas which are open to the public shall be available for use and enjoyment of the public without regard to race, creed, color or national origin. No lessee or licensee of a project area under lease or license providing for a public or quasi-public use, in cluding group camp activities, and no concessionaire of a lessee or licensee providing a service to the public, including facilities and accommodations, shall discriminate against any person or persons because of race, creed, color or national origin in the conduct of its operations under the lease, license or concession agreement.

EXHIBIT

CHAPTER III

PART 311—PUBLIC USE OF CERTAIN RESERVOIR AREAS

§ 311.1 Areas covered.

The regulations contained in this part shall be applicable to:

KENTUCKY

Green River Reservoir
Barren River Reservoir
Buckhorn Reservoir
Nolin River Reservoir
Rough River Reservoir

INDIANA

Salamonie Reservoir
Mississinewa Reservoir
Mansfield Reservoir
Monroe Reservoir
Huntington Reservoir

§ 311.2 Boats, commercial.

No boat, barge or other vessel shall be placed upon or operated upon any water the reservoir for a fee or profit, either direct charge to a second party or as an incident to other services provided to the second party, except as specifically authorized by lease, license, or concession contract with the Department of the Army.

§ 311.3 Boats and other vessels, private.

(a) The operation of boats, houseboats, cabin cruisers and other vessels on the reservoir for fishing and recreational use is permitted except in prohibited areas designated by the District Engineer in charge of the reservoir area and subject to the regulations contained in this part.

(b) A permit shall be obtained from the District Engineer or his authorized representative for placing and operating a boat or other vessel on the reservoir for any one period longer than three days. No charge will be made for this permit. The permit shall be kept aboard the vessel at all times that the vessel is in operation on the reservoir. The District Engineer in charge of the area or his authorized representative shall have authority to revoke the permit and to require removal of the vessel upon failure of the permittee to comply with the terms and conditions of the permit or with the regulations in this part.

(c) Unsafe boats or other vessels will not be permitted on the reservoir. The District Engineer may require the applicant for a permit to furnish the construction plans and other information pertaining to the construction and equipment of the boat or other vessel prior to issuing a permit for its operation on the reservoir. All boats permitted on the reservoir shall be equipped for safe operation and operated in a safe manner in accordance with instructions issued by the District Engineer. These instructions may provide that the operation of speed boats and water skiing activities shall be confined to areas of water designated by the District Engineer for such activities.

(d) Boathouses, houseboats, cabin cruisers and other vessels may be placed and operated on the reservoirs, except that such facility shall not be utilized for human habitation at a fixed or permanent mooring point and if equipped with toilets and galleys shall not be placed on reservoirs with small permanent pools. Such vessels may be barred from other reservoirs by the District Engineer with the concurrence of the Chief of Engineers in those reservoirs in which the waters thereof are used for domestic water supply when the District Engineer determines that such use is contrary to the public health and safety.

§ 311.4 Mooring, care and sanitation of boats and floating facilities.

(a) All boats or other vessels when not in actual use must be either removed from the reservoir, securely moored at authorized docks or boathouses where supervision by the owner or his representative is provided on a 24-hour-day basis, or placed in the care of a marina concessionaire, State or local managing agency or other party authorized to care for floating equipment on a 24-hour-day basis.

(b) All boats, barges and other vessels or floating facilities will be moored only in locations designated by the District Engineer or his designated representative. All floating or stationary mooring facilities will be constructed in accordance with plans and a permit approved by the District Engineer or his designated representative. He shall have authority to revoke such permit and require removal of the facility for failure of the permittee to comply with the terms and conditions of the permit or with the regulations in this part.

(c) The discharge of sewage, garbage or other pollutant in the waters of the reservoir from any boat, barge or other vessel on the reservoir is prohibited except in accordance with regulations of the State and local health agencies permitting such discharge when underway in deep waters other than embayments. All such pollutants shall be deposited ashore at places designated for such deposit and disposal.

§ 311.5 Swimming and bathing.

Swimming and bathing are permitted except in prohibited areas designated by the District Engineer.

§ 311.6 Hunting and fishing.

(a) Hunting and fishing are permitted in accordance with all applicable Federal, State and local laws for the protection of fish and game except in prohibited areas including the following:

(1) Public access, park and recreation areas in which all hunting is prohibited.

(2) Prohibited areas designated by the District Engineer in which hunting or fishing or both are prohibited.

(3) Prohibited areas designated by Federal or State managing agencies under applicable laws administered by such agencies.

(b) Hunting is restricted to the use of bow and arrow or shotgun loaded with shot in any reservoir area listed in § 311.1, except in managed game areas where the special hunting regulations of the managing agency with the prior approval of the District Engineer will apply

and except for reservoir areas where hunting of deer, with rifles, is permitted by State or local laws or regulations, and where prior permission for such hunting has been given by the District Engineer.

§ 311.7 Camping.

(a) Camping is permitted only at areas designated by the District Engineer in charge of the reservoir area or his authorized representative.

(b) Approval of the District Engineer, or his authorized representative, is required to camp in the reservoir area for any one period of two weeks or longer.

(c) Camping equipment shall not be abandoned or left unattended for 48 hours or more.

(d) The installation of any permanent facility at any public camp ground is permitted only on written authorization of the District Engineer or his authorized representative.

(e) Campers shall keep their camp grounds clean and dispose of combustibles and refuse in accordance with instructions posted by the District Engineer at each camp ground.

(f) Due diligence shall be exercised in building and putting out camp fires to prevent damages to trees and vegetation and to prevent forest and grass fires.

(g) Camps must be completely razed and the sites cleaned before the departure of the campers.

§ 311.8 Picnicking.

(a) Picnicking is permitted, except in prohibited areas designated by the District Engineer or his authorized representative, in any reservoir area listed in § 311.1

EXHIBIT

EXHIBIT F

PLANNING AND ADMINISTRATION OF LAKE PROJECT LANDS

DR 405-2-1
18 Jan 71

be recognized and that all units and individuals concerned take appropriate action to insure the necessary coordination and cooperation in this area.

FOR THE DISTRICT ENGINEER:

MAX BOHRER
Executive Assistant

1 Appendix
APP A Orgn Resp in Plan &
Adm of Project Lands

DISTRIBUTION
A

DEPARTMENT OF THE ARMY
Louisville District, Corps of Engineers
P. O. Box 59
Louisville, Kentucky 40201

ORLDC-M

DR 405-2-1
18 January 1971

DISTRICT REGULATION
NO. 405-2-1

REAL ESTATE

Planning and Administration of Lake Project Lands

1. Purpose. This regulation prescribes policies and responsibilities for the planning and administration of lake project lands and waters on completed and uncompleted projects.

2. Applicability. It is applicable to all district organizations involved in planning and administration of lake project lands and waters.

3. References.

a. ER 10-1-3

b. ER 405-2-835

c. EM 1130-2-302

d. DR 1130-2-1

4. Policy. District personnel will execute the responsibilities assigned in references in the most economical and effective manner possible consistent with the land use policies stated in paragraph 2 of ref. 2b.

5. Organizational Responsibility. The assignment of organizational responsibility for planning and for the administration of civil project lands is contained in Appendix A.

6. Coordination. Effective planning and administration of lake project lands require a high degree of coordination and cooperation among the organizational elements involved. This is particularly applicable to maximum utilization of project site personnel in accomplishment of the various functional requirements. Once the manager of each lake project is on the project site, he logically becomes the initial District contact for the majority of outside agencies or individuals interested in utilizing reservoir project facilities. This situation results in his involvement to a certain degree in Real Estate Division activities even though he is assigned organizationally to the Operations Division. It is important that this condition

ORGANIZATIONAL RESPONSIBILITIES IN PLANNING AND ADMINISTRATION OF LAKE PROJECT LANDS

FUNCTION	REFERENCE	RESPONSIBLE ELEMENT* PLANNING	CONSTR.	ENGRG.	R.E.	OPER.
I. Interim Management and Use Prior to Master Plan						
a. Care and Custody during acquisition		C	C	C	P(1)	C
b. Interim use by former owners or others	ER 405-2-835, para. 6	C	C	C	P	C
c. Care and Custody after acquisition completed	EM 1130-2-302, para.(15b(2) ER 10-1-3, App.XVI,para.10	C	C	C	C	P
II. Public Use Plan						
a. Preparation and submission of land requirements plan for review	EM 1130-2-302, para. 15b(1) ER 405-2-835, para. 3a ORDR 1165-2-1	P		C	C-R	C
b. Preparation and submission of land requirements plan	EM 1130-2-302, para. 15b(1) ORDR 1165-2-1	P		C	C-R	C
c. Preparation and review of site layout and development plans	EM 1130-2-302, para. 15b(1) ORDR 1165-2-1	P		C	C	C
d. Adaptation of construction standards to requirements for public use areas	EM 1130-2-302, para. 15b(1)			P	C	C
e. General plan for fish & wildlife	ER 405-2-835, para. 3c	P		C	C	C
f. Preparation and submission of final Public Use Plan for approval	EM 1130-2-302, para. 15b(1) ER 405-2-835, para. 3a ORDR 1165-2-1	P		C	C-R	C

FUNCTION	REFERENCE	RESPONSIBLE ELEMENT* PLANNING	CONSTR.	ENGRG.	R.E.	OP.
g. Revisions to Public Use plan	EM 1130-2-302, para. 15b(1) ER 405-2-835, para. 3a ORDR 1165-2-1	P		C	C-R	C
h. Coordination with interested agencies	ER 405-2-835, para. 4a	P		C	C	C
III. Administration of Water Area & Priority 1 Lands (except Outgrants)						
a. Project development construction	EM 1130-2-302, para. 15b(2)	C	C	C	C	P
b. Fire protection, debris removal, erosion and mosquito control	ER 10-1-3, App. XVI, para. 10	C		C	C	P
c. Reports and statistics on public use	EM 1130-2-302, para. 15b(2)	C		C	C	P
d. Provide adequate safety and security controls on project lands, using technical guidance of Safety and Security Officers	EM 1130-2-302, para. 15b(2)	C		C	C	P
e. Permits for underbrush clearing and docks	EM 1130-2-302, para. 15b(2) ER 405-2-835, para. 9	C			C	P
f. Coordination with interested agencies		C			C	P(2)
IV. Outgrants						
a. Priority 1: (1) Planning	EM 1130-2-302, para. 15b(1) ER 405-2-835, para. 3a	P(3)		C	C	C
(2) Preparation of instruments, including land descriptions and maps	ER 405-2-835, para. 3d	C		C	P	C

FUNCTION	REFERENCE	RESPONSIBLE ELEMENT* PLANNING	CONSTR.	ENGRG.	R.E.	OPER.
(3) Advertising or negotiation and closing transactions	ER 405-2-835, para. 3d				P	
b. Priorities 2, 3 & 4 & excess:						
(1) Land use plan	ER 405-2-835, para. 5d	C-R		C	P	C
(2) Negotiation, preparation of instrument and closing	ER 405-2-835, para. 3d	C			P	C
(3) Administration	ER 405-2-835, para. 3b	C			P(4)	C
c. Coordination with interested agencies, organizations or individuals	ER 405-2-835, para. 5d	C			P	C
V. Compliance Inspections	ER 10-1-3, App. XVII, para. 2m ER 405-2-835, para. 3e				P(4)	C
VI. Utilization Report on All Project Lands	ER 10-1-3, App.XVII, para. 2m ER 405-2-835, para. 10b				P	C
VII. Management of Forest Resources						
a. Commercial	EM 1130-2-302, para. 12 ER 405-2-835, para. 8	C			P	C
b. Other(scenic, wildlife, etc.)	EM 1130-2-302, para. 12 ER 405-2-835, para. 8	C			C	P
VIII. Trespass or Unauthorized Use						
a. Government structures or other restricted areas	ER 10-1-3, App. XVI, para. 10					P
b. Land encroachments, including timber cutting:						

FUNCTION	REFERENCE	RESPONSIBLE ELEMENT* PLANNING	CONSTR.	ENGRG.	R.E.	OPER.
(1) Discovery, maximum effort for appropriate correction at field level and if unable to accomplish, make report	EM 1130-2-302, para. 18g ER 405-2-835, para. 3e				C	P
(2) Final actions:	ER 405-2-835, para. 3e					
(a) Floating facilities						P
(b) Grazing		C			P(4)	C
(c) Undergrowth clearing						P
(d) Minor construction (Steps and water lines)		C			P(4)	C
(e) Building construction		C			P(4)	C
(f) Dispute of boundary				C	P(4)	C
(g) Timber cutting		C			P(4)	C
IX. Disposal of Excess Lands	ER 405-2-835, para. 3b	R		C	P	C

*Definition of P, C and R responsibilities:

P - Primary: Answerable for accomplishment of the function.

C - Coordination: Involves elements indicated by P & C. Element with primary responsibilitiy must coordinate appropriate activities of C elements to assure effective accomplishment of the function. Elements indicated by C must participate fully in the coordinating actions initiated by the P element.

R - Review: Element with primary responsibility must insure that R elements review functional data prior to submission to higher authority.

NOTES:
(1) Secures assistance as appropriate from Construction or Operations field personnel in area.
(2) Other Federal, state or local government agencies.
(3) Real Estate Divn. will be represented in planning studies with Federal, State & local government agencies.
(4) Utilizes project personnel at site to maximum extent possible.

EXHIBIT G

CIVIL RIGHTS ACT OF 1964

ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF DEFENSE DIRECTIVE
UNDER TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

The Dept. of Fish and Wildlife Resources, Commonwealth of Kentucky, Applicant-Recipient, hereinafter called the Grantee, HEREBY AGREES THAT it will comply with title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 CFR Part 300, issued as Department of Defense Directive 5500.11, December 28, 1964) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Directive, no person in the United States shall, on the ground of race, color or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Grantee receives Federal financial assistance from the Secretary of the Army, hereinafter called the Grantor and HEREBY GIVES ASSURANCE THAT it will immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Grantee by the Grantor, assurance shall obligate the Grantee, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Grantee for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Grantee for the period during which the Federal financial assistance is extended to it by the Grantor.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Grantee by the Grantor, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Grantee recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Grantee, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Grantee.

Dated June 23, 1970

Commonwealth of Kentucky
Department of Fish and Wildlife
Grantee

By Maurice Clark
Commissioner

Frankfort, Kentucky
Mailing Address

EXHIBIT H

FACILITIES PLANNED IN DM 7B

Site 1	Below Dam	
Site 1	Below Dam	
	Bank fishing	0
	Camping	0
	Picnicking (60 parking units)	8
	Swimming	0
Site 2	Gays Creek	
	Boating and fishing	40 car-trailer spaces 24 foot boat ramp
	Camping	15 units
	Picnicking	9 units
	Swimming	0
Site 3	Otter Creek	
	Boating and fishing	20 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	7 units 1 picnic shelter
	Swimming	0
Site 4	Buckhorn State Park (Not shown in D. M. 7B)	
Site 5	Leatherwood	
	Boating and fishing	30 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	8 units
	Swimming	0
Site 6	Elkhorn Creek	
	Boating and fishing	20 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	20 units
	Swimming	0
Site 7	Trace Branch	
	Boating and fishing	47 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	18 units
	Swimming	0

Site 8	Confluence	
	Boating and fishing	55 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	20 units
	Swimming	0
Site 9	Buckhorn Ramp	
	Boating and fishing	30 car-trailer spaces 24 foot boat ramp
	Camping	0
	Picnicking	0
	Swimming	0

EXHIBIT I

EXISTING SUPPLY OF RECREATION FACILITIES BY SITE

Site 1	Below Dam	
	Boating and fishing	0 car-trailer spaces
		No ramp
	Camping	23 units
	Picnicking	4 units
	Swimming	No facilities
Site 2	Gays Creek	
	Boating and fishing	80 car-trailer spaces
		24 foot boat ramp
	Camping	26 units
	Swimming	0 units
Site 3	Otter Creek	
	Boating and fishing	0 car-trailer spaces
		No ramp
	Camping	0 units
	Picnicking	0 units
	Swimming	No facilities
Site 4	Buckhorn State Park	
	Boating and fishing	*90 car-trailer spaces
		48 foot boat ramp
	Camping	0 units
	Picnicking	66 units
	Swimming	1 beach
	Lodge	24 units
	Marina	Boat dock, restaurant, bait sales, boat storage and gasoline sales

(Site 4 developed by State of Kentucky0
* Total parking for recreation use includes

Site 5	Leatherwood	
	Boating and fishing	30 car-trailer spaces
		24 foot boat ramp
	Camping	0 units
	Picnicking	9 units
	Swimming	No facilities
Site 6	Elkhorn Creek	
	Boating and fishing	0 car-trailer spaces
		No ramp
	Camping	0 units
	Picnicking	0 units
	Swimming	No facilities

Site 7	Trace Branch	
	Boating and fishing	47 car-trailer spaces
		24 foot boat ramp
	Camping	26 units
	Picnicking	8 units
	Swimming	No facilities
Site 8	Confluence	
	Boating and fishing	55 car-trailer spaces
		24 foot boat ramp
	Camping	0 units
	Picnicking	15 units
	Swimming	No facilities
Site 9	Buckhorn Dam	
	Boating and fishing	30 car-trailer spaces
		24 foot boat ramp
	Camping	0 units
	Picnicking	8 units
	Swimming	No facilities

EXHIBIT J

WATER USAGE TABLE

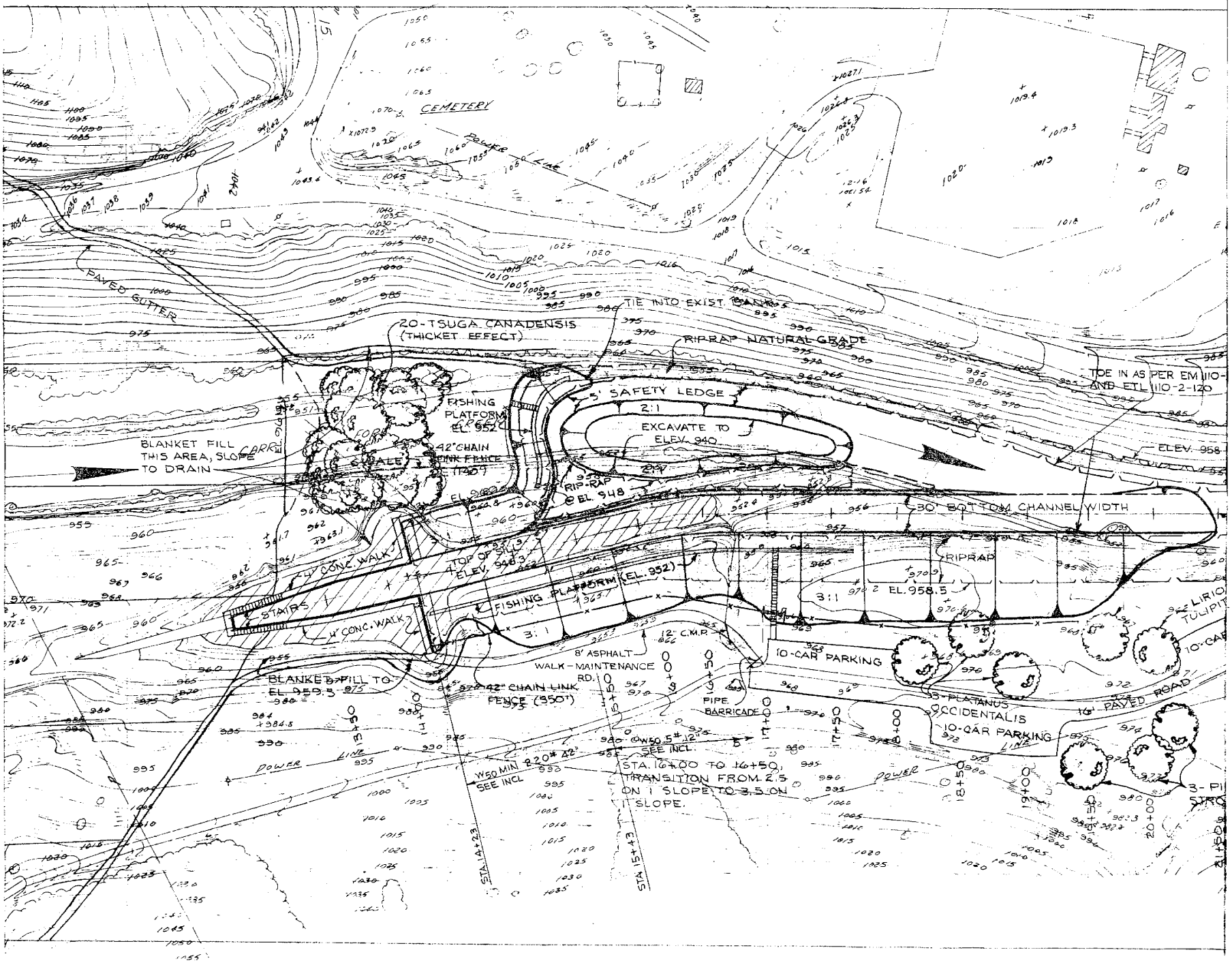
SITES	BOATING & FISHING PARKING	MOTEL & LODGE	RESTAURANT	MARINA	PICNICKERS	CAMPING PRIMITIVE	CAMPING DEVELOPED	CAMPING DELUXE	MAINTENANCE	TOTAL
BELOW DAM										
EXISTING	900				160	1,040				2,100
FUTURE					400		3,600		500	4,500
ULTIMATE										
GAYS CREEK										
EXISTING	1,200				160	1,040				2,400
FUTURE							10,400			10,400
ULTIMATE										
OTTER CREEK										
EXISTING										
FUTURE										
ULTIMATE										
BUCKHORN STATE PARK										
EXISTING										
FUTURE		WATER	SUP	PLIED	BY		OTHERS			
ULTIMATE										
LEATHERWOOD										
EXISTING	450				400					850
FUTURE						1,040				1,040
ULTIMATE										
ELKHORN CREEK										
EXISTING										
FUTURE										
ULTIMATE										
TRACE BRANCH										
EXISTING	750				320					1,070
FUTURE						1,040				1,040
ULTIMATE										
CONFLUENCE										
EXISTING	850				600					1,450
FUTURE					600					600
ULTIMATE										
DAM										
EXISTING	450				320					770
FUTURE										
ULTIMATE										

WATER USAGE TABLE

WATER USAGE TABLE
APPENDIX J

EXHIBIT K

FISHING PLATFORM


CEMETERY
POWER LINE
PAVED GUTTER
20-TSUGA CANADENSIS (THICKET EFFECT)
TIE INTO EXIST. BANK
RIPRAP NATURAL GRADE
TOE IN AS PER EM 1110-2-1601 AND ETL 1110-2-120
5' SAFETY LEDGE
2:1
EXCAVATE TO ELEV. 940
FISHING PLATFORM EL. 952
42" CHAIN LINK FENCE (140')
BLANKET FILL THIS AREA, SLOPE TO DRAIN
RIP-RAP @ EL. 948
ELEV. 958
30' BOTTOM CHANNEL WIDTH
4' CONC. WALK
TOP OF SLOPE ELEV. 963.3
FISHING PLATFORM (EL. 952)
STAIRS
3:1
RIPRAP
EL. 958.5
12" C.M.P.
8' ASPHALT WALK - MAINTENANCE RD.
10-CAR PARKING
BLANKET FILL TO EL. 959.5
42" CHAIN LINK FENCE (950')
PIPE BARRICADE
3-PLATANUS OCCIDENTALIS
16' PAVED ROAD
W50 MIN 220# 42" SEE INCL.
W50 5# 12" SEE INCL.
STA. 16+00 TO 16+50, TRANSITION FROM 2.5 ON 1 SLOPE TO 3.5 ON 1 SLOPE.
STA. 14+23
STA. 15+43