

CEMVS-DE (1105)

JUL 29 2004

MEMORANDUM FOR CEMVS-PM-E

SUBJECT: Lake Shelbyville, Illinois, Design Memorandum No. 7B, The Master Plan (Updated 2004)

Approve update to Lake Shelbyville Master Plan.

Approve *CKW*

Disapprove _____

C. Kevin Williams

C. KEVIN WILLIAMS
COL, EN
Commanding

MEMORANDUM THRU

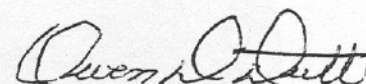
~~CEMVS-ED (Baldus)~~ ~~CEMVS-RE (Hewlett)~~ ~~CEMVS-OC (Levins)~~ BL~~CEMVS-CO (O'Bryan)~~ ~~CEMVS-DF (Keilett)~~ 

FOR Commander, St. Louis District

SUBJECT: Lake Shelbyville, Illinois, Design Memorandum No. 7B, The Master Plan (Updated 2004)

1. The updated Lake Shelbyville Master Plan is submitted for review and approval.
2. The updated master plan provides a current inventory and assessment of land and water resources and physical improvements, a reformulation of resource use objectives, discussions of influences on lake operations and management and an evaluation of existing and future needs required to protect the value of the resource base. Emphasis has been placed on increasing the efficiency of operations and rehabilitation of facilities.
3. The technical review has been completed. Checklist and certification are attached.
4. It is requested that approval be granted to provide or replace facilities described in Sections 8 and 13. The cost of new facilities is estimated at \$798,049 dollars and replacement and repair costs at approximately \$9,650,472 dollars.
5. In accordance with ER 1130-2-550, paragraph 3-2 h., approval of this plan by the District commander is requested.
6. POC for this effort is Francis Walton, x8487.

Encl



OWEN D. DUTT
Chief, Environmental Analysis
Branch

MEMORANDUM FOR RECORD - TECHNICAL REVIEW COMPLETE

CEMVS-PM-F

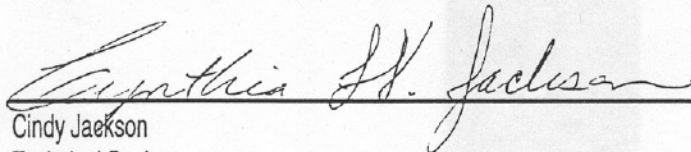
Date 8/4/2003

MEMORANDUM FOR RECORD

THRU Chief, Planning and Project Development Branch

SUBJECT: Quality Control Review, Project LAKE SHELBYVILLE

In accordance with the District's Quality Control Management Plan, the Quality Control Review for LAKE SHELBYVILLE DRAFT MASTER PLAN has been completed and all comments are resolved. I certify the completion of this review.



Cindy Jackson
Technical Reviewer

6. POLICY ASPECTS:	Yes	No	N/A	Comments
a. Does the proposed project conform to policies established in ER 1165-2-400 (Water Resource Policies and Authorities)	✓			
8. LEGAL/INSTITUTIONAL:				
a. Have the legal and institutional obstacles to project implementation been considered and has a plan been developed to overcome them?	✓			See sections 10-13, 1, 10
9. REPORT REVIEW:				
a. Does the report format follow the most recent guidance?	✓			
b. Have all major technical review issues and resolutions been documented?	✓			
c. Is the technical review certification signature page included?	✓			
10. FINANCIAL ANALYSIS				
a. If applicable, does the report state the benefit-cost ratio (BCR) for the recommended plan assuming existing conditions prevail over the period of analysis?	✓			yes, where appropriate
b. Has the economic evaluation of recreational development been adequately determined?	✓			see sec. 5-03
11. RECREATION/AESTHETIC				
a. Have the necessary recreational coordination been conducted in accordance with the NFCA of 1944, FPWA of 1965, and the WRDA of 1986, the Land and Water Conservation Fund Act, and appropriate Corps regulations?	✓			
b. Has the assessment of adverse effects dealing with recreation and aesthetic conditions been considered in each alternative plan?	✓			see sec. 11-04, 10-11, 4-05
c. Has coordination with the State Department of Culture, Recreation, and Tourism been conducted, and the State Comprehensive Outdoor Recreation Plan been consulted concerning proposed recreational development.	✓			Partners were consulted
d. Has appropriate NED unit day values been assessed via Economic Guidance Memorandum, Unit Day Values for recreation? Are current fiscal year rates being used?			✓	no recreation economics were required.

Technical Checklist

Project: Lake Shelbyville Master Plan Update

Date 8/4/2003

Item	Yes	No	N/A	Comments
GENERAL				
1. AUTHORITY:				
a. Does the activity/project conform with authorized project purposes?	✓			
2. SCOPE:				
a. Have all significant resources been adequately considered?	✓			
b. Have all foreseeable short-term and long-term needs been adequately considered?	✓			
c. Have implications outside the activity/project area been properly addressed?	✓			
3. OBJECTIVE OF MASTER PLAN:				
a. Are master plan objectives clearly stated?	✓			
4. COORDINATION:				
a. Was there adequate coordination with appropriate State, local, and Federal agencies, and were their views considered in formulating the recommended plan?	✓			Endangered species USFWS, DOT, IDNR
b. Has coordination conformed with law, executive orders, and agreements between agencies; and, if not, has the departure been satisfactorily explained?	✓			
c. Have the proper preservation, conservation, historical, and scientific interests been consulted, and were their views given adequate consideration during plan development?	✓			
5. PUBLIC INVOLVEMENT:				
a. Was the scoping process in accordance with EP 1130-2-550, Sect. 3-4 d.?	✓			
b. Was adequate public involvement conducted during the planning process to fully inform interested parties and to ascertain their views?	✓			Preface, VI, workshops, letters, meetings, newsreleases
c. Have implications associated with the recommended plan been properly addressed?	✓			See Appendix 3
d. Has there been adequate response to public concerns?	✓			See Appendix 3
e. Has the public involvement process been documented, and a discussion of the process prepared?	✓			See Appendix 3

Lake Shelbyville Draft Master Plan Comments

Overall Comments: Plan is full of information, and credit should be given to the folks involved in writing the plan. The following comments are not criticisms, but areas to look at as suggestions.

Photos might be a good idea to include with text. Reading does not fully describe needs or intentions like a photograph might. "The existing Office is inadequate" – have a picture to break up words and also reflect what is inadequate.

Response: Photos are provided in Appendices for documentation.

Also noted in the photos the presence of asbestos in the office. Found the only mention of asbestos on page 11-17 for the office otherwise. Is there a plan for removal and disposal and cost associated with this, if so, mention it in the office section as well as environmental compliance section. Are there other environmental compliance issues with hazardous waste or materials, cultural issues, etc.? If so make mention of those also.

Response: Comment noted.

Should Back Log Maintenance be included as a topic? Or is it addressed in OMP?

Response: Section 11-06 addresses building repair, maintenance, replacement and rehabilitation, but other items are covered in the OMP.

Some issues are covered in several different areas. Is it possible to consolidate some items?

Response: Some items in Sections 10 and 11 are more in-depth discussion of issues discussed elsewhere in the plan.

Preface

Comment: Objectives seem more people oriented and not Natural Resources or Environmental Stewardship goal driven. Possible add words that the Corps promotes habitat improvement and maintains "refuge or Wildlife Management areas" on project lands.

Response: Concur. Language has been added.

Mission Statement – page 1-13

Comment: I realize the intent was to drive Recreation and Environmental missions, but some part of that mission may need to include Flood Control.

Response: Perhaps this statement should be removed or the following added before the first sentence: "While flood control is a primary project purpose, ...

I added a sentence after the first one. "Lake Shelbyville is managed and operated by the Corps of Engineers for the following purposes; flood control, recreation, water supply, navigation, and fish and wildlife conservation."

Project Data – page 2-2

Comment: There is no inclusion of Flowage Easement in this section.

Response: Concur. Corrected

Day Use Fee Collection – page 10-5

Fees have changed with new ER. Annual Pass is now \$30, check picnic shelter reservation fees, and the Special Event Fee is \$50 with exceptions. A list of any partners who help sell Annual Passes might be appropriate here also.

Response: Concur. CO-S Fee amounts have been changed. Currently no partners sell annual passes.

Corps Lease Lands – page 10-10

Are there any Agricultural Leases?

Response: CO-S Added information concerning ag lease program to 10-05.d.

Recreation Area Efficiency Measures – page 10-13

Special Event Permits \$30? Should be \$50. Also check reference ER on front cover to see if it is the new ER (Change 3?).

Response: Concur. Changed amount and checked ER. Change to new ER is mentioned in 1-01.

Environmental Compliance – page 10-15

Needs more than just the NEPA criteria. No mention of ERGO/TEAM (Environmental Review Guide for Operations/The Environmental Assessment Manual) or ER-200-2-3. Five (5) year assessment, history, Small Quantity or Exempt Small Quantity Generator status, 13 Protocols, areas reviewed, Corrective Action Plans (CAP), Pollution Prevention Plan, etc.

Response: CO-S, CO-T Added some information to 10-11 Environmental Compliance to make it a little stronger. Added ER and EP 200-2-3 to Section 1-01.

OMP page 12-1

Somewhere mention 5 year plans.

Response: Concur. Added a couple of sentences to 12-01. "The OMP is a five-year plan. The plan was updated in 2003 and will be updated again in 2008.

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PREFACE

Construction of Lake Shelbyville was authorized for development by the Flood Control Act of 28 June 1938 and the Flood Control Act of 3 July 1958 for flood control and related multiple purposes. Construction started in May 1963, and Lake Shelbyville was placed in operation in August 1970. The original Master Plan was approved in October 1964, then revised in 1974, and updated in 1979, 1984, and 1998. The Master Plan serves as the guide for the orderly development and management of the land and water resources at Lake Shelbyville.

This updated Master Plan effort began as a supplement. However, after further review of the 1998 update, the need for a complete update to accurately reflect current conditions and proposed actions became apparent. A current inventory and assessment of land and water resources and physical improvements is provided along with reformulated resource use objectives, discussions of influences on lake operation and management, and an evaluation of existing and future needs and requirements to protect the value of the resource base. Emphasis has been placed on increasing the efficiency of operation and renovation of facilities for public safety.

The St. Louis District of the U.S. Army Corps of Engineers manages Lake Shelbyville; yet many others play a crucial role in the operation of the project. Important partners include the Illinois Department of Natural Resources (wildlife management areas and state parks), marina concessionaires, upstream and downstream interest groups, farmers, local and civic groups, businesses, and people that partake in outdoor recreation. The objective of the Lake Shelbyville Master Plan is to meet the needs and interests of the various users of the project, and outline a 10-year plan of action assuring that all project purposes are addressed efficiently and responsive to needs.

All aspects of lake operation have been re-evaluated due to changes that have taken place since the last update in 1998. In some instances, public lands have been reclassified to more fully reflect their present use. As a result of the shoreline eroding in the vicinity of recreation areas a Letter Report was prepared to determine the extent of the problem and recommend solutions. The Shoreline Erosion Letter Report, under a separate cover, is part of the updated Master Plan for Lake Shelbyville. The Mississippi Valley Division approved it in January of 1993. The shoreline protection and the changes to the recreation areas that were recommended are addressed in this Master Plan as approved work. All recreation area site plans have been revised to reflect existing development.

Coordinating the update of a Master Plan with the public and government agencies is very important for identifying resources and determining public needs and desires. Through informal workshops, letters, meetings, and news releases, the public and agency partners were provided the opportunity to comment on this plan.

The St. Louis District Engineer approves the plan; however, this does not assure that all proposed projects would be completed. After approval, funding must be secured to complete the proposed projects. Further design requirements and environmental reviews will be conducted at the time when funding and approval for those items is received.

**PREVIOUSLY ISSUED DESIGN MEMORANDA
LAKE SHELBYVILLE**

<u>Memorandum Number</u>	<u>Title</u>	<u>Date Submitted</u>
1	Hydrology and Hydraulic Analysis	29 Dec 60
2	Site Selection	2 Mar 61
3	General Design	28 Dec 61
4	Geology and Soils	1 Mar 62
5	Buildings, Utilities, and Access Roads	1 May 62
6A	Real Estate Memorandum for Damsite Areas	9 May 62
7A	Preliminary Master Plan	1 Jun 62
8A	Relocations – Utilities	31 Oct 62
	Revised and Resubmitted	13 Feb 64
6B	Real Estate Memorandum for Public Use Areas and Reservoir	21 Dec 62
8C-2	Relocations – County and Township Roads	10 Jul 63
8C-1	Relocation – State Highways	27 Nov 63
7B	Master Recreation Plan	30 Jun 64
8B	Relocations – Railroads	1 Jul 64
9A	Availability of Construction Materials	21 Aug 64
9	Main Dam and Spillway	30 Nov 64
8D	Cemetery Relocation Plan	1 Apr 65
8E	Relocations – Miscellaneous Utilities	1 Feb 66
10	Maintenance Facilities	9 Jul 68
11	Improved Access to Public Use Areas	30 Oct 73
12	Letter Report, Shoreline Erosion	29 Jan 93

Section I

Introduction

MASTER PLAN

DESIGN MEMORANDUM NO. 7B

LAKE SHELBYVILLE, ILLINOIS

SECTION I – INTRODUCTION

1-01. AUTHORIZATION

Federal laws provide that land and water areas of Department of the Army reservoirs, constructed for the primary purposes of flood control, navigation, and/or power, shall be administered to encourage and develop all collateral uses such as water supply, public parks and recreation, conservation of fish and wildlife resources, pollution abatement, and other purposes in the public interest.

Lake Shelbyville was authorized by the Flood Control Act of 1938 and modified by the Flood Control Act of 1958 in accordance with the Chief of Engineer's recommendations contained in House Document #232, 85th Congress, 1st session.

This report has been prepared in accordance with guidance contained in the following:

- a. ER 1105-2-100 Planning Guidance Notebook (22 April 2000)
- b. ER 200-2-3 Environmental Compliance Policies (30 Oct 1996)
- c. EP 200-2-3 Environmental Compliance Guidance and Procedures (30 Oct 1996)
- d. ER 1130-2-550 Recreation Operations and Maintenance Policies (original 15 Nov 96, chg 1, 01 Oct 99, chg 2, 01 Mar 02, chg 3, 15 Aug 02)
- e. EP 1130-2-550 Recreation Operations and Maintenance Guidance and Procedures (original 15 Nov 96, chg 1, 01 Oct 99, chg 2, 01 Mar 02, chg 3, 15 Aug 02)
- f. ER 1165-2-400 Water Resource Policies and Authorities, Recreation Planning, Development, and Management Policies (original 09 Aug 85, chg 1, 1988)
- g. ER 1110-2-400 Design of Recreation Sites, Areas, and Facilities (31 May 1988)
- h. ER 1130-2-540 Environmental Stewardship Operations and Maintenance Policies (original 15 Nov 1996, chg. 1, O4 Nov 2002)
- i. EP 1130-2-540 Environmental Stewardship Operations and Maintenance Guidance and Procedures (original 15 Nov 1996, chg. 1, 04 Nov 2002)

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- j. EM 1110-1-400 Recreation Planning and Design Criteria (1987)
- k. ER 1130-2-406 Shoreline Management at Civil Works Projects (original 31 Oct 1990, chg 2, 1999)
- l. ER 405-1-12 Real Estate Handbook (Original 20 Nov 1985, chg 34, 2000)
- m. ER 1120-2-404 Investigation, Planning and Development of Water Resources - Federal Participation in Recreational Development (1970)
- n. Environmental Impact Statement of Operation and Maintenance - Lake Shelbyville, Illinois (1975)

1-02. PROJECT PURPOSES

The purposes of the project include flood control on the Kaskaskia and Mississippi Rivers, navigation releases for the Kaskaskia River, domestic and industrial water supply, water quality control, fish and wildlife conservation, and recreation.

1-03. PURPOSE OF THE MASTER PLAN

The original Master Plan was intended as a guide for the orderly and coordinated development and management of all lands and water areas of the project. It presented data on the scope of development considered adequate for initial public use and an estimate of future requirements. The revised Master Plan presented an inventory and assessment of land and water resources and physical improvements, analysis of resource use and an evaluation of existing and future needs required to protect and improve the value of the resource base. The provision of quality and relevant services to the public was also evaluated. An economic evaluation of the market potential for resort and marina development was presented as one of the factors influencing resource development. This Master Plan builds on those plans and development. It also includes and builds from the Shoreline Erosion plan that was developed to alleviate the problems that shoreline erosion has been causing in the developed recreation areas.

1-04. SUPPLEMENTS AND LETTER REPORTS TO PRIOR MASTER PLANS

The original Master Plan was approved in October 1964, revised in 1974 and updated in 1979, 1984, and 1998. There were nine supplements and three letter reports requesting changes or additions to the original document. Seven supplements and two letter reports were submitted requesting changes or additions to the revised or updated documents. There have been a series of documents on Shoreline Erosion that have modified the Master Plan. The Shoreline Erosion documents include a Shoreline Erosion Management Plan and Environmental Assessment, a memorandum, and two letter reports.

Lake Shelbyville Master Plan

The following paragraphs in this section represent a chronological presentation of the supplements and letter reports to prior master plans.

a. Original Master Plan - Supplements and Letters. The following is a brief summary of the twelve reports that changed the original document:

(1) Supplement No. 1, 31 August 1967, presented the necessary modifications for upgrading the sanitary facilities at Wilborn Creek (Area No. 6), Sullivan (Area No. 8), and Whitley Creek (Area No. 10) Access Areas. Improvements included the installation of water borne comfort stations in lieu of the standard vault-type units that were previously approved for these areas, central shower and laundry buildings, and sanitary dump stations for the campsite developments at Areas 8 and 10, and sewage treatment facilities, 1st Endorsement, 19 October 1967.

(2) Letter, LMSED-PC, this office, 29 September 1967, Subject: Water Supply for Recreation Areas D-1, D-2, D-3, 1, 2, 3, and 13, Shelbyville Reservoir, Kaskaskia River, Illinois. The purpose of this letter was to obtain approval of a plan for supplying water to the subject recreation areas using the activity of Shelbyville's water system. Studies of comparative costs indicated a distinct economic advantage for using the city's water supply in lieu of costs for installing, operating, and maintaining treatment plants of sufficient size to furnish water to the seven access area. It was recommended that the letter be approved as a basis for proceeding with negotiations with the city of Shelbyville for the water service contract. Letter was approved by LMVED-TD, 1st Endorsement, 2 November 1967.

(3) Supplement No. 2, 7 February 1968, proposed the upgrading of sanitary facilities and the site plans at recreation area D-1, D-2, D-3, 1, 2, 3 and 13. It also contained minor additions to the previously approved upgrading plan for recreation areas 6 and 8. Modifications included provisions of central shower and laundry buildings and sanitary dumping stations at camping areas 2 and 13, conversion of 25 existing SC-1's in lieu of five previously approved SC-1's at areas D-2 and D-3, sewage treatment facilities for area 1, 2, 3 and 13, and provision of marine sanitary stations near the launching ramps at areas D-3, 1, 3, 6, 8, and 13. With exception of the latter, supplement was approved by ENG CW-OM, 2nd Endorsement, 13 June 1968. It was suggested that one marine sanitary station be installed at Lake Shelbyville to determine the costs of installation, operation and maintenance for a one-year period.

(4) Supplement No. 3, 9 April 1969, proposed excavation and shaping of six previously approved boat harbor sites to insure adequate and safe mooring and maneuvering areas as required, to develop and provide for their maximum utilization. Supplement was approved by LMVCO-O, 1st Endorsement, 5 May 1969.

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(5) Letter, LMSSD-C, this office, 14 November 1969, Subject: Request for Approval of Contract with Moultrie County Rural Public Water District for Furnishing Water Service to Public Use Areas 6, 8, 10 and 11. Letter was approved by ENGGC-R, 2nd Endorsement, 29 December 1969.

(6) Supplement No. 4, 17 March 1970, presented a plan for providing improved access roadways to the Lithia Springs and Lone Point Public-Use Areas. The proposed improvements included construction of 10,900 feet of roadways with 20-foot wide surface and 4-foot shoulders. The access roads were designed to be comparable to the circulation roads within the recreation areas. The local county road authorities agreed to purchase all additional necessary rights-of-way and to be responsible for maintaining the completed roadway. Supplement was approved by ENDCW-EZ, 2nd Endorsement, 22 April 1971, with one reservation - "Prior to construction, local interests must acquire and turn over to the Government fee title for right as-of-way necessary to accommodate the improvements, Also, assurances that the roads will remain open to the public and that the county will accept maintenance responsibility with easement return, must be furnished." Subsequently, these requirements were further elaborated on in paragraph 3 of the 4th Endorsement.

(7) Letter, LMSED-PC, this office, 14 May 1970, Subject: Marine Sanitary Stations at Lake Shelbyville. In 2nd Endorsement to Supplement No. 2, ENGCW-OM, 13 June 1968, it was suggested that one such sanitary station be provided (see (3) above). However, to comply with Illinois Department of Public Health regulations that prohibit the discharge of sewage from boats into Federal impoundment areas, it was requested that two additional sanitary stations be installed. The three stations are located at recreation areas 6, 10, and 13 and should adequately serve the lake. Letter was approved by ENGCW-OR, 2nd Endorsement, 26 June 1970.

(8) Supplement No. 5, 15 January 1971, requested approval to construct a swimming area at the Shelbyville Dam West Access Area (D-3). In addition to the swimming beach, complementary facilities would include a connecting roadway, paved walking area, grass overflow parking area, drinking fountains, paved walkway and a bathhouse to include toilets, showers, and change space. It was proposed to complete phases of planned initial development of the facilities at the D-3 area and outgrant all lands and facilities to the city of Shelbyville for operation and maintenance. In addition to the proposed beach facility, previously approved facilities at this area include a boat launching ramp and related parking, modest picnicking and sanitary facilities, limited landscaping, boat harbor concession site, and adequate lands to complement the city park. Supplement was approved by ENGCW-PV, 2nd Endorsement, 10 March 1971.

(9) Supplement No. 6, 10 March 1972, requested authority for providing electrical facilities at the campsites in Coon Creek and Sullivan Public Access Areas (Sites 2 and 8). Improvements included campsite service equipment for 126 campsites at Coon Creek and 81 campsites at Sullivan Access Area. The provision of these facilities at 207 of the total 415 campsites originally approved for the lake would assure that the using public will have a choice of campsites relative to their needs. Supplement was approved by LMVPD-R, 1st Endorsement, 5 April 1972.

(10) Supplement No. 7, 23 August 1972, proposed the construction of an additional roadway at Lithia Springs Access Area to separate the concession area, boat launching complex, and day-use facilities from the camping facilities. In addition, a campground control station was proposed for purposes of maintaining security and collecting user fees. This supplement was approved by LMVPD-R, 6 October 1972.

(11) Supplement No. 8, 17 November 1972, proposed the development of a swimming beach facility on a portion of Area E, to be constructed jointly by the Corps of Engineers and the County Board of Moultrie County. This supplement was approved by LMVPD-R, 19 December 1972.

(12) Supplement No. 9, 18 April 1973, proposed upgrading and/or construction of new recreational facilities for the Opossum Creek, Lone Point, Coon Creek and Lithia Springs Access Areas. Changing recreational demands resulted in most of the picnic facilities being unused, therefore, the unused areas at Lone Point and Opossum Creek were converted to the more desirous recreational use of camping, with both tent and camper units. Additional campsites were added at Coon Creek and Lithia Springs. This supplement described the work and cost estimate of converting these picnic areas to camping use with support facilities. Supplement No. 9 was approved by LMVPD-R, 1st Endorsements, 9 November 1973.

b. Revised Master Plan - Supplements and letter.

The following is a brief summary of the eight reports that changed the revised documents:

(1) Supplement No. 1, 15 October 1975 proposed the upgrading of beach sanitary facilities at the Wilborn Access Area and the Okaw Bluff, Sullivan Beach Area to meet State of Illinois standards for recreation areas established as rules and regulations by the Illinois Department of Public Health. This Design Memorandum was approved by LMVCO in a 3rd Endorsement on 7 May 1976.

(2) Letter, LMSED-BR, this office, 7 April 1976, Subject: Request authority to rename the Sullivan Access area the Forrest W. "Bo" Wood Access Area in recognition of Mr. Wood's support for water resources projects of the

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Kaskaskia River, Illinois. Approval was granted by LMVPD-R in a 1st Endorsement 29 April 1976.

(3) Supplement No. 2, 23 July 1976, proposed the development of a Visitor Center in the East Access Area. This Design Memorandum was approved by LMVPD-R in a 3rd endorsement dated 14 January 1977.

(4) Supplement No. 3, Illinois Department of Conservation Recreation - Resource Development Plans, provided updated plans submitted by the Illinois Department of Conservation now known as the Illinois Department of Natural Resources, for recreation - resource development on public lands managed by the State of Illinois agency at Lake Shelbyville. This supplement was approved by LMVPD-R in a 1st Endorsement dated 23 November 1976.

(5) Supplement No. 4, 9 February 1979, purpose: To reallocate land uses presently assigned to portions of the projects' land area, determine the best use for those access areas returned to the Corps from the Illinois Department of Conservation, and to update all site plans to reflect their as-built condition. This supplement was approved by LMVPD-R, 1st Endorsement, 6 April 1979.

(6) Letter, LMSOD-R, this office, 26 July 1979, Subject: Upgrade Sanitation Facilities, Code 710 Program, Lake Shelbyville, Illinois. Approval was granted by LMVPD-R, 1st Endorsement, 31 August 1979.

(7) Supplement No. 5, 31 May 1984, purpose: to modify five comfort stations to include shower facilities at two camping areas, and to prepare a supplement to the Real Estate Design Memorandum that proposes acquisition of six right-of-entry easements to remote parcels of public land. This supplement was approved by LMVPD-R, 3rd Endorsement, 22 February 1985.

(8) Supplement No. 6, 19 February 1988, purpose: to remodel two comfort stations to provide shower facilities, replace four vault toilets with two water borne facilities, and to expand the existing parking area at a boat ramp. This supplement was approved by CELMV-PD-R, 1st Endorsement, 24 March 1988.

c. Shoreline Erosion Plan. These four documents provide for the protection of facilities from the shoreline erosion that is experienced at Lake Shelbyville.

(1) Letter Report, 11 May 1970, LMSED-PC, Lake Shelbyville, Illinois, Shoreline Erosion. This document recommended that shoreline protection be provided for areas where boat launching ramps were located and

for one cemetery. For the remainder of the reservoir area the report recommended that protection be deferred until it was considered necessary.

(2) Shoreline Erosion Management Plan and Environmental Assessment, July 1992, St. Louis District COE. This plan identified those areas that would need to be protected, relocated or removed due to the progress of the shoreline erosion on the lake. This report only covers those facilities that will be impacted within the next 30 years, continuing with the philosophy of the previous report of deferring protection until it is necessary. The time period was chosen because of practical concerns such as the life of the facilities and changes in facility needs. The facilities at Dam East, Dam West, Lithia Springs, and Okaw Bluff Recreation Areas along with Eagle Creek State Park, Fox Harbor Marina (now known as Sullivan Marina and Campground) and Findlay Marina are areas that were considered to be the first priority for protection, relocation or removal of facilities. Locations with lower priorities were Bo Wood, Lone Point, Coon Creek, Opossum Creek, Whitley Creek, Wolf Creek State Park, and Wilborn Creek. An environmental Finding of No Significant Impact (FONSI) was signed on these actions on 4 February 1992.

(3) Memorandum, CELMV-PD-R, 17 October 1991, Subject: Facility Impacts of Shoreline Erosion, Lake Shelbyville, Illinois. Requested that the costs in the Shoreline Erosion Report be reconciled, NED benefits reported, additional information of the riprap design was needed, and no new facilities can be added nor can facilities be upgraded as part of the shoreline erosion plan.

(4) Letter Report, Shoreline Erosion Plan, CELMS-OD-R, 29 January 1993. This report proposes a combination of revetment and relocation as a result of the shoreline erosion at Lake Shelbyville. This report contained detailed riprap designs and cost estimates for proceeding with the work outlined in the proceeding reports.

1-05. APPLICATION OF PUBLIC LAWS

Development and management of Federal reservoirs for various purposes is provided under several statutes. These laws cover development of recreation facilities, licensing of lake lands for fish and wildlife purposes, protection of natural resources, and leasing of public lands for incidental uses other than recreation.

a. Recreation. Development and management of recreation facilities at Department of Army constructed reservoirs by the Corps of Engineers, other governmental agencies, local groups, and individuals is authorized under the following public laws:

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(1) Section 4 of the Flood Control Act, approved 22 December 1944 (Public Law 534, 78th Congress), authorizes providing facilities for public use, including recreation and conservation of fish and wildlife.

(2) The River and Harbors Act, approved 2 March 1945 (Public Law 14, 79th Congress), specifies the rights and interests of the states in watershed development and water utilization and control, and the requirements for cooperation with state agencies in planning for flood control and navigation improvements.

(3) Section 209 of the Flood Control Act of 1954 (Public Law 83-780), approved 3 September 1954, amended the Flood Control Act of 1944. It authorized the Secretary of the Army to grant leases to federal, state or governmental agencies without monetary considerations for use and occupation of land and water areas under the jurisdiction of the Department of the Army for park and recreation purposes when in the public interest.

(4) The Land and Water Conservation Fund Act, approved 1 September 1964 (Public Law 578, 88th Congress, 78 Stat. 897), contains provisions by which the Corps of Engineers may charge for admission and use of its recreation areas under prescribed conditions.

(5) The Federal Water Project Recreation Act, approved 9 July 1965 (Public Law 72, 89th Congress, 79 Stat. 213) contains cost sharing provisions for acquisition of lands and development of recreation facilities for water resources projects authorized after 1965. It also provides for cost sharing development of new areas that were not part of initial project construction.

(6) The Architectural Barriers Act of 1968 (Public Law 90-480), together with the acts and amendments listed in 9, 10, and 11 below, provides information and guidance regarding universal accessibility for persons with disabilities to the Corps of Engineers recreation facilities and programs.

(7) The Rehabilitation Act of 1973 (Public Law 93-112) and the Rehabilitation Act Amendments of 1974 (Public Law 93-516). See Architectural Barriers Act above.

(8) The Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (Public Law 95-602). See Architectural Barriers Act above.

(9) The Water Resource Development Act of 1986, Section 103 (c) (4) states that the non-Federal share of the costs assigned to recreation, is 50 percent of the separable costs, to be paid during the construction period. Non-Federal sponsors must also provide all LERRD assigned to the recreation purpose and perform all necessary relocations.

(10) The Americans with Disabilities Act of 1990 (Public Law 101-336). See Architectural Barriers Act above.

(11) The Water Resources Development Act of 1992, (PL 102-580) approved 31 October 1992 authorized the Challenge Cost Sharing Program (Section 225) that permits the Corps to develop and implement a program to accept contributions of funds, materials and services from non-Federal public and private entities to be used in managing recreation facilities and natural resources.

(12) The Omnibus Budget Reconciliation Act – Day Use Fees, approved 10 August 1993 (Public Law 103-66), contains provisions by which the Corps of Engineers may collect fees for the use of developed recreation sites and facilities, including campsites, swimming beaches, and boat launching ramps but excluding a site or facility which includes only a boat launch ramp and a courtesy dock.

(13) The Water Resources Development Act of 2000, (PL 106-541) approved 11 December 2000, Section 552 Watershed Management, Restoration and Development amended Section 503(d) of the Water Resources Development Act of 1996 by adding (29) Kaskaskia River Watershed, Illinois. The Corps may provide technical, planning, and design assistance to non-Federal interests for carrying out watershed management, restoration, and development projects. The non-Federal share of the cost of assistance provided will be 50 percent.

b. Fish and Wildlife. The fish and wildlife aspects of resource development were authorized under the following public laws:

(1) The Fish and Wildlife Coordination Act, enacted 10 March 1934, as amended 14 April 1946 (Public Law 732, 79th Congress, 48 State. 401), and 12 August 1958 (Public Law 624, 85th Congress, 72 State. 563), provides authority for making project lands of value for wildlife purposes available for management by interested federal and state wildlife agencies. It further provides for more effective integration of a fish and wildlife conservation program with federal water resources developments.

(2) The National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq), declares a national environmental policy and requires that all federal agencies shall, to the fullest extent possible, use a systematic, interdisciplinary approach which integrates natural and social sciences and environmental design arts in planning and decision making.

(3) The Endangered Species Act of 1973 as amended (16 USC 1531 and 1536) requires that federal agencies shall, in consultation with the U.S. Fish

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and Wildlife Service (USFWS) or the National Marine Fisheries Service), use their authorities in furtherance of conserving endangered and threatened species and take such action as necessary to assure that their actions are not likely to jeopardize such species or destroy or modify their critical habitat.

(4) EO 12962, 7 June 1995, entitled Recreational Fisheries directs Federal agencies to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by means of a number of duties. In addition, it establishes a National Recreational Fisheries Coordination Council consisting of seven members (including one designated by the Secretary of Defense). The "Coordination Council" is charged with developing a comprehensive Recreational Fishery Resources Conservation Plan. This EO also directs all Federal agencies to identify and minimize conflicts between recreational fisheries and their responsibilities under the Endangered Species Act of 1973 and expands the role of the Sport Fishing and Boating Partnership Council.

(5) The Water Resource Development Act of 1986, Section 1135, provides for modifications in the structures or operations of a project, consistent with authorized project purposes to improve the quality of the environment, i.e. restoration of fish and wildlife habitat. WRDA 1996 amended Section 103 of WRDA 1986 by specifying that the non-federal share of environmental restoration and protection projects shall be 35 percent.

c. Forest Resources – Protection and Improvement of Natural Resources. The Forest Conservation Act (Public Law 717, 86th Congress, 74 Stat. 817) approved 6 September 1960, provides for the protection of forest cover in reservoir areas, and specifies that reservoir areas of projects for flood control, navigation, hydroelectric power development, and other related purposes, owned in fee and under the jurisdiction of the Secretary of the Army and the Chief of Engineers, shall be developed and maintained so as to encourage, promote and assure fully adequate and dependable future resources of readily available timber through sustained yield programs, reforestation, and accepted conservation practices, and to increase the value of such areas for conservation, recreation and other beneficial uses; provided, that such development and management shall be accomplished to the extent practicable and compatible with other uses of the project. The law further provides that in order to carry out the national policy declared in the first section of this Act, the Chief of Engineers, under the supervision of the Secretary of the Army, shall provide for the protection and development of forest or other vegetative cover and the establishment and maintenance of other conservation measures on reservoir areas under his or her jurisdiction, so as to yield the maximum benefit and otherwise improve such areas. Programs and policies developed pursuant to the preceding sentence shall be coordinated with the Secretary of Agriculture, and with appropriate state conservation agencies.

d. Other Incidental Uses. Title 10, United States Code, Section 2667, authorizes the lease of land at water resource projects for any commercial or private purpose not inconsistent with other authorized purposes, subject to specific restrictions thereupon, as set out in regulations, policy, and Delegations of Authority. Title 16, United States Code, Section 460d, authorizes use of public lands for any public purpose, including fish and wildlife, if it is in the public interest. Such uses are also subject to regulations, policy and Delegations of Authority. The use of project lands for easements and licenses is authorized in various Congressional Acts and codified in Titles 10, 16, 30, 32, and 43 of the United States Code. Lands and rights-of-way will be acquired pursuant to provisions of the Uniform Real Property Acquisition and Relocation Assistance Act of 1970, Public Law 91-646, as amended.

e. Cultural and Historical Considerations. A number of laws mandating the protection of cultural resources on public lands have been passed during the last century. These laws and Executive Orders are summarized in Appendix A of the St. Louis District Cultural Resource Management Policy (April 1982). The following laws subsume, clarify or supersede all previous cultural resource law:

(1) The Archeological Resources Protection Act of 1979 (16 USC 470 et seq.) consists of PL 96-95 (October 31, 1979) and amendments thereto. This law protects archaeological resources and sites that are on public lands and Indian land, and fosters increased cooperation and exchange of information between governmental authorities, the professional community, and private individuals.

(2) The 1980 Historic Preservation Amendment to the National Historic Preservation Act of 1966, Public Law 96-515, states a policy of preserving, restoring and maintaining cultural resources and requires that federal agencies take into account the effect of any undertaking on any site eligible for the National Register of Historic Places.

(3) The Archaeological and Historic Preservation Act of 1974 (16 USC 469 et seq.) (Reservoir Salvage Act, Public Law 86-532, 27 June 1960, as amended) provides for the preservation of historical and archaeological data that might otherwise be lost or destroyed as the result of flooding or any alteration of the terrain caused as a result of any federal construction projects.

f. Other Cultural / Historical Laws. The Native American Graves Protection and Repatriation Act (Public Law 101-601) 16 November 1990, requires federal agencies and museums to inventory human remains and associated funerary objects and to provide culturally affiliated tribes with the inventory of collection. The Act requires repatriation, on request, to the culturally affiliated tribes and establishes a grant program within the Department of the Interior to assist tribes in repatriation and to assist museums in preparing the inventories and collections summaries.

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(1) Public Law 95-341, "American Indian Religious Freedom Act", (Aug. 11, 1978) 42 USC Sect.1996, as amended 1994. As stated in the implementing guidance, Chapter 6 of ER and EP 1130-2-540, the Commander shall consult with affected tribes, groups or individuals regarding appropriate action for project effect upon sacred sites, important to the practice of Native American religion.

(2) Public Law 103-141, "Religious Freedom Restoration Act of 1993", 42 USC 2000bb. The purposes of this chapter are to guarantee application of the compelling interest test in all cases where free exercise of religion is substantially burdened; and (2) to provide a claim or defense to persons whose religious exercise is substantially burdened by government. The compelling interest test, as set forth in prior Federal court rulings is a workable test for striking sensible balances between religious liberty and competing prior governmental interests.

(3) Executive Order 13007, "Indian Sacred Sites" of May 24, 1996 (61 FR 26771-26772) Executive branch agencies are ordered to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, shall accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate the agency shall maintain the confidentiality of sacred sites.

(4) 36 CFR 79 "Curation of Federally-Owned and Administered Archeological Collections," 1990. A regulation governing the Federal Archeology Program that establish definitions, standards, procedures and guidelines to be followed by Federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of the Antiquities Act (16 U.S.C. 431- 433), the Reservoir Salvage Act (16 U.S.C. 469-469c), a section of the National Historic Preservation Act (16 U.S.C. 470h-2) or the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm).

(5) 48 FR 44716-44742 "Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation," 1983. These standards and guidelines are not regulatory and do not set or interpret agency policy. They are intended to provide technical advice about archeological and historic preservation activities and methods.

(6) Executive Order 13287, "Preserve America", 4 Mar 2003 states it is the policy of the Federal Government to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of historic properties owned by the Federal Government, and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties.

1-06. SCOPE OF REPORT

This report is the fourth update of the revised Lake Shelbyville Master Plan. It is primarily oriented to reflect current conditions and to eliminate outdated information concerning the allocation of project resources. Based on the computation of facility needs, the current level of development is considered adequate for the foreseeable future; however, some facilities are not to today's acceptable standards for recreational facilities. Consideration must be given to meeting today's standards for safety, accessibility, and design to maintain a facility that is current. This update of previously submitted materials reflects the status of the project at this time, the status of any proposed plans, and the status of all land use allocation. This Master Plan, by reference, includes the Letter Report, Lake Shelbyville, Illinois, Shoreline Erosion and all actions taken pursuant to that action. This report complies with and reflects the Environmental Impact Statement for Operation and Maintenance of Lake Shelbyville.

1-07. MISSION STATEMENT

While Lake Shelbyville is managed and operated by the Corps of Engineers for the purposes of flood control, recreation, water supply, navigation, and fish and wildlife conservation; programs and activities related to environmental stewardship and the Natural Resources Management Program have as their design base the following Corps of Engineers Civil Works mission statement:

"The US Army Corps of Engineers is the steward of lands and waters at Corps of Engineers water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps of Engineers promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance, and restoration practices.

The Corps of Engineers manages for long-term public access to, and use of, the natural resources in cooperation with other federal, state, and local agencies as well as the private sector.

The Corps of Engineers integrates the management of diverse natural resource components such as fish, wildlife, forest, wetlands, grasslands, soils, air and water with the provision of public recreation opportunities. The Corps of Engineers conserves natural resources and provides public recreation opportunities that contribute to the quality of American life."

Section II

Project Description

SECTION II - PROJECT DESCRIPTION

2-01. LOCATION

Lake Shelbyville is located in Shelby and Moultrie Counties of east-central Illinois. The dam site is located on the Kaskaskia River and about one-half mile east of Shelbyville, Illinois. The lake lies approximately 113 miles northeast of St. Louis, Missouri and 54 miles southeast of Springfield, Illinois. Highways providing direct access to the project area include: Illinois Route 16 running east-west on the south side of the project; Illinois Route 121 running generally east-west on the north side of the project; Illinois Route 128 running north-south on the west side of the project; and Illinois Route 32 running north-south on the east side of the project. The location of the lake and adjacent lands is shown on Plate 1, and the regional highway network is presented on Plate 4.

2-02. PROJECT DATA

a. Basin Hydrologic and Climate Summary. The plan of project operation provides for flood control, water supply, water quality control, navigation, low-water flow, recreation, and fish and wildlife conservation.

(1) Pertinent data related to project features and additional information is presented on Table 1.

(2) The Lake Shelbyville area is situated in the humid continental climatic region, which comprises the largest climatic region in Illinois. This broad region, extending southward from the northern cool-summer region to the ridges of southern Illinois, provides a moderate climate.

b. Temperature. The temperature in the Lake Shelbyville area is quite variable. Air masses of polar origin meet with warm masses from tropical regions that produce frontal activities resulting in a variety of water types. The average annual temperature in this area is about 55° F and the average monthly temperature ranges from 78° F during July to 30° F in January. The winters are usually short and moderate, although temperatures below zero are occasionally experienced. An extreme low of minus 34° F was recorded to the northwest in Lincoln, Illinois in January 1927, and minus 28° F was recorded to the west in Morrisonville, Illinois just outside the basin boundary. Occasional temperatures of 100° F or higher, have been experienced. The maximum observed temperature of 115° F occurred to the southwest at Centralia, Illinois on 22 July 1901, and again to the southwest at Greenville, Illinois on 12 July 1936.

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c. Wind Movement. Winds in the project area average 5-15 miles per hour with no set pattern of wind direction. The migration of air masses over this relatively flat area is the determining factor. Available data indicates that a larger percentage of wind movements come from a south-southwesterly direction.

d. Humidity. The mean relative humidity varies from about 59 to 86 percent in the winter, and from 51 to 89 percent during the other seasons of the year.

e. Precipitation. The average annual precipitation over the drainage area is 38.6 inches, of which about 22 percent falls in May and June. Rainstorms are frequent in the spring. Local snowfall is usually limited to the period from November through March and seldom covers the ground for more than a few days at a time. The average snowfall amounts to about 20 inches per year.

f. Lake and Shoreline. The lake is confined by relatively abrupt slopes and has many timbered arms. The abrupt slopes and the erodible soils have resulted in a shoreline erosion problem impacting project facilities, although, this is not impacting pool storage as this erosion was considered during the project design. The maximum relief at the dam site area is approximately 125 feet. The topography changes from a streambed elevation of about 535 feet NGVD to an elevation of 650 to 660 feet NGVD at the bordering uplands. Many small tributaries enter the river above the dam site, and the resulting ravines and valleys form a very irregular shoreline. Most of the valley slopes are covered with some virgin, but primarily second growth forest. The lake has a water surface area of 11,100 acres at joint-use pool elevation 599.7 feet NGVD. The pool at this elevation extends upstream from the dam approximately 20 miles and varies in width at this elevation from 0.25 to 1.0 mile. The depth of water from the valley floor at the dam to joint-use pool elevation is about 53 feet.

g. Project Structures.

(1) Main Dam. The main dam consists of a compacted earthen embankment extending across the main valley floor and a gated concrete spillway founded on rock in the right abutment, with a concrete chute leading to a stilling basin in the flood plain. A gravity outlet structure, extending through the concrete section, discharges into the spillway stilling basin. The crest of the embankment is at elevation 643.0, approximately 108 feet above the riverbed. The total length of the dam and spillway is approximately 3,025 feet.

(2) Remedial Works and Relocation. The reservoir necessitated relocations and remedial measures to railroads, highways, and utilities. These consisted of the following:

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(a) Raising the Illinois Central Railroad at West Okaw and Kaskaskia River crossings, including two new bridges and approximately 6,800 feet of track and embankment.

(b) Protection of existing embankment of the Chicago & Eastern Illinois Railway at West Okaw River crossing.

(c) On State Route No. 121, constructing three bridges and placing approximately 7,300 feet of concrete pavement.

(d) On State Route No. 32, constructing one bridge and placing approximately 3,600 feet of concrete pavement.

(e) On FAS Highway Route 642, constructing one bridge 3,174 feet long and 1,326 linear feet of macadam road.

(f) Construction of approximately 10 miles of new secondary roads and removal of 26 county road bridges.

(g) Relocating 56.2 miles of power lines and approximately 45.5 miles of telephone lines.

(h) Minor alterations to cemeteries.

(i) Relocations and alterations to approximately 17,000 linear feet of affected gas and oil pipelines.

TABLE 1
LAKE SHELBYVILLE
General Pertinent Data

Project Purposes: Flood control, water supply, navigation, fish and wildlife conservation, and recreation.

Location of Dam:

Stream	Kaskaskia River, Illinois
River mile, above mouth	221.8
County	Shelby
Nearest town	Shelbyville, Illinois

Location of Lake:

River Mile above mouth	221.8 to 280.0
Counties	Shelby and Moultrie

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Drainage area:

Upstream from dam site (sq. mi.)	1,030
Upstream from mouth (sq. mi.)	5,840

Lake

Inactive pool (minimum pool)

Top elevation, NGVD	573.0
Area, acres of water	3,000
Depth of water, feet*	26.0
Shoreline, miles	55.0

Joint-use pool (normal recreational pool)

Top elevation, NGVD	599.7
Area, acres of water	11,100
Total joint-use storage, acre-feet	210,000
Water supply storage acre-feet	25,000
Depth of water, feet*	53.0
Shoreline, miles	172.0
Project Fee Lands	24,733
Flowage Easement Lands	6,237

Flood Control Pool

Top elevation, NGVD	626.5
Area, acres of water	25,300
Storage, acre feet	474,000
Depth of water, feet*	80
Shoreline, miles	376.0

*Average over valley floor at dam

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Main Dam

Type	Earth Embankment
Elevation, top of dam, NGVD	643.0
Height above streambed, feet	108.0
Length of crest, feet	3,025.0

Main Spillway

Type	Concrete Gate Controlled
Width, feet	136.0
Elevation of crest NGVD	593
Crest gates	
Number	3
Size, ft.	45 x 37
Type	Tainter
Elevation, top of gate (closed), ft.	627.5
Tailwater elevation for discharge	
Minimum release, 10 cfs	532.1
Maximum release, 4,500 cfs	548.7
Outlet sluices	
Number	2
Size intake	5.5' x 11'
Intake invert elevation	555.0

Outlet Works

Size, feet	2 sluices each 5 x 11 ft.
Flowline, NGVD	549.0

Approximate fee-taking line, m.s.l 626.5 + 300 feet horizontal or 630.5,
whichever is greater

NOTE: All elevations in this report are based on mean sea level.

2-03. LAKE REGULATION

The plan for lake regulation provides for flood control, water releases for navigation on the Kaskaskia River, water supply, low water flow augmentation for water quality control, recreation, and fish and wildlife conservation.

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a. General. Pool fluctuations at Lake Shelbyville are seasonal in nature, usually occurring in the late winter/early spring period. Low flow releases are made through two sluice gates. The fluctuations of Lake Shelbyville, particularly during the intensive recreation season, June through September, compliment the recreational use of the project. Pool fluctuations are shown on Plates 21 and 22. Actual lake level fluctuation hydrographs for the period 1978 through 2001 are shown on Plate 21. Pool stage duration and frequency curves are shown on Plate 22 for the period 1971 through 2002. A detailed plan of regulation and pertinent information relative to Lake Shelbyville is contained in the Water Control Manual, Appendix A to the Kaskaskia River Basin - Master Reservoir Regulation Manual. Storage allocations for various uses are given in Table 1.

b. Joint-Use Pool. The general plan for operation of the lake provides for a minimum downstream release of 10 cubic feet per second (cfs) when the lake level is in the joint-use pool zone (elevation 573.0 to 599.7). This is done for water quality purposes.

c. Flood Control Pool. In the flood control zone (elevation 599.7 to 626.5) releases are made through the outlet works and the three 45' x 37' tainter gates.

d. Storage Allocations. The three storage levels of the lake and respective purposes are detailed in the following paragraphs.

(1) Inactive Storage Pool. The inactive storage pool is that portion of the lake below elevation 573.0. At this elevation, the lake has a storage capacity of 30,000 acre-feet. This capacity is sufficient to allow for 100 years of silt accumulation.

(2) Joint-Use Storage Pool. The joint-use pool is that portion of the lake between elevations 573.0 to 599.7. This zone has a storage capacity of 474,000 acre-feet and a surface area of 11,100 acres. The following are authorized uses of the joint-use pool:

(a) Water Supply. Allocated for water supply are 25,000 acre-feet of the joint-use storage pool. Water supply withdrawal rates have been based on 17.1 cubic feet per second.

(b) Low-flow Regulation. A minimum release of 10 cubic feet per second is maintained to assure downstream flows for water quality control. Zero flow has been experienced several times during the period of record.

(c) Navigation. Within the joint-use pool, 155,000 acre-feet are allocated to navigation water storage.

(d) Fish and Wildlife and Recreation. The fluctuations of Lake Shelbyville, particularly during the intensive recreation season, June through September, are favorable for recreational use. Water management compliments utilization by waterfowl and other species of wildlife. Except during a period when water level is critical for flooding, it is a fish management goal to maintain a consistent lake level between 15 May and 15 June. This lake level management technique creates a more productive environment for the spring spawning period. The lake project office relays fish spawning information to the pertinent agencies.

(e) Pool Fluctuation. Over the period of record, pool fluctuations for the lake are shown on Plates 21 and 22. Fluctuations of lake levels are indicated, together with pool elevation duration and frequency curves.

(3) Flood Control Storage Pool. The flood control pool is that portion of the lake between elevations 599.7 and 626.5, having a storage capacity of 474,000 acre-feet with a surface area of 25,300 acres.

2-04. VISITATION DATA

a. General. The visitation unit used to estimate recreation use until Fiscal Year (FY) 92 was Recreation Days. In FY 92, the Visitor Estimation Reporting System (VERS) was installed at the lake project to administer visitation reporting. Two units of measurement in VERS are visitor hours and visits. The Lake Shelbyville Project Office calculated Recreation Days beyond FY 92 for comparison purposes only. Recreation Days are no longer calculated.

Visitor hours represent the presence of one or more persons recreating on land or water for periods of time aggregating to sixty minutes. It takes into consideration the number of participants and duration of stay and provides a good estimate of the amount of use.

Visits are simply a 'head count' of visitors to a project. It does not reflect the amount of use or length of stay. It represents the entry of one person into a recreation area or site to carry on one or more recreation activities.

A Recreation Day is similar to a Visit but reflects the duration of the visit in days. It is the unit of measure for determining recreation benefits at water resource development projects.

b. Past and Current Visitation. It was estimated in the original Lake Shelbyville Master Plan that by 1972 visitation would approach 4,690,000 recreation days if federal, state, local governments and private enterprise

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provided the required facilities, services and commodities that were proposed in the plan. In 1972, the actual visitation was 3,901,000 recreation days, or approximately 83% of the projected number. However, in 1974 high water for an extended period of time during the recreation season reduced visitation to 2,828,000 recreation days, or approximately 60% of the projected number. Visitation from 1992 through 2003 has remained stable with a yearly average of 3,020,543 visits. It is speculated that the year to year variations have been due to changes in water, lake levels, cost and supply of gasoline, the economy in general, the level of development in facilities actually occurring on the lake, and people attending special events occurring within a 60 mile radius of Lake Shelbyville. The development of recreational facilities at other lakes has also affected the visitation at Lake Shelbyville. Table 2 presents a summary of actual visitation from 1970 through 2003.

c. Projected Visitation. A discussion of projected user demand at Lake Shelbyville is presented in Paragraph 5-12.b.

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TABLE 2
LAKE SHELBYVILLE
ACTUAL VISITATION DATA 1970 - 2003

Year	Recreation Days	Fiscal Year	Visitor Hours	Visits
1970	1,193,000			
1971	2,628,000			
1972	3,901,000			
1973	2,803,000			
1974	2,828,000			
1975	3,077,000			
1976	2,997,000			
1977	3,542,000			
1978	2,937,241			
1979	2,640,415			
1980	2,813,522			
1981	2,636,245			
1982	2,777,302			
1983	2,815,026			
1984	3,108,404			
1985	3,275,904			
1986	3,390,884			
1987	3,201,590			
1988	3,410,220			
1989	3,704,914			
1990	3,622,523			
1991	4,010,874			
1992	3,688,976	FY 92	32,239,045	2,880,925
1993	3,536,086	FY 93	34,390,100	2,989,892
1994	3,069,358	FY 94	28,287,617	2,651,996
1995	3,001,489	FY 95	31,620,212	3,032,087
1996	2,804,417	FY 96	30,560,124	2,842,717
1997	2,908,891	FY97	32,548,319	2,931,996
1998	2,958,829	FY98	33,476,615	2,996,709
1999	2,927,405	FY99	33,891,043	3,102,280
2000	2,884,436	FY00	34,828,527	3,218,075
2001	3,060,415	FY01	34,452,239	3,323,149
2002		FY02	34,385,104	3,021,764
2003		FY03	36,921,269	3,254,928

Section III

Operating Project: Status

SECTION III - OPERATING PROJECTS: STATUS

3-01. PROJECT DEVELOPMENT AND OPERATION CHRONOLOGY

Lake Shelbyville was authorized for development by the Flood Control Act of 28 June 1938 and the Flood Control Act of 3 July 1958 for flood control and related multiple purposes. Construction started in May 1963, and Lake Shelbyville was placed in operation in August 1970.

3-02. CHRONOLOGY OF EXPENDITURES FOR PUBLIC USE AND ENVIRONMENTAL RESOURCE DEVELOPMENT

a. Federal Government

(1) Eleven public recreation areas have been developed by the Corps of Engineers totaling 2,431 acres. These public use areas include Dam West Recreation Area, Opossum Creek Recreation Area, Coon Creek Recreation Area, Lone Point Recreation Area, Forrest W. "Bo" Wood Recreation Area, Wilborn Creek Recreation Area, Whitley Creek Recreation Area, Lithia Springs Recreation Area, Dam East Recreation Area, Spillway Recreation Area, and Sullivan Beach Recreation Area / Okaw Bluff Group Camp Area. The extent of development varies at each area. Some are provided with basic facilities such as an access road, picnic tables, comfort station and launching ramp with related parking, while others are provided with extensive camping areas with playgrounds, shower buildings, beaches, electrical, water and sewer hookups, and nature trails.

(2) Construction General Funds expended for recreational facilities total \$10.7 million. The project has not received any Construction General funds since Fiscal Year 1978.

(3) Operation and Maintenance Cost. Operations cost on-site for the period 1 October 2002 through 30 September 2003 amounted to \$1,844,438. Maintenance cost on-site for the same period was \$3,664,227, a portion of the maintenance cost on-site included flood and security funds, for a total on-site operation and maintenance cost of \$5,508,655.

b. Non-Federal Public Agencies. Land and water areas at Lake Shelbyville have been outgranted for park, recreation, and wildlife management development purposes. These outgrants have been made to the Illinois Department of Natural Resources. Eagle and Wolf Creek State Parks represent a total of 3,429 acres of the 7,457 acres, which were designated for Priority 1, Intensive Recreation development in the preliminary and original Master Plan.

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(1) The following is a summary of the non-Federal public agency areas. Information on the development of these areas is located in Section VIII. More information is located in the Lake Shelbyville Operational Management Plan.

(a) Eagle Creek and Wolf Creek State Parks are comprised of total areas of 1,393 acres and 2,036 acres, respectively. Both areas feature complete diversified state park developments that include picnicking facilities, boat access areas and related parking, trailer camping areas, and swimming beach facility.

(b) A 70-acre portion of the East Nelson Township area is managed by the Illinois Department of Natural Resources (IDNR) to operate a field research facility known as the Kaskaskia Biological Research Station. A boat dock, only for use by fishery research boats, has been installed. Several buildings are located in this area, which are used for a caretaker facility, offices, laboratories, and support facilities. This area is included in Wolf Creek State Park lease and the 70 acres is included in the 2,036 acre total.

(c) The upper portions of the lake along the West Okaw and Kaskaskia Rivers, with a total area of 5,669 acres of project land and water, have been licensed to the Illinois Department of Natural Resources by the Secretary of the Army under a "General Plan and Cooperative Agreement" in accordance with PL 85-624, Fish and Wildlife Coordination Act, 1959, for fish and wildlife management. The 5,669 acres of state managed land consists of two areas lying almost entirely above the joint-use pool, which have been zoned for intensive wildlife management with major emphasis on upland game. The West Okaw Wildlife Management Area consists of 2,415 acres and is located near Bethany in Moultrie County. The Kaskaskia Wildlife Management Area, consists of 3,254 acres and is located southeast of Sullivan in Moultrie County. The primary objective in management of the two areas is to provide quality upland game hunting through intensive fish and game management practices. Principal efforts are, therefore, expended toward maintaining and managing the squirrel, rabbit, quail, pheasant, and game fish resource for public use. Non-game species are also promoted and the non-consumptive uses are encouraged. Development of the areas for boating, picnicking, and other miscellaneous recreation activities is minimal, due to the designation of the units as game areas.

(2) Capital investment, for the developments described in subparagraph b. (1) above, totals approximately \$16,236,619. The following is a tabulation of these expenditures:

TABLE 3
SUMMARY RECREATIONAL DEVELOPMENT EXPENDITURES
BY STATE OF ILLINOIS AT LAKE SHELBYVILLE

I. Eagle and Wolf Creek State Parks	
<u>ITEM</u>	<u>COST</u>
1. Vehicular access and parking	\$3,218,474
2. Day use and campground development	4,302,046
3. Utilities	3,553,949
4. Service facilities	356,615
5. Resort development	3,073,860
6. High water boat ramps	20,000
7. Swimming beach at Wolf Creek	70,000
Subtotal	\$14,594,944
II. West Okaw and Kaskaskia Wildlife Management Areas	
<u>ITEM</u>	<u>COST</u>
1. Waterfowl development	\$507,330
2. Service facilities	127,449
3. Boat access development	150,000
4. 1135 Project	856,896
Subtotal	\$1,641,675
TOTAL	\$16,236,619
	April 2002

c. Private Recreational Investment

Concession leases. There are currently four commercial concession operations available on the lake. A brief description of the four concessions follows:

(1) Findlay Marina has been in operation for over 25 years. The development includes boat and motor rental, boat storage, sales and service, bait sales, beverages, and snacks. Current lease is 1 July 1989 to 30 June 2014. A site plan of the lease area is presented on Plate 10.

(2) The Sullivan Marina and Campground has been in operation since 1995. The area was previously operated as a marina concession for approximately 20 years under the name of Fox Harbor Marina. Services available include boat and motor rental, boat storage, a floating restaurant, bait sales, beverages, groceries and snacks. A campground with shower and laundry facilities and a private swimming pool are available at this marina area. A motel/cabin complex has been constructed. Current lease is 1 March 1995 to 29 February 2020. A site plan of the lease area is presented on Plate 10.

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(3) The Lithia Springs Marina, located within the Lithia Springs Recreation Area, has also been in operation for over 25 years. Services available include boat and motor rental, boat storage, sales and service, bait and fishing tackle sales, sandwich shop, beverages, groceries and snacks. Current lease is 1 July 1989 to 30 June 2014. The lease area is included in Plate 18 with the site plan of the Lithia Springs Recreation Area.

(4) Eagle Creek Resort and Conference Center is located in Eagle Creek State Park. It has guest rooms, executive suites with fireplaces, an indoor pool, an outdoor pool, saunas, whirlpool, exercise facilities, tennis courts, trails, restaurant, large meeting rooms, theater, separate conference resort with sleeping rooms, and a golf course. Proposed action for this area includes adding boat docking spaces to accommodate resort customer needs. This area is included in Plate 23 with the site plan of the Eagle Creek State Park Area.

d. Summary of Recreational Facilities.

(1) Table 4 is a listing of all existing recreational facilities provided at Lake Shelbyville by the Corps of Engineers, the Illinois Department of Natural Resources, and private concessionaires.

(2) Table 4a is a comparison table for Corps of Engineers recreation facilities. It lists all existing Corps of Engineers recreational facilities in comparison with the proposed actions listed in Section VIII.

TABLE 4
LAKE SHELBYVILLE SUMMARY - EXISTING RECREATIONAL FACILITIES

RECREATION FACILITY	Dam West Area 1	Opossum Creek Area 2	Coon Creek Area 3	Lone Point Area 4	Wilborn Creek Area 7	Bo Wood Area 8	Sullivan Beach Area 10	Okaw Bluff Area 10	Whitley Creek Area 11	Lithia Springs Area 13	Dam East Area 14	Spillway Area 15	Outlying Areas	Corps Total	Eagle Creek State Park Area 5	Wolf Creek State Park Area 12	Lake Shelbyville Wildlife Mgmt Areas WM-1 & WM-2	State Total	Findlay Marina Area 6	Sullivan Marina & Campground Area 9	Lithia Springs Marina Area 13	Private concessionaire Total	Grand Total	
Public Campsites																								
Sub Category – Campsite Type																								
Single		74	191(6)	87	15	76(1)			80	109				639	175	400		575		233		233	1447	
Buddy (2 single campsites = 1 buddy campsite)		2	15	2		2			2	6				29				0				0	29	
Total Public Single Campsites		78	221(6)	91	15	80(1)			84	121				697	175	400		575		233		233	1505	
Sub Category – Campsite Services																								
Campsite Electric		56	215(6)	84		80(1)				113				555	128	300		428		68		68	1051	
Campsite (Electric, Water, and Sewer)			6							8				14				0		142		142	156	
Campsite Non-electric		22		7	15				84					128	47	100		147		23		23	298	
Total Public Campsites		78	221(6)	91	15	80(1)			84	121				697	175	400		575		233		233	1505	
Total Administrative Campsites (Gate Attendant & Volunteer Sites)		4	5	3		3		1	2	5				23	3	4		7				0	30	
Group Camp				4	1			2						7	2	3		5				0	12	
Cabin House								2						2				0				0	2	
Multi-purpose Group Shelter														0				0				0	0	
Mini Shelter														0				0				0	0	
Cabin														0		1		1				0	1	
Picnic Units	48	(11)		2	24	7	15		2		25	15	2	151	2	55	4	61			5	5	217	
Group Picnic Shelters	4			2	(1)	1	1			1	1	2	1	14	3	2		5	1			1	20	
Bench Shelter	9											2		11				0				0	11	
Comfort Station (Vault)									1	(1)			3	5	40	46		86	1			1	92	
Comfort Station (Waterborne)	4	1(1)	10(1)	4(1)	3(1)	4			4	6	1(1)	3		45				0			3	3	48	
Comfort Station/Showers		2	3							2				7									7	
Shower House	1	0	1	1	1	1	1		1	1				8	1	2		3		1		1	12	
Laundry Facility			1			1			1	1				4				0		1		1	5	
Land Treatment System		1			1				1	1				4		1		1				0	5	
Lift Station	2	1	5	1	1	3	1	1	2	3	1	2		24*	6	3		9		*1		0	33	
Fountain and/or Hydrant	6	7	29	11	5	11	2		9	16	5	5	1	107	29	42		71				0	178	
Trailer Dump Station		1	1	1		1			1	1				6	1	1		2		1		1	9	
Fish Cleaning Station	1	1	1	1	1	1			1	1		2		10	1	1		2				0	12	
Fee Booth	1	1	1	1		1			1	1				7	1	1		2				0	9	
Primary Boat Ramp Launch Lanes	4	4	2	2	4	4			4	2				26	4	4		8	2	1		3	37	
Minor Boat Ramp Launch Area													5	5			5	5				0	10	
High Water Boat Ramp Launch Lanes	2	2		2	2	2				2				12	2	2		4	2			2	18	
Swimming Beach	1		1		1		1			1				5		1		1				0	6	
Outdoor Beach Shower	1		1		1		1							4				0				0	4	
Trail	1		1	1		(1)		1					4	9	5	8	1	14				0	23	
Foot Bridge			4	1						1	1		24	31	9	7	5	21				0	52	
Information Board	6	2(1)	3	4	3(1)	3	2	3	2	2(1)	2	3	5	43	4	4	2	10	1	1	3	5	58	
Overlook	1													1				0				0	1	
Fishing Pier		1										1		2			1	1				0	3	
Fishing Pond		1											15	16			5	5				0	21	

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Table 4 cont'd

RECREATION FACILITY	Dam West Area 1	Opossum Creek Area 2	Coon Creek Area 3	Lone Point Area 4	Wilborn Creek Area 7	Bo Wood Area 8	Sullivan Beach Area 10	Okaw Bluff Area 10	Whitley Creek Area 11	Lithia Springs Area 13	Dam East Area 14	Spillway Area 15	Outlying Areas	Corps Total	Eagle Creek State Park Area 5	Wolf Creek State Park Area 12	Lake Shelbyville Wildlife Mgmt Areas WM-1 & WM-2	State Total	Findlay Marina Area 6	Sullivan Marina & Campground Area 9	Lithia Springs Marina Area 13	Private concessionaire Total	Grand Total
Observation Blinds								10						10			3	3				0	13
Observation Platform								1						1	2	3	3	8				0	9
Playground	2	1	1	1	1	1	1		1	1	1	1		12	1	4		5		1		1	18
Swing Set Area			1	1		1								3				0				0	3
Sand Volleyball Court	1		1											2				0		1		1	3
Horseshoe Pits		1	2	1	1	1		1	1	1	1			10				0		1		1	11
Ice Skating Rink	1													1				0				0	1
Amphitheater			1	1		1			1	1			1(1)	7		1		1				0	8
Visitor Center											1			1				0				0	1
Marina														0				0	1	1	1	3	3
Boat Slips (Wet)														0				0	378	195	339	912	912
Restaurant														0	1			1		1	1	2	3
Swimming Pool														0	2			2		1		1	3
Lodge/Rental Room Facility														0	1			1		2		2	3
Golf Course														0	1			1				0	1

* - The Corps of Engineers maintains a total of 24 lift stations. One of them is located at Sullivan Marina and Campground.

Footnotes:

1. The figures in () represent the number of facilities that have been removed.
2. Figures in totals columns represent existing facilities + removed facilities.

TABLE 4a
LAKE SHELBYVILLE SUMMARY FOR CORPS OF ENGINEERS FACILITIES - RECREATIONAL DEVELOPMENT
COMPARISON TABLE BETWEEN EXISTING FACILITIES AND PROPOSED ACTIONS

RECREATION FACILITY	Dam West Area 1		Opossum Creek Area 2		Coon Creek Area 3		Lone Point Area 4		Wilborn Creek Area 7		Bo Wood Area 8		Sullivan Beach Area 10	Okaw Bluff Area 10		Whitley Creek Area 11		Lithia Springs Area 13		Dam East Area 14		Spillway Area 15	Outlying Areas			Corps Total		
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Existing	Proposed	Existing	Proposed		
Public Campsites																												
Sub Category – Campsite Type																												
Single			74		197		87		15		75	155				80	0	109										637
Buddy (2 single campsites = 1 buddy campsite)			2		15		2				3	5				2	0	6										30
Total Public Single Campsites			78		227		91		15		81	165				84	0	121										697
Sub Category – Campsite Services																												
Campsite Electric			56	67	221	182	84	76	0	15	81	132						113	97								555	569
Campsite (Electric, Water, and Sewer)			0	11	6	45	0	15			0	33						8	24								14	128
Campsite Non-electric			22	0			7	0	15	0						84	0										128	0
Total Public Campsites			78	78	227	227	91	91	15	15	81	165				84	0	121	121									697
Total Administrative Campsites (Gate Attendant & Volunteer Sites)			4		5		3				3	5				2	0	5										22
Group Camp							4	1	1		0	1		2	1												7	4
Cabin House														2	0												2	0
Multi-purpose Group Shelter									0	1				0	1												0	2
Mini Shelter									0	5				0	6												0	11
Picnic Units	48		(11)	0			2		24		7		15			2				25			15	2		151	140	
Group Picnic Shelters	4	5					2	1	(1)	0	1	2	1					1	0	1			2	1		14	13	
Bench Shelter	9																	0	2				2			11	13	
Comfort Station (Vault)																		1	0	(1)	0			3	5		5	
Comfort Station (Waterborne)	4		1(1)	2	10(1)	6	4(1)	4	3(1)	2	4	3				4	1	6	5	1(1)	1	3				45	31	
Comfort Station/Showers			2	0	3	0												2	0							7	0	
Mini-showers					0	3	0	1		****	0	1				****			0	2							0	7
Shower House	1		0	1	1		1		1		1	2	1					1	0	1						8	9	
Laundry Facility					1		0	1			1							1	0	1							4	

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Table 4a cont'd

RECREATION FACILITY	Dam West Area 1		Opossum Creek Area 2		Coon Creek Area 3		Lone Point Area 4	Wilborn Creek Area 7		Bo Wood Area 8		Sullivan Beach Area 10	Okaw Bluff Area 10	Whitley Creek Area 11		Lithia Springs Area 13		Dam East Area 14	Spillway Area 15		Outlying Areas		Corps Total	
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Existing	Proposed	Existing	Proposed	Existing	Existing	Existing	Proposed	Existing	Proposed	Existing	Existing	Proposed	Existing	Proposed	Existing	Proposed
Land Treatment System			1	0				1	0					1	0	1	0						4	0
Lift Station	2		1		5		1	1		3		1	1	2		3		1	2				24*	
Fountain and/or Hydrant	6		7		29		11	5		11	19	2		9	1	16		5	5		1		107	
Trailer Dump Station			1		1	2	1			1	2			1	0	1							6	7
Fish Cleaning Station	1		1		1		1	1		1				1		1			2	1			10	9
Fee Booth	1		1		1		1			1				1	0	1							7	6
Primary Boat Ramp Launch Lanes	4	5	4	3	2		2	4		4				4		2							26	
Minor Boat Ramp Launch Area																					5		5	
High Water Boat Ramp Launch Lanes	2		2	3*****			2	2		2					4*****	2							12	
Swimming Beach	1				1			1				1				1							5	
Outdoor Beach Shower	1				1			1				1				0	1						4	5
Trail	1				1		1			(1)			1								4		9	
Foot Bridge					4		1									1		1			24	0	31	7
Information Board	6		2(1)	2	3		4	3(1)	3	3		2	3	2	1	2(1)	2	2	3		5		43	39
Overlook	1	0																				1	0	
Fishing Pier			1																1				2	
Fishing Pond			1																		15		16	
Observation Blinds												10											10	
Observation Platform												1											1	
Playground	2		1		1		1	1		1		1		1	0	1	2	1	1				12	
Swing Set Area					1		1			1	0												3	2
Ice Skating Area	1	0																	0	1			1	
Amphitheater			0	1	1		1			1				1	***	1					1(1)	1	7	
Visitor Center																		1**					1	

Footnotes:

1. The figures in () represent the number of facilities that have been removed.
 2. Figures in existing total column represent existing facilities + removed facilities.
 3. If proposed column is blank then it reverts back to the total in the existing column.
- * The Corps of Engineers maintains a total of 24 lift stations. One of them is located at Sullivan Marina and Campground.
- ** Visitor Center will be located in an area determined feasible based on a cost study.
- *** Whitley Creek Amphitheater will be located near the new Visitor Center.
- **** Mini shower is incorporated in multi-purpose group shelter
- ***** These proposed high water ramps will also serve as primary ramps, so the number of lanes for these high water ramps is accounted for under the primary ramp lanes.

Section IV

Recreational and Environmental Resources

4-01. GEOLOGIC

a. Physiography. The flood plain in the upper reaches of the Kaskaskia River is fairly narrow varying in width from one-quarter mile to approximately one mile. The drainage basin is long and narrow. The river is a slow, turbid, meandering stream that has an average fall of less than one foot per mile. Tributaries are few and small, and the uplands are mainly undissected. Remnants of terrace deposits, which are very similar in composition to the recent alluvium, are scattered along the valley. Glacial drift of Illinoian and Wisconsinan age blankets most of the uplands and forms the drift hills that consist of an intimate mixture of clay with pebbles and a few small rocks. Boulders larger than one-half cubic foot are rarely found in the area. Underlying the glacial drift is Pennsylvanian deposits of shale and sandstone.

The present area topography is largely a result of the past glacial deposition and subsequent stream erosion. The vertical change in relief is quite extensive in this portion of the Kaskaskia Valley. Here narrow, deep valleys have been submerged by the formation of Lake Shelbyville. Shoreline erosion has occurred since the creation of the lake, primarily during periods of sustained high pool levels. These high water levels plus wave action caused erosion especially along the lakeshores' steeper slopes.

b. Soils and Minerals. The surficial soils in the immediate project area consist of alluvial deposits in the valleys and floodplains of the major streams and Wisconsinan age glacial tills in the uplands. Sandy and gravelly clay tills are the predominant soil types in the uplands and silt and lean clays in the bottomlands.

Bedrock in the area consists of Pennsylvanian age strata that occur in sequences of sandstones and shale. Mineral resources consist of oil, coal, sand, and gravel. There are a few oil wells in the vicinity of Lake Shelbyville. The local coal workings extracted the Shelbyville Coal, a 2-foot thick coal seam that was mined by the room and pillar method. Access to the coal was obtained through vertical shafts or through stopes driven in the valley walls. The abandoned mine workings located in the dam and spillway foundations were thoroughly explored and sealed by cement grouting. As these and the surrounding coal workings were already old and abandoned at the time of dam construction the extent of the mines in the reservoir area is not known. Although abandoned, the existence of these workings underlying areas of reservoir lands creates the potential for future ground subsidence.

c. Ground-Water Resources. The major source of ground water in the area is within the sand and gravel deposits of the alluvial valleys and the sand bodies contained in the glacial drift. Alluvial aquifers are primarily limited to areas within the flood plain of the Kaskaskia River. The glacial drift aquifers fill buried bedrock valleys created by the advances and retreats of the Pleistocene

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ice sheets. The City of Shelbyville withdraws its water supply from wells founded in the Kaskaskia River alluvium. These wells produce from 200 to over 500 gallons per minute (gpm). The City of Sullivan, near Bo Wood Recreation Area, draws its water from wells that tap sands and gravels of the glacially deposited Glasford Formation. These wells individually produce from 150 to over 600 gpm.

c. Summary of Geologic Resources. The major geologic resources present in the reservoir area consist of the soils and ground water. The potential for future ground subsidence and subsequent reparations exists due to collapse of abandoned mines. Special programs for protection beyond the basic management procedures of controlling soil erosion and ensuring wellhead protection are not warranted.

4-02. ARCHAEOLOGICAL

a. Archaeological Studies. Two important management documents prepared in the late 1980's guide compliance and summarize our current knowledge of historic properties at the lake. Together they provide the basic references for managing the lake's archaeological resources and should be the first sources consulted. Both should be updated at the same time as the master plan.

(1) The St. Louis District Historic Properties Management Plan, Lake Shelbyville (HPMP), completed in 1986, is a guide to assist lake and other District personnel in meeting federal regulations concerning historic properties management at Lake Shelbyville. The HPMP includes chapters on organizational structure, compliance procedure, long term resource management, tasks and priorities (tied to the Operational Management Plan), training, staffing, and budget.

(2) The second important management document, Historic Properties Data Synthesis: Compliance Document, Lake Shelbyville, Illinois was completed in 1989. This document summarizes the lake's archaeological background. It includes chapters on the lake environment, previous archaeological investigations, all historic properties identified at the lake and the lake's cultural history. The concluding chapter establishes priorities for future historic properties investigations at the lake.

b. Previous Archaeological Survey and Investigation Results. During the pre-impoundment investigations conducted by the National Park Service (NPS) from 1960 to 1965, much of the reservoir was surveyed. Surveys focused almost exclusively on prehistoric sites (no historic sites or standing buildings) in plowed fields (no shovel testing in woods). Surveys recorded 62 sites, of which one was tested and four were excavated. Sites ranged from the Middle Archaic

(about 5000 B.C.) thru Mississippian periods and were most numerous adjacent to the Kaskaskia River.

(1) Post-impoundment investigations began in 1978. Three shoreline surveys between 600 and 610 feet elevation were conducted in 1978, 1981, and 1983 respectively. Most of the lake shoreline below the Wildlife Management Areas was surveyed. A small portion of the Kaskaskia Wildlife Management Area was surveyed. These surveys recorded 255 sites, and revisited numerous previously recorded sites. Many sites were tested and five sites (11Mt-5, -14, -53, -56, and 11Sy-64) were extensively excavated. Other post impoundment projects recorded 19 more new sites, revisited several known sites, tested 23 sites, and excavated portions of 10 sites.

(2) The University of Illinois – Urbana (U of I) performed virtually all of these investigations except a 1985 excavation project conducted by the University of Missouri, St. Louis. As a result, two U of I doctoral dissertations were written on Shelbyville archaeology: “The Mississippian Occupation of the Upper Kaskaskia Valley: Problems in Culture History and Economic Organization” by Charles R. Moffat, P. McGowan, 1990. Projects on land outgranted for state parks to the Illinois Department of Conservation, now known as the Illinois Department of Natural Resources (IDNR), including the Eagle Creek Resort, were conducted by the Illinois State Museum and published in the annual cultural resources studies of the IDNR state parks and recreation areas.

(3) In 1986, the St. Louis District began a five-year program of site revisiting and monitoring prescribed by the HPMP. By 1989, a total of almost 400 archaeological sites had been recorded, revealing the presence of human groups during every major cultural period, from the Paleo Indian to the historic. The most numerous components (occupation during a specific period, sites may have more than one component) are the Middle Woodland, Late Woodland and Mississippian; this may be related to the length of occupation, the presence of diagnostic pottery and the intensity of study. The high number of Late Archaic components is likely related to length of occupation also. Few components have been recorded as Early Woodland because there are few artifacts diagnostic of this period. There are relatively few Paleo Indian, Dalton, Early Archaic, and Middle Archaic components due to low occupation density. Protohistoric, Historic Indian and Historic Settlement components are under represented because they were not systematically recorded until recently. The highest investigative priority is immediate recovery of exposed human skeletal remains, followed by periods for which there is little or no information: Paleo Indian, Dalton, Protohistoric and Historic Indian.

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c. Current Archaeological Surveys and Investigations.

(1) In 1988 in response to 36 CFR 79, the St. Louis District developed a curation program to store all District artifacts from the State of Illinois at the Illinois State Museum, Springfield, Illinois. All Lake Shelbyville artifacts collections, including pre-impoundments ones recovered by the NPS, post-impoundment collections from the U of I and elsewhere, and miscellaneous collections at the lake office were moved to the Illinois State Museum. At the museum the artifacts and associated documents (field notes, photographs, contract papers, etc.) were inventoried and re-boxed for long-term storage. Required NAGPRA compliance is also being conducted on the Shelbyville museum collection.

(2) From 1989 – 1996 several in-house archaeological surveys were conducted prior to construction or maintenance projects. The Opossum Creek Land Treatment Plant surveys (1989, 1993) located two small upland prehistoric sites (ineligible). In 1992, the boundaries of eligible Late Woodland site 11Mt-151 were determined and the Bruce Wetland borrow area was moved to avoid the site. In 1994, the proposed Whitley Creek Wastewater Land Treatment System location was surveyed; no sites, only isolated prehistoric chert flakes and worked chert were found. In 1995 at Coon Creek Campground, prehistoric upland site 11Sy-300 was investigated by a volunteer archaeologist assisted by the local Kaskaskia Archaeological Society. Also in 1992, sites 11Mt-5 (George Ward), 11Mt-14 (Neva Fultz), 11Mt-56 (Stop Sign) and one historic and archaeological site, Lithia Springs Chautauqua were investigated. In 1993, an eroding burial at Whitley Creek Recreation Area was removed under the Native American Graves Protection and Repatriation Act (NAGPRA).

(3) In the winter, 1996, fieldwork for the Shelbyville Shoreline Erosion Project (SSEP), (construction of Phase I) began. The work was done in-house since these were small projects at eight recreation areas near the lake's south end. Five previously reported sites were revisited and two isolated finds were recorded. Of these sites, sites 11Sy-79, -85, -97, and the two isolated finds were determined ineligible; site 11Sy-98 had been destroyed, and 11Sy-183 was considered potentially eligible, but would not be impacted by the project.

(4) In the summer, 1996, as part of SSEP (the construction of Phase II) Southwest Missouri State University archaeologists surveyed upland areas at Bo Wood and Lone Point Recreation Areas, where campground relocations are planned (total 120 acres). Two previously recorded sites at Lone Point (11Sy-159, -186) were revisited; 18 new sites and 9 isolated finds were recorded. Six sites were evaluated for eligibility: 11Sy-305 at Lone Point and 11Mt-203, -207, -208, -209, -211 at Bo Wood. Further testing at 11Mt-203, -207, and -209, revealed that only 11Mt-209 was eligible.

(5) In the near future, SSEP, construction Phases III and IV areas will be surveyed. Testing and possibly followed by mitigation is planned at three known sites in Wolf Creek State Park (11Sy-4, -86, -189).

4-03. HISTORIC

The only known historically significant property within the lake boundaries is the Lithia Springs Chautauqua Area. The Chautauqua, a Seneca Indian word meaning assembly lasting several days, was a national movement to bring culture, education, and religion to rural America. Jasper Douthit, a self-taught Unitarian minister, built a religious and educational gathering place on his family land east of Shelbyville. The natural lithium springs were a focal point for the annual gatherings from 1890 to 1921. Comfortable cabins and famous speakers including Carrie Nation and Billy Sunday also attracted people from all over the state. The permanent facilities consisted of privately owned and rental cabins, dormitories, pavilions, a library, and chapel. No buildings remain, but many foundations lie buried, making this an important historic archaeological site. This area functioned as a religious facility for about thirty years. Today, however, Lithia Springs Chautauqua shows little trace of its former history, with the exception of the springs, which are still active. In 1992 the Chautauqua area was formally determined eligible for the National Historic Register, based on documentary and archaeological investigations conducted by American Resources Group, Ltd, Carbondale, Illinois. Plans to nominate the Chautauqua area to the National Register of Historic Places are pending. A special event has been conducted with the cooperation of the Shelby County Historic Society, which includes an interpretive walk throughout the area and old photographs are passed around so that the participants in the walk can get a concept of what the area looked like. A plaque has been placed at the entrance that explains the historical significance of the area. Future plans include placing a shelter over the springs and establishing a self-guided interpretive trail.

4-04. ECOLOGIC

a. Wildlife Resources. Located within the Lake Shelbyville Area are numerous species of wildlife native to this area of Illinois including numerous types of rodents, small game birds and mammals, waterfowl, shore birds, song birds, furbearers, white-tailed deer, wild turkey, and predatory mammals and birds. Wildlife management procedures on the lake lands have benefited the species present. The flooded timber area provides nest trees for woodpeckers and wood ducks. In addition, the number and diversity of shore birds and waterfowl using this area has steadily increased.

(1) Non-recreation areas are being managed to provide quality wildlife habitat. Vegetation, including trees, is being planted to provide cover and a certain amount of food. These plantings are in contrast to the "clean

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farm" agricultural practices on adjacent lands and are planned to maintain existing edge. Together, the private farms and public wildlife areas provide a more balanced relationship of food and cover for wildlife over much of the project. The Operational Management Plan explains in detail the fish and wildlife management plan for Lake Shelbyville.

(2) Agricultural subleases on state property are managed to provide the same relationship in addition to furnishing a food supply for waterfowl in the two-subimpoundment areas. The Corps of Engineers continues to construct and place wood duck nesting boxes at Lake Shelbyville.

b. Aquatic Resources. The fish population of Lake Shelbyville and its tailwater is typical of midwestern waters. Major sport and forage species are white and black crappie, bluegill, green sunfish, longear sunfish, warmouth, muskie, white bass, walleye, yellow and black bullhead, channel and flathead catfish, largemouth bass, freshwater drum, carp, numerous species of buffalo fishes, bowfin, gizzard shad, brook silversides, and many species of minnows, shiners, and darters. There are approximately 50 species of fish found in this area. The water of the lake and tailwater support a diversity of forms of phytoplankton, zooplankton, aquatic insects, crustaceans, and mollusks indicating the health of the food chain supporting the lake fisheries.

The Corps of Engineers and the Illinois Department of Natural Resources (IDNR) work together to manage twenty-one fishing ponds ranging from one-quarter acre to 27 acres in size. They have placed over 20,000 discarded Christmas trees in the lake over a 25-year period. The trees help provide fish habitat. Over the past eight years the Fin and Feathers Nursery Pond has produced over \$216,000 worth of walleye and largemouth bass fingerlings.

c. Vegetative Resources. Prior to construction, the lower elevations of the basin, generally the portion inundated to form the lake, were dominated by an overstory of pin oak, cottonwood, sycamore and soft maple. The understory was composed of a variety of shrubs and minor associations of grasses. Remnants of this vegetative association can still be found along uncleared stream channels in the upper reaches of the lake, along the subimpoundments, and on some lower elevation shoreline slopes.

(1) The upper slopes of the hillsides above the lake have an oak-hickory association that is the climax forest type for this area. White oak, northern red oak, black oak, post oak, pignut hickory, shagbark hickory, white ash, and elm are the major species present in the overstory. The understory consists primarily of oak-hickory seedlings and saplings with minor occurrences of shrubs and grasses where sufficient light is available through canopy openings. Numerous old field sites occur along the perimeter of Corps fee

lands and on high points of land existing between tributary streams feeding into the lake.

(2) These old fields are in various stages of succession. Plant associations vary from weedy growth of grasses and forbs to early successional tree growth of elms, ash, and honey locust on open areas with later successional species of oaks and hickories encroaching from the forested edges. Vegetative management practices vary from tree planting in recreation areas and some old field sites to succession control of other sites by mowing or burning to create wildlife openings. The objective of the wildlife management activities is to achieve and maintain as natural a setting as possible through minimal cultural practices on existing woodlands and by planting tree and shrub species which are beneficial in promoting wildlife populations and encouraging recreational activities.

d. Federal Threatened and Endangered Species. At the present time Lake Shelbyville provides no critical or nesting habitat for any federal threatened or endangered species of plants or animals. The Lake Shelbyville area may provide seasonal non-critical habitat for the federal threatened wildlife species, the Bald Eagle, the federal endangered wildlife species, the Indiana Bat, and the federal listed species of concern, the Loggerhead Shrike. Potential habitat exists, but there has been no documented sighting of the Indiana Bat or the Loggerhead Shrike at Lake Shelbyville

4-05. ENVIRONMENTAL AND SCENIC QUALITIES

a. Topographic Qualities. The Kaskaskia and Okaw River Valleys in the vicinity of Lake Shelbyville have been shaped by water erosion creating a deep valley with steep banks. Many small tributaries enter the major valley system above the dam site creating an irregular shoreline dissected by a system of valleys and ravines. Most of the valley slopes above the lake are covered with second growth predominately oak-hickory forest. These steep wooded slopes and ravines provide the camper, boater, naturalist, and the casual visitor with aesthetically pleasing views of wooded vistas in this largely agricultural section of central Illinois. The body of the lake now occupying the valley bottom is confined by the steep slopes and timbered arms. The maximum relief at the dam site area is approximately 125 feet. The topography changes from a streambed elevation of 535 feet NGVD to an elevation of 650 to 660 feet NGVD on the bordering uplands.

Developed lookout points take advantage of the excellent scenic qualities along the lake edge. Scenic views can also be seen from some off project roads as the wooded project lands provide stark contrast to the flat agricultural lands that are adjacent. Further description of the topography is presented in Section 4-01a.

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b. Vegetative Qualities. The plant resources at Lake Shelbyville include a diverse forested area ranging from light seeded species which usually populate stream valleys prone to seasonal flooding to the complex association on the upper slopes classified by the generic oak-hickory forest type which actually includes many other species trees and shrubs. Occasional sitings of tall grass prairie species is a reminder that these persistent plants once populated the flat prairie adjacent to the forested river valley. In sharp contrast to the surrounding farmland, the vegetative resources and qualities of the project land is an aesthetic change of pace. Vegetative resources are discussed in Section 4-04c, and the ecological and cultural aspects of the forest resources are discussed in the Operational Management Plan contained under separate cover.

c. Land Uses. The lands at Lake Shelbyville provide opportunities for land and water based recreation, wildlife management, forest management and for historic, cultural and ecologic study and interpretation. These activities are for the most part complementary to varied scenic qualities of the area. Specific tracts of land have been developed, revegetated, or succession controlled to provide the maximum recreational value to the public while preserving and increasing the scenic diversity and wildlife management opportunities. The zoning of the land and water resources is discussed in Section 8-01.

d. Water Quality. The water quality of Lake Shelbyville has been designated as suitable for aquatic life, agricultural use, water supply, primary and secondary contact recreation, and industrial uses. A more extensive description of water quality is presented in Section 5-09.

e. Visual Qualities. The lake itself is the largest, strongest visual element in this geographic area. The steep valley carved by an ancient river system provides an abrupt topographic change in the surrounding glaciated prairie. The steep wooded slopes of the valley, dissected by tributary streams provide a shoreline with unusual visual contrast. These visual qualities add a unique aesthetic experience to recreational activities at Lake Shelbyville.

f. Status of Environmental Impact Statement. The Final Environmental Impact Statement on operation and maintenance for Lake Shelbyville was completed and circulated in 1975. As required by law, Environmental Assessments have been conducted when specific activities not covered by the Environmental Impact Statement are considered.

4-06. RECREATION

a. Recreational Development Description. The recreational developments at Lake Shelbyville provide opportunity for outdoor recreation activities such as sightseeing, fishing, boating, water skiing, camping, picnicking, swimming, hiking, and hunting. Areas around the lake have been

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developed to provide both extended-use and day-use opportunities. Presently there are thirteen recreation areas, two wildlife management areas, and three marinas at Lake Shelbyville. Eleven recreation areas are operated by the Corps of Engineers, two state parks and two wildlife management areas are operated by the Illinois Department of Natural Resources, and private concessionaires operate three marinas. Included in these areas are 9 campgrounds, providing 1,505 public campsites. There are 217 picnic sites, 6 beaches, a Visitor Center, 23 trails, and 30 boat launching areas (12 primary, 10 minor, and 9 high water - the launching ramp at Findlay Marina serves as a primary and a high water ramp). A description of land use and recreational development is presented in Section VIII.

Section V

Factors Influencing and Constraining Resource Development and Management

**SECTION V
FACTORS INFLUENCING AND CONSTRAINING RESOURCE
DEVELOPMENT AND MANAGEMENT**

5-01. GENERAL

Development and management at Lake Shelbyville is influenced by both physical and social factors. Several factors, such as the geology, archeology, history, ecology, environmental and scenic qualities and recreational development, were previously discussed in Section IV. The influence of these and other factors on resource management and development are examined in this section. It is the objective of the Corps of Engineers to consider these factors in order to provide for the continued enjoyment and maximum sustained use by the public of the lands, waters, forests and associated resources, consistent with their carrying capacity and their aesthetic and biological values.

5-02. DEMOGRAPHIC AND AREA INFLUENCE

a. General. Lake Shelbyville is located in Shelby and Moultrie Counties, Illinois. It is part of the Decatur region and is situated in the Kaskaskia River Basin that includes these two counties and five others: Champaign, Douglas, Coles, Macon, and Piatt Counties, Illinois. Census of 2000 figures for this area show an increase in population between 1990 and 2000. Rural areas with little or no urbanization have experienced a positive growth when those areas are compared with urban clusters. Table 5 shows population figures and rates of change for the study area.

TABLE 5
POPULATION AND RATES OF CHANGE FOR MOULTRIE AND SHELBY
COUNTIES AND OTHER SELECTED AREAS

PLACE	1970	1980	1990	2000
Illinois				
Moultrie Co.	13,263	14,546	13,930	14,287
Sullivan	4,112	4,526	4,354	4,326
Shelby Co.	22,589	23,923	22,261	22,893
Shelbyville	4,597	5,259	4,943	4,971
Coles County	47,815	52,260	51,644	53,196
Mattoon	19,681	19,055	18,441	18,291
Macon County	125,010	131,375	117,206	114,706
Decatur	90,397	94,081	83,885	81,860
Vermillion Co.	97,047	95,222	88,257	83,919
Danville	42,570	39,019	33,828	33,904
McLean Co.	104,389	119,149	129,180	150,433
Champaign Co.	163,281	168,392	173,025	179,669
Springfield	91,753	99,637	105,227	111,454
Chicago Metro			8,065,633	8,272,768
Missouri				
St. Louis Metro Area (Missouri and Illinois)			2,444,099	2,603,607

SOURCE: US Census Bureau, Census 2000

b. Population

(1) Growth and Distribution. Moultrie and Shelby Counties are primarily agricultural. Approximately 56 percent of those living in Moultrie County and 83 percent of those living in Shelby County reside in cities or villages, with populations greater than 275 persons, rather than on farms. Shelby County, with an area of 759 square miles, has a lower density of people per square mile (30.2) than Moultrie County (42.5), which has an area of 336 square miles. While a high percentage of people in both counties live in cities and villages, the 1997 Census of Agriculture indicates that approximately 418,688 acres of land in Shelby County and approximately 172,657 of land in Moultrie County was in farms. Between 1990 and 2000, the population of both counties increased. Shelby County, which had a 1990 population of 22,261 increased to 22,803 in 2000. Moultrie County, which had

a 1990 population of 13,930 increased to 14,287 in 2000. The largest influence on Moultrie County's population is the town of Sullivan, the county seat population decreased from 4,354 in 1990 to 4,326 in 2000. The population of Shelbyville, the Shelby county seat, increased from 4,943 in 1990 to 4,971 in 2000. There are various reasons for changes in directions and rates of population growth in rural areas. One reason that may apply to the Lake Shelbyville area of influence is an individual's amenity preference. Both counties and communities have attracted residents due to their close proximity to urban areas and the amenities provided there. However, individuals may also choose to live in a rural area and commute to their urban work locations.

(2) Land Use and Area Development. Patterns of land use in Shelby and Moultrie Counties reflect a basically agrarian way of life, which has dominated the area since the early nineteenth century. Towns have formed either as market places around railroad junctions or centers of government. Roads served the primary purpose of enabling a farmer to get his goods to market. Recent trends toward mechanized farming and larger farms, however, have resulted in an expansion of towns, and the towns in turn have recognized the need for industry as an employment source. As the options and stability of the non-farming population have increased, more non-farm residences have appeared and dispersed throughout the counties. While non-farm residences are no longer restricted to the towns, most are still centered round them. Agriculture remains the dominant use of land in both counties, although recent developments are beginning to change the traditional agrarian pattern. Lake Shelbyville has been one of the main influences in attracting non-agricultural land uses.

(3) Existing Land Use. In 1964, Shelby and Moultrie Counties were almost entirely agricultural with the exception of scattered incorporated areas. This pattern remained reasonably intact until the construction of Lake Shelbyville, which removed thousands of acres from agricultural use. The most significant residential development has occurred since 1970, with the platting of 13 separate subdivisions adjacent to the federal lands around the Lake. To date, all contain some dwelling units or improvements and all have been residentially zoned and range in size from 4 to 170 lots. The subdivision represents a major change in the development pattern with residential construction being oriented toward the lake, rather than the surrounding towns.

(a) The second major change in land use is the public access to the lake shoreline. Considerable land is currently developed for either recreational or conservation use. In total, 34,408 acres in Shelby and Moultrie Counties have been changed from primarily agricultural use to that of primarily recreational.

(b) New commercial construction since 1970 has also resulted in some changes in land use to allow for recreation-oriented commercial activities. The principal businesses are bait shops, marinas, and storage sheds for recreational vehicles. There has also been new public and industrial construction in the towns around the lake, particularly Shelbyville and Sullivan, but land use changes in these categories have not been significant in terms of size during the period 1990-2000.

(4) Future Land Use. Future land use in Shelby and Moultrie Counties will be determined to a great extent by the amount of use Lake Shelbyville receives as a major regional recreation area. Land use forecasts made for both counties in 1980 indicated expected growth of residential development around the lake and a subsequent growth of the nearby towns, particularly Shelbyville and Sullivan. Judging from the amount of residential growth that has occurred near Lake Shelbyville since the year 2000 extensive growth appears likely. The land use plans also exhibit a growing awareness in the impact area of the value of conserving lands and limiting development in flood zones. Despite the projected urban growth and recreational facilities development, the major land use in terms of total acres in both counties is expected to remain primarily agricultural with some industrial components in the foreseeable future.

(5) Employment. Moultrie and Shelby Counties have experienced changes in their areas of employment, and subsequently their sources of income. Agricultural employment was the primary occupation for both counties until the late 1950's. Since then, agricultural employment has been rapidly declining while manufacturing, wholesale and retail trade and professional services have become the primary areas of employment. Recent years have experienced minimal fluctuations in employment characteristics. Table 6 displays the numeric and percentage breakdown by industry for civilian labor force employees of Moultrie and Shelby Counties.

Agriculture, however, remains a major factor in the economy of both Moultrie and Shelby Counties, as well as in the State of Illinois as a whole. Recent trends indicate a continued increase in the size and value of farming units, and value of products sold, for both counties and the state. Tables 7, 8, and 9 display these and other characteristics. The figures for both counties shown in Tables 7 and 8 approximate those for the State of Illinois shown in Table 9. The median age for all of the residents of Moultrie County in 2000 was 38.7 years old, for Shelby County 39.3 years old, and for Illinois 34.7 years old.

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TABLE 6

CIVILIAN EMPLOYMENT BY INDUSTRY, 2000

<u>COUNTY</u> Industry	<u>MOULTRIE COUNTY</u>		<u>SHELBY</u>	
	Employed Persons	Percent of Labor Force	Employed Persons	Percent of Labor Force
Ag., Forest, Fish, Mining	368	5.3	641	6.0
Construction	524	7.6	873	8.2
Manufacturing	1,862	26.9	2,674	25.0
Transportation	474	6.8	576	5.4
Wholesale Trade	187	2.7	348	3.3
Retail Trade	728	10.5	1,102	10.3
Finance, Ins., Real Estate	198	2.9	473	4.4
Professional, Scientific, Management, Administrative, and Waste Management Services	254	3.7	381	3.6
Educational, Health, and Social Services	1,257	18.1	2,021	18.9
Arts, Entertainment, Recreation, Accommodation, and Food Services	339	4.9	645	6.0
Other Services (except Public Administration)	356	5.1	448	4.2
Public Administration	187	2.7	305	2.9
TOTAL	6,734		10,487	

SOURCE: US Census Bureau, Census 2000

TABLE 7
 CHARACTERISTICS OF AGRICULTURE
 For Moultrie County, Illinois

	<u>1987</u>	<u>1992</u>	<u>1997</u>
Farms	561	491	464
Acres	184,566	184,599	172,657
Average Size (acres)	329	376	372
Value of Land and Buildings:			
Average/Farm	\$501,385	802,052	1,149,073
Average/Acre	\$1,588	2,043	2,909
Market Value of Products Sold (\$1000)	\$43,594	\$55,284	\$55,951
Crops (\$1000)	NA	\$47,052	\$48,635
Livestock (\$1000)	NA	\$8,232	\$7,315
Average/Farm	\$101,618	\$144,722	\$120,583
Market Value of all Machinery & Equipment (\$1000)	\$37,314	\$46,496	\$51,658
Average/Farm	\$66,513	\$94,697	\$111,332
Average Age	50.1	50.6	51.5

SOURCE: U.S. Census of Agriculture, 1997.

TABLE 8
 CHARACTERISTICS OF AGRICULTURE
 For Shelby County, Illinois

	<u>1987</u>	<u>1992</u>	<u>1997</u>
Farms	1,431	1,305	1,250
Acres	422,071	407,212	418,688
Average Size (acres)	295	308	335
Value of Land and Buildings:			
Average/Farm	\$352,209	\$442,085	\$651,007
Average/Acre	\$1,246	\$1,457	\$2,061
Market Value of Products Sold (\$1000)	\$84,723	\$101,020	\$112,466
Crops (\$1000)	N/A	\$77,972	\$87,783
Livestock (\$1000)	N/A	\$23,048	\$24,683
Average/Farm	\$84,385	\$111,995	\$89,973
Market Value of all Machinery & Equipment (\$1000)	N/A	\$85,053	\$92,227
Average/Farm	\$60,935	\$65,125	\$73,781
Average Age	49.8	52.4	53.3

SOURCE: U.S. Census of Agriculture, 1997.

TABLE 9
 CHARACTERISTICS OF AGRICULTURE
 For the State of Illinois

	<u>1987</u>	<u>1992</u>	<u>1997</u>
Farms	88,786	77,610	73,051
Acres	28,526,664	27,250,340	27,204,780
Average Size (acres)	321	351	372
Value of Land & Buildings:			
Average/Farm	\$402,970	\$539,181	\$773,141
Average/Acre	\$1,262	\$1,548	\$2,126
Market Value of Products			
Sold (\$1000)	\$6,376,801	\$7,336,864	\$8,556,486
Crops (\$1000)	\$4,158,936	\$5,251,328	\$6,567,164
Livestock (\$1,000)	\$2,207,865	\$2,085,535	\$1,989,323
Average/Farm	\$71,822	\$94,535	\$117,130
Market Value of all Machinery			
& Equipment (\$1000)	\$5,392,170	\$5,516,277	\$6,606,816
Average/Farm	\$60,935	\$71,219	\$90,447
Average Age	50.4	51.7	53.4

SOURCE: U.S. Census of Agriculture, 1997.

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While the number of farms has decreased, the average size of farms has increased in the impact area. The average value per acre has also increased for both counties.

Sales of farm products have increased for both counties at approximately the same rate.

(6) Income. Income is generally lower in rural areas than in urban or metropolitan areas. This can be seen in Table 10 which shows the median family and household incomes for Moultrie and Shelby Counties, as well as the largest city in each, along with the same information for several nearby counties and urban areas. For the purpose of discussion related to Table 10 the family is defined as two or more persons occupying the same housing unit who are related by birth, marriage, or adoption, and household is defined as one or more persons occupying the same housing unit who are not necessarily related by birth, marriage, or adoption.

(a) The difference in income is attributable to urban areas having more job opportunities at a higher wage rate than can be found in rural towns. This is a result of the concentration of commerce and manufacturing found in urban clusters, such as in major metropolitan areas.

TABLE 10
MEDIAN INCOMES FOR SELECTED AREAS, 2000

	<u>FAMILY</u>	<u>HOUSEHOLD</u>
Moultrie County	\$46,655	\$40,084
Sullivan	41,894	33,197
Shelby County	44,372	37,313
Shelbyville	39,205	32,458
Vermillion County	41,553	34,071
Danville	39,308	30,431
Macon County	47,493	37,859
Decatur	42,379	33,111
Coles County	45,708	32,286
Mattoon	43,780	31,800
Cook County	53,784	45,922
Chicago Metro	42,724	38,625

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SOURCE: U.S. Census Bureau, Census 2000.

Table 11 shows general labor force statistics for Moultrie and Shelby Counties obtained during the 2000 Census.

TABLE 11
CIVILIAN LABOR FORCE STATUS
MOULTRIE AND SHELBY COUNTIES AND THE STATE OF ILLINOIS
2000

	<u>MOULTRIE</u>	<u>SHELBY</u>	<u>ILLINOIS</u>
Population 16 years and over	11,086	17,866	9,530,946
Civilian Labor Force	7,167	11,102	6,230,617
Percent in Labor Force	64.6	62.1	65.1
Percent Employed	62.5	59.9	61.2
Percent Unemployed	2.2	2.3	3.9

SOURCE: U.S. Census Bureau, Census 2000.

(7) Housing. In 1980, approximately one-third of all housing in Shelby and Moultrie counties had been built since 1960. This is considered to be the period of influence or the period when the local people knew that Lake Shelbyville was being constructed. See section 5.02.b.(3) for a discussion of the current status of housing around the lake. Development of subdivisions has been slow, but of good quality due to the zoning and subdivision controls and implementation of Moultrie County. Shelby County also has zoning and subdivision controls assuring the prevention of low quality developments. Table 12 shows the single-unit residential construction history for both counties and the major city of each.

TABLE 12
SINGLE UNIT RESIDENTIAL HISTORY

MOULTRIE COUNTY		
	<u>1990</u>	<u>2000</u>
NUMBER OF HOUSING UNITS	5,384	5,743
PERCENT OWNER OCCUPIED	72.1	78.5
PERCENT RENTER OCCUPIES	23.0	21.5
PERCENT VACANT	4.9	5.9
CITY OF SULLIVAN		
	<u>1990</u>	<u>2000</u>
NUMBER OF HOUSING UNITS	1,884	1,945

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PERCENT OWNER OCCUPIED	67.0	72.1
PERCENT RENTER OCCUPIES	27.6	27.9
PERCENT VACANT	5.4	6.4

SHELBY COUNTY

	<u>1990</u>	<u>2000</u>
NUMBER OF HOUSING UNITS	9,329	10,060
PERCENT OWNER OCCUPIED	72.4	81.0
PERCENT RENTER OCCUPIES	19.4	19.0
PERCENT VACANT	8.2	10.0

CITY OF SHELBYVILLE

	<u>1990</u>	<u>2000</u>
NUMBER OF HOUSING UNITS	1,850	2,291
PERCENT OWNER OCCUPIED	68.8	71.5
PERCENT RENTER OCCUPIES	24.8	28.5
PERCENT VACANT	6.4	6.9

SOURCE: US Census Bureau, Census 2000.

5-03. ECONOMIC POTENTIAL

a. The economic potential relative to water recreation commercial uses can generally be based on the degree of visitor attraction the project possesses. At Lake Shelbyville, visitation increased rapidly from 1970 through 1972 as people first became aware of the lake's opening. Visitation then continued to climb slowly, reaching a peak in 1991. From 1992 through 1996 there was a decline in visitation, due in part to high water conditions during several of these years which made some facilities unusable and reduced the fishing success. Since 1996, visitation has increased every year except for 2002.

b. Severe weather conditions occurring during December, January and February generally restrict recreational use of the project during that period, except for bank fishing along the downstream spillway. The lake level, too, is usually much lower at this time of year. The peak visitation months are usually June, July and August.

c. Lake Shelbyville continues to be a regional magnet. The lake has unique physical qualities not found elsewhere in Central Illinois. The sloping, tree covered banks of the coves attract fishermen and the lake is considered one of the best bass fishing lakes in the state. The lake is quite scenic by boat, by automobile, or on foot. In the 1990s indicate that 40 percent of the

visitation consisted of sightseers. The project has an outstanding reputation with campers and statistics in the 1990s indicate that over 85 percent of the campers are return visitors.

d. Recent development in the state parks and private development in project area has the potential to attract additional visitation. Local area tourism groups work hard at promoting the project and its activities, which could also increase visitation. The increased interest in personal watercraft has changed the complexion of boating and shows indications of increasing project use. The development at the lake includes the Findlay Marina, the Lithia Springs Marina, the Sullivan Marina and Campground and the Eagle Creek State Park Resort.

e. Another positive factor of economic consideration is the project accessibility. The regional highway network allows ease of travel by Interstates 57 and 70. Although Chicago is 200 miles away, only 15 miles of this distance is improved two lane roads, the remainder is by Interstate 57. State roads carry visitation traffic from Decatur, Champaign-Urbana, Effingham, Springfield, and other urban areas. The St. Louis metropolitan area is slightly over 100 miles away via Interstate 70 and state two-lane highways.

f. Presently, there are three concessionaires at Lake Shelbyville offering water based recreational services. These include power boat sales and service, rental slips, boat rentals, marine supplies, fishing supplies, and food and drink concessions. Based on actual demand for facilities and services, these concessionaires may wish to expand their marina operations in future years. Requests for marina expansion will be carefully considered. However, any future energy crises, especially affecting gasoline supply and cost, could be a factor affecting the economic outlook of these commercial operations.

g. Areas where possible resort-type concession facilities could be constructed include Dam West within the area managed by the City of Shelbyville, Dam East, Wilborn Creek, and Whitley Creek Recreation Areas and Findlay Marina. These facilities would feature overnight accommodations, convention center, tourist center, golf, tennis, etc. These would be major developments not necessarily to be constructed at the same time.

h. A positive recommendation based on a market study will be required before construction of any more resort facilities at Lake Shelbyville.

(1) The Eagle Creek State Park Resort and Conference Center has 138 guest rooms, 10 executive suites with fireplaces, an indoor pool, an outdoor pool, saunas, whirlpool, exercise facilities, tennis courts, trails, a restaurant,

four large meeting rooms, a theater, a separate conference resort with 8 sleeping rooms and an 18 hole golf course that was named the “Best Resort Course” by Golf Digest Magazine.

(2) Because of ever increasing fuel costs, more families will vacation close to home rather than motoring across country. Overnight accommodations at Lake Shelbyville are attractive to people from St. Louis, Chicago, urban places in Central Illinois and families from western Indiana.

5-04. HIGHWAY AND ROAD ACCESS

a. Primary Roads. Lake Shelbyville is served by four state highways: Illinois 32 on the east, Illinois 16 to the south, Illinois 121 at the north, and Illinois 128 to the west. These major roads provide access to township and county roads, which in turn connect to project roads. Regional access to the project is by Interstate Highway 57, the north-south interstate route, for those visitors from east-central Illinois, north-east and southern Illinois. St. Louis area and Terre Haute visitors use Interstate Highway 70, the east-west interstate route, as access to the project.

Major project of interest that is tentatively scheduled during the FY 2004 – 2008 time frame includes the Interstate 57 New Interchange north of Mattoon in Coles County. The Illinois Department of Transportation has the construction of a new interchange and 9 miles of connecting highway programmed during FY 2004 – 2008 at the cost of \$22.3 million. The new highway will connect the interchange to US 45, the Bruce-Findlay Road to the west, and Illinois 130 to the east.

b. Secondary, Tertiary, and Access Roads. County and township roads connect the project recreation areas with the major roads. These minor roads are maintained by local, county, and township road districts. Generally, the conditions of these roads are good relative to their surface condition and width, and most have been rebuilt within the past ten years. The road network, access road problems, and priority of road needs are explained in Section 10-03.

Following is a descriptive listing of road network. All of the primary and secondary roads and part of the tertiary roads are shown and indexed on Plate 4.

Primary Roads.

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Road 1: Illinois Route 128 north from Shelbyville to Macon County. Western primary access road for Dam West, Opossum Creek, Coon Creek, and Lone Point Recreation Areas, Eagle Creek State Park, and Findlay Marina.

Road 2: Illinois Route 121 from Bethany to Sullivan and Allenville. Northern primary access road for Wilborn Creek Recreation Area. Highway bisects both West Okaw and Kaskaskia Wildlife Management Areas.

Road 3: Illinois Route 32 from north of Sullivan to Windsor and Illinois Route 16. Eastern primary access road for Whitley Creek, Sullivan Beach, and Forest W. "Bo" Wood Recreation Areas, Sullivan Marina and Campground, and Wolf Creek State Park.

Road 4: Illinois Route 16 from Shelbyville to Windsor. Southern primary access to Dam East, Dam West, Spillway, and Lithia Springs Recreation Areas and Lithia Springs Chautauqua Area. This is also the primary access for the operation lands that includes the Main Dam, Administration and Maintenance complexes, and Visitor Center.

Secondary Roads.

Road 5: Secondary road from Shelbyville to Findlay. Provides access to Opossum Creek, Coon Creek, and Lone Point Recreation Areas, and Eagle Creek State Park.

Road 6: Secondary road from Findlay to Bethany. Provides access to West Okaw Wildlife Management Area.

Road 7: Secondary road from Illinois Route 128 crosses Illinois Route 32 to Illinois Route 121. This road is commonly known as the Bruce-Findlay Road. Provides access to Coon Creek, Lone Point, and Whitley Creek Recreation Areas, Eagle and Wolf Creek State Parks, and Findlay Marina.

Road 8: Secondary road from Illinois Route 121 to Road 7. Provides access to Wilborn Creek Recreation Area and Coal Shaft Bridge.

Road 9: Secondary road from Illinois Route 32 to Road 8. Provides access to Camp Camfield Environmental Study Area.

Road 10: Secondary road from the Road 7 to Road 11. Provides access to Wolf Creek State Park.

Road 11: Secondary road from Illinois Route 32 to Lithia Springs Recreation Area.

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Provides access to Lithia Springs Recreation Area and northern access to Lithia Springs Chautauqua Area.

Road 12: Secondary road from Illinois Route 16 to Road 11. Provides access to Lithia Springs Recreation Area.

Access Roads.

Road 4a: Access road from Illinois Route 16 to Hunter Lake Multiple Resource Area.

Road 5a: Access road from Road 5 to Dam West Recreation Area. This road is Ninth Street in the City of Shelbyville.

Road 5b: Access road from Road 5 to Opossum Creek Recreation Area.

Road 5c: Access road from Road 5 to Bethel Multiple Resource Area.

Road 5d: Access road from Road 5 to Coon Creek Recreation Area.

Road 5e: Access road from Road 5 to Lone Point Recreation Area.

Road 5f: Access road from Road 5 to Arrowhead Multiple Resource Area. Provides access to the Illini Trail and the Little Illini gravel parking lot.

Road 6a: Access road from Road 6 to West Okaw Wildlife Management Area.

Road 7a: Access road from Road 7 to Houser Multiple Resource Area.

Road 7b: Access road from Road 7 to Bluestem Multiple Resource Area (Area F).

Road 7c: Access road from Road 7 to Whitley Creek Recreation Area.

Road 8a: Access road from Road 8 to Wilborn Creek Recreation Area.

Road 11a: Access road from Road 11 to Sand Creek Multiple Resource Area. Provides access to Woodard Road gravel hunter-fisherman parking lot.

Road 11b: Access road from Road 11 to Lithia Springs Chautauqua Area.

SOUTHWEST SECTOR

Tertiary roads in this sector connect Illinois Route 128 to project access points.

NORTHWEST SECTOR

Tertiary roads in this sector connect the Findlay and Bethany secondary roads with the project and West Okaw Wildlife Management Area. There is minimal project development in this sector.

NORTH CENTRAL SECTOR

Tertiary roads connect Illinois Route 32 and 121 with project access points.

NORTHEAST SECTOR

Tertiary roads of this sector are used mainly for farm travel. They occur between Illinois Route 121 and 32. These roads also provide access to the Kaskaskia Wildlife Management Area.

SOUTHEAST SECTOR

Tertiary roads in this sector provide circulation connections between Illinois Route 16 and 32 and project access roads.

5-05. RELATED RECREATIONAL AREAS

Recreational facilities located within the area of influence (125 mile radius) are listed in Table 13. Some of the lakes listed are small water supply reservoirs which are also used for recreation. All are smaller than Lake Shelbyville except for Carlyle and Rend Lakes.

TABLE 13
RECREATIONAL FACILITIES WITHIN AREA OF INFLUENCE

Illinois	Fishing	Swimming	Boating	Camping	Picnicking	Hunting	Marina	Lodge	Trails	Principal Managing Agency	Miles from Lake Shelbyville
Beaver Dam State Park	X			X	X	X			X	IDNR	80
Cahokia Mounds State Park				X	X				X	IDNR	94
Carlyle Lake	X	X	X	X	X	X	X	X	X	USACE	98
Clinton Lake	X	X	X	X	X	X			X	IDNR	52
Coffeen Lake	X		X		X	X				IDNR	38
Frank Holten State Park	X		X		X					IDNR	110
Fox Ridge	X		X	X	X	X			X	IDNR	36
Illinois River	X		X	X	X			X	X	Various agencies	
Kickapoo State Park	X		X	X	X	X			X	IDNR	73
Lake Benton	X		X							City of Benton	97
Lake Bloomington	X		X							City of	74

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										Bloomington	
Lake Charleston	X		X		X					City of Charleston	34
Lake Decatur	X	X	X		X	X	X			City of Decatur	31
Lake Jacksonville	X	X	X							City of Jacksonville	80
Lake Mattoon	X	X	X		X		X			City of Mattoon	24
Lake Pana and City Park	X	X			X					City of Pana	15
Lake Sara	X	X	X	X	X		X			Effingham Water Authority	24
Lake Taylorville	X	X	X	X	X				X	City of Taylorville	26
Lake Lou Yaeger	X	X	X	X	X	X			X	City of Litchfield	48
Lincoln Log Cabin State Park					X					IDNR	28
Lincoln's New Salem State Park				X					X	IDNR	70
Lincoln Trail Homestead State Park	X		X	X	X	X			X	IDNR	60
Marshall State Fish & Wildlife Area	X		X	X	X	X			X	IDNR	65
Newton Lake	X		X		X	X			X	IDNR	45
Oakland Walnut Point	X			X	X	X			X	INDR	45
Pere Marquette State Park	X		X		X			X	X	IDNR	92
Pickneyville Reservoir	X				X					City of Pickneyville	97
Pool at Dam 24	X		X		X	X				USACE	113
Pool at Dam 25	X		X		X	X				USACE	108
Pool at Dam 26	X		X		X	X	X			USACE	80
Pool at Dam 27	X		X		X	X				USACE	86
Ramsey Lake State Park	X		X	X	X	X			X	IDNR	24
Red Hills State Park	X		X	X	X	X			X	IDNR	69
Rend Lake	X	X	X	X	X	X	X	X	X	USACE	117
Rice Lake Conservation Area	X		X	X	X	X				IDNR	103
Sam Parr State Park	X		X	X	X				X	IDNR	45
Sanganois Conservation Area	X					X				IDNR	84
Sangchris	X		X	X	X	X			X	IDNR	46
Shelbyville City Park	X	X			X					City of Shelbyville	1.5
Spitler Wood State Park				X	X				X	IDNR	26
Springfield Lake	X	X	X		X		X		X	City of Springfield	52

	Fishing	Swimming	Boating	Camping	Picnicking	Hunting	Marina	Lodge	Trails	Principal Managing Agency	Miles from Lake Shelbyville
Illinois											
Stephen A. Forbes St. Pk.	X	X	X	X	X	X			X	IDNR	44
Twin Lakes	X		X		X					City of Paris	61
Vandalia Lake	X	X	X	X	X		X		X	City of Vandalia	53
Indiana											
Cagles Mill Lake	X	X	X	X	X	X		X	X	Indiana State Park	108
Madsfield Lake	X	X	X	X	X	X			X	Indiana State Park	88
Monroe Lake	X	X	X	X	X	X			X	Indiana State Park	123
Cataract Lake	X	X	X	X	X	X		X	X	Indiana DNR	108
Wabash River	X		X		X			X		Various agencies	100

5-06. RESERVOIR PLAN OF OPERATION

Operational concepts and plan of operation for Lake Shelbyville are explained in detail in the Operational Management Plan under separate cover.

5-07. ROAD, CEMETERY, AND UTILITY RELOCATIONS.

a. Railroads. Construction and operation of the lake necessitated raising the Illinois Central Gulf Railroad tracks at West Okaw and Kaskaskia River crossings. This included two new bridges and approximately 6,800 feet of track and embankment. Remedial measures were necessary for the protection of the existing embankment of the Chicago and Eastern Illinois Railway at the West Okaw Crossings.

b. Highways and Roads. Three bridges and approximately 7,300 feet of concrete pavement were constructed on Illinois Route 121. On Illinois Route 32, one bridge and about 3,600 feet of concrete pavement were constructed. One bridge, and 1,326 feet of asphalt pavement was constructed on FAS Route 642. Initial project operation necessitated construction of approximately 10 miles of new secondary roads and removal of 26 county road bridges.

c. Utilities, Cemeteries and Pipelines. Several minor alterations to cemeteries were necessary for project operation. One cemetery that is located in the Lone Point Recreation Area is cut off from land and becomes an island around the lake elevation of 603 feet above sea level. Fifty-six miles of local power lines and forty-five miles of telephone lines required relocation.

Prior to project operation, approximately 17,000 feet of gas and oil pipelines were either relocated or altered.

5-08. EARTH BORROW AND SPOIL AREAS

a. One large borrow area, which is part of Dam West Recreation Area, has been revegetated and transformed into a recreation area. There were several other unsightly borrow areas on project land which were used for road construction. These have been seeded and have re-vegetated.

b. The St. Louis District performed a contamination evaluation of the former municipal landfill located on the Forrest W. "Bo" Wood Recreation Area at Lake Shelbyville, Illinois. The landfill was in operation from 1904 until its

closure as part of Lake Shelbyville Reservoir construction in 1968. At that time the seven-acre landfill was consolidated to its present location which covers about 2.6 acres. It is estimated that the landfill contains approximately 140,000 cubic yards of household, commercial, and industrial wastes. The lower portion of the clay-capped landfill is submerged under normal lake levels. This investigation was initiated when shoreline erosion threatened to expose areas of the former landfill.

This landfill is located just north of the picnic shelter in Bo Wood Recreation Area. Part of the Shoreline Erosion Management Plan work that has been completed included re-protecting this landfill.

c. The purpose of the study was to gather adequate background and field data to determine whether contamination of lake water, lake sediment, ground water or site soils had occurred as a result of the landfill.

d. The results of the study indicate that although low levels of some contaminants are present in the ground water and surface water at the site no contamination has been identified which could conclusively be attributed to the former landfill site.

e. In addition to the Bo Wood landfill site it is known that other community or private dumps existed in the reservoir area prior to the formation of Lake Shelbyville. These sites could be potential sources of lake water and ground water contamination.

5-09. WATER QUALITY

A water quality-monitoring program is being conducted by Hydrologic and Hydraulics Branch, Environmental Quality Section, St. Louis District, Corps of Engineers. Sampling under this program began in 1984. The lake and downstream river channel maintains good water quality. Thermal stratification of the lake during summer months may cause dissolved oxygen levels to fall below minimum standards in the hypolimnion. Similar benthic communities were observed throughout the lake while highly dissimilar benthic communities occurred within the incoming tributaries. Benthic communities at all stations reflect the absence of gross pollution. Nitrogen to phosphorous ratios for the lake stations indicates primary production is phosphorous limited; thus any reduction in phosphorous input should result in improving the trophic condition of the lake. Fecal coliform concentrations are below the minimum allowable standards, except for isolated occurrences. Water supply is one of the authorized project purposes in which the lake meets all standards with suitable treatment with the exception of Atrazine, which occasionally exceeds the Maximum Contaminant Level (MCL). The Federal MCL allowable for

Atrazine in drinking water is 0.003 mg/l. Some studies indicate that Atrazine could cause cancer with the main source being from drinking water. The District policy is utilized to assist in inhibiting herbicides from entering and contaminating the lake. Mean concentrations of iron and manganese approach and/or exceed the state standards at various times during the hot summer months. Both are aquatic plant limiters, yet the higher levels do not affect plant growth adversely. Water quality in the Kaskaskia River immediately below the lake relative to above the lake was generally improved. Water quality monitoring provides early warning signs of possible future degradation within the lake area.

The Kaskaskia Watershed Association (KWA) is working with State and Federal government agencies to create a Conservation Reserve Enhancement Program (CREP) for the Kaskaskia River. CREP is a voluntary easement program that if implemented would help reduce sedimentation and non-point pollution and would increase water quality along the Kaskaskia River.

Another group, the Upper Kaskaskia River Ecosystem Partnership evolved from an organized group of landowners representing the five county Farm Bureaus and Soil and Water Conservation Districts in the watershed. Since 1995, the group has sought to promote nitrogen management, filter strips, no-till, and other best management practices. The history, goals, and plan of action for the Upper Kaskaskia River Ecosystem Partnership is explained in Section 10-18.c.

5-10. ADAPTABILITY OF SPILLWAY FOR PUBLIC USE

The Spillway Recreation Area is located on both sides of the spillway channel below the Lake Shelbyville Dam. A description of this area can be located in Section 8-04.p. Non-federal hydropower development proposal for this area is explained in Section 10-08.

5-11. FOREST AND MINERAL RESOURCES

a. Forests. Forest resources within and adjacent to the project area can be classified as an Oak-Hickory association consisting of several species of oaks and hickories at the higher elevations with lighter seeded bottomland species appearing along the shore line and tributaries. Maple, ash, hackberry, cottonwood, sycamore and willow predominate on these lower elevation bottomland sites. Open field left from former agricultural activities have become populated with large amounts of honey locust. Previous periods of high water have left debris and trees killed by flooding along the lower elevations adjacent to or on the shoreline. This loss of the vegetative

component along the shoreline contributed to the erosion problems at Lake Shelbyville.

b. Minerals. Mineral resources consist of oil, sand, gravel and coal. There are a few oil wells in the vicinity of Lake Shelbyville. Coal mining activities have long been abandoned. None of these mineral resources has a large impact on the local economy or a great impact on resource management operations at Lake Shelbyville. Ground subsidence caused by collapse of underlying abandoned coal mines could affect reservoir facilities such as comfort stations, parking lots, roadways and other structures surrounding the lake.

Mineral rights were retained by the original owners and assigned heirs on the Walter Welsh property located in Section 16 of T13NR5E, Moultrie County, Illinois. Approximately 20 to 30 loads (300 – 400 tons) of low-grade gravel are removed from the surface pit annually. If these mineral rights become available to be purchased it might be in the best interest of the government to purchase them.

5-12. RECREATION FACILITY REQUIREMENTS

a. Existing User Demand. Existing user demand is reflected with 2001 visitation used as a basis for computations. Existing facility requirements are based on current visitation, design criteria, and guidelines detailed in the Institute for Water Resources' Research Report 74-R1 (Estimating Recreational Facility Requirements, Volume IV of V). Facility requirements are oriented toward key facilities, which include campsites, picnic units, boat launching lanes and beach area. This planning methodology estimates the number of facilities necessary to satisfy recreation use on an average weekend day during the peak summer month of visitation.

(1) Facility Design Day Load. This determination represents the anticipated number of users visiting the project on an average weekend day during the peak month of use. Based on 1996 visitation, the present facility design day load is estimated at 41,109. (See Table 14, Actual and Estimated Annual Attendance).

(2) Summary of Existing User Demand. Utilizing the facility design day load, participation rates for each activity requiring facilities, and the appropriate activity turnover rates, the principal recreation facility requirements were estimated. The existing facility user demand is presented in Table 15.

(3) Summary of Existing Facility Supply. The existing supply of key park and recreation facilities is presented in Table 15. The principal agencies

developing facilities at Lake Shelbyville are the Corps of Engineers and the Illinois Department of Natural Resources.

(4) Evaluation of Existing Supply and Demand. Comparison of existing supply and demand, as presented in Table 15, indicates a sufficient supply of all facilities, except for the number of high water boat launch lanes. In 2002, the high water boat ramps were utilized most of the recreation season due to the lake reaching the second highest pool level. As presented in Table 14, the high lake level did not drastically effect the annual visitation. Since the existing high water ramps will not accommodate as many users as the primary ramps there were several occasions throughout the recreation season that the ramps did not meet customer demands resulting in loss of revenue and were congested creating traffic hazards. Increasing the number of high water boat launch lanes should alleviate the problems.

(5) Existing Campsite Utilization. Weekend campsite utilization percentages for all Corps of Engineers managed campgrounds at Lake Shelbyville are shown on Table 15a. In 2002, there was an overall decrease in the percentage of campsite utilized due to the lake reaching the second highest pool level. The most significant percentage decreases that occurred in 2002 were in the campgrounds that did not have a high water boat ramp located within the same recreation area as the campground. In 2003, the campsite utilization rebounded back and percentages were in close comparison to those that occurred in 2000 and 2001.

TABLE 14
LAKE SHELBYVILLE
ACTUAL AND ESTIMATED ANNUAL ATTENDANCE (1970 – 2020)

Actual Annual Attendance

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	Recreation Days	Visits
1970	1,193,000	
1971	2,628,000	
1972	3,901,000	
1973	2,803,000	
1974	2,828,000	
1975	3,077,000	
1976	2,997,000	
1977	3,542,000	
1978	2,937,241	
1979	2,640,415	
1980	2,813,522	
1981	2,636,245	
1982	2,777,302	
1983	2,815,026	
1984	3,108,404	
1985	3,275,904	
1986	3,390,884	
1987	3,201,590	
1988	3,410,220	
1989	3,704,914	
1990	3,622,523	
1991	4,010,874	
1992	3,688,976	2,880,925 ◆
1993	3,536,086	2,989,892 ◆
1994	3,069,358	2,651,996 ◆
1995	3,001,489	3,032,087 ◆
1996	2,804,417	2,842,717 ◆
1997	2,908,891	2,931,996 ◆
1998	2,958,829	2,996,709 ◆
1999	2,927,405	3,102,280 ◆
2000	2,884,436	3,218,075 ◆
2001	3,060,415	3,323,149 ◆
2002		3,021,764 ◆
2003		3,254,928 ◆
Estimated Annual Attendance		
2010	3,601,093	
2020	3,855,143	

◆ Visits calculated with VERS data

TABLE 15
Principal Recreation Facilities:
Existing Supply and Demand Summary

Facility	<u>Existing Supply</u>				Total	2010 Demand	2020 Demand	<u>Demand</u>
	Corps	State	Private Concessionaire	Existing Supply Excess/Shortage				
Camping Units	720 ^{1/}	582	233 ^{2/}	1535	1563	1674	-139	
Picnic Units	215 ^{3/}	205 ^{4/}	6 ^{5/}	426	394	419	+7	
Boat Launch Lanes								
Regular	26 ^{6/}	8 ^{7/}	3 ^{8/}	37	39	42	-5	
High Water	12 ^{9/}	4 ^{10/}	2 ^{11/}	18	29	32	-14	
Linear Swimming Beach	2620 ^{12/}	250	0	2870	3421 ^{13/}	3662	-792	

Source: U.S. Army Corps of Engineers, St. Louis District.

- 1/ Total camping units include sites designed for group camping.
- 2/ Total camping units at Sullivan Marina and Campground
- 3/ Corps total picnic units include 149 picnic sites; 11 group picnic shelters (66 tables).
- 4/ Illinois Department of Natural Resources total picnic units include 169 picnic sites and 6 picnic shelters (36 tables).
- 5/ One group picnic shelter (6 tables) at Findlay Marina.
- 6/ Corps of Engineers regular boat launch lanes (five 4-lane ramps; three 2-lane ramps).
- 7/ Illinois Department of Natural Resources regular boat launch lanes (two 4-lane ramps)
- 8/ Total includes 2 launching ramps (one two-lane ramp at Findlay Marina and a one-lane ramp at Sullivan Marina)
- 9/ Corps of Engineers high water boat launch lanes (six 2-lane ramps)
- 10/ Illinois Department of Natural Resources high water boat launch lanes (two 2-lane ramps)
- 11/ Total includes two-lane launching ramp at Findlay Marina (Only one launching ramp at Findlay Marina. The regular ramp can be utilized during high water conditions.
- 12/ Swimming Beach calculated at 75 linear ft. per 50 persons at waters edge.
- 13/ This total does not reflect the demand for a high water beach facility.

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TABLE 15a
Lake Shelbyville Campsite Utilization
Weekend Percentage Usage

Lithia Springs

	2000	2001	2002	2003
June	82%	82%	80%	80%
July	93%	95%	92%	91%
August	87%	84%	84%	90%
Average	87%	87%	85%	87%

Coon Creek

	2000	2001	2002	2003
June	64%	68%	50%	60%
July	80%	88%	65%	83%
August	66%	No Data	57%	69%
Average	70%	78%	57%	71%

Lone Point

	2000	2001	2002	2003
June	30%	35%	35%	26%
July	33%	47%	44%	43%
August	35%	31%	33%	39%
Average	33%	38%	37%	36%

Opossum Creek

	2000	2001	2002	2003
June	37%	52%	37%	39%
July	52%	59%	44%	51%
August	31%	33%	38%	44%
Average	40%	48%	40%	45%

Bo Wood

	2000	2001	2002	2003
June	86%	96%	81%	81%
July	95%	93%	94%	92%
August	84%	89%	88%	93%
Average	88%	93%	88%	89%

Whitley Creek

	2000	2001	2002	2003
June	24%	21%	7%	13%
July	32%	26%	19%	27%
August	25%	25%	21%	23%
Average	27%	24%	16%	21%

b. Projected User Demand. Utilizing projected visitation, current planning and design criteria, and the procedures and guidelines outlined in the Institute for Water Resources' Research Report 74-R1 (Estimating Recreational Facility Requirements, Volume IV), the projected recreation facility requirements through 2020 were computed and are presented in Table 16. According to the procedures noted above, a deficiency in the number of high water boat launch lanes and camping units is indicated. Only minor deficiencies are indicated for boat launch lanes and linear swimming beach. The existing number of high water boat launch lanes needs to be increased to meet customer needs, alleviate traffic congestion, and maintain utilization and generation of revenue. During the 2002 recreation season, Lake Shelbyville experienced the second highest lake level in the history of the lake. Visitation to the lake remained stable and due to the fact that there was fewer high water boat launching lanes than primary boat launching lanes customer demands were not met and the existing high water boat ramp areas were congested beyond capacity on several occasions.

TABLE 16

SUMMARY: PROJECTED RECREATION FACILITY REQUIREMENTS

	<u>2010</u>	<u>2020</u>
Camping Units	1563	1674
Picnic Units	394	419
Boat Launch Lanes	39	42
Swimming Beach Area (linear ft. at water edge)	3421	3662

Source: U.S. Army Corps of Engineers, St. Louis District, 1997.

5-13. ENVIRONMENTAL AND ECOLOGICAL FEATURES

The Lake Shelbyville project and vicinity provides potential habitat for two federally endangered and threatened wildlife species. The Bald Eagle is a federally threatened species that occasionally migrates through the Lake Shelbyville area. The Indiana Bat is a federally endangered species and although habitat exists at Lake Shelbyville, there are no documented sightings of the Indiana Bat. The Loggerhead Shrike is on the federal list of species of concern and although habitat exists at Lake Shelbyville, there are no documented sightings of the Loggerhead Shrike. The Lake Shelbyville project and vicinity provides habitat for one state threatened plant species. The False Hellebore is a state threatened species that is found at Lake Shelbyville.

On-going observations and field study are used to determine the presence or absence of any or all federal and state endangered or threatened species on project lands and waters. Any operation and maintenance plans or actions will consider any possible effects on all species documented in the area. Table 17 lists the federal and state threatened and endangered species that occur or may occur in the Lake Shelbyville area.

TABLE 17
FEDERAL AND STATE THREATENED AND ENDANGERED SPECIES
THAT OCCUR OR MAY OCCUR IN THE LAKE SHELBYVILLE AREA

Federal List Species	Status	Scientific Name
Bald Eagle *	Threatened	<u>Haliaeetus leucocephalus</u>
Indiana Bat **	Endangered	<u>Myotis sodalist</u>
Loggerhead Shrike	Species of Concern	<u>Lanius ludovivianus</u>
State List Species	Status	Scientific Name
False Hellebore ***	Threatened	<u>Veratrum woodii</u>

Information provided by U.S. Fish and Wildlife Service in a letter dated November 8, 1996; and the Illinois Department of Natural Resources in a letter dated October 25, 1996.

* The Bald Eagle is an occasional migrant through the Lake Shelbyville area. No documented resident population exists.

** Although habitat exists at Lake Shelbyville, there are no documented sightings of the Indiana Bat.

*** The False Hellebore has been sighted in the following areas at Lake Shelbyville, Coneflower Hill Prairie, Sullivan Woods, and Great Blue Heron Rookery. Coneflower Hill Prairie and Sullivan Woods is Illinois Natural Area Inventory Sites.

Section VI

Partnerships and Coordination

SECTION VI – PARTNERSHIPS AND COORDINATION

6-01. GENERAL

A high degree of coordination has been maintained with other government agencies throughout Lake Shelbyville's planning, development and operational stages. This memorandum is the fourth updating of the Master Plan and not all agencies involved during the original planning process have been in direct coordination with the Corps of Engineers during the production of this document. The only agency actively involved with the Corps of Engineers in this planning and coordination process was the Illinois Department of Natural Resources. The Corps of Engineers will notify the US Fish and Wildlife Service this memorandum has been updated. A brief summary of coordination with other agencies to date is contained in the following paragraphs.

6-02. FEDERAL AGENCIES

a. National Park Service. This agency worked closely with the Corps of Engineers and the Illinois Department of Natural Resources, particularly during the early planning and development of the project. Coordination has been principally concerned with estimates of annual visitation and activity use and estimates of the scope and nature of park and recreation developments required. The National Park Service conducted an extensive field reconnaissance as a part of the review and coordination process.

b. U.S. Fish and Wildlife Service. Since the early planning stages of the project, coordination with the U.S. Fish and Wildlife Service has been maintained. A cooperative effort by the IDNR, the National Park Service and the U.S. Fish and Wildlife Service, resulted in the establishment of committees on recreation, and fish and wildlife in order to facilitate planning of resources programs to assure optimum development of these features on the project. The U.S. Fish and Wildlife Service was consulted to provide comments to the Lake Shelbyville Shoreline Erosion Management Plan and most recently they provided comments to the 1135 project plan.

c. U.S. Public Health Service. The U.S. Public Health Service in cooperation with the Illinois Department of Public Health prepared a report on the mosquito control problem associated with the Shelbyville Reservoir in November 1961. In 2001, a new insect-borne disease emerged in Illinois, the West Nile virus.

In Illinois, West Nile virus was first identified in September 2001 when laboratory tests confirmed its presence in two dead crows found in the Chicago metropolitan area. In 2002, birds, mosquitoes and horses in 100 of the state's 102 counties were reported positive for West Nile virus and the first human cases and deaths from West Nile virus illness in Illinois were reported in August

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2002. By the end of the year, the state led the nation with 800 human cases and 63 deaths. The Illinois Department of Public Health (IDPH) maintains a sophisticated disease surveillance system to monitor animals and insects that can potentially carry the virus: dead crows and blue jays, mosquitoes and horses. Mosquitoes can either carry the virus or get it by feeding on infected birds. Shelby County reported three human cases and Moultrie County reported one human case and one death in 2002 caused by West Nile Virus.

d. Natural Resource Conservation Service (NRCS). This agency is consulted when land use issues regarding prime farmland and wetlands arise. The NRCS certifies land as acceptable for wetland restoration projects. Recent partnership activities including support of Conservation Reserve Enhancement Program (CREP) in the Kaskaskia River Watershed. The NRCS helps establish local Resource Conservation and Development (RC&D) agencies. Two RC&D agencies are located within the Upper Kaskaskia River Watershed; Heartland and Lincoln Heritage.

e. Department of Interior – Bureau of Land Management (BLM). All leases for federally owned minerals at Lake Shelbyville are granted and administered by the Department of Interior through the BLM. Although federally owned minerals are under the administrative jurisdiction of BLM, consent from the managing agency must be obtained prior to granting a lease.

f. U.S. Naval Construction Battalion. The Corps of Engineers has a Memorandum of Agreement in place with this agency. This construction battalion, also referred to as the Sea Bees, uses the Okaw Bluff Group Camp as their base camp one weekend out of every month for the majority of the year. The Sea Bees perform several tasks while stationed at Lake Shelbyville that primarily includes building and maintaining facilities.

g. Army National Guard. In support of the Army, the Army National Guard through the Special Use Permit system utilizes the Bluestem Future Recreation Area, also known as Area F, for military training on a regular basis.

h. Coast Guard Auxiliary. The Corps of Engineers signed a Memorandum of Agreement with this agency in 2004. The purpose of the agreement is for the Corps of Engineers at Lake Shelbyville to work in cooperation with this agency to jointly support and promote a standard Vessel Safety Check Program, promote and expand water safety awareness, offer assistance to stranded boaters, offer assistance during search and rescue operations, and establish and maintain homeland security.

i. U.S. Department of Agriculture Community and Rural Development. This agency is working with the local communities in support of funds for the Regional Sewer and Water Program.

j. Environmental Protection Agency. The Corps of Engineers works with this agency when dealing with the wastewater treatment facilities and issues at Lake Shelbyville.

k. U.S. Geological Survey. The Corps of Engineers works with this agency when it comes to updating maps that pertain to Lake Shelbyville.

l. Federal Emergency Management Agency. The Corps of Engineers works with this agency to provide needed assistance during local, state, and national emergencies.

m. U.S. Power Squadron. The Corps of Engineers works with this agency to enhance and supplement the Lake Shelbyville Water Safety Program.

6-03. STATE OF ILLINOIS AGENCIES

Close liaison with the Illinois Division of Waterways, the Illinois Department of Public Health, and the Illinois Department of Transportation was maintained through the planning phases of Lake Shelbyville.

a. Department of Business and Economic Development. In Illinois, this agency is responsible to the Governor for the coordination of all economic development planning for the state, which includes planning by state and local government agencies in connection with such projects as Lake Shelbyville. Continuing coordination with this agency has been maintained as required.

b. Illinois Department of Natural Resources (IDNR). This agency has responsibility for management of state parks and recreation areas, conservation, management of fish and wildlife, enforcement of the Illinois Boat Registration and Safety Act, and enforcement of state fish and game laws. In regard to all of these responsibilities, this agency has been involved since the project's inception. The primary coordination with the State of Illinois for the purposes of this update of the Revised Master Plan has been with this agency. Some of the various divisions of IDNR that the Corps of Engineers partners with include Land Management and Education, Wildlife, Fisheries, Natural History Survey, Natural Heritage, and Water Resources.

c. Illinois Environmental Protection Agency (IEPA). The Corps coordinates with the IEPA regarding the construction and operation of wastewater treatment facilities, the maintenance of effluent (NPDES discharge permits) and in-lake water quality standards.

d. Illinois Department of Public Health (IDPH). The Illinois Department of Public Health conducts a safety inspection at all of the public beaches at Lake Shelbyville on an annual basis. To protect the public's health, the Department requires that the licensed public beaches in Illinois be sampled in the shallow

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and deep areas every two weeks. Samples are sent to a Department laboratory for analysis. If the results exceed the Department's limits, the risk of illness increases and the Corps of Engineers is required to close the beach.”

e. Illinois Department of Transportation (IDOT). This agency is responsible for providing, installing, and maintaining all of the directional signs that pertain to Lake Shelbyville that are on state owned right-of-ways. The signs meet IDOT guidelines and standards.

f. Illinois Historic Preservation Agency. This agency over the years has helped present interpretive programs and assisted with archeology work around the lake.

g. Illinois Department of Commerce and Community Affairs (Tourism). The Central Illinois Tourism Office, which is part of this agency, has coordinated and assisted with special events and workshops within the Lake Shelbyville area. This agency has also published information concerning Lake Shelbyville and special events in their publications that are distributed to the public.

h. Illinois Emergency Management Agency. This agency coordinates disaster and emergency responses for the State of Illinois. The Corps of Engineers coordinates with this agency on Dam Safety training, flood and other disaster response efforts.

i. Illinois State Police. Through the East Central Illinois Drug Task Force situations that involve production of illegal drugs on Government property are turned over to this agency to handle. This agency also assists in traffic control for special events that involves traffic on any of the IL state highway routes that surround the lake.

j. Illinois Cooperative Extension Service. This agency assisted in organizing a 4-H club that primarily assists with projects at Lake Shelbyville. The Corps of Engineers has partnered with this agency to assist them with presenting off-site special events and workshops.

k. Experience Works, Inc. The agency provides personnel that work under the direction of Corps of Engineers personnel to perform clerical, receptionist, administrative, interpretive, and maintenance work.

l. Illinois Audubon Society. This agency has provided traveling displays and volunteers that have been utilized to present interpretive programs and events.

6-04. LOCAL GOVERNMENTS AND AGENCIES

a. Local Governments. Since the beginning of the project, coordination has been maintained with counties, cities and villages in the Lake Shelbyville area. Many meetings have been held with various agencies and civic groups. The Operations Manager is the primary contact for coordination between the Corps and local government agencies and organizations.

There is considerable coordination with Shelby and Moultrie counties and the municipal governments of Shelbyville, Sullivan, Findlay, Bethany, and Windsor. As partners, the Corps advises them of general policy regarding public use of the reservoir and tentative plans. In addition, officials of local governments seeking information on these matters have made a number of visits to the lake project office. Corps of Engineers personnel also attends local government meetings to inform them of current matters and issues.

b. Kaskaskia Watershed Association. The Corps of Engineers has worked closely with this agency to coordinate and present meetings and workshops that showcase the Kaskaskia River Watershed, which Lake Shelbyville is a part of.

c. Kaskia-Kaw Rivers Conservancy. In 2001, this agency entered a Cooperative Agreement with the Corps of Engineers. They manage the sales area in the Lake Shelbyville Visitor Center and assists in coordinating and presenting special events at Lake Shelbyville and surrounding communities that helps build community and public relations. This agency also has a Real Estate License that allows them to provide vending machines within the recreation areas at Lake Shelbyville.

d. Shelby County Community Services. Through the Challenge Partnership and Donation programs this agency has provided assistance to the Corps of Engineers and made it possible to construct universally accessible facilities such as fishing piers within the Opossum Creek and Spillway Recreation Areas, and playground and beach access mats within Dam West Recreation Area. This agency partnered with the Corps of Engineers to provide supplies that made the construction of the Okaw Wetland wildlife blinds possible and they also provide flowering plants that have been utilized in flower beds in various areas around the lake.

e. Izaak Walton League, Champaign County Chapter. Through the Challenge Partnership Program this agency has provided assistance to the Corps of Engineers and made it possible to construct the universally accessible fishing pier within the Spillway Recreation Area. This agency has also worked with the Corps of Engineers to put fish attractors in place.

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f. Shelbyville General Dacey Trail Committee. This committee is working with the Corps of Engineers in planning and promoting the Lake Shelbyville General Dacey Trail Plan.

g. Central Illinois Mountain Bicycling Association. Through a Challenge Partnership Agreement this agency renovated the '79 Camp Camfield Hiking Trail into a multipurpose trail that accommodates mountain bike and hiking activities. This agency maintains the '79 Camp Camfield multipurpose trail and is active in promoting the Lake Shelbyville General Dacey Trail Plan.

h. Shelby County Search and Rescue Dive Team. This agency has assisted in search and rescue and recovery missions and with special events at Lake Shelbyville.

i. Moultrie County Search and Rescue Dive Team. This agency has assisted in search and rescue and recovery missions at Lake Shelbyville. They have also assisted in recovering vehicles from the lake that were accidentally submerged while launching a watercraft.

j. Lake Shelbyville Development Association (LSDA). The LSDA membership consists of the three marina concessionaries, their customers, Eagle Creek Resort, and other regional business interests around Lake Shelbyville. The LSDA is on the board of the Upper Kaskaskia Ecosystem Partnership and the Kaskaskia Watershed Association. The Corps of Engineers and IDNR serve as technical advisors on their committee and keep the organization updated on tourisms, recreation, flood damage reduction and environmental stewardship activities.

k. Upper Kaskaskia Ecosystem Partnership. The Corps of Engineers has worked closely with this agency to coordinate and present meetings and workshops that showcase the Kaskaskia River Watershed, which Lake Shelbyville is a part of.

l. Okaw Valley Soil and Water Conservation District. The Corps of Engineers has worked with this agency for several years to present special events such as the Envirothon and Fayette County School Assemblies and Conservation Days.

m. Douglas Hart Nature Center. For several years this agency has supported the Lake Shelbyville EcoMeet Special Event by coordinating and presenting the EcoMeet Nature Sleuth competition.

n. American Angling Association. For several years this agency has supported the annual Fish Habitat Improvement special event. This agency also provides volunteer services at the Fin and Feathers Nursery Pond.

o. Shelby County Office of Tourism. This agency has coordinated and assisted with special events and workshops within the Lake Shelbyville area. This agency has published information concerning Lake Shelbyville and special events in their publications that are distributed to the public. The Corps of Engineers has partnered with this agency to represent Lake Shelbyville at Sport and Boating Shows.

p. Shelby County Historical Society. This agency has supported the Lithia Springs Chautauqua Living History Tours Special Event and improvements made to the Lithia Springs Chautauqua Area. Materials and information have been supplied by this agency to develop Visitor Center displays.

q. Shelbyville Chamber of Commerce. The Corps of Engineers is a member of this local agency and have worked together to coordinate and promote special events in the Lake Shelbyville area. This agency for several years has sponsored the annual 4th of July Fireworks Demonstration that is held within the Dam West Recreation Area.

r. Sullivan Chamber of Commerce. The Corps of Engineers is a member of this local agency and have worked together to promote special events in the Lake Shelbyville area.

s. Kaskaskia Archeological Society. This agency has assisted with several archeology surveys around the lake and assisted in monitoring archeology sites that are located on Government land the surrounds Lake Shelbyville. This agency has also assisted with presenting Lake Shelbyville special events and interpretive programs.

t. Boy Scout Troops. A local Order of the Arrow has adopted and performs annual inspections and maintenance on the Chief Illini Trail. Scout groups have assisted the Corps of Engineers over the years with projects such as trail maintenance and building and putting nesting boxes in place.

u. Girl Scout Troops. Several scout troops have volunteered over the years to assist with various projects around the lake.

v. 4-H Clubs. A club has been organized that assists primarily with projects at Lake Shelbyville, such as trail maintenance and building and installing nesting boxes. Several other clubs have volunteered over the years to assist with various projects around the lake.

w. Future Farmers of America (FFA). Local chapters have volunteered over the years to assist with trail maintenance and other projects around the lake. Chapters have been involved with presenting interpretive programs as part of a high school mentoring program.

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x. City and County Law Enforcement Agencies. The Corps of Engineers has additional Law Enforcement Agreements with the Moultrie County and Shelby County Sheriff Departments and the City of Shelbyville Police Department. These departments provide additional law enforcement coverage on Government property within their jurisdictions. These agreements have drastically helped reduce the amount of vandalism experienced at Corps of Engineers facilities around the lake. These agencies also assist the Corps of Engineers in providing traffic control during special events.

y. Sierra Club. This agency has provided comments to various Corps of Engineers projects on the Kaskaskia River including the Master Plan Updates and Environmental Assessments.

z. Whitetails Unlimited. This agency supports the annual deer hunt for people that are physically-challenged.

aa. Illinois Rifleman Association. For several years in conjunction with the National Rifleman Association this agency has supported the annual deer hunt for people that are physically-challenged.

bb. Twin Oaks Sporting Clays. For several years this agency has supported the Lake Shelbyville hunter safety education program.

cc. Tri-County Quails Unlimited. For several years this agency has supported the Lake Shelbyville hunter safety education program.

dd. Pheasants Forever. This agency has supported the Lake Shelbyville hunter safety education program. This agency provides a prairie grass drill that has been utilized by the Corps of Engineers to plant various plots around the lake.

ee. Heartland Resource and Conservation Development (RC&D). This agency has assisted in coordinating and presenting special events in the Lake Shelbyville area.

ff. Lincoln Heritage Resource Conservation and Development (RC&D). Through meetings the Corps of Engineers works with this agency for the betterment of the resource on the upper watershed of the lake.

gg. International Mountain Bicycling Association (IMBA). This agency is assisting in the promotion and coordination of the Lake Shelbyville General Dacey Trail Plan.

hh. Soyland Access to Independent Living (SAIL). This agency has assisted the Corps of Engineers to evaluate accessibility of the facilities at Lake Shelbyville.

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ii. Shelbyville High School National Honor Society. This organization has assisted in preparing and planting various flower beds around the lake.

jj. Wal-Mart. The local stores have made donations of items that have been utilized during special events at the lake.

kk. Crappie USA. This agency sponsors a Kids Fishing Tournament special event at Lake Shelbyville in cooperation with the Corps of Engineers.

Section VII

Resource Use Objectives

SECTION VII - RESOURCE USE OBJECTIVES

7-01. GENERAL

The purpose of this section is to define and prescribe a series of resource use objectives for Lake Shelbyville. Resource use objectives are statements specific to Lake Shelbyville that describe the selected options for resource use, development, and management as determined through study and analysis of regional needs, resource capabilities and potentials, and public desires. As defined, resource use objectives provide general guidance and direction for the use, development, and management of project resources. Site specific resource use objectives include development and management measures.

a. As stated in Section I, the authorized purposes of Lake Shelbyville are flood control on the Kaskaskia and Mississippi Rivers, navigation releases for the Kaskaskia River, domestic and industrial water supply, water quality control, fish and wildlife conservation, and recreation. Certain project purposes by nature can be conflicting. For example, under certain conditions, the lake's flood control purpose can conflict with other project purposes such as recreation and fish and wildlife management.

b. The development of sound resource use objectives should assist in minimizing conflicts between project purposes through compromises that do not seriously detract from achievement of any or all project purposes. Resource use objectives based on project purposes at Lake Shelbyville are identified and discussed in the following paragraphs.

7-02. RESOURCE USE OBJECTIVES

The general resource use objectives, applicable to the project as a whole are presented below. They are formulated so as to provide general guidance and direction to the overall management and development of Lake Shelbyville resources. The objectives are grouped into three categories: General, Recreation, and Environmental Stewardship.

a. General.

(1) Administration and Management.

OBJECTIVE: Ensure that quality administration and management of all project lands, waters and other associated man-made and natural resources is consistent and thorough and in accordance with the Master Plan for the lake.

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DISCUSSION: All project administrative and management decisions/actions will adhere to all applicable laws, regulations, polices, and agreements. Consistent coordination, both internally and with other applicable federal, state, and local government agencies, private organizations and individuals, will be maintained.

All actions and/or plans will be implemented in a manner compatible with authorized project purposes and all applicable social and environmental factors, to ensure maximum benefits. Compromise will be used to minimize conflicts in project uses and development.

The major concerns of management are identification of facilities for renovation or replacement, provision of efficient support facilities, public health and safety, provision of accessible facilities, maintenance of a strong public involvement program, and maintaining the integrity of the operational structures, i.e. the main dam. Hydropower will be accommodated if feasible and compatible with other project purposes.

(2) Concession Development and Operations.

OBJECTIVE: Provide adequate locations and incentives for viable recreation oriented concession leases – existing and proposed. These will include both lodging and marina type services.

DISCUSSION: There are currently three Corps of Engineers administered full-service marina concessions operating at the lake. A golf course and resort lodging are also provided at Eagle Creek State Park.

Locations on the lake have been identified as suitable for development of an additional marina and ancillary services. When the need arises, the Corps of Engineers will accommodate and support legitimate concession developments on either Corps of Engineers or State of Illinois managed areas if they do not adversely affect the growth of the existing concession services. Prior to any additional concession development, the Corps of Engineers will perform market analysis studies or require market analysis studies by interested parties, whichever is applicable, to determine demand for the level and type of concession services being considered.

(3) Safe and Environmentally Appropriate Recreation Areas and Facilities.

OBJECTIVE: Provide public use areas and facilities that are safe and environmentally sound.

DISCUSSION: New facilities and renovated existing facilities must be as safe and environmentally sensitive as possible. The Corps of Engineers has the opportunity to be innovative in the design and use of recreation support facilities. A facility inventory for replacement of degraded facilities will be implemented and maintained for efficient operation. Through proper planning and development, facilities and areas can be safe, environmentally sensitive, and economical while meeting the recreation needs of the public, and all current codes and standards.

All developed recreation areas designated for recreation use are regularly evaluated for the presence of safety hazards and environmental compliance with the National Environmental Policy Act (NEPA) and Environmental Review Guide for Operations (ERGO) guidelines. As detrimental conditions are identified, they will be given priority for evaluating and implementing feasible corrective actions.

(4) Partnering.

OBJECTIVE: Partnering with other agencies, groups, organizations and individuals will be employed to accomplish resource use objectives and improve efficiency in operations.

DISCUSSION: The use of partners to assist with the operation and management of the project will be fully employed. When feasible, donations and the challenge cost-share program will be utilized to accomplish work. Section 225 of Public Law 102-580 grants authorization to the Corps of Engineers to enter into cooperative agreements with non-federal public and private entities to provide for operation and management of recreation facilities and natural resources at civil works projects. The Corps of Engineers may accept contribution of funds, materials and services from non-federal public and private entities. The services of volunteers are accepted under Public Law 98-63 to carry out any activity of the Corps of Engineers except policy making or law regulatory enforcement.

Relationships with our partner agencies and local constituent groups will be maintained and strengthened. If feasible, agreements will be formed with agencies and individuals to assist with operations related to natural resource management, interpretive, and visitor service activities. In this regards, a local Cooperating Association has been formed and is in operation. At one time a Water Safety Council existed that served the Lake Shelbyville area, which included several agencies that helped promote water safety. It is suggested that the possibilities of re-establishing this kind of organization be pursued in the future.

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b. Recreation.

(1) Recreation Quality.

OBJECTIVE: As funds become available, renovate and upgrade recreation areas to improve the available facilities and to reduce maintenance costs.

DISCUSSION: Opportunities to improve the quality of recreation experiences are influenced by carrying capacity, compatibility of activities, and site-specific design factors. At some existing recreation sites the capacity of some recreation facilities such as comfort stations and shower buildings are exceeded. Incompatible activities should be separated by adequate buffer areas. Design of site facilities will be sensitive to the landscape character of the site and region.

(2) Universal Access.

OBJECTIVE: Identify and undertake the modifications necessary with a goal of making facilities accessible to the elderly, people with disabilities, which include people with physical disabilities, hearing and sight impaired, and people with mental disabilities, and other disadvantaged groups as mandated by Uniform Federal Accessibility Standards (UFAS), Americans with Disabilities Design Guidelines (ADDG), and new recreation standards.

DISCUSSION: Physically or mentally disabled persons must be given access to a wide range of outdoor recreation activities through careful and appropriate planning, design and program implementation. Accordingly, consideration is given to access, facilities, and services for persons with disabilities in the planning, design and operation and maintenance of existing recreation areas and the development of future public use areas at the project.

(3) Camping Facilities.

OBJECTIVE: Maintain and improve camping facilities to redistribute use, meet public demand, reduce operation and maintenance costs and generate revenues for future operation and maintenance of recreation facilities.

DISCUSSION: Generally, the less developed and remote campgrounds and day-use areas receive less visitation. Convenient location and especially amenities are high on the priority list of the present day camper. By employing adjustable fees, the reservation system, provision of water and sewer hookups, an upgrade of electrical service, consolidation of facilities, and redesign of poorly situated campsites, campground use will become more evenly distributed and prevent problems associated with overuse.

(4) Day-Use Recreation Opportunities.

OBJECTIVE: Accommodate increasing water and land-based day-use activities in a manner compatible with other site activities while maintaining the integrity of the project's natural resources.

DISCUSSION: Day-use activities requiring support facilities are boating, picnicking, swimming, sightseeing, and fishing. Walking and biking are also done by a large percentage of visitors in a day-use setting. Parking lots, boat ramps, comfort stations, fountain/hydrants, picnic tables and grills, group picnic shelters, bulletin boards, fish cleaning stations, and playgrounds are the primary facilities provided to accommodate day-use recreation at all times. Walking or hiking trails are provided in some day-use areas while biking occurs on park roads and the main dam.

Five recreation areas provide swimming beaches. Support facilities provided for beaches include outdoor showers, indoor showers and rest rooms. Sufficient sand, swimming area depth, buoys outlining the designated swimming area, depth markers, safety and rule signs, and "rescue stations" providing ring buoys, rope and reach pole are the primary beach components that require regular maintenance. Regulations prohibiting pets, food, and alcoholic drinks on beaches minimize user conflicts while fulfilling public recreation demands.

(5) Interpretive Services and Outreach Program (ISOP).

OBJECTIVE: Strengthen the ISOP to foster stewardship and enhance public safety through promoting a greater public awareness, understanding, and appreciation of Lake Shelbyville and its resources. Leverage project fiscal resources through the development of strong partnerships with state and federal agencies, local constituent groups, and with support of a cooperating association and volunteers.

DISCUSSION: The Lake Shelbyville ISOP includes the management of public affairs, community relations, marketing, publications, tourism, interpretive and environmental education programs, special events, and visitor center. It enhances the Corps of Engineers image, provokes public interest in Lake Shelbyville and surrounding area, and promotes public safety.

All activities under the ISOP shall be designed to accomplish one or more of the goals listed in ER 1130-2-550, Chapter 4. In addition to visitor center exhibits, other tools used to enhance the ISOP include but are not limited to, programs both on- and off-site, news releases, call-in information line, web site, brochures, fliers, posters, billboards, public service announcements

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(PSAs), off-project displays, newsletters, interpretive trails, the watchable wildlife program and special events.

The use of partners to assist with the operation and management of Lake Shelbyville will be fully investigated and implemented when necessary. When feasible, donations, challenge partnerships, and volunteers will be utilized to accomplish work.

A relevant ISOP enhances the visitor's experience and enjoyment by anticipating their needs and providing interpretive resources to meet those needs. The ISOP can empower and provoke the public in a very effective manner and is critical to achieving success in fulfilling the Corps of Engineers stewardship missions. To encourage the public to join forces with the Corps of Engineers to protect and preserve the resources the public's understanding of the resources needs to be obtained. Through proper marketing and public relation techniques the ISOP can effectively acquire the public's understanding of the resources.

(6) Flood Proofing

OBJECTIVE: Where applicable, make an effort to raise roads, infrastructure, and facilities to be accessible during periods of high water. Where possible, flood proof low lying facilities to better withstand inundation.

DISCUSSION: At an elevation of 609 NGVD and above, numerous facilities are inundated. Efforts will be taken to raise sewer lift stations and entrance roads to campgrounds and day use areas, which will eliminate the need to shut down these facilities during flood damage reduction activities. Efforts to coordinate with township road commissioners to raise inundated roads will be needed in the future. The Illini Trail will be renovated to accommodate visitors during periods of high water. During the renovation of this trail all footbridges will be removed. It is hard to maintain shade trees within the beach area due to the frequent flooding in these areas. Shelters will be placed over picnic sites at the beach areas to provide supplemental shade. Future actions include replacing and locating the Dam West Beach Shower Building out of the flood zone.

c. Environmental Stewardship.

(1) Protection of the Resource.

OBJECTIVE: Continue to monitor resources to ensure protection against fire, overuse, erosion, insect, and disease infestation. This includes management of non-native pests. Take corrective actions when warranted.

DISCUSSION: To assure protection of resources, we will remain committed to providing responsible stewardship by the preservation and restoration of diverse habitat for the benefit of various ecosystems. Use of all areas for public enjoyment will be encouraged while minimizing any environmental degradation.

(2) Wildlife Habitat.

OBJECTIVE: Encourage optimal utilization by the greatest number of wildlife species through manipulation, management and protection of diverse habitats.

DISCUSSION: The wildlife carrying capacity of public lands can be maintained through the application of a variety of habitat control measures. Management activities will include succession control, native grass plantings, food plot planting, tree plantings and selective timber thinning in areas that will maintain wildlife carrying capacities. Den trees will be saved wherever possible and artificial nesting structures erected to provide additional nesting sites for squirrels, songbirds and ducks. Shrub and vine cover between activity areas, near the periphery of recreation areas, and at fence corners will be established and maintained, providing food, cover, and nesting opportunities for a variety of wildlife. Sensitive areas within public use zones will be marked and protected from human intrusion.

Non-consumptive uses of wildlife such as nature study, wildlife watching and photography receive equal consideration with that of consumptive uses, such as hunting and trapping.

(3) Forest.

OBJECTIVE: Monitor and maintain the vegetative conditions of trees for their scenic, recreational and wildlife values.

DISCUSSION: Forest resources will continue to be inventoried and managed for sustained yield. This involves management for the control of soil moisture, for erosion control, and for promotion of forest stand growth, as well as the protection of the forest resources from insects, disease, fire, and overuse. Timber stand improvement will be accomplished to release or favor potential mast or other food and cavity producing trees. Older trees with unsound limbs and trunks that provide cavities for wildlife, such as squirrels, wood ducks, woodpeckers, raccoons, and honeybees, will be saved except where their preservation would constitute a safety hazard at developed recreation sites.

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(4) Prairies.

OBJECTIVE: Manage existing prairie areas and continue to re-establish plots of native warm season grasses and forbs.

DISCUSSION: Prescribed burning along with additional plantings will help maintain those remnant tall prairies that existed prior to the settlement of Central Illinois.

(5) Wetlands.

OBJECTIVE: Re-establish and maintain high quality wetlands to improve water quality and to provide habitat for wetland dwelling species.

DISCUSSION: As wetlands in the region diminish due to intensive agricultural practices and other land uses, special effort will be made to provide wetland habitat. Development and maintenance of various wetland types will be implemented to support programs such as the North American Waterfowl Management Plan.

(6) Fishery Management.

OBJECTIVE: Cooperate fully with the Illinois Department of Natural Resources (IDNR) in the maintenance and enhancement of a high quality fishery as a perpetual resource.

DISCUSSION: Sport fishing is an important activity at Lake Shelbyville. With the combination of few suitable habitat areas, inadequate spawning sites, and fluctuating water levels for flood control at spawning time, it is difficult to maintain the sport fisheries at an acceptable level. Coordination will be maintained with IDNR on project developments and actions that may affect the lake's fishery. Lake level fluctuations and fishery survey studies will be closely coordinated. The Corps of Engineers will continue to operate and maintain a Christmas tree collection program to enhance fish habitat, and continue to cooperate in forage enhancement projects. Research to identify the factors inhibiting sport fish populations will be funded and coordinated with the IDNR.

(7) Aesthetics.

OBJECTIVE: Plan all management actions with consideration given to landscape quality and aesthetics.

DISCUSSION: To create the opportunity for a quality recreation experience, it is essential to consider the aesthetic impact of planned improvements as well as economic and functional requirements. Each design,

installation, or maintenance action needs to be considered according to its potential visual impact. This includes its impact on the immediate vicinity, on the whole site, and on all areas outside of the site boundaries from which the improvements can be viewed.

Tree, shrub, forb and grass species used for landscape plantings and habitat improvements should be evaluated and selected based on aesthetics and food and cover qualities provided to native wildlife. Native plant species with the greatest aesthetic appeal should be placed in locations with the greatest public visibility.

(8) Erosion Control.

OBJECTIVE: Control and stabilize land and shoreline erosion.

DISCUSSION: The Shoreline Erosion Management Plan delineates the shoreline erosion measures in recreation areas that are immediately necessary. This plan identifies those areas that will be impacted in the next 30 years and what corrective measures will be taken. The corrective measures consist of protection, relocation or removal as appropriate.

Other methods used to reduce or eliminate erosion problems project-wide include promoting woody and herbaceous vegetative growth, manipulation of water run-off, identifying and monitoring erosion problems on and adjacent to public lands, waters and lakeshore.

Due to erosion of the shoreline southeast of Bo Wood Recreation Area, it may be necessary to acquire additional land in Sections 23 and 26 of T13NR5E, Moultrie County, Illinois. The shoreline has eroded to within 100 feet of the fee boundary in some locations. Three privately owned homes bordering government lands could eventually be affected as well.

(9) Cultural Resource Management.

OBJECTIVE: Identify, evaluate, and preserve significant archaeological and historical sites.

DISCUSSION: Numerous archaeological and historical sites occur on Corps land. The implementation of the Cultural Resource Management Plan for Lake Shelbyville will allow these sites to be identified, evaluated, and managed for the benefit of future generations. Planning and development will include considerations to protect and preserve these site locations. The plan provides for determination of their eligibility for listing on The National Register of Historic Places; it prescribes means of preserving significant sites; and it prescribes ways to increase public understanding and

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enjoyment through interpretation consistent with other interpretative programs and recreational land uses.

(10) Mineral Leasing

OBJECTIVE: Make a maximum amount of land available for mineral leasing as is consistent and compatible with all other objectives.

DISCUSSION: It is the policy of the Department of the Army to make a maximum amount of land available for mineral leasing as is consistent and compatible with military operations, national defense activities, and Corps of Engineers civil works requirements. All federally owned leases will be granted and administered by the Department of the Interior through the Bureau of Land Management and all privately owned mineral underlying the federal surface will be regulated by the Illinois Department of Mines and Minerals. All mineral exploration, drilling and abandonment activities will be in accordance with the St. Louis District policy on Oil and Gas Development and the guidelines as established in the St. Louis District Handbook on Oil and Gas Development.

Section VIII

Resource Plan

SECTION VIII – RESOURCE PLAN

8.01 CLASSIFICATION OF LAKE LANDS AND WATERS - LAND AND WATER USE PLAN

a. Purpose.

Project zoning provides guidance for the orderly development, use, and management of the lake's resources. Resource planning will recognize the authorized project purposes and the opportunities and constraints that influence development and management. All development will be screened to determine compatibility with the lake's natural and cultural resources. Primary planning and zoning considerations include: seasonal flooding, soils, ecological conditions, existing and projected recreation demand, state and local participation and interest, and applicable laws, regulations and policies.

Recreational development has generally proceeded as described in the original Master Plan for Lake Shelbyville. All lake area lands have been allocated for the authorized purposes for which they were acquired. The land use allocations are depicted on Plate 1. Land area classifications are represented by a letter or letter/number on Plate 2, the Land Classification Map. An analysis of the resources and use classifications of all lake lands and waters has been made. The objective of classifying lands is to provide an integration of appropriate land and water uses into a balanced plan for the wise use of all lake resources in the public interest. The Operational Management Plan includes more detail on all land classifications and use. Descriptions of applicable land and water use categories follow.

b. Land Allocation.

The project required public lands and waters total approximately 34,341 acres. These lands were allocated in accordance with the authorized purpose for which they were acquired. Two land allocation categories exist for Lake Shelbyville.

(1) Operations. These were lands acquired in accordance with the authorizing purposes for operation of the project, i.e. flood control, navigation releases for the Kaskaskia River, water supply, water quality control, and fish and wildlife conservation.

(2) Recreation. These were lands acquired in accordance with the authorizing purpose of public recreation as presented in the Preliminary Master Plan.

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c. Land Classification.

Land use classifications have been determined through the guidance contained in ER 1130-2-550 and EP 1130-2-550. The land use classification for project lands is shown on Plate 2. Land use classifications and descriptions include the following:

(1) Project Operations. The objective of this zoning is to provide adequate land for safe and efficient operation and management of the lake's land and water resources for all authorized purposes. Lands classified in this category include the main dam and lands required for administrative and maintenance needs. Section 8-04 further details this land resource classification and use.

(2) Recreation Lands. The objective of this zoning is to classify lands, by virtue of location and natural resources, for intensive recreational use. These park and recreation lands are developed to provide for the recreational activities of the visiting public. No agricultural uses are permitted on these lands except on an interim basis for terrain adaptable for maintenance of open space and/or scenic values. Factors such as the road access, natural resources, and recreational facility design and management practices make these lands conducive to accommodating major use by the visiting public. Lands in this classification include areas for concession, state and local agencies, quasi-public and group use development. Section 8-05 further details development and use of lands in this land use category.

(3) Mitigation Lands. No mitigation lands currently exist at Lake Shelbyville.

(4) Easement Lands. The Corps of Engineers holds an easement interest on 6,237 acres of land outside the fee boundary. Use and management of these lands is in accordance with the terms and conditions of the easement estate, which was acquired for the project. Easement lands at Lake Shelbyville are, except for utility easements, flowage easements. These easements give the government the right to flood lands that are generally below 630.5 NGVD. Construction on easement lands is regulated by permit and permits are required for the placement of dredged or fill material.

(5) Environmental Sensitive Areas. In this classification, areas are identified for the preservation of scientific, ecological, historical, archeological and/or aesthetic value. A general description of the Ecological Areas and Cultural Areas classification are as follows. Section 8-07 further details this land use classification.

(a) Ecological Areas. Included in this category are areas providing habitats for rare or endangered species. Limited agricultural practices

are permitted in certain portions of these areas. Normally, development for public use is prohibited or limited on land in this classification.

(b) Cultural Areas. Included in this category are areas that have historical and archeological significance. Management practices are followed to insure protection of these resources.

(6) Multiple Resource Management. This classification further distributes lands to one or more of the following uses based on their location and natural resources: (a) Recreation – Low Density, (b) Wildlife Management – General, (c) Vegetative Management and (d) Inactive and/or Future Recreation Areas. Areas in these categories are found in Section 8-06 and are shown on Plate 2.

(a) Recreation - Low Density. Lands zoned in this category offer recreation to the public in an unstructured natural setting as an alternative to the experience generally associated with intensively developed recreation areas. These areas also serve as a buffer between other land uses. Uses for these areas include hiking, walk-in hunting and fishing, and nature study. Lands required for ecological workshops and forums are also included in this allocation. Agricultural use is not permitted except on an interim basis to maintain open space and scenic values.

(b) Wildlife Management - General. These lands are continuously available for low-density recreational activities. Agricultural leases, and in some cases timber harvesting, are allowed to the extent practicable and compatible with other uses of the project. These activities generate revenue and maintain habitat conditions beneficial to wildlife. Sections 7-02.c. and Section 12-04 of this plan describe the objectives and goals of Corps of Engineers operated and administered fish and wildlife management areas. The Operational Management Plan (OMP) describes the general practices and techniques employed to implement a viable program for fish and wildlife at Lake Shelbyville. Lands on the northern end of the lake, managed by the Illinois Department of Natural Resources (IDNR), have been assigned to this land-use classification.

(c) Vegetative Management. Management activities for these lands include protection and development of forest and vegetative cover and wetland restoration. All lands in government fee ownership are being managed to maintain their forest resources for recreation, wildlife, and scenic values.

The Operational Management Plan describes the general practices and techniques employed to conduct a program for developing the forest resources of Lake Shelbyville, such as tree planting and vegetation manipulation, to support management objectives. Timber will be harvested when required to achieve other management objectives such as wildlife habitat improvement.

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Forest management is a secondary purpose for areas zoned for recreation or low-density recreation. Specific resource use objectives and management practices are described in the Operational Management Plan on an area-by-area basis.

(d) Inactive and/or Future Recreation Areas. These areas include those areas designated for future intensive recreation, or those lands that have been used for intensive recreation in the past and are now temporarily closed. When they recover or meet criteria for recreation use they will be opened or reopened for intensive recreation. Interim use should follow the guidelines described for low-density recreation. No areas at Lake Shelbyville have this land use classification designation.

(7) Water Zoning. The water at Lake Shelbyville is zoned into one major unit and one minor unit. The minor unit is designated as operational waters. They are described as follows:

(a) General Purpose Waters. Acreage of open lake waters is zoned for use by all legitimate forms of water recreation. The southern boundary is the main dam and the northern boundary is approximately 20 miles north of the main dam.

(b) Operational Waters. An area of water around the upstream side of the spillway structure is buoyed and all public use is restricted in this area for safety reasons. This area is zoned as Project Operations Lands (OP-1) as part of the Main Dam.

8.02 LAND AND WATER USE POLICIES

a. Forest Resources. All lands in government fee ownership are being managed to upgrade their forest resources for improvement of recreation, wildlife, and scenic values. The "Land and Water Use Plan" (Plate 2) shows these lands as Recreation, Recreation Low Density, Vegetative Management and Wildlife Management. The Operational Management Plan describes the general practices and techniques that are used to effect implementation of a program for developing the forest resources of Lake Shelbyville, such as tree planting and vegetation manipulation, to support management objectives. Timber will be harvested when required to achieve management objectives such as wildlife habitat improvement. Forest management is a secondary purpose for areas classified as intensive or low-density recreation.

b. Agricultural Use. The Operational Management Plan for Lake Shelbyville contains provisions for agriculture as a corollary use to provide food for wildlife and to prevent encroachment of undesirable vegetation. In addition, agricultural leasing demonstrates effective land management by deriving income for the federal treasury and local counties as well as providing resource

benefits. As agricultural use of project land is not an authorized purpose, except as an interim or corollary use, no such areas have been allocated for this use on Plate 2, "Land and Water Use Plan".

c. Concession Development. A specific objective of the Master Plan is to encourage a full usage of recreational opportunities. Traditionally, overnight camping has taken precedence over resort type facilities. In an attempt to meet public demand and in conjunction with the popularity of recreation vehicles electric, water, and sewer hookups have been provided to campsites. Roads have been widened and parking space increased to accommodate recreational vehicles. As the demand for more sophisticated facilities increases, an alternative to traditional camping must be considered.

Resort facilities require less land, minimize the requirements for extending roads and utilities, and offer a complementary alternative to dispersing full service campsites over large areas. Five areas: Dam West Recreation Area, Dam East Recreation Area, Whitley Creek Recreation Area, Wilborn Creek Recreation Area, and Findlay Marina are zoned for Recreation Use. These areas are under consideration as future resort concessionaire sites. A decision to develop these potential resort concession sites will be based on the recommendation of a valid market potential and feasibility analysis study.

d. Shoreline Use Management Policy. The following is taken from the St. Louis District Policy on Lake Shoreline Private Use Facilities, 20 February 1975. It is the policy of the chief of Engineers, U.S. Army Corps of Engineers, to manage and protect the shoreline of all lakes under its jurisdiction to properly establish and maintain acceptable fish and wildlife habitat, aesthetic quality and natural environmental conditions and to promote safe and healthful use of the shorelines for recreational purposes by all of the American people. It is the objective of the Corps to restrict private exclusive use of public property to the degree necessary to gain maximum benefits to the general public, and to provide for the restoration of shoreline where degradation has occurred. Such actions will consider all forms of benefits such as: recreation, aesthetics and fish and wildlife.

It is the policy that private exclusive use will not be permitted on new lakes or on lakes where no private facilities existed as of 13 December 1974, the date of the implementing regulation (ER 1130-2-406).

Preservation of the natural environment is essential to the proper maintenance and management of wildlife habitat, aesthetic quality of lake projects, and shoreline erosion control. Revocable lakeshore use permits of a temporary nature will continue to be issued as authorized by 36 CFR 327 for special event recreation programs such as water carnivals, boat regattas, ski jump exhibitions, etc.

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Mowing permits are issued according to District policy. The mowing permits that have been issued at Lake Shelbyville are explained in Section 11-11.

e. Off-Road Vehicle Usage. Snowmobiles are the only off-road vehicles allowed on government land at Lake Shelbyville. The Lake Shelbyville Snowmobile Policy was approved in 1980. Dam West and Lithia Springs Recreation Areas and Wolf Creek State Park are the only three recreation areas that have areas within them designated for snowmobile use. Use of a snowmobile is only allowed when a minimum snow base of four inches is present. Operation of a snowmobile is not allowed on the lake's surface at any time.

Concerning all other off-road vehicles (ORV), their use is not allowed on government property at Lake Shelbyville; therefore, no trails or areas have been assigned for their use. The soil conditions at Lake Shelbyville are not suitable for ORV use. The soil is highly erodible and even infrequent use of ORV's would result in soil erosion and siltation of water run-off causing turbidity of lake water. Damage to vegetation by the ORV's would also cause excessive erosion and necessitate additional operation and maintenance cost for reforestation and reseeding. In summary it has been determined that the usage of ORV's, with the exception of snowmobiles, at Lake Shelbyville will cause a loss of the natural characteristics of the area resulting in environmental degradation.

f. Seaplane Landings. In order to maximize the public use of Corps of Engineers lakes, Title 36 was amended to allow for seaplane landings and takeoffs. This activity is allowed with the following restrictions at Lake Shelbyville:

- Seaplane landing and takeoff operations are prohibited within 300 feet of the shoreline, the dams, and bridges.

- The wildlife management areas that are northeast of Bruce on the Kaskaskia River and Southeast of Bethany on the West Okaw River and the refuge north of the Eagle Creek Ramp to the Findlay Bridge are prohibited areas.

8.03 MANAGEMENT AREA PLANS

This section through Section 8-06 includes proposals for operational and recreational facilities respectively. Proposed facilities that are in addition to existing facilities are listed under the Proposed New Actions heading. Facilities that are proposed for consolidation, renovation, or are a replacement for existing facilities are listed under the Proposed Consolidation, Replacement, Renovation (CRR) Actions heading. A cost estimate for new and CRR actions

are provided in Section XIII and their approval is requested. Appendices 1 and 2 show photographs depicting some of the proposed new actions as well as CRR actions. Actions that may occur beyond the ten-year time frame of this Master Plan update are listed under Future Actions. Facility load and other design criteria for the proposed actions are explained in Section IX.

Prior to implementation of any future actions or major expansions, a feasibility analysis with a detailed design that complies with all environmental and fiscal laws, regulations and policies will be completed. Additional campsites will require further documentation of public demand, as well as policy, design and cost analysis and inclusion in an approved master plan supplement prior to programming and funding.

8.04 PROJECT OPERATIONS LANDS

The following paragraphs provide a brief description of ten areas classified as Project Operations lands. A detailed description of project structures located on these lands is contained in the Operational Management Plan. General site layout of the OP-1, OP-2, and OP-3 facilities is located on Plate 20. All area locations are described below:

a. OP-1. Main Dam and Outlet Works (52 acres)

The main dam consists of a compacted earth fill embankment and a concrete spillway section with tainter and sluice gates. The crest of the dam embankment is at elevation 643 NGVD and the crest of the spillway is at elevation 593 NGVD. The dam is about 3,025 feet in length and comprises approximately 43.9 acres. The length of the dam was measured from the road intersection where the Spillway East road meets the Dam Road to 300 feet west of the Dam West Overlook Cemetery parking lot. The spillway is about 960 feet in length and comprises approximately 8.3 acres. The length of the spillway was measured from the dam concrete wall to the IL Route 16 Bridge. OP-1 is shown on Plate 20. This project operations land is located in Compartment 1 and 20.

The road on the main dam offers an excellent view of the lake and is heavily used by the general public. Interpretive tours are conducted of the dam upon request from group organizations or schools. The spillway is an excellent area for the general public to enjoy bank fishing. The integrity of the main dam and security of the water control facilities must be maintained.

Proposed New Actions:

Install roadway gates, additional fencing, and security cameras to improve security at the dam. Since the events of September 11, 2001, closer examination of security was required for Corps of Engineers dams. The Lake

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Shelbyville Dam was inspected in March 2002 by the St. Louis District's Internal Security Assessment Team who made the recommendations for improving security at the dam.

Proposed CRR Actions:

Replace piezometers due to age and inefficiency. These instruments are essential to the dam safety program because they enable early detection of situations that could endanger the structural integrity of the dam.

Renovate electrical system to bring it up-to-date.

Replace main dam roadway lights electrical system.

Re-paint bridge and other metal works. Special precaution needs to be taken during this process due the presence of lead-based primer.

Replace East and West Gallery Spiral Staircases due to the presence of lead paint present and portions of it being corroded with rust.

Renovate or replace dam machinery as needed to bring it up-to-date. This will include installing maintenance lifts and other needed equipment to deal with confined space issues.

Future Actions:

Construct a walkway/trail for pedestrian and bike traffic across the main dam outside of the guardrail. The road across the top of the dam is one of the heaviest used roads in the Shelbyville area and connects to the street that is used the most in Shelbyville, which is 9th Street. Besides vehicle traffic, pedestrians and bicycle riders also heavily use this road. The variety of users of this road has been a concern for years and is considered a safety issue. This walkway/trail will separate the pedestrians and bicycle riders from vehicle traffic. Working with multiple partners, funding for this project will be sought through Challenge Cost Share Partnership Agreements, grants, and/or donations. This walkway/trail will be in accordance with the General Dacey Trail Plan.

b. OP-2. Project Administration Complex and Lake Shelbyville Visitor Center. (15 acres)

(1) Administration Area. This area includes the existing administration building and vehicle compound. The lake staff is operating out of the same office building and maintenance facilities that were developed when the lake became operational in 1970. Both the administrative office and the operations maintenance facilities have exceeded their design life creating

numerous staff and operational inefficiencies that are not in compliance with current standards for government-owned and operated buildings. When the original office building was designed and built, it was not sized to accommodate the lake staff that is now required. Many staff members have had to be placed in makeshift office space at the Project Maintenance Facility, which is approximately 1/2 mile from the administrative office. These facilities are geographically isolated from each other causing inefficiencies and need to be consolidated. A more detailed description of the facilities in this area is in Section 11-09.

(2) Visitor Center. This structure was completed in 1979 and the last complete exhibit update was in 1985. It serves as the central facility for interpreting the land and water resources of the project. It is proposed that the visitor center be a community place as well as the first stop for visitors when they arrive in the area. This facility is not universally accessible and most of the exhibits are in need of repair, update, or replacement. The square footage of this facility is 2,852 square feet. The size of this facility is too small to accommodate all of the needs that are required to properly serve the lake customers and the restrooms are not accessible from the interior of the building. Challenge Partnership Agreements will be pursued to accomplish future projects concerning the Visitor Center.

OP-2 is shown on Plate 20. This project operations land is located in Compartment 1. Further explanation of the Administration Complex is in Section 11-09. Further explanation of the Visitor Center is in Section 11-10.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions: Prepare a study to determine the design and cost feasibility of replacing and consolidating Administration Complex, Visitor Center with the Maintenance Complex. The study will determine whether the Dam East or Dam West Recreation Area will be the most suitable to house the combination of administration facilities. A description of the Dam West Recreation Area is located in Section 8-05.a. A description of the Dam East Recreation Area is located in Section 8-05.o. Dam East Recreation Area is shown on Plate 5. Dam West Recreation Area is shown on Plate 6. Possible locations for the Visitor Center include but are not limited to the Dam East and Dam West Recreation Areas. Partnering with the Illinois Department of Natural Resources might result in locating the Visitor Center somewhere along the Bruce-Findlay Road. Another possible location of the Visitor Center is in the Woods Lake East area along IL Route 32. During this study the possibility of partnering with other agencies will be pursued if efficiencies can be realized.

Depending on the time frame concerning the replacement of the Visitor Center, it is proposed that the front entrance doors and comfort station be renovated or replaced to meet Uniform Federal Accessibility Standards (UFAS) and American Disability Act (ADA) guidelines. The comfort station entry is on

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the outside of the building. The renovation would include creating an interior entrance for the comfort station. The sinks and toilet facilities in the comfort station are operated by button mechanisms that are hard to use and cause visitors some inconveniences and it is recommended that these operating mechanisms be replaced with more user-friendly mechanisms.

Implement the recommendations of the proposed Administration/Maintenance Complex and Visitor Center study.

Remove the Whitley Creek Recreation Area amphitheater and replace it with a new facility in a location near the Visitor Center to accommodate interpretive programming and special event needs in this area.

c. OP-3. Maintenance Complex (10 acres)

This area contains operations and maintenance, Interpretive Services, and Natural Resource facilities that include office buildings, equipment and material storage buildings, and work areas for a variety of maintenance activities and personnel. One of the three trilateration stations that is used to monitor movement of the dam is located in this area. OP-3 is shown on Plate 20. This project operations land is located in Compartment 1.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions: Include this complex in the study to determine the design and the cost feasibility of replacing and consolidating the facilities of the Project Administration Complex, Maintenance Complex and Visitor Center as discussed in paragraph b. above.

Implement the recommendations of the Administration Complex, Maintenance Complex and Visitor Center replacement and consolidation study.

d. OP-4. Eagle Creek State Park Office Complex

Within the confines of the Eagle Creek State Park, the Illinois Department of Natural Resources (IDNR) maintains an administration/maintenance building and a vehicle and equipment compound. The office building is the main headquarters for all daily operations at Eagle Creek State Park and is administered through the IDNR's Region III office in Clinton, Illinois. The Superintendent of Parks office is located in this building. The superintendent oversees Eagle Creek and Wolf Creek State Parks, which are both located at Lake Shelbyville. This area is shown on Plate 23. This project operations land is located in Compartment 31.

Proposed New or CRR Actions by IDNR: None anticipated at this time.

e. OP-5. Wolf Creek State Park Office Complex

Within the confines of the Wolf Creek State Park, the Illinois Department of Natural Resources (IDNR) maintains an administration/maintenance building, a Conservation Police law enforcement office, and a vehicle and equipment compound. The office building is the main headquarters for all daily operations at Wolf Creek State Park and is administered through the IDNR's Region III office in Clinton, Illinois. This area is shown on Plate 25. This project operations land is located in Compartment 14.

Proposed New Actions by IDNR:

Install hazardous material storage building.

Proposed CRR Actions by IDNR: None anticipated at this time.

f. OP-6. Kaskaskia Biological Research Station Office Complex

This office complex is located on the land that is in between the Kaskaskia Wildlife Management Area and Log Cabin Multiple Resource Area. IDNR maintains this office complex and it is part of the Wolf Creek State Park lease to operate a field research facility. Several buildings are located in this area that include offices, laboratories, and support facilities. A general site layout of these facilities is located on Plate 25a. This project operations land is located in Compartment 54.

Proposed New or CRR Actions by IDNR: None anticipated at this time.

g. OP-7. Lithia Springs Land Treatment System

A land treatment system for wastewater disposal is located in the Lithia Springs Recreation Area. This facility occupies 3 acres on the eastern portion of this area, east of the main entrance of the Lithia Springs campground on the south side of the road. This area is shown on Plate 18. This project operations land is located in Compartment 5.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Connect to the City of Shelbyville Force Main. This will eliminate this land treatment system and the Corps of Engineers responsibility for maintaining land treatment facilities in this area, which will reduce Operation and Maintenance (O&M) costs and increase efficiency.

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h. OP-8. Opossum Creek Land Treatment System

A land treatment system for wastewater disposal is located in the Opossum Creek Recreation Area and services the Opossum Creek, Coon Creek, and Lone Point Recreation Areas. This facility occupies 4 acres on the western portion of this area, west of the main entrance located down an access road on the north side of the road. This area is shown on Plate 7. This project operations land is located in Compartment 23.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Connect to the City of Shelbyville Force Main. This will eliminate this land treatment system and the Corps of Engineers responsibility for maintaining land treatment facilities in this area, which will reduce O&M costs and increase efficiency. All work will be done in accordance with the appropriate permits from the IEPA.

i. OP-9. Whitley Creek Land Treatment System

A land treatment system for wastewater disposal is located in the Whitley Creek Recreation Area and services the Whitley Creek, Bo Wood, Sullivan Beach Recreation Areas, Sullivan Marina and Campground, and the Okaw Bluff Group Camp. This land treatment system is not meeting Environmental Protection Agency (EPA) regulations because there is a concern with capacity levels. Some of the capacity issues concern infiltration from ground water. This facility occupies 4.5 acres on the western portion of this area, west of the main entrance. This area is shown on Plate 16 and is located in Compartment 61.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Connect to the City of Sullivan Force Main. This will eliminate this land treatment system and the Corps of Engineers responsibility for maintaining land treatment facilities in this area, which will reduce O&M costs and increase efficiency. This will also eliminate the EPA's concern with capacity levels of this facility. All work will be done in accordance with the appropriate permits from the IEPA.

Future Actions:

Renovate the land treatment system pond into a fish nursery pond after the system is connected to the City of Sullivan Force Main.

j. OP-10. Wilborn Creek Land Treatment System

A land treatment system for wastewater disposal is located in the Wilborn Creek Recreation Area. Due to the system type, this facility requires a Class 2 Operator to maintain and service it. A Class 2 Operator is not on the Corps of Engineers staff at Lake Shelbyville so the need for a contractor is necessary. This system does not meet EPA regulations and needs to be replaced. This facility occupies less than one-half an acre in the central portion of this area, north of the Wilborn Creek Group Camp Area. This area is shown on Plate 11. This project operations land is located in Compartment 41.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Connect to the City of Sullivan Force Main. This will eliminate this land treatment system and the Corps of Engineers responsibility for maintaining and replacing land treatment facilities in this area, which will reduce O&M costs and increase efficiency. Since this facility will be eliminated, EPA concerns will be alleviated and the need to contract out for a Class 2 operator will no longer be necessary. All work will be done in accordance with the appropriate permits from the IEPA.

8.05 RECREATION LANDS

A description of all recreation development at Lake Shelbyville is presented in this section. A total of fifteen areas are classified as recreational. A summarization of development, including existing facilities, and proposed and future actions are listed for each recreation area. The following sub-paragraphs describe recreation areas at Lake Shelbyville as shown on Plate 2. The individual recreation area plates are noted in the sub-paragraphs.

a. Area 1. Dam West Recreation Area. This 203-acre area has been developed as a day-use area. Facilities in this area include 48 picnic sites, 4 picnic shelters, 2 playground areas (one of the playground areas is accessible to those with disabilities), 1 fish cleaning station, 6 fountains/hydrants, 2 boat launching ramps (primary ramp has four-lanes and the high water ramp has two-lanes), 1 swimming beach, 1 shower house, 1 outdoor beach shower, 1 snowmobile trail, 1 overlook, 4 waterborne comfort stations (two are attached to picnic shelters and one is part of the overlook), 9 bench shelters, 2 lift stations, 1 fee booth, 6 information boards, and 1 sand volleyball court. A parking area is enclosed by levees, which is flooded during the winter months to create an ice skating area. One of the three trilateration stations that are used to monitor movement of the dam is located in this area. All facilities within this recreation area are shown on Plate 6.

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This recreation area is part of Compartment 20. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

(1) Previously an area in the northern portion of this area was designated as a resort concession site. That designation has been reassigned due to the possibility of the Project Administration Complex being replaced and located to this area. Other areas at Lake Shelbyville to be considered for future resort concession sites include an area in this recreation area north of the City of Shelbyville's Forest Park, Dam East, Wilborn Creek, and Whitley Creek Recreation Areas. Decisions to use these areas as potential resort concession sites will be decided based on the recommendation of a future market potential and feasibility analysis study.

(2) This area contains 85-acres of federal property that the City of Shelbyville obtained use of in perpetuity; via a "deed reservation" at the time the Government purchased the property. This area is also known as the Hulick Addition. The area of land is located north of the City of Shelbyville's Forest Park. This area is a proposed future resort concession site and is included in the Lake Shelbyville General Dacey Trail Plan.

(3) Stabilization of parts of the shoreline, removal and replacement of a picnic shelter and related parking facilities from Opossum Creek Recreation Area have been completed as part of the Shoreline Erosion Management Plan.

Proposed New Actions:

Construct a Fish Nursery Pond in the area between the primary boat ramp parking lot and the high water boat ramp parking lot near the lake. The Illinois Department of Natural Resources (IDNR) has determined that thirty to forty surface acres of nursery ponds are needed to supplement existing fisheries management efforts on Lake Shelbyville. These ponds are critical to ensuring viable fisheries for the future as the natural habitat needed for production and rearing continues to decline due to siltation and flood damage reduction operations. Construction of a nursery pond in the Dam West area between the boat ramp parking lot and the high water boat ramp will be used as a means to meet supplementation goals and provide a visible interpretative tool for wetlands and fisheries management at Lake Shelbyville. Working with the IDNR, funding for the project will be sought through the Continuing Authorities Program or Challenge Cost Share Partnership Agreements and/or Donations.

Lease approximately 93 acres of Corps of Engineers property to the City of Shelbyville, which includes the 85 acres under a deed reservation to the city mentioned above in Section 8.05.a(2). Approximately 8 acres of the area that

will be leased to the City of Shelbyville is contiguous with the east side of the City's Forest Park and will be used to expand the city park and its sport field facilities. This area will be considered as a future concessionaire area. A multipurpose trail will be constructed in this area in accordance with the Lake Shelbyville General Dacey Trail Plan.

Dam West Recreation Area is the busiest day-use recreation area at Lake Shelbyville with a total of 481,630 visitor hours in 2003. This area is heavily congested due to use by both the general public and fishing tournament participants, especially on the weekends from Memorial Day to Labor Day. The area experiences both major boat ramp congestion and long waiting periods during fishing tournaments, especially during the afternoon when all of the tournament boats are trying to get off the water and the general public is trying to get on the water. The Dam West Recreation Area is authorized a four-lane boat ramp, but due to the courtesy dock and size of boats it only functions as a three-lane ramp and does not meet the current Corps of Engineers facility standards. Renovating the existing ramp to accommodate the courtesy dock is not an option because the area where the ramp is located cannot accommodate the additional width which would include adding to the existing boat maneuvering and backing area. Also, a comfort station would have to be removed to accommodate the construction of the addition and this in turn would not alleviate all of the problems associated with the boat ramp area. It is proposed that the existing primary boat ramp will remain the same and will be operational as a three-lane boat ramp with a courtesy dock and a two-lane ramp with a courtesy dock will be constructed within the vicinity of the large group shelter to help disperse the use within the area and to better manage fishing tournament activity in conjunction with the large group shelter. This proposal will bring the total number of boat lanes within the Dam West Recreation Area to five (original 4 lanes plus one lane relocated from Opossum Creek Recreation Area). The total number of authorized boat ramp lanes for Lake Shelbyville will remain the same. However, locations will be adjusted to better accommodate visitor demands and management objectives.

Install electric services to the West Overlook berm picnic shelter to accommodate customer needs and to increase utilization and revenue.

Proposed CRR Actions:

It is proposed that this area be one of the areas considered for the new Administration and Maintenance Complex and possibly the Visitor Center. Another area for consideration of this complex is Dam East Recreation Area.

Replace West Overlook and comfort station with a universally accessible picnic shelter with an attached comfort station. The current shelter in this area cannot be accessed by vehicle and can only be accessed by using a large stairway that is not universally accessible. Access to the existing picnic shelter

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creates inconveniences for the lake customers, which as a result reduces utilization and decreases revenue. This proposed action will alleviate those inconveniences and in return will increase utilization and revenue.

Replace large group picnic shelter grass overflow parking area with an asphalt parking lot.

Re-designate the existing parking lot ice skating function to the Spillway Area. The existing ice skating area was incorporated into the design of the beach parking lot expansion that took place in 1975 in response to a demand for year round recreational activities and is located near the Dam West Beach.

Renovate the vending area, which will include removing the Dam West Beach Picnic Shelter and replacing it with a new pre-fabricated picnic shelter. The Kaskia-Kaw Rivers Conservancy will maintain the vending facilities. The picnic shelter is under utilized in its current location, so it will be replaced and located closer to the beach facilities to provide easier public access.

Renovate and realign existing snowmobile trail for multi-purpose use in accordance with the General Dacey Trail Plan.

Replace all water lines due to age and deterioration.

Upgrade electric service in area to accommodate special events.

Pursue future resort concessionaire site in the area that the City of Shelbyville holds a deed reservation on and is proposed to be leased to the city. This area is located north of the city park and is known as the Hulick Addition. Decision to use this area to construct overnight lodging facilities will be based on the recommendations of a future market potential and feasibility analysis study.

Future Actions:

In this area, remove beach shower building and replace it with a new pre-fabricated shower building out of the flood zone.

Investigate the beach in this area to see if it has the potential to become a high water beach.

b. Area 2. Opossum Creek Recreation Area. This 580-acre area has been developed for day-use and camping opportunities. This area was originally designed as a day-use area and part of it was modified into a campground area. Due to the design of the campground there are some issues concerning public health and safety that need to be addressed, especially with the number and type of shower and restroom facilities that are available for

public use. Facilities in this area include 82 campsites (56 of the campsites have electric hookups, 2 are buddy sites, and 4 are administrative campsites; 26 tent sites), 1 waterborne comfort station, 2 comfort station/shower buildings (these were waterborne comfort stations that have had shower facilities added onto them), 7 fountains/hydrants, 2 boat launching ramps (primary ramp has 4 lanes and the high water ramp has 2 lanes), 1 fish cleaning station, 1 fishing pond, 1 fishing pier which is accessible to people with disabilities, 1 trailer dump station, 1 land treatment system, 1 lift station, 1 fee booth, 2 information boards, 1 set of horseshoe pits, and 1 playground. An area on the east, adjacent to the group area includes the land treatment system, comfort station and picnic shelter. The picnic shelter and comfort station were removed. All facilities within this recreation area are shown on Plate 7.

Compartments 22, 23 and 24 are located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Install water and sewer hookups to 11 campsites, which are approximately 20% of the existing electrical hookup campsites, to accommodate customer needs, increase utilization and revenue, and help alleviate the public health and safety problems associated with not having enough toilet facilities within the campground.

Install 30-amp electrical service to 22 tent-only campsites.

Proposed CRR Actions:

Connect to City of Shelbyville Force Main and Eliminate Land Treatment Facility. This would eliminate the Corps of Engineers responsibility for maintaining and operating this facility. Further explanation of this facility can be found in Section 8-04.h.

Opossum Creek campground currently does not have adequate sanitation facilities to meet the existing demand. Each recreation season, portable toilets are rented in an effort to accommodate the need for additional restroom facilities. In 1987, in an effort to provide the demand for shower facilities within the campground, temporary shower structures were added onto two existing comfort stations. However, this only allows for four women's and four men's shower stalls for a campground with eighty-two campsites. In an effort to resolve this serious lack of proper sanitation facilities and to conserve operation and maintenance costs, it is proposed to consolidate some of the

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comfort station facilities within this recreation area to allow for the addition of a proper shower building.

Consolidate add-on showers #1 and #2 and comfort station #1 into a shower house with laundry, similar to other lake shower houses. This removal and consolidation of facilities will reduce operation and maintenance costs, increase utilization, and satisfy customer demands by reducing the total number of comfort stations and shower buildings in this area from four to three.

The existing boat ramp facilities within Opossum Creek Recreation Area include a four-lane primary ramp and a two-lane high water ramp. The ramp within this area is the least used out of all of the ramps located at Lake Shelbyville. The reason this ramp is not used is because launches must be made on the main portion of the lake where the waves from the wind and boat traffic makes it very difficult to maintain control of a boat while it is being launched. It is proposed to consolidate the primary ramp within this area with the high water ramp, which is located in a protected cove. A three-lane year round ramp with a courtesy dock would exist after the consolidation is made. Both of the ramps share the same parking lot, so additional parking would not be needed. The parking lot would need to be rehabilitated to remove an incline, which exists at the entrance to the high water ramp. This incline makes it difficult to back down the ramp without losing sight of the boat that is being towed. Removing the incline would be part of rehabilitating the high water ramp into a year round ramp. After the high-water ramp is rehabilitated it will alleviate some of the pressure at the other nearby ramps. In addition, user fee revenue will increase at this ramp as use will increase. Operation and maintenance costs will be reduced because the number of boat ramps that need to be maintained in this area is reduced from two to one.

Remove existing primary boat ramp after high water ramp is renovated and the authorization for one of the primary boat ramp lanes will be accommodated for within the Dam West Recreation Area as part of the boat ramp that will be constructed near the large group picnic shelter.

'79 YCC Camp Camfield trail amphitheater has been removed and it will be replaced with a new small efficient amphitheater within this area.

Renovate electrical service at fifty-six campsites from 30-amp service to 50-amp service to accommodate customer needs and increase utilization and revenue.

Eleven day-use picnic sites were removed due to underutilization and to reduce operation and maintenance costs.

Replace all water lines due to age and deterioration.

Future Actions:

Develop multipurpose trail connections in accordance with General Dacey Trail Plan.

Construct group camp to the area west of the Opossum Creek Fishing Pond.

Remove 4 congested and poorly designed campsites and replace within the proposed Lithia Springs Recreation Area campground expansion.

c. Area 3. Coon Creek Recreation Area. This 296-acre area has been developed for camping opportunities. Facilities in this area include 226 campsites all which have electrical service (6 campsites have electric, water, and sewer hookups, 15 campsites are buddy sites, and 5 campsites are administrative sites) six campsites have been removed and will be replaced to bring the campsite total to 232, 1 shower house, 3 comfort station/showers, 1 two-lane boat launching ramp, 1 trailer dump station, 10 waterborne comfort stations, 29 fountains/hydrants, 1 fish cleaning station, 1 nature trail, 1 playground area, 1 swing set area, 1 sand volleyball court, 2 sets of horseshoe pits, 1 amphitheater, 1 swimming beach, 1 outdoor beach shower, 5 lift stations, 1 fee booth, 5 foot bridges, and 3 information boards. All of the facilities within this recreation area are shown on Plate 8.

Compartments 26 and 27 are located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Construct a trail for pedestrian and bike traffic from fee booth area to shower house. Currently the road that goes from the fee booth back to the majority of the campground is heavily used by all kinds of traffic including vehicle, pedestrian, bike, roller blade, etc. There are several blind spots along this road including curves and a large dip that makes it potentially hazardous for pedestrians and others to travel with vehicular traffic. This has become a safety concern and this trail would help alleviate the problem.

Install second trailer dump station. The Coon Creek Recreation Area Campground is the largest campground at Lake Shelbyville and has the most usage overall. A second trailer dump station would alleviate the congestion that is caused by having only one trailer dump station.

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Install twenty additional parking spaces throughout the campground. The campsite areas, even though most of them are large in size, are not always large enough for the current camping trends. Campers are bringing more recreational vehicles with them so there is a need for more parking spaces throughout the campground. These spaces will better serve the public and will help reduce rules and regulations violations.

Install water and sewer hookups to 39 campsites, which are approximately 17% of the campsite total, to accommodate customer needs and increase utilization and revenue.

Proposed CRR Actions:

Phase III of the Shoreline Erosion Plan identifies areas for shoreline stabilization. The areas identified include the boat ramp, beach, beach parking area, and campground turnarounds. A study will be conducted to define cost effective methods to provide shoreline erosion protection in this area that ensures the continued use of all existing recreation facilities and infrastructure.

Connect to City of Shelbyville Force Main and eliminate the Land Treatment Facility at Opossum Creek, which services this area.

Renovate all campsites from 30-amp to 50-amp electrical service to accommodate customer needs and to increase utilization and revenue.

To improve efficiency and to accommodate customer needs for public health and safety the following actions are proposed for the shower and comfort station facilities in this area:

Eight facilities (Five comfort stations and three comfort stations with add-on showers) will be consolidated into three facilities (Three mini-shower buildings) to reduce operation and maintenance costs.

1) Consolidate comfort stations #8 and #11, one comfort station on A or B leg, with two comfort stations with add-on showers on A and E legs, and replace with a two mini-shower buildings. A mini-shower will have two showerheads per gender, two stools on the women's side, one stool and urinal on the men's side, and one lavatory per gender.

2) Replace comfort station #5, comfort station near campsite 176 and comfort station with add-on showers on H leg, and replace with a mini-shower building.

Remove and replace 26 campsites within the area to alleviate congestion and improve public health and safety. Most of the campsites that will be removed and replaced are pull-off sites and they will be converted into impact

area sites. Six of the 26 campsites have already been removed due to shoreline erosion and poor design. They will be replaced in more appropriate locations within this area. If it is determined that more than 26 campsites need to be removed and replaced to alleviate congestion and improve public health and safety then campsite renovation will continue based on funds available and public health and safety issues.

Renovate primary boat launching ramp to accommodate courtesy dock so that two launching lanes can be utilized.

Replace water lines due to age and deterioration.

Renovate and realign nature trail to accommodate multi-purpose use in accordance with the General Dacey Trail Plan.

d. Area 4. Lone Point Recreation Area. This 137-acre area has been developed for day-use and camping opportunities. Facilities in this area include 94 campsites of which 87 have electrical service (30 campsites are located within the group camp areas, 2 campsites are buddy sites, and 3 campsites are administrative sites), 4 group camp areas, a shower building, 2 picnic sites, 2 picnic shelters (one is located in a group camp area), 4 waterborne comfort stations, 11 fountains/hydrants, 1 fish cleaning station, 2 boat launching ramps (primary ramp has 2 lanes and high water ramp has 2 lanes), 1 playground, 1 swing set area, 1 set of horseshoe pits, 1 lift station, 1 trailer dump station, 1 fee booth, 1 trail (backpacking trailhead is in this area), 1 foot bridge, 4 information boards, and 1 amphitheater. All facilities within this recreation area are shown on Plate 9.

Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat ramp. The Shoreline Erosion Management Plan designates this area for overnight group use only and includes providing all overnight group use within this area. This designation has been changed to more efficiently meet customer needs and demands. The current group camp plan that is described in Section 10-19 states that the three group camps located inside the main campground will be converted to individual campsites. Walleye Group Camp in this area will remain as a group camp.

Compartment 29 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

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Proposed New Actions:

Install 30-amp electrical service at seven tent-only campsites.

Install sewer and water hookups to 15 campsites to accommodate customer needs and to increase utilization and revenue.

Proposed CRR Actions:

Phase 4 of the Shoreline Erosion Management Plan includes protecting locations along the eastern shoreline of the campground that will be threatened with erosion within the next 30 years (baseline year 1990). A study will be conducted to define the most cost effective methods to provide shoreline erosion protection in this area that ensures the continued use of all existing recreation facilities and infrastructure.

Connect to City of Shelbyville Force Main and eliminate the Land Treatment Facility at Opossum Creek, which services this area.

Replace gate attendant fee booth due to age and deterioration.

Renovate and realign the Illini Backpacking Trail to accommodate visitors during periods of high water and in accordance with the General Dacey Trail Plan. Part of the trail renovation will include removing all footbridges along the trail due to the high cost of operation and maintenance and public health and safety issues.

Remove the amphitheater and replace it with a new smaller and more efficient amphitheater that will be centrally located within the campground away from adjacent campsites.

Replace all water lines due to age and deterioration.

Renovate 84 campsites from 30-amp to 50-amp electrical service to accommodate customer needs and to increase utilization and revenue.

Renovate primary boat launching ramp to accommodate courtesy dock so that two launching lanes can be utilized.

Remove campsites 29 and 30 (2 campsites) and replace them with an impacted area campsite. These are small pull-off sites that are poorly designed and underutilized.

Comfort station #3 has been removed from the main campground area and will be replaced with a mini-shower building within Walleye Group Camp. For public health and safety reasons the replacement building will be located

within the group camp for those visitors that do not have access to the facilities within the main campground. Combining this proposed action with the existing facilities, which includes a group picnic shelter and 10 campsites with electricity, will increase utilization and revenue.

Replace main shower building with a universally accessible modern design that includes laundry facilities. The existing main shower building has significant cracking of the interior concrete block walls on both sides of the central corridor and there are no laundry facilities in this area.

Remove day-use picnic shelter and replace it with a new pre-fabricated picnic shelter within the proposed Bo Wood Recreation Area Group Camp area.

To control traffic in and out of the campground more effectively, the following actions are proposed:

1) Close the secondary exit out of the campground near the boat ramp parking lot.

2) Renovate roadway section to connect the road from campsite 79 to the main campground entrance road.

3) Remove the six campsites that will be displaced by the roadway renovation and replace them with impact area campsites within this area.

e. Area 5 - Eagle Creek State Park. This 1,393-acre area is operated and managed by the Illinois Department of Natural Resources (IDNR). Paragraph 3-02.b provides an accounting of progress made through April 2002, by the state agency. Existing facilities within this area include 178 campsites, which include 27 tent sites and 2 group camp areas, 2 picnic sites, 3 picnic shelters, 29 water fountains and/or hydrants, 1 trailer dump station, 1 four-lane boat ramp, 1 two-lane high water boat ramp, 40 vault toilets (These are single units where each facility services one gender, so there are 20 vault toilets for men and 20 vault toilets for women), 5 hiking trails, 1 cross country ski trail, 1 fish cleaning station, 1 campground shelter, 1 shower building, 6 lift stations, 1 fee booth, 9 foot bridges, 4 information boards, 2 observation platforms, and 1 playground. A portion of the Chief Illini Trail is located in this area. Through a sublease agreement between the IDNR and a private developer, a major resort lodge with golf course has been constructed. Shoreline Erosion Management Plan work that has been completed in this area includes protecting the facilities threatened by shoreline erosion in the resort area. Facilities within this area are shown on Plate 23.

This recreation area is part of Compartment 31. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the

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compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions by IDNR:

Install twenty primitive cabins in campground area.

Construct Storage Building.

Install fifty universally accessible floating courtesy docks with full electric service to accommodate the resort customer needs.

Construct a small gazebo and 45' X 100' patio in the resort area to accommodate customer needs.

Install footbridges to connect tent camping areas.

Proposed CRR Actions by IDNR:

Renovate campground electrical system.

Renovate and widen roads within the park.

Renovate sewer line that runs from Eagle Creek State Park to Wolf Creek State Park.

Expand the golf course and storm shelter at the Eagle Creek Resort.

Renovate breakwater.

Renovate and realign Illini Trail to accommodate visitors during periods of high water and in accordance with the General Dacey Trail Plan. Part of the trail renovation will include removing all footbridges along the trail due to the high cost of operation and maintenance and public health and safety issues.

Future Actions:

Construct Visitor Center.

f. Area 6 – Findlay Marina. This 51-acre area is leased to a concessionaire who provides a full line of marina services. Current lease is 1 July 1989 to 30 June 2014. Facilities within this area includes 378 wet boat slips, 1 marine sales and service area, office, gas and convenience store sales area, 1 vault comfort station, 1 two-lane boat launching ramp (this primary ramp can also be used during high water), 1 information board, and 1 picnic shelter.

Paragraph 3-02.c provides additional information about this area. Facilities within this area are shown on Plate 10.

This area is part of Compartments 32 and 33. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Connect to Findlay or Shelbyville sewer system. The expansion of the marina is hindered and will remain hindered unless the wastewater treatment capabilities are increased. Wastewater storage tanks are currently being used. They have to be emptied on a frequent basis during the recreation season. During periods of high water the tanks have been inundated and become potential environmental hazards.

Any other new actions that are proposed can be found in the 5-year development plan that is part of the marina lease.

Part of the 5-year development plan will include installing cabins in the area. The building of these facilities will not take place until the marina is hooked up to municipal sewer system and will be based on the positive recommendation of a valid market feasibility study. The marina will be responsible for all expenses associated with these cabins.

Proposed CRR Actions:

Any other replacement actions that are proposed can be found in the five-year development plan that is part of the marina lease.

g. Area 7. Wilborn Creek Recreation Area. This 159-acre area is a day-use and group camp area. Facilities in this area include a swimming beach, 2 boat launching ramps (primary ramp has 4 lanes and high water ramp has 2 lanes), 1 playground, 24 picnic sites, 1 group camp area which has 15 campsites, 5 fountains/hydrants, 1 shower house, 3 waterborne comfort stations, 1 picnic shelter, 1 fire ring, 1 fish cleaning station, 1 lift station, 3 information boards, 1 set of horseshoe pits, and 1 outdoor beach shower. The only tertiary wastewater treatment plant at Lake Shelbyville is located in this area. All of the facilities within this recreation area are shown on Plate 11.

Compartment 41 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the

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compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Renovate and expand group camp, which will include the following.

1) Remove Okaw Bluff Group Camp Frame House facility and replace it with five pre-fabricated mini-shelters, an enclosed multi-purpose group picnic shelter, and a mini-shower building. The feasibility of combining together the multi-purpose group picnic shelter and mini-shower building facilities will be pursued before installation takes place. The Frame House removal is approved in the Shoreline Erosion Management Plan. Other facilities besides the Frame House facility will be consolidated to provide the group picnic shelter as mentioned below in 2).

2) Public health and safety issues concerning the group camp area include the need for showers and more toilet facilities to accommodate customer needs and to increase utilization and revenue. The following will alleviate those issues. Day-use area comfort station #1 has been removed and the group camp comfort station will be removed due to underutilization and deterioration. These two facilities will be combined with the Okaw Bluff Frame House facilities and replaced with a mini-shower building that is mentioned above in paragraph 1).

4) Renovate all 15 non-electric campsites into impact area campsites with 50-amp electrical service to accommodate customer needs and to increase utilization and revenue.

Connect to the City of Sullivan Force Main, which will eliminate the Land Treatment System in this area. This will eliminate the Corps of Engineers responsibility for maintaining this facility and the need for a Class 2 contract operator to operate it. Further explanation of this facility can be found in Section 8-04.j.

Phase 4 of the Shoreline Erosion Management Plan includes protecting the boat ramp and the road and parking lot located in the northwestern part of the area near the beach.

Renovate primary boat launching ramp to accommodate courtesy dock so that four launching lanes can be utilized.

Replace water and sewer lines due to deterioration that is causing infiltration into the system.

Replace fish cleaning station with a flood proof design due to deterioration.

Replace boat ramp comfort station with a flood proof pre-fabricated comfort station due to deterioration.

Future Actions:

Develop multipurpose trail connections in accordance with General Dacey Trail Plan.

Investigate the possibilities of turning the beach area into a high water beach area.

The closed day use area, which is located south of the land treatment plant, will be considered as a potential future development site for commercial concession that will include overnight lodging.

h. Area 8. Forrest W. "Bo" Wood Recreation Area. This 159-acre area has been developed for both day-use and camping opportunities. Facilities in this area include 84 campsites which all have electric service (2 campsites are buddy sites and 3 campsites are administrative sites), 7 picnic sites, 2 boat launching ramps (primary ramp has 4 lanes and high water ramp has 2 lanes), 4 waterborne comfort stations, 1 shower house with laundry facilities, 11 fountains/hydrants, 1 trailer dump station, 1 picnic shelter, 1 playground, 1 swing set area, 1 fish cleaning station, 1 amphitheater, 3 lift stations, 1 fee booth, 3 information boards, and 1 set of horseshoe pits. All of the facilities within this recreation area are shown on Plate 13.

Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat ramp and landfill site that is located north of the picnic shelter.

Compartment 49 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Install sewer and water campsite hookups on 33 of the campsites to accommodate customer needs and to increase utilization and revenue.

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Proposed CRR Actions:

The Shoreline Erosion Management Plan approved the removal and consolidation of the campground due to shoreline erosion impacts. This is part of Phase 2 of the Shoreline Erosion Management Plan. The plan also approved the Whitley Creek campground to be consolidated with the campground within this area. The consolidated facilities will be designed to the current standards for similar recreation facilities. After consolidation, the new Bo Wood campground will consist of 2 shower houses (one with laundry facilities), 1 mini-shower, 3 comfort stations, 170 campsites (33 electric, water, and sewer campsites, 5 buddy campsites, and 5 administrative campsites), 2 trailer dump stations, 1 fee booth, and 1 amphitheater. The consolidation will reduce the total number of comfort stations by three and will improve efficiency in operation and maintenance. The revised plan is shown on Plate 13a. More details concerning the consolidation of Bo Woods and Whitley Creek campgrounds can be found in Section 11-08.

Renovate 9 existing campsites (campsites 47 – 55) and designate a group camp area. Remove other existing campsites if necessary and replace them with impact area campsites within this group camp area.

Remove the day-use picnic shelter from the Lone Point Recreation Area and replace it with a new pre-fabricated picnic shelter within the proposed group camp area.

Remove comfort station in the proposed group camp area due to deterioration and replace it with a pre-fabricated mini-shower building.

Renovate all campsites from 30-amp to 50-amp electrical service to accommodate customer needs and to increase utilization and revenue.

Connect to the City of Sullivan Force Main. This will eliminate the Corps of Engineers responsibility in maintaining the sewage system in this area.

Renovate primary boat launching ramp to accommodate courtesy dock so that four launching lanes can be utilized.

Renovate entrance road by raising a section of it that has a dip in it. This section of road is located on the east side of the recreation area. Currently it goes underwater when the lake rises during flood conditions and as a result the recreation area has to be closed. Renovating this roadway will eliminate this problem.

Existing nature trail has been removed to make room for the campground consolidation and will be replaced with a multi-purpose trail within this area in accordance with the General Dacey Trail Plan.

Replace fish cleaning station due to deterioration.

i. Area 9. Sullivan Marina and Campground. This 72-acre area includes 47 acres under lease to the Sullivan Marina and Campground. Current lease is from 1 March 1995 to 29 February 2020. The lease area consists of a campground and marina concession. Facilities include 195 boat slips, 233 campsites (142 electric, water, and sewer sites, 68 electric sites, and 23 non-electric sites), 1 swimming pool, 1 restaurant, 2 lodging units, 1 one-lane boat ramp, 1 trailer dump station, 1 playground, 1 shower, laundry, and office facility, 1 gas sales area, 1 sand volleyball court, 1 information board, 1 set of horseshoe pits, and 1 lift station that the Corps of Engineers maintains. A site plan of the concession development is shown on Plate 10.

This area is part of Compartment 51. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Phase 1 of the Shoreline Erosion Management Plan includes protecting the shoreline as needed.

Connect to City of Sullivan Force Main. This will eliminate the Corps of Engineers responsibility for maintaining a lift station in this area.

Any other CRR actions that are proposed can be found in the 5-year development plan that is part of the marina lease.

Future Actions:

Phase 1 of the Shoreline Erosion Management Plan includes installing a breakwater.

j. Area 10. Sullivan Beach and Okaw Bluff Group Camp. This 272-acre area serves 2 separate and distinct public functions. There are 51 acres in the Sullivan Beach area and 221 acres in the Okaw Bluff Group Camp area. The Sullivan Beach Recreation Area has been developed for day-use opportunities. Facilities in this area include 1 swimming beach, 1 shower house, 2 fountains/hydrants, 1 playground, 15 picnic sites, 1 picnic shelter, 1 concession site with water and electric service, 1 lift station, 2 information boards, and 1 outdoor beach shower. The Okaw Bluff Group Camp Area has been developed for day-use and overnight stay opportunities. Facilities in this area include 2

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group camp areas, which includes 2 houses with dormitory and meeting room facilities; 1 administrative campsite, 1 nature trail, 1 hunter-fisherman access parking area, 1 equipment storage area, 37 acres of developed wetlands, 3 information boards, 10 observation blinds, 1 observation platform, 1 lift station, and 1 set of horseshoe pits. Hidden Pond and Bruce West hunter/fisherman parking lot and minor boat access are located in this area. All of the facilities within this recreation area are shown on Plate 14.

The Shoreline Erosion Management Plan approved the two housing facilities in the Okaw Bluff Group Camp to be removed and replaced to avoid impacts from future erosion. This is part of Phase 4 of the Shoreline Erosion Management Plan. The Frame House facility will be replaced within Wilborn Creek Recreation Area group use area and the Stone House facility will be replaced within the Okaw Bluff area out of the way of future erosion limits. After the housing facilities are removed the Okaw Bluff Group Camp will be re-designated as the Okaw Bluff Environmental Demonstration Area. This multi-purpose area will provide on-site environmental education and interpretive opportunities, through existing watchable wildlife program and wetland demonstration areas.

Compartment 59 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment includes agricultural lease land.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Remove Stone House facility according to the Shoreline Erosion Management Plan and replace it with an enclosed universally accessible multipurpose group shelter, six mini-shelters, and mini-shower building at Okaw Bluff Group Camp. The feasibility of combining together the multipurpose group shelter and mini-shower building will be pursued before installation begins. These facilities will be available for public reservation and use when not required by the Corps of Engineers or other partner groups for project operations. See Section 10-19 for more information about these facilities.

Remove the Frame House facility at Okaw Bluff Group Camp according to the Shoreline Erosion Management Plan and replace it with five mini-shelters, an enclosed multipurpose group shelter, and mini-shower building in the Wilborn Creek Group Camp Area. The feasibility of combining together the multipurpose group shelter and mini-shower building will be pursued before installation begins. See Section 10-19 for more information about these facilities.

Connect to City of Sullivan Force Main. This will eliminate the Corps of Engineers responsibility for maintaining the sewage system in these areas.

Replace all water lines due to age and deterioration.

Renovate and realign the Okaw Bluff Nature Trail to accommodate multipurpose use. Trail connections will be made in accordance with the General Dacey Trail Plan. The trail realignment will also include connecting Sullivan Beach in accordance to the General Dacey Trail Plan.

Replace Sullivan Beach picnic shelter with a flood proof pre-fabricated design due to deterioration.

Future Actions:

Investigate the possibilities of turning the beach area into a high water beach area.

k. Area 11. Whitley Creek Recreation Area. This 100-acre area has been developed to provide both day-use and camping opportunities. Facilities within this area include 86 campsites (84 campsites are non-electric, 2 campsites are buddy sites, 2 campsites are administrative sites), 4 waterborne comfort stations, 1 vault comfort station, 1 shower building with laundry facilities, 10 fountains/hydrants, 1 trailer dump station, 1 fish cleaning station, 2 picnic sites, 1 playground, 1 four-lane boat launching ramp, 1 amphitheater, 1 land treatment system, 2 lift stations, 1 fee booth, 2 information boards, and 1 set of horseshoe pits. The South Shores hunter/fisherman parking lot is located in this area. All of the facilities within this area are shown on Plate 16.

Compartment 61 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Construct a four-lane high water ramp. This would alleviate congestion and launch waiting times that occur within the Bo Wood and Wilborn Creek Recreation Areas. Before the high water ramp is constructed options of consolidating the primary ramp within this area with the high water ramp will be investigated to reduce operation and maintenance costs. Currently on the northern portion of the lake there is authorization for two two-lane high water boat ramps. One is located within the Bo Wood Recreation Area and the other one is located within the Wilborn Creek Recreation Area. Due to courtesy dock

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placement the existing two-lane ramps function as one-lane ramps, so during period of high water from the lake level of 610 to 614 only two boat ramp lanes accommodate all of the boat launching activity from the Bo Wood, Wilborn Creek, and Whitley Creek Recreation Areas, Sullivan Marina and Campground, Okaw Bluff Group Camp, and the general public that exists on the northern portion of the lake. During that period of high water, the Bo Wood and Wilborn Creek boat ramps become heavily congested and launch waiting time is two hours. The design of the Wilborn Creek high water ramp, which is associated with the primary boat ramp parking lot, is a concern of public health and safety because when the lake level reaches 610.10 the parking lot starts to be inundated by water and is completely inundated at 615.90, which closes the high water ramp. At the lake level of 615.90 or higher, the single useable launching lane within Bo Wood Recreation Area serves the entire northern portion of the lake. The congestion and launch waiting time at the Bo Wood ramp only increases and at times becomes completely unmanageable when the Wilborn Creek ramp closes.

This area will be considered as a future development site for a commercial concession that will include overnight lodging after the area is closed so that the campground can be consolidated with Bo Wood Campground.

Proposed CRR Actions:

Phase 4 of the Shoreline Erosion Management Plan includes protecting the boat ramp.

Close and consolidate the campground and its support facilities with the approved renovated campground within the Bo Wood Recreation Area. The existing Whitley Creek campground is underutilized, and does not justify the cost of operation and maintenance. Facilities that will be consolidated with Bo Wood Recreation Area facilities include 1 shower house, 69 campsites, 8 water fountains and/or hydrants, and 1 trailer dump station. More details concerning this campground consolidation can be found in Section 11-08. This area will remain classified as a Recreation Area after the campground facilities are closed and consolidated with Bo Wood Recreation Area facilities. The day use facilities will remain including the boat ramp, fishing cleaning station, waterborne comfort station, and two picnic sites.

Connecting the wastewater system to the City of Sullivan Force Main will eliminate the need for a Land Treatment System in this area. This will eliminate the Corps of Engineers responsibility for maintaining and operating this facility. Further explanation of this facility can be found in Section 8-03.i.

Remove amphitheater and replace with a new amphitheater in an area near the Visitor Center.

Renovate primary boat launching ramp to accommodate courtesy dock so that four launching lanes can be utilized.

Remove the playground and replace it within the Lithia Springs Recreation Area.

Remove vault comfort station and replace it with a new pre-fabricated vault comfort station within the Lithia Springs Chautauqua Area.

Future Actions:

Renovate the land treatment system pond into a fish nursery pond after the system is connected to the City of Sullivan Force Main.

If campsites 59 – 84 (commonly known as Sun City by Corps of Engineers personnel) are not consolidated within the new Bo Woods campground, they will be designated as a group camp area in this area.

Develop multipurpose trail connections in accordance with the General Dacey Trail Plan.

I. Area 12. Wolf Creek State Park. This 2,036-acre area is operated and managed by the Illinois Department of Natural Resources (IDNR). The only equestrian trail that exists at Lake Shelbyville is in this recreation area. Paragraph 3.02.b provides an accounting of progress made through June 30, 1997 by the state agency. Facilities within this area include 404 campsites, which includes 25 equestrian campsites and 20 tent sites, 3 group camp areas, 55 picnic sites, 42 water fountains and/or water hydrants, 2 picnic shelters, 1 trailer dump station, 1 four-lane boat ramp, 1 two-lane high water boat ramp, 1 campground cabin, 46 vault toilets (These are single units where each facility services one gender, so there are 23 vault toilets for men and 23 vault toilets for women), 6 hiking trails, 1 equestrian / snowmobile trail, 2 shower houses, 1 fish cleaning station, 1 amphitheater, 4 playground sets, 1 horse riding stable facility, 1 swimming beach, 1 land treatment system, 3 lift stations, 1 campground fee booth, 7 foot bridges, 4 information boards, and 3 observation platforms. The Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat launch access road. Facilities within this area are shown on Plate 24 and 25.

Hill Prairie is located within this area. A Grade B glacial drift hill prairie, it is one of only two high quality hill prairies along the Kaskaskia River.

Compartment 14 is located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the

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compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions by IDNR:

Install twenty primitive cabins to campground area.

Install electrical service to twenty-five sites in equestrian campground.

Construct trailer dump station at equestrian campground.

Construct shower house in campground.

Install hazardous materials storage building in the Administration Office Complex area.

Proposed CRR Actions by IDNR: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

m. Area 12a. Kaskaskia Biological Research Station.

This 70-acre complex is part of the 2,036 acres that is covered under the Wolf Creek State Park lease and is managed by IDNR. Facilities within this area include several buildings within the office complex, a boat ramp, and a pond. Facilities in this area are shown on Plate 25a.

Coneflower Hill Prairie is located in this area. This is a Grade B glacial drift hill prairie and one of the only high quality hill prairies along the Kaskaskia River.

This area is part of Compartment 54. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions by IDNR: None anticipated at this time.

n. Area 13. Lithia Springs Recreation Area and Marina. This 492-acre site has been developed as a multipurpose area offering facilities to boaters, campers, and picnickers. Approximately, 52 acres of this area are leased to a marina concessionaire. Current marina lease period is 1 July 1989 to 30 June 2014. Corps facilities in this area includes 2 boat launching ramps (primary

ramp has 2 lanes and the high water ramp has 2 lanes), 126 campsites with electricity (6 campsites are buddy sites, 8 full hookup campsites, and 5 administrative campsites), 2 picnic shelter, 6 waterborne comfort stations, 16 fountains/hydrants, 1 fish cleaning station, 1 shower house (w/laundry facilities), 2 comfort station showers, 1 trailer dump station, 1 playground, 1 swimming beach, 1 amphitheater, 1 land treatment plant, 3 lift stations, 1 campground fee booth, 1 foot bridge, 2 information boards, and 1 set of horseshoe pits. One of the three trilateration stations that are used to monitor movement of the dam is located in this area. Marina facilities in this area include 339 wet boat slips (327 permanent and 12 transient), 1 restaurant, gas and convenience store sales area, 1 office, boat sales and maintenance area, 3 waterborne comfort stations, 5 picnic sites, and 3 information boards. Sassafras Lane and Compartment 5 hunter-fisherman parking lots are located in this area. All facilities within this recreation area are shown on Plate 18.

Compartments 5, 6, and 7 are located within this recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan.

The Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat ramp, trilateration station, nearby campsites, and beach.

Proposed New Actions:

Install fifteen additional parking spaces throughout the campground.

Install sewer and water hookups at 16 campsites to accommodate customer needs and to increase utilization and revenue.

Install sand volleyball court at beach to accommodate customer needs.

Install outdoor shower and two bench shelters at beach for public health and safety reasons and to accommodate customer needs. The bench shelters will provide a place to sit in the shade and will encourage adult supervision of children while at the beach. Illinois State Law requires that all public beaches have a shower available to meet public sanitation requirements. The outdoor shower would be similar to the other outdoor showers that exist at all of the other beaches at Lake Shelbyville. In addition, users of this beach utilize a nearby campground water hydrant to wash off their feet, shoes, beach toys, etc., which becomes clogged with sand and debris creating sanitation hazards, plumbing problems, and turf damage. Installing an outdoor shower at this beach would eliminate these problems.

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Proposed CRR Actions:

Phase 1 of the Shoreline Erosion Management Plan includes removal of 1 to 3 campsites located in the northern part of the campground. A study will be conducted to define cost effective methods to provide shoreline erosion protection in this area that ensures the continued use of all existing recreation facilities and infrastructure.

Consolidate the south comfort station in the loop on B leg and add-on shower houses #1 & #2 into 2 pre-fabricated mini-shower buildings.

Remove day use comfort station and replace it with a new pre-fabricated comfort station closer to the fish cleaning station.

Renovate 24 campsites from 30-amp to 50-amp electrical service to accommodate customer needs and to increase utilization and revenue. After these 24 campsites are upgraded all of the campsites in this area will have 50-amp electrical service.

Remove amphitheater and replace it with a new amphitheater centrally located within the campground.

Remove picnic shelter and replace it with a shelter of historical design over the springs that are located within Lithia Springs Chautauqua Area.

A vault comfort station has been removed and will be replaced with a pre-fabricated vault comfort station within the Woods Lake West area.

Replace all water lines due to age and deterioration.

Connect to the City of Shelbyville Force Main, which will eliminate Land Treatment Plant in this area and eliminate the Corps of Engineers responsibility for maintaining and operating this facility. Further explanation of this facility is in Section 8-03.g.

Remove playground from Whitley Creek Recreation Area, salvage it if possible, and place it in this area. If the playground cannot be salvaged then replace it with a new playground structure.

Replace fish cleaning station due to age and deterioration.

Renovate primary boat launching ramp to accommodate courtesy dock so that two launching lanes can be utilized.

Renovate and expand boat ramp parking lot to accommodate customer needs and to increase utilization and revenue.

Renovate and widen D Leg entrance parking lot within the campground to accommodate parking on both sides and two-lane traffic. This parking lot provided parking on both sides of a two-lane campground interior road. When this parking lot is full the road is reduced to one-lane traffic. Widening this lot will alleviate public health and safety issues.

Renovate and expand main parking area at the marina by filling in the area south of the main lower parking area. This will alleviate parking congestion that occurs numerous times during the recreation season.

Future Actions:

Campground expansion to include additional campsites in this area will take place as customer demand and feasibility dictates. This will include constructing new campsites and removing some campsites from Opossum Creek and Lone Point Campground and replacing them in this recreation area.

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

o. Area 14. Dam East Recreation Area. This 21-acre area has been developed as a day-use area. Project operation lands are located in this area. Operations land facilities are described in sections 8-04.b and 8-04.c. Facilities in this area include the Administration Complex, Maintenance Complex, Visitor Center, 1 butterfly house and garden, 25 picnic sites, 1 playground, 1 waterborne comfort station, 1 picnic shelter, 5 fountains/hydrants, 1 lift station, 1 foot bridge, 2 information boards, and 1 set of horseshoe pits. The facilities within this area are shown on Plate 5.

This recreation area is part of Compartment 1. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Items identified in shoreline erosion plan that have been completed in this area include protection of the shoreline, which created a berm where bank fishing occurs.

Proposed New Actions:

If the replacement for the Administration Office Complex and Maintenance Complex is not located in this area then the area will be considered for a future resort concessionaire area. Decisions to use this area

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as a future resort concessionaire site will be based on the outcome of a future market study.

Install vehicle access to the picnic shelter near the Visitor Center to accommodate customer needs, which include better access for unloading and loading group supplies and equipment, and to increase utilization and revenue.

Proposed CRR Actions:

Comfort Station #2 has been removed and will be consolidated with Comfort Station #1 and replaced with a new pre-fabricated comfort station. Comfort Station #2 was deteriorated and underutilized and Comfort Station #1 is deteriorating, too small, and poorly designed making operation and maintenance difficult.

It is proposed that this area be one of the areas considered for a new Administration and Maintenance Complex and Visitor Center. Further explanation can be found in Sections 11-09 and 11-10.

Replace non-native grasses and woody vegetation with native grasses and forbs to establish a prairie demonstration area on the south edge of this recreation area. This prairie plot will connect with the one proposed for the Spillway East Recreation area. The total acreage for the prairie demonstration area will be approximately 15 acres.

Future Actions:

It is estimated in the timeframe from 2018 to 2023 a portion of the maintenance complex access road, which also serves one of the three trilateration stations will be impacted due to the effects of shoreline erosion. To ensure access to this area an easement or purchase of private land will be necessary.

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

p. Area 15. Spillway Recreation Area. This 12-acre area was developed for day-use opportunities. Facilities within this area include 15 picnic sites, 2 picnic shelters, 1 playground, 2 fish cleaning stations, 1 universal accessible fishing pier, 3 waterborne comfort stations (one is attached to a picnic shelter), 5 fountains/hydrants, 2 bench shelters, 2 lift stations, and 3 information boards. The primary attraction to this area is the shore fishing opportunities that exist. The universal accessible fishing pier was a challenge partnership agreement project between the Corps of Engineers, Izaak Walton League, and the Shelby County Community Services. Facilities within this area are shown on Plate 5.

This recreation area is part of Compartments 1 and 20. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

In an effort to accommodate demand for additional public parking within this area for fishing, special events, and other recreational activities a parking area near the #1 Spillway East picnic shelter with comfort station will be constructed with a design that can incorporate an ice skating area. The addition of this parking area will re-designate the ice skating function from the Dam West Recreation Area to this area. It will eliminate the security and off-road vehicles issues associated with the ice skating area near the Dam West Beach. The ice skating area will only be flooded and open during periods of sufficiently cold weather. The design of this recreation area allows for easy vehicle access and control. The area is highly visible from IL Route 16, very popular for fishing and sledding activities in the winter and fishing, picnicking, and special events throughout the rest of the year. The existing shelter with comfort station and fireplace is sited to safely support the ice skating function as well as sledding in the winter. A partnership will be established to operate and maintain the ice skating area. The existing 60 public parking spaces in this area is insufficient and does not meet current and projected public demand, based on EM 1110-1-400 criteria. To increase utilization and future revenue it is recommended that a parking lot sized to accommodate another 60 vehicles be constructed or approximately 10,800 square feet. A standard ice skating area is approximately 15,000 square feet, but due to expected demand, an ice skating area of 10,800 square feet would be an efficient size.

Proposed CRR Actions:

Replace Comfort Station #2 with a universally accessible designed comfort station due to deterioration which is causing operation and maintenance problems.

Remove the Spillway West fish cleaning station and consolidate with the Spillway East fish cleaning station due to underutilization.

Replace Spillway East fish cleaning station due to age and deterioration. The fish cleaning station will be made universally accessible.

Replace non-native grasses and woody vegetation with native grasses and forbs to establish a prairie demonstration area on the southeast edge of this recreation area. This prairie area will connect with the one proposed for the

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Dam East Recreation area. The total acreage for the prairie demonstration area will be approximately 15 acres.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

8.06 MULTIPLE RESOURCE MANAGEMENT LANDS

The following areas have been classified as Multiple Resource Management Lands, and are managed for one or more of the following activities: Recreation – Low Density; Wildlife Management – General, Vegetative Management; and Environmental Sensitive. These areas are illustrated on Plate 2, and described below.

a. Recreation - Low Density

(1) LD-1. Water Tower Point Multiple Resource Area (155 acres)

Description. This area is small in size and is isolated and has no public access. Approximately two-thirds of the area is timbered. Most of the timber is young in age and is dominated by white and red oak in the upland; and red chinquapin, and a few post oaks on the middle slopes. Scattered sassafras, soft maples, and hawthorn are also found. Multiflora rose and coralberry are the dominant ground species and are prevalent along the borders of the open field areas. A few large den trees exist in the northwest corner of the compartment. Squirrel leaf nests appear moderate in numbers. Approximately one-half of the lake boundary in this area borders private, open farmland. This area is used for such things as hiking, bird watching, and hunting.

Compartment 28 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(2) LD-2. Arrowhead Multiple Resource Area (300 acres)

Description. This area consists of a narrow band of timbered land, interlaced with numerous coves and ravines protruding to the government fee line. Several large white oaks in the 12 to 16" DBH class are found near the top of the ravines. Most of the oak-hickory association found in the western half of the area is in the pole stage (6" DBH) to slightly smaller. Den trees appear to be adequate and numerous leaf nests exist. Locust, hawthorn, coralberry and multiflora rose are the dominant ground species. An unimproved, secondary road extends to the government fee line near the center of the area, southward, to the lakeshore. Arrowhead road hunter/fisherman parking lot and a portion of the Chief Illini backpacking trail exists in this area. Shoreline erosion has resulted in portions of the Illini Trail side slopes becoming very steep and potentially hazardous to hike. Realigning the trail away from the shoreline will reduce ravine crossings and the steeper side slopes to better accommodate the lake visitors. An Adirondack style shelter is located along the trail in this area. This area is used for such things as hunting, hiking, and watchable wildlife program purposes.

Compartment 30 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Renovate and realign Illini Trail to accommodate visitors during periods of high water in accordance with the General Dacey Trail Plan. Trail renovation will include removing all footbridges along the trail due to the high cost of operation and maintenance and public health and safety issues.

(3) LD-3. Chief Illini Multiple Resource Area (785 Acres)

Description: This area contains heavily forested land with a scattering of grass-covered openings. Successional controlled burning, limited forest management practices for resource improvement, and supplemental nesting boxes are techniques utilized by the Corps of Engineers in this area to improve habitat for forest wildlife species. A portion of the Chief Illini backpacking trail is located in this area. Shoreline erosion has resulted in portions of the Illini Trail becoming very steep and potentially hazardous to hike. Realigning the trail away from the shoreline will reduce the need to cross ravines and reduce the overall slope of the trail to better accommodate the lake visitors. Eagle Cove and Mahoney

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hunter/fisherman parking lots are located in this area. This area is used for such things as hunting, hiking, and watchable wildlife program purposes.

Part of Compartment 31 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Renovate and realign Illini Trail to accommodate visitors during periods of high water in accordance with the General Dacey Trail Plan. Trail renovation will include removing all footbridges along the trail due to the high cost of operation and maintenance and public health and safety issues.

(4) LD-4. Camp Camfield Multiple Resource Area. (443 acres)

Description. All of the area lying south of the township road in this area, approximately 226 acres of the 443 acres, has been designated as the Camp Camfield Environmental Study Area. The area is very diverse. A large demonstration prairie plot consisting of 11 acres is located within the study area. An oak-hickory timber association is present throughout the area, in various stages of succession. Lowe Pond is located in this area. This area also includes a trail system, 1 hunter/fisherman parking lot, 1 gravel entrance road, 1 vault comfort station, 1 picnic shelter with storage room attached, 1 amphitheater, 1 picnic area, 1 stage area, 3 information boards, 3 foot bridges, and 2 fire rings. The Youth Conservation Corps (YCC) originally created the trail system in this area in 1978 and 1979. This trail system has been designated as a National Recreation Trail. In 2001, through a Challenge Partnership Agreement with the Corps of Engineers, the Central Illinois Mountain Bicycling Association (CIMBA) converted the 79 YCC Trail into a 10.5-mile multipurpose trail. The portion of the area lying north of the township road is primarily timbered, with a ten-acre farm field at the extreme north end. This area is used for such things as hunting, hiking, fishing, bike riding, and watchable wildlife program purposes. The facilities in this area are shown on Plate 12.

Compartment 46 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

Remove trail footbridges and replace them with culverts.

Amphitheater along the '79 YCC trail previously removed will be replaced with a new smaller, more efficient amphitheater within Opossum Creek Recreation Area.

Renovate and realign trail system as part of Phase 5 of the Shoreline Erosion Management Plan and in accordance with the General Dacey Trail Plan.

(5) LD-5. McClure Pond Multiple Resource Area (122 Acres)

Description: This area is mainly composed of old farm fields that are currently in the agricultural lease program. The shoreline is heavily timbered with mature oaks and hickories. Camfield Bridge hunter/fisherman parking lot and the McClure Pond and hunter/fisherman parking lot are located in this area. This area is used for hunting, fishing, and watchable wildlife program purposes.

Compartment 47 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(6) LD-6. Slaughterhouse West Multiple Resource Area (61 Acres)

Description. Most of the entire area is timbered with the exception of an immediate buffer zone bordering the lake. The dominant stand is a medium-aged oak-hickory association. Some trees are present in the 18"-24" DBH class; however, most are in the 12"-14" range. The understory is predominantly coralberry, multiflora rose and hawthorn. The old asphalt Slaughterhouse West Road runs along the north side of the area, and continues down the west side running parallel to the lake. The Slaughterhouse West hunter/fisherman parking lot is located in this area. This area is used for hunting and for sightseeing purposes.

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Compartment 50 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(7) LD-7. Survey Ridge Multiple Resource Area. (86 acres)

Description. This is a very small area that has no public road access. A large timber-covered ravine bisects the eastern half of the area. The lake shoreline is also tree-covered with medium aged oak-hickories dominating. Over one-half of the area is old upland farm fields. Perennial weeds and grasses are thriving on these areas. Woody invaders in the 1-2" DBH class are establishing themselves in the open areas along existing timber stands. A very small pond is present in this area. The pond is very shallow and serves as an excellent watering area. This area is used for hunting and watchable wildlife program purposes.

Compartment 55 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(8) LD-8. Woods Lake Multiple Resource Area. (184 acres)

Description. The major feature of this area is 28 acre man-made lake, known as Woods Lake. Surrounding the lake on the uplands is a mixture of old agricultural fields, pasture land, and a small amount of timber. An unimproved road extends from the Woods Lake East hunter/fisherman parking lot on Highway 32 across the dam of Woods Lake. A minor boat access and Woods Lake West hunter/fisherman parking lot provides access to Woods Lake on the west side of the lake. The Fin and Feathers Nursery Pond is located north of Woods Lake in this area. The fields are generally covered with brome grass, while the pasturelands have a grass cover under a sparse stand of oak and hickory. A dense hawthorn thicket is located on the south side of the lake.

Firearm hunting is prohibited in this area. This area is used for fishing, hiking, and watchable wildlife program purposes.

Compartment 60 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions: None anticipated at this time.

Proposed CRR Actions:

A vault comfort station has been removed from Lithia Springs Recreation Area and will be replaced with a new pre-fabricated vault comfort station within the Woods Lake West area.

Renovate and realign Woods Lake access trails to provide multipurpose trail connections in accordance with the General Dacey Trail Plan.

(9) LD-9. Bluestem Multiple Resource Area (140 Acres)

Description. This area is also known as Area F. The major portion of this area is in grassy fields or in fields reverted to early shrub succession. Facilities include two vault comfort stations, one water hydrant, and a gravel access road. The Army National Guard uses this area for training purposes. A subdivision borders most of the southwest boundary of the area. Wooded portions are of the typical oak-hickory association commonly found at Lake Shelbyville. Mary's Pond and Area F hunter/fisherman parking lot are located in this area. A site plan of this area is on Plate 17.

Compartment 62 is located within this resource area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(10) LD-10. Liberty Point Multiple Resource Area (169 Acres)

Description. The area is primarily upland, open field flanked with the common oak-hickory association on the narrow, steep slopes leading to the lakefront. An old gravel road bisects the large open field that covers most of the area. Most of the open acreage is in the agricultural lease program and is tilled. The fringe areas of the farm fields are covered with primary invaders such as buck

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brush, multiflora rose and a mixture of primary and secondary weeds and grasses. Liberty hunter/fisherman parking lot is located in this area.

Compartment 19 is located within this resource area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

(11) LD-11. Adams Multiple Resource Area. (203 acres)

Description. The area is predominantly wooded with a few old fields located on the outer boundaries. The Coal Shaft South hunter/fisherman parking lot and minor boat access is located in this area on the southwest side of the Coal Shaft Bridge. This area is used for hunting, fishing, boat access, and sightseeing purposes.

Compartment 18 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(12) LD-12. Refuge Point Multiple Resource Area (449 Acres)

Description. The area is composed of an oak-hickory timber association and several old farm fields. The old farm fields are presently being farmed through the agricultural lease program. A large, flat, gradually sloping point of land extends into the lake in the southwest corner of the area. Two ponds are located near the east side of this tract and the Bruce-Findlay Bridge hunter/fisherman parking lot is located in this area.

Compartment 16 is located within this resource area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(13) LD-13. Skull Creek Multiple Resource Area. (150 acres)

Description. This area is comprised of a narrow strip of shoreline. Both ends are generally heavily timbered with oak-hickory forest. The east end is predominantly in the 4-8" DBH class while the timber in the far west one third of the area is slightly larger on the average. The middle section is generally old agricultural fields or pastures in varying degrees of succession. This area is used for hunting, hiking, and watchable wildlife program purposes.

Compartment 8 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(14) LD-14. Log Cabin Multiple Resource Area. (432 acres)

Description. The area is composed of a series of coves along the lakeshore that sustain mature oak-hickory forest on the slopes with old fields on the ridge tops. The old fields are presently grain cropped though the agricultural lease program. A small, deep pond is located at the extreme west edge of the area. Locally, this pond is referred to as "Hunter Lake," the name taken from the previous owner of the land. Signs of beaver activity are presently around the pond. This area is used for hunting, fishing, hiking, and watchable wildlife program purposes.

Compartment 3 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

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(15) LD-15. Hunter Lake Multiple Resource Area. (336 acres)

Description. The vast majority of it is wooded with one old field present. A hunter/fisherman parking lot is present in this area that serves the pond that is referred to as “Hunter Lake” and the area that surrounds it. This area is used for hunting, fishing, and watchable wildlife program purposes.

Compartment 2 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

(16) LD-16. Big Red’s Timber Multiple Resource Area. (401 acres)

Description. The area is composed primarily of invading brush and immature timber. One old farm field, eight acres in size, is present. Two large lake coves that extend from east to west break up the area. This area is used for hunting, hiking, and watchable wildlife program purposes.

Compartment 21 is located within this low-density recreation area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

b. Wildlife Management - General.

Two areas are assigned this land-use allocation. These areas are leased and licensed to the Illinois Department of Natural Resources for operation and management. A brief description follows.

(1) WM-1. West Okaw Wildlife Management Area. (2,415 acres)

This area is licensed to the Illinois Department of Natural Resources for wildlife management purposes. Almost equally divided between crop fields and timbered acreage, most of the crop fields lie in the flood plain of the West Okaw

River or one of the many feeder creeks supplying the area. Man-made levees have been constructed at three sites to impound shallow water on planted cereal and feed grains to attract waterfowl to the area. A wide variety of forest game, upland game, non-game, and migratory bird species are found on this site at various times during the year. Four farm ponds and sixteen hunter/fisherman parking areas have been established in the area. The facilities within this area are shown on Plate 26.

Section 1135(b) of the Water Resource Development Act (WRDA) of 1986 allowed modification of completed projects to restore environmental benefits. A wetland restoration is being planned in Moultrie County at the northern end of Lake Shelbyville on the Kaskaskia and West Okaw Rivers in the West Okaw and Kaskaskia Wildlife Management Areas. The modification would restore 345.6-acres of wetlands habitat to modern historic conditions and improve the water level management capability allowing maximum capability. The complex is integral to the long-term restoration of wetlands at the Lake Shelbyville Project. The water control system and levees, coupled with vegetation management will allow for the restoration of more natural hydric and vegetative conditions. This 1135 Project is further described in Section 10-09.

The West Okaw River from Lovington south to 1 mile south of IL Route 121 is considered a Grade B stream and a category VII Natural Area according to the Illinois Natural Areas Inventory. Two miles of this stream is located within the West Okaw Management Area.

Compartment 39 is located within this wildlife management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions by IDNR:

Install Hazardous Material Storage Building in the Administrative Office Complex area.

Proposed CRR Actions by IDNR: None anticipated at this time.

Future Actions:

Develop multi-purpose trail in accordance with the General Dacey Trail Plan. The General Dacey Trail within this wildlife management area will be placed along existing road right-of-ways.

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(2) WM-2. Kaskaskia Wildlife Management Area. (3,254 acres)

This area is licensed to the Illinois Department of Natural Resources for fish and wildlife management purposes. Fishing, hunting and a variety of other day-use activities are permitted on the area by the state agency. The facilities within this area are shown on Plate 27.

The Section 1135 project described above in WM-1 also encompasses portions of this area and is further described in Section 10-09.

Compartment 53 is located within this wildlife management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New and CRR Actions by IDNR: None anticipated at this time.

Future Actions:

Develop multi-purpose trail in accordance with the General Dacey Trail Plan. The General Dacey Trail within this wildlife management area will be placed along existing road right-of-ways.

c. Vegetative Management Areas.

(1) VM-1. Bethel Multiple Resource Area. (273 acres)

Description. This area is, for the most part, heavily timbered with mature oak and hickory. Around the edges of the wooded area are portions of old fields in varying stages of succession. Some are on hillsides leading down to gullies and may present an erosion problem in the future. An old road runs through part of the area. The Bizzy B hunter/fisherman parking lot is located in this area.

Compartment 25 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(2) VM-2. North Findlay Multiple Resource Area (45 Acres)

Description. The area is composed for the most part of oak and hickory forest on the slopes broken up by old fields on the uplands. Findlay Pond and Findlay minor boat access and North Stub hunter/fisherman parking lots are located in this area.

Compartment 32 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(3) VM-3. Wright Cemetery Multiple Resource Area (288 acres)

Description. The area is long and narrow and is interlaced by two, deep lake coves. It is for the most part, timbered with young to medium aged stands of white oak and hickory. A few fragments of old farm fields are scattered around the perimeter of the area. Most of these fields are in the perennial weed stage with a scattering of multiflora rose and invading woody saplings. Much of the upland is laced with thickets of locust, hawthorn and multiflora rose. A small stand of native little bluestem is present at the south end of the area. Wright's Cemetery hunter/fisherman parking lot is located in this area.

Part of Compartment 33 and Compartment 34 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescriptions in the Lake Shelbyville Operational Management Plan

Proposed New or CRR Actions: None anticipated at this time.

(4) VM-4. Johnson's Bluff Multiple Resource Area (1,011 acres)

Description. The extreme north portion of this area supports a wide variety of vegetation. The terrain is quite varied. It is essentially composed of moderately steep slopes leading down to low areas in the creek bottom. These low areas are commonly flooded with only a two to three foot rise in the normal pool level. Due to this frequent flooding, most of the trees along the flood plain have been killed, and the bottomland supports a dense annual weed cover. The upland supports a mixture of annual and perennial weeds and grasses. Encroaching woody vegetation is evident. The timber scattered throughout this northern portion is predominantly oak-hickory. Two large fields in the southeastern portion of this northern section are presently grain-cropped through the

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agricultural lease program. The remainder of this northern portion is composed of medium-aged oak-hickory forest sloping gently down to Wilborn Creek where predominantly lowland hardwoods are found. High water levels have killed many of the trees in the low-lying areas. The southeastern portion of this northern section is composed of large, mature, upland hardwoods, primarily oak and hickory. The shoreline here is very steep. The outstanding topographic feature of this portion is Johnson's Bluff, and extremely scenic overlook with steep slope leading down to the lake. The extreme southern section of this area is a long, relatively narrow strip of land with some open field areas and some timber. The open fields are in varying seral stages from annual weeds to relatively dense brush cover. Two small ponds are also located in this section. Immediately north of this narrow strip of land lies a wooded hillside strip bordering the lake. It has been designated a natural area, historical and archaeological. Johnson's Bluff minor boat access and hunter/fisherman parking lot are located in this area.

Compartment 36 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(5) VM-5. Pine Tree Ridge Multiple Resource Area (180 Acres)

Description. This area is primarily wooded with a grass-eroded area at the north end. Three fields are found at the south end and they are in various stages of primary succession.

Compartment 38 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(6) VM-6. Cornbread Point Multiple Resource Area (174 acres)

Description. Total acreage in this area is quite small, and in most cases the distance from the lake to the government fee line is very narrow. Two small old farm fields gradually slope to the lake at the north end of the area. Near the center of the area, a logged weed and grass covered arm of land extends westward into the lake. The southern boundary of the area is a deep tree-covered ravine. Excellent access exists via public roads. Most of the area is

covered with a medium-aged stand of oak-hickory timber. A sizeable hawthorn stand is present just east of the old farm fields. West Eden hunter-fisherman parking lot is located in this area.

Compartment 40 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

(7) VM-7. Buck Run Multiple Resource Area (291 acres)

Description. The north end of this area is an extremely narrow, tree-covered land mass. The middle portion of this area is three times as wide as other portions and is broken up by a large lake cove that extends to the eastern boundary. Only one small three-acre opening exists and is covered with perennial weeds and grasses, small saplings, and some multiflora rose. The southern portion of this area holds a conglomeration of vegetation types. The southwestern section is heavily timbered and portions of three old pastures and two old agricultural fields are also present. The slopes and shoreline are, generally, heavily timbered. A long cove bisects the southern section. The timbered areas are uneven-aged and predominantly oak-hickory. Ken Kenny's hunter-fisherman parking lot is located in this area.

Compartment 43 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(8) VM-8. Waterfowl Point Multiple Resource Area (174 Acres)

Description. The area has one large farm field near its southern end that slopes gradually toward the lake. A small upland field is found on the eastern side of the area and is intersected by a gravel access road leading to the area. The remainder is heavily timbered, primarily young oaks and hickories in the 8 to 10" DBH class. Kirksville minor boat access is located in this area.

Compartment 44 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is

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based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

(9) VM-9. Turkey Lane Multiple Resource Area (469 acres)

Description. Approximately two-thirds of the area consists of two large lake coves with several fingers, extending northward from the main lake. The ridges are covered with an immature oak-hickory association. Several small, old farm fields are present near the center of the area. The eastern edge is covered with a fairly mature oak-hickory stand. Coal Shaft North hunter-fisherman parking lot is located in this area.

Compartment 45 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

(10) VM-10. Water Plant Multiple Resource Area (199 acres)

Description. A large cove is located in the center of this area. The various ravines associated with this cove are covered with the typical oak-hickory association found at the lake. Several old farm fields lace the area. McClure Pond and hunter/fisherman parking lot are located in this area.

Compartment 48 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(11) VM-11. Slaughterhouse East Multiple Resource Area (243 acres)

Description. This area consists of several old upland fields bordered by an oak-hickory timber association.

Compartment 52 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(12) VM-12. Hickory Ridge Multiple Resource Area (89 Acres)

Description. The area is relatively small in size and is comprised of approximately one-third old farm fields and two-thirds timber. The old farm fields are in the perennial weed seral stage and are showing signs of small stem, woody invasion. The timbered area begins with a dense understory of young maples, ashes, thorn apples, and black cherry at the southern boundary. At the extreme north end of the area is a young, even-aged stand of oaks and hickories in the 6 to 8" DBH class. An old farm lane runs northward through the upper end of the area.

Compartment 56 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(13) VM-13. Whitley Creek Bottoms Multiple Resource Area (1,112 acres)

Description. Whitley Creek runs the full length of this area. There are several open bottomland fields lying on both sides of Whitley Creek. Those fields lying closest to the lake are subject to regular flooding in the spring with rises in the lake level. Several of the fields farther away from the lake are presently grain cropped through the agricultural lease program. The upland timbered areas are primarily second growth oak-hickory timber. The northern portion of this area has a large cove dividing the land into three separate areas. Most of the slopes and ridge tops are covered with the oak-hickory association typically found throughout the lake area. Several old farm fields are found scattered throughout this northern section. One small but uniform stand of oak-hickory is found at the extreme east end of this northern section. Bragg and Bruce Ponds, Hughs Ridge, South Crooked Bridge, and North Crooked Bridge hunter-fisherman parking lots are located in this area.

Compartment 58 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants,

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shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New Actions:

Develop a 146-acre wetland and fish nursery pond. Whitley Creek has been identified by IEPA as one of the most impaired streams within the Kaskaskia Watershed due to significant sedimentation and nutrient loading from adjacent agriculture practices. The Illinois Department of Natural Resources (IDNR) has determined that thirty to forty surface acres of nursery ponds are needed to supplement existing fisheries management efforts on Lake Shelbyville. These ponds are critical to ensuring viable fisheries for the future as the natural habitat needed for production and rearing continues to decline due to siltation and flood damage reduction operations. Construction of a wetland and nursery pond within the Whitley Creek Bottoms, will significantly reduce sediment loading into Lake Shelbyville and the Kaskaskia River, increase waterfowl and shorebird habitat and will provide additional nursery pond acreages for supplemental fish rearing. The project will meet the goals of the North American Waterfowl Management Plan, IDNR and IEPA water quality standards. The total cost estimate for this project is \$728,000. Funding will be sought through the Continuing Authorities Program or Challenge Partnership Agreements and/or donations.

Proposed CRR Actions: None anticipated at this time.

(14) VM-14. Beaver Lake Multiple Resource Area (46 Acres)

Description. The major portion of this area is in open fields with grass or primary reverting plant succession. Beaver Pond is located in this area.

Compartment 63 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

(15) VM-15. Houser Multiple Resource Area (172 Acres)

Description. This area is a peninsula stretching into the lake. A large old farm field is centrally located in the area. Some brushy areas, primarily hawthorn, are invading the edges of the field. The northern part is an old grassy pasture with some large oaks and hickories dispersed throughout.

Compartment 17 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(16) VM-16. Seven Hills Multiple Resource Area (288 Acres)

Description. This area is mainly high ground located on both sides of Wolf Creek. The majority of the area is old farm fields or scrub oak areas. A few nice stands of oak-hickory are present. County and township roads provide access. Wolf Pond, Rees Ridge, Pear Tree, and Wolf Creek Bridge hunter-fisherman parking lots are located in this area.

Compartment 15 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(17) VM-17. Sand Creek Multiple Resource Area (1,456 Acres)

Description. The extreme northern section of this area is a rather large creek bottom with a mixture of timber and old fields on the uplands. The timber is mainly oak-hickory while the fields are, for the most part, still in the annual weed-perennial weed seral stage. The bottomland is largely devoid of vegetation due to relatively long periods of annual inundation. Immediately south of this northern section there is land that is composed of a generally even mixture of fields and timbered areas. The woodlands are typical oak-hickory of medium to young age. Few den trees are found. Open fields range from recently cropped to old pastures having many clumps of multiflora rose, hawthorn, and coral berry. The lower fringes of the fields are subject to annual

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flooding. The extreme southern section of this area is predominantly a rugged wooded area of numerous inlets. Vegetation is predominantly oak-hickory forest. The eastern portion of this southern section is an old farm field. Immediately north of this southern section is a very large Class II Wildlife Compartment, the majority of which is hilly. Most of the upland area in this portion is the typical oak-hickory association, found at Lake Shelbyville in various size categories. The understory is young oak, hickory and sugar maple. Large sycamores interspersed with old fields are found in the lowlands and feeder ravines. Annual weed growth in lowlands is prevalent above the high water mark. Many older sycamores containing den cavities are present. The old lowland fields have scattered cottonwood-silver maple reproduction present. A few old fields are found on the uplands. Vegetation includes grasses, weeds and hawthorn thickets. The few grass areas are well interspersed within the woodlands. The interspersed woodland thicket and grassland is presently providing adequate wildlife cover as deer sign is found generally over this entire section and pheasants and quail are often sighted. Three ponds are located on the north side of this section. All three ponds are stocked periodically with fish. Sand Cove Road hunter-fisherman parking lot is located in this area.

Compartments 10, 11, 12, and 13 are located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan. Compartment 12 contains agricultural lease land. A large heron rookery that has over 100 nests is located in compartment 13.

Proposed New or CRR Actions: None anticipated at this time.

Future Actions:

Develop multipurpose trail connection in accordance with the General Dacey Trail Plan.

(18) VM-18. Turkey Run Multiple Resource Area (193 Acres)

Description. The area is a long point of land extending out into the lake. Vegetation consists of oak-hickory timber on hillsides, and two old farm fields on the ridge tops. This area is extremely isolated from public access points.

Compartment 9 is located within this vegetative management area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

8.07 ENVIRONMENTAL SENSITIVE AREAS

The following areas have been classified as Environmental Sensitive Lands with two sub categories listed below:

ES-E: Environmental Sensitive Area – Ecological

ES-C: Environmental Sensitive Area – Cultural

a. ES-E-1. Pogue Timber Environmental Sensitive Area (25 Acres)

The site contains climax oak-hickory forest, with many trees in the mature size class (24-36" diameter). This is by far the finest stand of climax forest in the vicinity of Lake Shelbyville in Central Illinois. The Illinois Department of Natural Resources is presently attempting to have this area dedicated a part of the Illinois Nature Preserves System. The protective designation is a statement of rarity on a statewide basis and on the need for preservation of those natural qualities for the enjoyment of future generations.

Compartment 33 is located within this environmental sensitive area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New or CRR Actions: None anticipated at this time.

b. ES-C-2. Lithia Springs Chautauqua Environmental Sensitive Area (352 Acres)

Description. This area generally consists of oak-hickory forest on the uplands with some open field areas on the ridge tops. The lowland areas near the bridge support only pioneer vegetation and are frequently flooded. Lithia Creek is located within the eastern section of the area. The historical area is also located in the eastern portion. This area was utilized as a "religious retreat" in the early 1900's and some remnants of the old buildings and structures are still evident. The terrain is generally rugged and most open field borders adjacent to private land are planted with Autumn Olive. Lithia Bridge and Chautauqua hunter-fisherman parking lots are located in this area. A site plan of this area is provided on Plate 19.

Efforts will be made to get this area listed on the National Register of Historic Places.

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Compartment 4 is located within this environmental sensitive area. Explanation of wildlife species, cultural resources, vegetation types, outgrants, shoreline, soils, and resource management goals and objectives for this area is based on the compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Install interpretive signage, which will include station stops throughout the area with historical information and pictures.

Install security lighting to this area.

Proposed CRR Actions:

Replace wooden bridge due to public health and safety issues.

Through partnering, remove picnic shelter from Lithia Springs Recreation Area and replace it with an historical period shelter constructed over the existing two springs located within this area.

Remove vault comfort station from Whitley Creek Recreation Area and replace it with a pre-fabricated vault comfort station within this area.

Future Actions:

Replace vault comfort station with a waterborne facility.

c. ES-C-3. Okaw and Doctor's Island Historic Area. (16 acres)

Description. This area includes two islands that have historic significance. The northernmost island, which is Okaw Island, has had some significant purposes identified by the University of Illinois. Doctor's Island, the southernmost of the two islands, also has significant purposes. Because of the close proximity of the two sites and similarities discovered it is believed that there is a definite cultural association between the two islands. A site plan of this area is provided on Plate 15.

Proposed New or CRR Actions: None anticipated at this time.

8.08 IMPLEMENTATION

a. Introduction. The means of accomplishing a development program is equally important as the plan itself. Current national priorities limit development and renovation options more now than in the past. There is considerably more emphasis, therefore, on the provision of recreation opportunities solely by local

interests. At the same time, recreation visitation to Lake Shelbyville is no longer increasing at the annual rates of the 1970s and 1980s. Nevertheless, a need exists for the proposals contained in the Master Plan; and this need is expected to become greater in the future. The need is expected to become greater based on demographics, people's lifestyles, and the increased interest in recreating outdoors. It should also be recognized that changing priorities could drastically affect the manner and schedule for Master Plan implementation. This plan will have continuing utility despite any changing priorities that may affect its implementation.

b. Implementation Methods. There are several implementation methods or authorities currently available for development at Lake Shelbyville:

(1) Traditional Cost Sharing. Funding for cost sharing may well become more difficult to secure than in the past. In addition to providing at least 50 percent of the development costs of a proposal up front, the cooperating local governmental entity must also agree to operate, maintain, and provide major replacements for the new development.

(2) Development Solely by State or Local Interests Under an Outgrant. As in the past, state and local government entities with all or part of a project in their jurisdiction, may obtain use, under a lease or license, of an area for approved recreational development. In such cases, all development costs are the sole responsibility of the local sponsor and operation, maintenance, and major replacements costs must also be borne by them also.

(3) Operation and Maintenance (O&M) Funds. The use of regular O& M General Funds is restricted to existing Corps of Engineers managed facilities and areas that require labor and/or materials for routine operation or are in need of maintenance, repair, renovation, reconstruction, replacement, or consolidation.

(4) Development by Concessionaire. Another development and funding method that could be used involves the implementation of some of the plans proposed in this Master Plan by a concessionaire. Only activities for which there is a viable commercial market are generally eligible. For developments undertaken in this manner, the concessionaire also provides operation, maintenance, and major replacements.

(5) Challenge Partnership Program. Section 225 of the Water Resources Development Act of 1992 authorized the Challenge Cost-Sharing Program (since renamed Challenge Partnership Program), and gave the Secretary of the Army authority to enter into cooperative agreements with non-Federal public and private entities to provide for operation and/or management and development of recreation facilities and natural resources at water resource development projects where such facilities are being maintained as full Federal

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expense. Other supporting documents for this program include ER 1130-2-500, 27 December 1996, Project Operations – Partners and Support (Work Management Policies), Chapter 12; and EP 1130-2-500, 27 December 1996 Project Operations – Partners and Support (Work Management Guidance and Procedures), Chapter 12, Appendix T & U.

(6) Contributions Program. It is the policy of the Corps of Engineers that contributions to provide for operation and management of recreation facilities and protection and restoration of natural resources at civil works water resource projects shall be accepted and used, as provided by PL 102-580, Water Resources Development Act, 1992 (106 Stat. 4838, 33 United States Code (USC) 2328, Section 203). Contributions, which are within current authorities, consistent with the Corps mission, and are for work items contained in an approved annual or five-year Operational Management Plan may be accepted. Donations are considered contributions. Other supporting documents for this program include ER 1130-2-500, 27 December 1996, Project Operations – Partners and Support (Work Management Policies), Chapter 11; ER 37-2-10; ER 700-1-1; and EP 1130-2-500, 27 December 1996, Project Operations – Partners and Support (Work Management Guidance and Procedures), Chapter 11, Appendix S.

(7) Memorandum of Agreement (MOA) and Memorandum of Understanding (MOU). MOA and MOU are synonymous. They are written agreements between the Corps of Engineers and another agency that provides for the transfer or performance of a technical mission or function. When the MOA or MOU doesn't address specific projects or funding, a Support Agreement will generally be prepared to supplement the MOA or MOU. (See AR 25-50, Para 2-10 and Appendix B.)

(8) Federal Lakes Recreation Demonstration Laboratory Designation. Lake Shelbyville, as part of the Kaskaskia Watershed, has been designated as a Federal Lakes Recreation Demonstration Laboratory. This designation allows, through a waiver, the project to bypass existing rules and regulations that hinder the visiting public's participation in a quality recreation experience. A more detailed description of this program is located in Section 10-13.

(9) Volunteer Program. The Corps of Engineers may accept the services of volunteers and provide for their incidental expenses to carry out any activity of the Corps of Engineers except policy making or law/regulatory enforcement as authorized under PL 98-63. A volunteer is not an employee of the Corps of Engineers except for the purposes of Chapter 171 of Title 28 of the USC, relating to tort claims, and Chapter 81 of Title 5 of the USC, relating to compensation for work injuries. Other supporting documents for this program include ER 1130-2-500, 27 December 1996, Project Operations – Partners and Support (Work Management Policies), Chapter 10; EP 1130-2-433; EP 1130-2-500, 27 December 1996, Project Operations – Partners and Support (Work

Management Guidance and Procedures), Chapter 10; and EP 1130-2-429, Volunteer Coordinator's Handbook. Voluntary service is official government business, having some value to the Corps of Engineers, conducted by volunteers under the direction of a paid Corps of Engineers employee. Volunteers provide diverse and significant contributions to many of the Lake Shelbyville Environmental Stewardship, Natural Resources, Recreation, and Interpretive Services programs. These contributions are worth thousands of dollars annually.

(10) Cooperating Association. Cooperating associations are used to accomplish such broad goals as natural resource management, interpretive services, and visitor service activities on civil works water resource projects, fee-owned lands, and other areas for which the Corps of Engineers has administrative and management responsibilities. Associations aid the Corps of Engineers through a variety of activities.

(11) Continuing Authorities Program (CAP). The Corps of Engineers undertakes studies of water and related resources problems and opportunities as directed or authorized by Congress. These Congressional authorizations are contained in public laws, and in resolutions of either the House Public Works and Transportation Committee or the Senate Environment and Public Works Committee. Study authorizations can be unique, study-specific authorities, or they can be standing program authorities, usually called continuing authorities, under which specific studies and projects may be done. These studies are done at the discretion of the Secretary of the Army of the Chief of Engineers and focus on whether a federal project responding to the problems and opportunities of concern should be recommended.

Some of the Continuing Authorities relevant to Lake Shelbyville's environmental stewardship mission and potentially desirable to use include:

- Section 206, Water Resource Development Act (WRDA) 1996 – Aquatic Ecosystems Restoration

This CAP authorizes small aquatic ecosystem restoration projects up to \$5 million in federal cost per project if it is in the public interest and cost effective. The project must be cost-shared (35 percent) with a non-federal sponsor, who is responsible for 100 percent of operation and maintenance (O&M) as well.

- Section 1135, WRDA 1986 – Project Modifications for Improvement of the Environment

This CAP is intended for modifying structures and/or operations of existing Corps of Engineers constructed projects for environmental enhancement purposes, consistent with project purposes. Federal cost per project is limited

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to \$5 million and a non-federal sponsor must cost-share (25 percent) design and construction and take 100 percent responsibility for O&M.

- Section 204, WRDA 1992 – Ecosystem Restoration Projects in Connection with Dredging

Work under this CAP provides for protection, restoration and creation of aquatic and wetland habitats in connection with construction and maintenance dredging of an authorized project. The federal study limit is \$5,000 and there is no established federal project cost limit. This CAP must be cost-shared (25 percent) with a non-federal sponsor.

- Section 22, Planning Assistance to States (PAS)

Section 22, of WRDA 1974 authorizes the Corps of Engineers to assist states in preparing plans for the development, utilization and conservation of water and related resources of drainage basins within the state.

Requests from states arise from local identification of problems.

Typical studies are general in detail and do not include design for project construction. The program can encompass many types of studies including:

- Ecosystem restoration
- Water supply
- Water quality
- Water conservation
- Hydropower development
- Flood control
- Erosion and navigation

State allotments are limited to \$300,000 annually but generally are between \$10,000 - \$25,000.

- Section 216 – Flood Control Act of 1970 – Completed Project Review

Section 216 authorizes review and report to Congress of the operation of completed project when found advisable due to significantly changed physical or economic conditions.

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The recommendations of the report may advise modifying structures or their operation, and improvements for the quality of the environment in the overall public interest.

Section IX

Facility Load and Other Design Criteria

SECTION IX - FACILITY LOAD AND OTHER DESIGN CRITERIA

9-01. SITING

a. Consideration of Seasonal Fluctuations. All proposed structures, except boat launching ramps and beaches, will be located above the flood control pool, elevation 626.5 NGVD, and site selection will be based on soil types, erosion potential, and present shoreline erosion problems.

b. Universal Accessibility (UA). All new and updated facilities and environments shall be designed to be universally accessible. The target is for 100 percent of facilities such as campsites and picnic sites to be universally accessible. The standard that must be met is that the minimum number of universally accessible facilities such as campsites and picnic sites comply with current UA guidance. Existing facilities will be retrofitted to become universally accessible as funding allows.

c. Buildings. Areas around buildings are landscaped with appropriate vegetation to provide the recreational user with isolation and screening from other uses or activities, while also providing an aesthetically pleasing area.

d. Utilization of Pre-fabricated Facilities. If any facilities are constructed such as, but not limited to shower buildings, comfort stations, and any type of group shelter, the option of using a pre-fabricated facility will be considered when determining the most cost effective approach.

e. Feasibility of Utilities. The feasibility of connecting to existing electricity, water, and/or sewer utilities will be considered when determining the best location for proposed facilities.

f. Utilities Placement. Power and communication lines inside recreation areas should be placed underground. If overhead power lines are absolutely necessary they shall be placed where they will not become a safety hazard and in accordance with ER 1110-2-4401, "Engineering and Design – Clearances for Electric Power Supply Lines and Communication Lines Over Reservoirs."

g. Topography. The topography of the area will be utilized to the best possible advantage by placement of buildings to provide the user with a scenic view, and to accommodate people with disabilities.

h. Trails. The placement of trails was determined by the locations that would provide the best water and nature orientation, while considering the needs of the user to get from one location to another. Trails are generally located below 626.5 flood pool elevation. To maintain the trails, operational

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vehicles will have access to some areas of the trails. Various types of trails have been developed at Lake Shelbyville: hiking, nature, interpretive, equestrian, snowmobile, cross-country skiing, and multi-purpose, which includes bicycle.

The General Dacey Trail Plan is a multi-partnered regional initiative centered on Lake Shelbyville. This is more than a simple trail project. Upon completion, the proposed General Dacey Trail will provide almost one hundred and seventy miles of recreational opportunities. A further description of the General Dacey Trail Plan can be found in Section 10-10.

EM 1110-2-410, "Design of Recreation Areas – Access and Circulation," contains detailed specifications for trails.

i. Roads. Recreation area road placement was limited to level areas located away from extensive tree cover where possible.

j. Campgrounds. Required, recommended, and optional considerations concerning new construction or renovation of campgrounds can be found in EM 1110-1-400 Recreation Facilities and Customer Services Standards.

9-02. SIGNS

All new signs are to be installed, as required, under the direction of project personnel and conform to the Corps of Engineers Sign Standard Manual, EP 310-1-6a & b and the Graphic Standards Manual, EP 310-1-6.

9-03. MISCELLANEOUS

If any of the following facilities are constructed, the Corps of Engineers Recreation Facilities and Customer Services Standards, EM 1110-1-400, will be utilized.

a. Fish Cleaning Stations.

b. Sanitary Dump Stations.

c. Support Items. Picnic tables, fire rings and grills, lantern hangers, water hydrants, benches, and self-pay stations.

d. Comfort Station and Shower House Buildings. Comfort stations shall be provided within campgrounds and day use areas. Shower houses shall be provided at campgrounds and at beaches when feasible.

Specific building features for all comfort stations and shower houses within a campground where water and sewage treatment are available include:

Recommended:

- 1) Provide a minimum of one restroom fixture per gender for each 25 campsites.
- 2) One sink per each 25 campsites per gender.
- 3) Provide a minimum of one showerhead per gender for each 25 campsites.

Required:

- 1) One electric hand dryer or paper towel dispenser per every two sinks.
- 2) Shelf for toiletries in shower stall, shelving above sinks, and clothing hooks nearby.
- 3) Vandal proof mirror above every sink.
- 4) Drinking fountain.
- 5) Provide a minimum of one fully equipped unisex shower unit at each campground.
- 6) An individual dressing area for each shower stall.

e. Campsite. Campgrounds may be developed with a range of campsite types from fairly primitive tent-only sites to highly developed multipurpose sites that will accommodate modern recreational vehicles. Campgrounds may also include group and multi-unit campsites. This provides a diversity of camping opportunities to accommodate different user types and groups. Campsites may also be more efficiently sited within a campground by utilizing a range of campsite types with differing spatial and spacing requirements.

Specific building features for campsites include:

Required:

- 1) A hardened living area, 400 to 625 square feet, with a fine crushed stone or other hard surface, picnic table, fire ring/grill, and lantern hanger provided for each campsite.
- 2) Living area bordered by concrete curbing, plastic or wooden timbers, or other approved materials.
- 3) As a minimum, one water spigot shall be provided per four campsites. Individual campsite water hookup required at administrative sites and recommended at multi-purpose sites.
- 4) Have 50-, 30-, and 20-amp electrical hookups located at the campsite pedestal. This is optional for tent-only campsites.
- 5) Individual campsite sewage hookup required at administrative sites and optional at multi-purpose sites where demand exists and local factors allow for installation.

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f. Boat launching ramp. Boat launch ramps shall provide convenient and safe public access to the water.

g. Courtesy Docks. Courtesy docks shall be provided at launch ramps for short-term docking, loading of gear, and passenger safety and convenience. Docks shall have a minimum width of six feet and minimum length of twenty feet. Docks should be located to avoid boat traffic congestion and ensure continued use of the ramp. Portable facilities such as floating docks, cable-guided docks, and push-pull docks are recommended if the water fluctuation difference is more than three feet.

h. Playgrounds. Playgrounds should be integrated within the site with access to parking and safe pedestrian access routes that provide separation from vehicular traffic. Playgrounds should be located in close proximity to other high-use activities such as group use facilities. The shape or limits of playgrounds are influenced by the existing conditions of the site and the play components that are provided. The playground area may be defined to allow the placement of desirable trees within the limits of the playground to provide shade.

i. Entrance Stations. Entrance stations are buildings located at park area entrances and designed for purposes such as fee collection, security, and dispensing customer information.

j. Group Shelters. Group shelters can range from small shade structures covering one or two picnic tables, to large screened or enclosed structures. The character and size of the structure should be consistent with the design theme and typical group sizes that use the park. Related amenities should be considered to serve large groups and extended family gatherings. Consideration should be given to the use of pre-manufactured shelters for durability, ease of construction, and ease of maintenance.

9-04. INTERPRETIVE DEVICES

Interpretive devices provided include, but are not limited to, the following: trails, signs, visual aids, programs, events, brochures, and displays. All activities under the Interpretive Services and Outreach Program (ISOP) shall be designed to accomplish one or more of the goals listed in ER 1130-2-550, Chapter 4, 15 November 1996.

a. Visitor Center. Visitor Center operation is necessary and integral part of total project management. The primary purpose of the Visitor Center program is to provide interpretive information to the visiting public about the Corps, its mission, the project and its facilities, visitor safety and geographic area where the project is located. Visitor Center provides the information necessary to visitors for safe and enjoyable use of Corps facilities. Exhibits and

other interpretive communications should be designed to stimulate interest and convey information. Chapter 5 of ER 1130-2-550 and EP 1130-2-550 "Visitor Center Program" establishes guidance governing planning, development, management, and operation of USACE Visitor Center facilities at civil works water resource projects.

b. Amphitheaters. Amphitheater facilities should be constructed of materials that are indigenous to the site or reminiscent of a local character and style so that the structure blends with the natural environment of the park. Durable construction materials that can withstand exposure to weather and the year-round impacts of users should be used. Table 5.17 of EM 1110-1-400 contains amphitheater design guidelines.

9-05. WASTE AND DISPOSAL

Trash, refuse collection, and disposal services are contracted out to private industry. Section 4.8 and Table 4.5 of EM 1110-1-400 contains guidance for trash service support items.

9-06. WATER AND SEWER DESIGN CRITERIA

a. Waste Water Collection and Treatment. Sewer design is in accordance with the requirements of the Federal Environmental Protection Agency, Illinois Environmental Protection Agency and Corps of Engineers Memorandum EM 1110-1-400: Planning and Design Criteria, and other standards and conditions as required by the Corps of Engineers. Septic systems are not permitted.

(1) Generally, sewers are located to obtain maximum use of gravity flow mains by following contours. Lift stations and force mains are provided as necessary to transfer flow from locations having low ground elevations relative to elevations downstream. Where possible, gravity sewers from several buildings are grouped to intersect at a common lift station. For planning purposes, gravity sewers are based upon 8-inch diameter PVC mains and 4-inch PVC service laterals.

(2) Lift station sizing is based upon all sewage being pumped within an 18 hour day with a peak flow factor of 2.5 times and average 30 gallons per day (GPD) per person for campers and 5 GPD per person for picnickers using waterborne toilets. Minimum size for force mains is 4-inch diameter. Minimum discharge from the lift stations is based upon 100 GPM for flooded suction pumps.

(3) Equalization tanks are anticipated to regulate flow to treatment plants where lift stations occur. Sizing of flow equalization tanks for planning purposes is based upon storage equal to one-half the capacity of the sewage

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treatment plant. Sewage treatment is in accordance with the requirements of the Federal Environmental Protection Agency, Illinois Environmental Protection Agency and Corps of Engineers Memorandum EM 1110-1-400 "Planning and Design Criteria" and other standards and conditions as required by the Corps of Engineers. Facility loading is based upon all camping spaces fully occupied on a weekend day without any additional overflows permitted to occur during seasonal or holiday peaks. Peak population is based upon eight person per day for each campsite, and four persons per day for picnic tables. For planning purposes, facility sizing is based upon 20 pounds Biochemical Oxygen Demand (BOD) or less per 1,000 cubic feet for an extended aeration package treatment plant. At campsites, the BOD per capita day is assumed at .08 pounds and at picnic areas the BOD per capita day is assumed at .02 pounds. For treatment plants of 40,000 GPD and above, dual aeration tanks are assumed. Tertiary treatment is required based upon use of gravity filter type treatment.

(4) Currently, one extended aeration sewage treatment plant and three land treatment systems are operated in the recreation areas.

(5) The treatment plant outlet is assumed at elevation 620 feet NGVD for planning purposes based upon a 50-year frequency elevation of 618 feet NGVD for the lake. The discharge elevation is assumed at five feet below normal pool for dispersion into the lake. It is assumed that the outfall line and headsail will be constructed without dewatering when the lake level submerges the outlet.

(6) The Corps of Engineers is currently negotiating with the Cities of Shelbyville and Sullivan to connect facilities to a regional sewer system maintained by the responsible municipality. Connecting to the cities would eliminate the need for the Corps of Engineers to operate and maintain the sewage treatment plant (STP) and the three land treatment systems. Replacement of the STP at Wilborn Creek Recreation Area is a priority because the system is beyond its design life and does not meet current Illinois Environmental Protection Agency (IEPA) requirements for discharge. All work concerning the regional sewer system will be done in accordance with the appropriate permits from the IEPA.

b. Water System. Water systems design is in accordance with the requirements of the Corps of Engineers Memorandum EM 1110-1-400, "Planning and Design Criteria," and other standards and conditions as required by the Corps of Engineers.

(1) For planning purposes, the source of water supply for domestic purposes for each site is based upon 50 GPM at a pressure of 50 psi available at the connection to the main of the water district from the city of Shelbyville system or Moultrie Water District. The present water supply agreement with the

water district does not provide adequate flows to meet fire protection demands. Provisions for fire protection are outlined in Section 12-03.

(2) For planning purposes, storage at each site is based upon a minimum supply of 50 GPM available from the water district. The total storage required is assumed as that necessary to provide for peak daily usage based upon 2.5 times the average daily consumption.

(3) Domestic water demand is based upon 30 GPD average per person assuming that all water consumed in one day is used within 18 hours. The maximum hourly rate of demand is based upon a peak factor of 2.5 times average flow.

(4) Main sizing is based upon peak domestic rate of flow. Looping of water lines has not been provided as a basis for planning. Sizing of service lines to buildings is based upon fixture units flow requirements in accordance with the National Plumbing Code.

(5) Water mains are considered to be adequately sized at peak flows to maintain required residual pressures for flush tanks.

9-07. POLICIES AND PROCEDURES PUBLICATIONS

a. General policies and procedures for planning, design, operation, and maintenance of recreation facilities at USACE Civil Works projects are given in Engineer Manuals (EM), Engineer Regulations (ER), and Engineer Pamphlets (EP) referenced below:

EM 1110-1-400 Recreation Planning and Design Criteria

This Engineer Manual is located on the Natural Resources Management Gateway web page; <http://corpslakes.usace.army.mil> under the Policy and Procedures in the Recreation Facilities Standards Section. This manual includes required, recommended, and optional criteria for all new or renovated facilities on Corps of Engineers land.

ER 1110-2-400 Design of Recreation Sites, Areas, and Facilities

EP 1130-2-550 Chapter 3: Project Master Plans and Operational Management Plans

ADAAG ADA Accessibility Guidelines

UFAS Uniform Federal Accessibility Standards

EP 1130-2-540 Chapter 2: Recreation Management

ER 1165-2-400 Recreational Planning, Development, and Management Policies

EP 310-1-6 Graphic Standards Manual

EP 310-1-6 a & b Sign Standards Manual

EM 385-1-1 Safety and Health Requirements Manual

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b. These publications guide the development of recreational facilities to assure they are of the highest quality while serving the health, safety, and enjoyment of the visiting public.

Section X

Special Programs

SECTION X – SPECIAL PROGRAMS

10-01. FISH AND WILDLIFE RESOURCES

Complex combinations of the biotic community involving both soil and climatic factors determine the potential for wildlife improvement in any environment. Wildlife populations at Shelbyville are currently stable due to sound management practices.

a. General Wildlife Habitat Conditions. Throughout the Lake Shelbyville project, former agricultural and pasture fields are bordered by tree-lined fencerows. Most of the area, however, consists of Oak-Hickory woodland. The abandoned fields and pastures are being invaded primarily with Autumn Olive, Multiflora Rose, Hawthorne, Coralberry, Blackberry, seedling Oak, and Sassafras. Non-native species that might become pests in the future include but are not limited to kudzu, mimosa, and honeysuckle. The predominant vegetative cover in these fields is, however, an assortment of weeds and grasses. Most of the lake shoreline is rather steep, with few marshy or swampy areas. Wildlife habitat improvement practices will seek to increase the value of the present habitat for game species while simultaneously having a favorable effect on non-game animals.

General field reconnaissance has revealed that the upland woodlots are stocked with medium aged trees and nesting cavities are in moderate supply. Mast producing trees are in good supply. About half of Lake Shelbyville's fee land is above the 10-year flood pool. Consequently, these lands are not subject to frequent inundation. When floods do occur, the production of wildlife within the low areas will be jeopardized. However, since this does not occur often, it does not greatly affect vegetative planting and manipulation techniques or nesting habitat.

Land management on lower areas will be aimed at maintaining a disturbed soil characteristic that will favor annual weed production and the maintenance of openings. The objective of field management will be to prevent large, thick single-type vegetation blocks, which provide little food or edge for wildlife species. Future land management plans for wildlife are contained in the Operational Management Plan, under separate cover.

b. Endangered and Threatened Species. Presently, no critical habitat for federally listed species of plants or animals is known to exist at Lake Shelbyville. However, the Federally threatened Bald Eagle, the endangered Indiana Bat, and species of concern – Loggerhead Shrike, may find seasonal, non-critical habitat in this vicinity. Potential habitat exists, but there have been

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no documented sightings of the Indiana Bat or the Loggerhead Shrike at Lake Shelbyville. The Lake Shelbyville project and vicinity provides habitat for one state threatened plant species, the False Hellebore.

Measures will be taken to create a public awareness of endangered species through the posting of informative material on the animal if sightings occur. Lake personnel will report any observations of endangered species to the Natural Resource Specialist at the District Office. Personnel of the U. S. Fish and Wildlife Service, Illinois Department of Natural Resources at Springfield, Illinois, will then be notified of the sightings.

c. Wildlife Related Programs. Three sites are currently being monitored at Lake Shelbyville for the presence of gypsy moths. No gypsy moths have been trapped on public lands in either Shelby or Moultrie counties. Monitoring stations for zebra mussels were placed around the lake in the mid 1990's. No evidence of zebra mussels has been found in Lake Shelbyville. Other non-native species that might become pests in the future include but are not limited to the Japanese beetle and Asian longhorned beetle.

Under the Illinois Department of Natural Resources Forest Watch Program one site at Lake Shelbyville is being monitored. The site is located on the south side of Lithia Creek and is monitored by the Shelbyville High School Biology Class. The purpose of this program is to note changes in the forest composition over time and any adverse changes caused by environmental pollution or disease.

d. Wildlife Management Objectives. The objective of the Corps of Engineers' Wildlife Management Program is to sustain wildlife species desired for the use and enjoyment of the public, consistent with the joint-use objectives of the lake. An objective will be that the wildlife resource should contribute to the greatest good of the most people over the longest time. Non-consumptive uses of wildlife, such as sightseeing and photography, will receive equal consideration with that of consumptive uses, such as hunting. Vegetative and water level manipulation will be the principal methods of fish and wildlife habitat management, and will be consistent with other joint uses and basic physical limitations at Lake Shelbyville.

Much of the land is relatively dense forest with a moderate amount of openings. In the existing openings, edge is maintained/developed through succession control and/or plantings. Maintaining edge effect can be very beneficial to a number of wildlife species and is therefore a crucial part of providing favorable wildlife habitat.

The importance of shrubs to wildlife is widely recognized. Wildlife Management research has pointed out that nearly half of the 369 mammal species and 58 percent of 714 bird species indigenous to North America are

associated with woody cover, of which shrubs are an important component. In the forest understory and in fields and prairies the presence of shrubs leads to niche diversification, which permits a greater number of individuals and species to occupy the habitat. Besides providing food, shrubs supply necessary cover where wildlife can escape predators, rear young, and can be protected from the elements.

e. Nursery Pond Management. A seven-acre Fin & Feathers Fish Nursery Pond constructed in 1993 is located north of Woods Lake. It is managed in cooperation with the Illinois Department of Natural Resources. The pond is designed to raise two crops of fish a year. In an eight year period, over \$216,000 worth of largemouth bass and walleye were produced in this pond.

Two new fish nursery ponds are proposed for the Dam West Recreation Area and Whitley Creek Bottoms Multiple Resource Area. The addition of these ponds is necessary to maintain an adequate fish population in Lake Shelbyville, which is experiencing declining fish habitat for production and rearing. The Illinois Department of Natural Resources has suggested that thirty to forty surface acres of nursery ponds would be ideal to supplement the Lake Shelbyville fishery program. With the existing nursery pond north of Woods Lake and with the addition of the new nursery ponds that need would be met.

Future actions include converting the Whitley Creek land treatment system pond into a fish nursery pond after the system is connected to the City of Sullivan Force Main.

f. Wetland Management. Thirty-seven acres of developed wetland is located in the Okaw Bluff Group Camp area. This wetland area is used by numerous waterfowl and shore birds and is part of the Illinois Watchable Wildlife Program. Facilities that enhance this area include a nature trail, information boards, observation blinds, and an observation platform.

A 146-acre wetland project is proposed in the Whitley Creek Bottoms Multiple Resource Area. The project would be located entirely on Federal lands in Moultrie County, Illinois. Once established, this wetland will significantly reduce sediment loading into Lake Shelbyville and into the Kaskaskia River by providing a settling basin for the 33,000-acre Whitley Creek watershed. It would also provide food supply and resting areas for waterfowl and shorebirds during spring and fall migrations. The Continuing Authority Program or some other cost sharing program will be pursued to implement this project.

g. Prairie Habitat Enhancement. Prior to westward expansion, large portions of Illinois were covered with native grasses and other plants. The Prairie Habitat Enhancement Program helps reestablish some of those grasses and plants. Several demonstration prairie plots are located in various areas around Lake Shelbyville. The most dominant area, which has 11 acres of

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demonstration prairie plots, is located within the Camp Camfield Environmental Study Area.

Approximately 15 acres of prairie grasses and forbs is proposed to be established in the Dam East and Spillway East Recreation Areas.

h. Environmental Study and Demonstration Areas. Two areas have been designated as environmental study or demonstration areas: Camp Camfield ESA and the Okaw Bluff Group Camp (EDA).

Approximately 226 acres of the 443 acres in the Camp Camfield Multiple Resource Area has been designated as the Camp Camfield Environmental Study Area. This area contains 11 acres of prairie demonstration plots that are part of the prairie habitat enhancement program. An oak-hickory timber association is present throughout the area in various successional stages. Lowe Pond is located in this area and is visited by fishermen. This area also includes a trail system, amphitheater, vault comfort station, picnic shelter, picnic area, stage area, and two fire rings.

After the housing facilities are removed at Okaw Bluff Group Camp, as stated in the Shoreline Erosion Plan, the group camp area will be re-designated as the Okaw Bluff Environmental Demonstration Area. This multi-purpose area provides on-site environmental education and interpretive opportunities, Watchable Wildlife program opportunities, and contains 37 acres of developed wetland that is part of the wetland management program. Other facilities that enhance this area include a nature trail, information boards, observation blinds, and observation platform. A multi-purpose building that will provide an indoor classroom area is proposed to replace the Stone House facilities in this area.

10-02. FEE SYSTEM AND COLLECTION

a. Authority. User fees are charged for all Class A and B overnight camping areas under authority vested in the Secretary of the Army by the Land and Water Conservation Fund Act of 1965 (78 Stat. 897), and as amended by Public Law 92-347 (86 Stat. 459) and Public Law 93-81 (87 Stat. 178).

b. Campground Fee Collection. Campgrounds at Lake Shelbyville do not present special fee collecting problems. Each area can be easily controlled without disruption of other activities. All Corps of Engineers managed campgrounds fall under the criteria for Class A campgrounds. The campgrounds include the following facilities: flush toilets, potable water, showers, sanitary disposal station, paved access and circulation roads, designated tent or trailer spaces, and visitor protection control. In addition to these, the standard amenities of picnic tables, grills, lantern hangers, and refuse containers are also provided.

Contract gate attendants are stationed at all of the Corps of Engineers operated campgrounds at Lake Shelbyville. One of their primary duties is to collect campground fees. A portion of the campsites in every campground can be reserved through the National Recreation Reservation Service™(NRRS™).

Okaw Bluff Group Camp, which is not considered a typical group camp, is comprised of two fully functional houses that can be reserved and rented throughout the year. Reservations for this group camp are taken at the Lake Shelbyville Project Office. A contract gate attendant is located at the group camp to collect the fees.

c. Day-Use Area Fee Collection. The Omnibus Budget Reconciliation Act – Day Use Fees, signed 10 August 1993 (Public Law 103-66), contains provisions by which the Corps of Engineers may collect fees for the use of developed recreation sites and facilities, including swimming beaches, and boat launching ramps, but excluding a site or facility that includes only a boat launch ramp and a courtesy dock and with minimal security and illumination.

Fees for use of the beach and boat launching at the Dam West Recreation Area are collected from a booth by contract fee collectors and through self-registration vaults. At the other public beaches and launch areas, day-use fees are collected by the use of self-registration vaults. The self-registration vaults are being redesigned due to an extensive amount of vandalism and theft that has occurred. Potential fee collection problems may occur if day-use fees are required for activities other than boat launching or beach use at Lake Shelbyville.

Customers can purchase a day-use annual pass for \$30 that is good for one calendar year. It is a one-time annual purchase that allows customers to avoid paying the day-use fee each and every time that they utilize a boat launching ramp or beach. The annual pass can be used at any Corps of Engineers project across the nation. Places where the annual passes can be purchased at Lake Shelbyville include the Administration Building, Visitor Center, and gate attendant stations.

d. Picnic Shelter Fee Collection. Reservations for picnic shelters (except Dam West Large Group Shelter) are made through the National Recreation Reservation Service™ (NRRS™). These reservations cannot be made in person. They have to be made either by calling a toll-free number or through the internet. There is a \$30 user fee associated with reserving a picnic shelter, and the fee must be paid at the time the reservation is made.

Reservations for the Dam West Large Group Shelter are made by calling or visiting the Lake Shelbyville Administration Office. There is a \$50 user fee associated with reserving this picnic shelter, and the fee is collected at the Administration Office.

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e. Special Event Permit Fee. The Lake Shelbyville Administration Office distributes Special Event Permits for such things as fishing tournaments and other events that take place on Corps of Engineers land. A \$50 administrative fee (other fees may be charged as per Chapter 9, ER 1130-2-550) is associated with Special Event Permits and is collected at the Lake Shelbyville Administration Office.

f. Conclusion. Fee collection for camping is proceeding without problem. Collection of day-use fees at beaches and boat launch areas is improving as public awareness and acceptance increases. Any future camping and day-use development should include provisions for fee collection in the design of the facilities.

10-03. ROAD NETWORKS

The road network that provides vehicular access to recreation areas at Lake Shelbyville is shown on Plate 4. A detailed description of the existing condition of these roads is given in Section 5-04.

a. Primary Roads. Roads 1, 2, 3, and 4 on Plate 4 and described in Section 5-04 comprise the four primary roads of the network. The primary roads include Illinois Routes 16, 128, 32, and 121.

1. Illinois Route 16 has been significantly improved by the completion of a new Kaskaskia River bridge and a road-widening program completed in 1979. This provides easier access into the Spillway, Dam East, and Dam West Recreation Areas. Corps of Engineers project roads connects this primary route to the Dam East and Dam West Recreation Areas. Lithia Springs Recreation Area, Lithia Springs Marina, and Lithia Springs Chautauqua Area can also be accessed off of this highway.

2. Illinois Route 128 provides access to the Opossum Creek, Coon Creek, and Lone Point Recreation Areas. The Eagle Creek State Park and Findlay Marina can also be accessed from the highway.

3. Illinois Route 32 provides access to the Bo Wood, Whitley Creek, and Sullivan Beach Recreation Areas, Okaw Bluff Group Camp, Camp Camfield Environmental Study Area, and Sullivan Marina and Campground.

4. Illinois Route 121 provides access to the Wilborn Creek Recreation Area and to the Administration Office of the Lake Shelbyville Wildlife Management Areas.

5. A major project of interest that is tentatively scheduled during FY 2004 – 2008 time frame includes the new Interstate 57 interchange north of

Mattoon in Coles County. The Illinois Department of Transportation had the construction of a new interchange and 9 miles of connecting highway programmed in FY 2005 at a cost of \$22.3 million. The new highway will connect the interchange to US 45 and the Bruce-Findlay Road to the west and Illinois 130 to the east. Completion of the interchange will provide a direct interstate highway link to Lake Shelbyville.

b. Secondary Roads. Roads 5, 6, 7, 8, 9, 10, 11, and 12 on Plate 4 and described in Section 5-04 comprise the secondary roads of the network. These roads are generally in fair condition with a pavement width of 16 feet to 22 feet. Pavements are either asphalt, concrete, or oil and chip. Most have narrow dirt shoulders. The problems related with the secondary roads are the narrowness and pavement type. A 16 foot wide road with a verily crowned pavement surface, which exists on some sections of these roads, causes hazardous conditions during peak weekends when wide campers pulling boats meet oncoming vehicles of the same type. Another problem is the oil and chip surface. During hot summer days, this type of pavement tends to “melt” causing the oil and gravel to be thrown by a vehicle’s tires onto either a towed or following vehicle. This condition does not exist with asphalt or concrete pavement with at least a 20-foot width, preferably 24 feet with 5-foot shoulders.

(1) Area townships maintain most of the secondary roads that are located around Lake Shelbyville.

c. Tertiary and Access Roads. Tertiary and access roads provide access from secondary roads into project areas. The main tertiary and access roads are shown on Plate 4. Tertiary road locations according to sectors and access road descriptions are presented in Section 5-04.

(1) Road conditions are generally excellent to poor with road surfaces varying from 20 feet asphalt to 12 feet dirt. The major problem of some tertiary roads is the narrowness of the pavement. These roads are 12 to 14 feet in width. Minimum should be 20 feet, and like the secondary roads, a 24-foot pavement is desirable into an access area. When any tertiary road is improved, it should be widened to at least 20 feet in pavement width.

d. Moultrie County Roads and Bridges Periodically Inundated Due to High Lake Levels. The Corps of Engineers is working with the township road commissioners in Moultrie County to improve roads and bridges that become inundated during high lake levels to ensure that some areas remain accessible to the public. These include the roads in Moultrie County where the following bridges are located: Austin Bridge (1500N, 475E), Joe Pound Bridge (1275N, 1350E), Butts Bridge (1575N, 600E), and Gary Melvin Kaskaskia River Bridge (1125N, 1675E). Locations of these bridges are shown on Plate 4.

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e. Bo Wood Recreation Area Access Road. Renovate entrance road into Bo Wood Recreation Area by raising a section of it that has a dip in it. This section of road is located on the east side of the recreation area. Currently it goes underwater when the lake rises during flood conditions and as a result the recreation area has to be closed. Renovating this roadway will eliminate this problem.

f. Priority of Need.

(1) The first priority is to improve roads and bridges in Moultrie County that become inundated during high lake levels.

(a) Austin Bridge: Located approximately 2 miles southeast of Bethany (1500N, 475E) in Marrowbone Township. Improvements include additional embankment fill (approaches to be raised to 620 feet National Geodetic Vertical Datum (NGVD)), erosion control protection, added bridge decking and roadway. The initial planned improvement does not include raising the grade of the bridge approaches.

(b) Joe Pound Bridge: Located approximately 3 miles southeast of Sullivan (1275N, 1350E) in East Nelson Township. The grade elevation for the proposed construction of the high water bridge approach will need to match the top of the bridge elevation of 619 feet NGVD.

(c) Butts Bridge: Located approximately 5 miles northwest of Sullivan (1575N, 600E) in Sullivan Township. The grade elevation for the proposed construction of the high water bridge approach will need to match the top of the existing bridge elevation of 614.10 feet NGVD.

(d) Gary Melvin Kaskaskia River Bridge: Located 6 miles Southeast of Sullivan (1125N, 1675E) in East Nelson Township. The grade elevation for the proposed construction of the high water bridge approach will need to be 620 feet NGVD, which is 1.23 feet below the elevation of the existing top of the bridge elevation 621.23 feet NGVD.

(2) The second priority is to renovate the Bo Wood Recreation Area access road. This will take place as part of the Bo Wood and Whitley Creek campground consolidation project.

(3) The third priority is to improve the narrow sections of the secondary roads.

(4) The major problem of the tertiary roads is similar to that of the secondary roads, narrow pavement and surface type. The fourth priority should be to widen any tertiary roads that provide access to the recreation areas.

(5) Roads of fifth priority of improvement include those providing access into future development. Improvements consist of pavement widening and improvement of surface type.

g. Public Lands Highways Discretionary Program.

The Amendment Relative to Construction of Roads through Public Lands and Federal Reservations originally established the Public Lands Highways (PLH) Program in 1930. Funding was provided from the General Funds of the Treasury. The intent of the program is to improve access to and within the Federal lands of the nation. The Federal-Aid Highway Act of 1970 changed the funding source for the program from the General Funds to the Highway Trust Fund, effective in FY 1972. The program has been continued with each highway transportation act since then, and the latest transportation act, the Transportation Equity Act for the 21st Century (TEA-21, Public Law 105-178), has continued the program through FY 2003.

The PLH funds are available for transportation planning, research, engineering, and construction of the highways, roads, and parkways, or of transit facilities within the Federal public lands. Under 23 U.S.C. 204(h), eligible projects under the PLH program may also include the following:

1. Transportation planning for tourism and recreational travel.
2. Adjacent vehicular parking areas.
3. Interpretive signage.
4. Acquisition of necessary scenic easements and scenic or historic sites.
5. Provision for pedestrians and bicycles.
6. Construction and reconstruction of roadside rest areas, including sanitary and water facilities.
7. Other appropriate public road facilities such as visitor centers.

The Corps of Engineers will work with County and Township Road Commissioners to seek improvements through this program.

Through a Challenge Partnership Agreement and this program the Corps of Engineers will work with the City of Shelbyville to find ways to improve Ninth Street and access roads to the Dam West and Dam East Recreation Areas.

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10-04. DIRECTIONAL SIGNAGE

All signage on Government property conforms to the Corps of Engineers Sign Manual, and the signs have been entered onto the Lake Shelbyville sign plan. These signs will continue to be maintained to meet the guidelines.

Directional signs located on state-owned right of ways are provided by the Illinois Department of Transportation and meet their guidelines. This program is the result of a cooperative effort between the State of Illinois and the Corps of Engineers. Many directional signs located along county and township roads are provided and maintained by the Corps of Engineers with the approval of the managing authority. A Challenge Partnership Agreement is in place with the City of Shelbyville concerning directional signs located on city right of ways. All of the directional signs on county, township, and city right of ways meet Corps of Engineers sign manual guidelines and are easy to read and follow. These signs mark the entrance to recreation areas or direction to and from the areas.

In conformance with the state approved procedure for establishing a Rural Reference System, Shelby and Moultrie Counties have placed signs at every rural public road intersection. These numbered signs are helpful to government employees and the visiting public when traveling on rural roads.

10-05. CORPS OF ENGINEERS LEASE LANDS

a. Two public access areas are leased to the Illinois Department of Natural Resources for recreational development under separate out grants. These areas, which include Eagle and Wolf Creek State Parks, are comprised of 3,429 acres and have been developed for maximum visitor usage. In addition, the Department of Natural Resources is licensed 5,669 acres for fish and wildlife purposes. These lands are contained within the Kaskaskia and West Okaw Wildlife Management Areas. Illinois State facilities provide significant additional recreation opportunities for the public.

b. The Dam West Recreation Area contains a section of federal property that the City of Shelbyville obtained use of in perpetuity; via a “deed reservation” at the time the Government purchased the property. This area is also known as the Hulick Addition. The area of land is located north of the City of Shelbyville’s Forest Park. This area is a proposed future resort concession site.

It is proposed that the Corps of Engineers lease approximately 6.8 acres of federal property to the City of Shelbyville. The area that will be leased to the City of Shelbyville is contiguous with the east side of the City’s Forest Park. This area will be used to expand the city park and its facilities.

c. The Corps of Engineers has three lease agreements with private operators to provide marina facilities and services. Further explanation of the marinas can be found in section 10-06.

d. The Lake Shelbyville Ag Lease Program has a total of 382 federal land acres that are leased out for agriculture purposes: 250 acres in Moultrie County and 132 acres in Shelby County. The areas are located in land compartments number 2, 3, 12, 13, 15, 16, 17, 19, 37, 40, 44, 45, 57, 58, and 59.

10-06. MARINAS.

The US Army Corps of Engineers promotes recreational boating at Lake Shelbyville by making public land available under lease agreements to private operators for provision of marina facilities and services. There are three existing public marinas on Lake Shelbyville.

Lithia Springs Marina is located on the east side of the lake, north of Illinois Highway 16. Findlay Marina is located on the west side of the lake near the Findlay Bridge, which is located east of the village of Findlay. The Sullivan Marina and Campground is located on the Northeast side of the lake, east side of Illinois Highway 32.

Lithia Springs and Findlay Marina are full service recreational boating facilities, offering boat slip rental, fuel, convenience store, repairs, and long term dry storage. Lithia Springs also offers a restaurant facility. Sullivan Marina and Campground is a full service recreational boating facility, offering boat slip rental, fuel, and long-term dry storage. Sullivan Marina and Campground also provide camping units, restaurant facilities, and overnight lodging facilities.

10-07. RECREATION AREA EFFICIENCY MEASURES

Increasing the efficiency of project operations will continue to be evaluated. The following is a listing of measures that illustrate the efforts being made: Efficiencies are described more fully in the Operational Management Plan.

(a) Originally all of the recreation areas at Lake Shelbyville had numerous entrances and exits. These have been removed, and one entrance/exit is now provided to each picnic, camping, beach, and boat launch area with the exception of Whitley Creek Recreation Area, which has two entrance/exit areas. Better control has resulted in reduced vandalism, litter, patrol, and overall O&M costs. In addition, abandoned roads and traditional access routes have been closed.

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(b) Campgrounds and day-use areas are operated on a staggered opening and closing schedule to meet visitor demands, yet reduce cost. The total time that areas are open is now 25% less than in the past. Visitors may not always be able to utilize a specific facility at the time they desire; however, other facilities are available for their use on the project. Extensive review has been made concerning the efficiency of recreation facilities at Lake Shelbyville. As a result, all areas were found to be extremely efficient based on the types of facilities offered.

(c) Mowing acreage has been reduced by approximately 40%. The areas that are mowed are cut regularly and well maintained. The current mowing contract expires in 2008 and is a hybrid contract. To increase efficiency the mowing contract includes both fixed price and indefinite quantity items allowing more flexibility in maintaining the recreation areas during wet and dry years.

(d) Contract gate attendants are used to staff the fee booths. The costs are significantly less than with hired labor and the hours of coverage per day and length of time covered is much greater. Additional protection of the resource, facilities, and visitors are achieved at less cost.

(e) Volunteers are used to perform several different tasks within the recreation areas. The work that the volunteers do supplements the hired labor work force. Duties performed by volunteers include cleaning facilities, mowing, facility repair, landscaping, tree maintenance, assisting with special events, and many others.

(f) Picnic areas are open from 8 a.m. until 10 p.m. One-half of the picnic sites were closed and removed in 1982 due to under utilization of the facilities. Beaches are open from 8 a.m. until sunset. Since the hours of operation have been implemented the areas are more secure requiring less patrol time. Vandalism has been reduced, which in return decreases O&M costs.

(g) Energy conservation measures implemented have been conversion of area lighting to high pressure sodium, removal of some electric hand dryers, use of small fuel-efficient vehicles, and more foot patrol by park rangers. Area lighting has been reduced to minimum and decorative lighting removed. Foot patrol has reduced fuel consumption plus provides for interaction between the visitors and project staff. Increased contact has been effective in helping to reduce many routine problems in the recreation areas such as noise problems, litter, and vandalism.

(h) Camping fees and administrative fees for picnic shelters and special use permits have increased.

Camping fees vary from \$12.00 to \$20.00 per site according to campground and facilities available. Campers are charged on a per site basis. Single sites permit up to eight people with one RV and three tents or four tents if there is no RV on the site. Double sites permit up to sixteen people with two RV's and six tents, or two RV's and seven tents, or eight tents if there are no RV's on the site. These limits are the maximum number of people and equipment allowed on the site. It is important to note that many sites will not physically accommodate that much equipment.

All picnic shelters, except the large pavilion in Dam West Recreation Area can be reserved through the National Recreation Reservation Service™ (NRRS™). Reservations for the large pavilion in the Dam West Recreation Area are taken at the Lake Shelbyville Project Office.

The administration of Special Event Permits is conducted at the Lake Shelbyville Project Office. Special Event Permits have increased to \$50.00.

(i) A project staffing study was conducted in 1980, which resulted in the staff being reduced. Seven permanent positions were eliminated. Further reductions in the staff will seriously hinder the protection of the resources, facilities, and the project visitors.

(j) Service contracts have been broken down by types of work and size of work unit to allow more persons/businesses to compete for them. Increased competition has reduced cost for procurement of services.

(k) An effort will be made to continually improve the efficiency of operations including the use of new or improved technology.

(l) Consolidation of camping facilities will increase efficiency. The campsites in Whitley Creek Recreation Area will be moved to the Bo Wood Recreation Area, and the campground portion of the Whitley Creek Recreation Area will be closed. Also, consideration will be given to removing and replacing some campsites from Opossum Creek and Lone Point Recreation Area to Lithia Springs Recreation Area. The objective is to have approximately 200 campsites in each of the campgrounds, as that number appears to be the minimum number of sites required to have maximum efficiency.

10-08. NON-FEDERAL HYDROPOWER DEVELOPMENT.

The Shelby Electric Cooperative has proposed the development of a hydropower facility in the spillway basin area. The basic design entails running a pipe from the west sluice gate through the stilling basin to a turbine house downstream of the stilling basin. The proposed hydropower facility will be operated as a run-of-the-river type operation. Outflows will not be modified for

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hydropower purposes. The facility will only utilize the outflows that would normally occur.

References for this program include Engineer Regulation on Non-Federal Hydropower (ER 1110-2-1454, 15 July 1983) and Engineer Manual (EM 1110-2-3001, 30 April 1995).

The spillway area between the main dam and Illinois Highway 16 Bridge is a popular fishing spot. Some of this area will be lost. A safe distance downstream of the turbine will need to be determined, marked with signs and a safety cable across the river to restrict the area from boats getting too close. Warning devices that power generation is about to begin will need to be installed. A security barrier will need to be installed to prevent access to the facility from the land.

Coordination with the Illinois Department of Natural Resources, State Historic Preservation Office, U.S. Fish and Wildlife Service, U.S. EPA, and Illinois EPA has occurred throughout the study process and interim approval will be sought during application for a construction license. A preliminary environmental assessment has been conducted and no negative impacts were identified.

10-09. SECTION 1135 PROJECT.

Section 1135 of the Water Resource Development Act (WRDA) of 1986 allowed modification of completed projects to restore environmental benefits. The 754.5-acre restoration project area is situated in Moultrie County at the northern end of Lake Shelbyville on the Kaskaskia and West Okaw Rivers in the West Okaw and Kaskaskia Wildlife Management Areas.

The project consists of a series of low levees forming 16 management compartments, a ditch drainage system, water control structures, additional watering and dewatering capability, overflow weirs, rocked roadways to pump sites, levee revetment on all critical areas, fish nursery areas, and natural tree regeneration. The start date for construction is dependent on funding, but at the earliest is FY 06.

The total estimated cost of constructing the proposed modification is \$6.1million. The state of Illinois will provide the 25% non-federal cost-share for the project's planning, design, and construction. The projects O & M (estimated at \$32,665 per year, with no additional FTE requirement) will be the responsibility of the State of Illinois.

The modification would restore 754.5-acres of habitat and improve the water level management capability to a maximum extent. The complex is integral to the long-term restoration of wetlands at the Lake Shelbyville Project. The water

control system and levees, coupled with vegetation management will allow for the restoration of more natural hydric and vegetative conditions.

The draft Ecosystem Restoration Report with Environmental Assessment and Finding of No Significant Impact was completed and distributed for agency and public comment during September-October 2003. The final report is currently being reviewed by Corps' Mississippi Valley Division.

10-10. GENERAL DACEY TRAIL PLAN.

Walking and bicycling activities have become very popular. Over 50% of the public, who have access to a walking trail, will use the trail. Over one-third of the public rides bicycles. These represent some of the greatest users of public lands and facilities.

The General Dacey Trail Plan is a multi-partner regional initiative centered around Lake Shelbyville. This is more than a simple trail project. Upon completion, the proposed General Dacey Trail will provide almost one hundred and seventy miles of recreational opportunities for bikers, hikers, skaters, and cross-country skiers. Providing an off-road link to Lake Shelbyville and the other nearby communities, the trail network promises to increase tourism and to spur trail-use related economic development. This project will be pursued as a Challenge Partnership Agreement.

The proposed General Dacey Trail network is too large a project to complete in one phase. It is envisioned that several phases will be needed to construct the trail network through programs and authorities of numerous organizations and agencies. As organizations and agencies undertake respective trail development phases, they will use the trail master plan as the guiding document.

The initial phases of the projects include using both newly constructed and existing trails located on Corps of Engineers' property as well as designating existing roadways in the lake area. Whenever possible, it is recommended that additional right-of-way along roadways be acquired and a separate trail surface be constructed by non-federal partners. Trails that currently exist on Corps of Engineers property that will be renovated or realigned to become part of the General Dacey Trail Plan include the Illini Trail, Camp Campfield trail system, Dam West Snowmobile Trail, Woods Lake Access Trails, and Coon Creek, Bo Wood, and Okaw Bluff Nature Trails. Areas where new or existing trail segments are planned for future development include: Opossum Creek, Wilborn Creek, Whitley Creek, Lithia Springs, Dam East, and Spillway Recreation Areas, Wolf Creek State Park, Eagle Creek State Park, West Okaw and Kaskaskia Wildlife Management Areas, and Water Tower Point, McClure Pond, Slaughterhouse West, Adams, Refuge Point, Sand Creek, Big Red's Timber, Water Plant, Houser, and Seven Hills Multiple Resource Areas.

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10-11. ENVIRONMENTAL COMPLIANCE.

U.S. Army Corps of Engineers facilities must comply with all applicable Federal, state, and local environmental laws and regulations. Chief among the environmental laws is the National Environmental Policy Act (NEPA), which directs that public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. Public involvement is to be encouraged and facilitated for decisions that will affect the quality of the human environment. Environmental consequences of proposed actions and alternatives are to be described in NEPA documents, which are circulated for public review.

The 1975 Lake Shelbyville Environmental Impact Statement acknowledges and states that the operation of Lake Shelbyville is intended to achieve the greatest possible benefit for each project purpose over the long run. Compromises are an inherent part of the operations and some adverse impacts are inevitable. Thus, according to Corps of Engineers regulations, many of the items proposed in this Master Plan are categorically excluded from the need for preparation of NEPA documents, because they do not individually or cumulatively have a significant effect on the human environment. Replacement or renovation of existing facilities, or construction of new facilities in developed recreation areas, such as shower buildings, comfort stations, campsites, and picnic sites, are examples of categorical exclusions. The preparation of an environmental assessment (EA) is required for actions that may result in environmental impacts. Examples of such actions are expansion of a campground into an undeveloped wooded area or construction of water control structures in natural habitats for the purpose of vegetation management. Before construction can proceed for actions requiring an EA, the review of environmental consequences must conclude in a Finding of No Significant Impact (FONSI), which outlines the terms and conditions that are required to implement a project. If the review process results in a finding of significant impact, then an Environmental Impact Statement needs to be prepared before construction can commence.

NEPA documentation will be prepared in the future for all actions proposed in this Master Plan that are not categorically excluded. It is the Corps of Engineers' policy to identify and avoid adverse impacts as early in the planning process as possible. Recreational and resource management projects will be designed to avoid and minimize adverse environmental impacts.

Environmental compliance is solidly integrated into the day-to-day operation of the Corps of Engineers facilities. The Corps of Engineers use environmental compliance assessments as a means of attaining, sustaining, and monitoring compliance. Two types of assessments are conducted, external and internal. The compliance program requires an annual internal assessment of each

facility. Every five years an external assessment is conducted using district teams, contractors, or regulatory agencies.

Environmental compliance includes, but is not limited to the following categories: management of air emissions, cultural resources, hazardous materials, hazardous waste, natural resources, pesticides, petroleum, oil, lubricants, solid waste, storage tank, toxic substances, wastewater, and water quality. Documents that provide guidance include, but are not limited to the Environmental Review Guide for Operations (ERGO), ER & EP 200-2-3 Environmental Compliance Policies, 30 October 1996 and ER & EP 1130-2-540 Environmental Stewardship Operations and Maintenance Policies, 15 November 1996.

10-12. PARTNERING.

The Corps has control and oversight of stewardship activities on the public lands and waters at Lake Shelbyville. Responsibility for recreation management is granted to the IDNR at Wolf Creek and Eagle Creek State Parks. The IDNR also manages the West Okaw and Kaskaskia Wildlife Management Areas.

Increasingly, competition for the use of these lands and waters and their natural resources can create conflicts and concerns among stakeholders. The need to coordinate a cooperative approach to protect and sustain these resources is compelling. Many opportunities exist to increase the effectiveness of federal programs through collaboration among agencies and to facilitate the process of partnering between government and non-government organizations.

To sustain healthy and productive public lands and waters with the most efficient approach requires that individuals and organizations recognize their unique ability to contribute to commonly held goals. The key to progress is building on the strengths of each sector, achieving goals collectively that could not be reasonably achieved individually. Partnering opportunities exist and can promote the leveraging of limited financial and human resources. Partnering aids the identification of innovative approaches to deliver justified levels of service, defuses polarization among interest groups and leads to a common understanding and appreciation of individual roles, priorities and responsibilities.

To the extent practicable, this Master Plan and a proactive approach to partnering will position the Lake Shelbyville Project to aggressively leverage project financial and human resources in order to identify and satisfy customer expectations, protect and sustain natural and cultural resources and recreational infrastructure, and sustain Corps management efforts and outputs at a justified level of service. An overview of some of the key, long-term partnerships the Lake Shelbyville Project Office is involved with relative to mission accomplishment is found in Section VI, Partnerships and Coordination.

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Memorandums of Agreement, Legislative Authorities for Partnering and Coordination, or both are established to define partnering arrangements with other agencies or organizations. These partnerships have become vital in providing the levels of service that users of project related resources demand. The Lake Shelbyville Project continues to seek new partnerships and strengthen existing ones to accomplish project initiatives

10-13. FEDERAL LAKES RECREATION DEMONSTRATION LABORATORY.

In 2000, Lake Shelbyville as part of the Kaskaskia River Watershed was selected to participate in the Demonstration Laboratory. The idea behind the labs is to remove barriers placed in the way of efficient operations through removal of encumbrances established by agency policy and regulations except those established by law. Determining what is and what is not required by law is sometimes difficult. As such, each idea considered for implementation under the Federal Lakes Recreation Demonstration Laboratory effort must be reviewed by the District Counsel and approved by the District Commander before the project may embark on the experiment. This is to insure that no one unknowingly circumvents provisions of law.

There is no specific timeframe for when a demonstration must end. Experiments of this nature normally last from 6 months to 4 years. Completion is achieved when proof is established that the goals set at the outset have been reached or when the demonstration proves that the ideas are not feasible. Following completion, it is incumbent upon the selected project to provide a report detailing the experiment conducted, the results achieved, and recommendations through the chain of command to Headquarters. Headquarters will review these reports and recommendations and make a determination as to whether the ideas warrant changes to Corps of Engineers policies or regulations. If changes to policies or regulations are warranted, Headquarters will make the necessary changes.

a. Recreation Modernization Initiative. The Recreation Modernization Initiative is part of the President's Fiscal Year (FY) 05 proposed budget. This initiative proposes implementing several financing and management mechanisms to improve the quality of recreation opportunities provided by the Corps of Engineers.

Beginning in FY05, the Corps of Engineers would be authorized to finance a portion of the cost of maintaining and modernizing recreation sites and facilities through the collection and retention of additional recreation use fees. This would be accomplished by obtaining legislative authority for the Corps of Engineers to participate in the existing Recreation Fee Demonstration Project, which the Departments of Interior and Agriculture currently operate. This would allow the Corps of Engineers to charge entrance and other use fees, as well as

to keep everything collected over a baseline of \$37 million per year to finance modernization activities. Accordingly, recreation infrastructure could be maintained, protected and upgraded at no additional cost to the Federal government. Additionally, legislation will be included in the President' budget to designate 25% of receipts from real estate outgrants, such as marina concessions, recreation use fees. These receipts are currently deposited in the General Treasury and are lost to Corps of Engineers use. Once designated recreation receipts, they could be used to fund real estate support of recreation activities on Corps of Engineers land, such as compliance inspections and encroachment resolutions.

The Corps of Engineers has designated Lake Shelbyville as one of the six Federal Lakes Recreation Demonstration Laboratory projects, at which the agency will demonstrate innovative planning, management, and financing partnership arrangements with non-Federal partners. These will be accomplished within existing authorities and will demonstrate the most effective means of encouraging and achieving mutually beneficial arrangements to assure the needs of the recreating public are met. Analyses to determine changes in customer satisfaction, quantity and quality of opportunities provided, visitor behavior, recreation fee collection and economic benefit to the Nation will be conducted. If techniques are proven successful arrangements will be implemented at other Corps of Engineers facilities in the future. The other five demonstration projects are:

Rathbun Lake, Iowa; W. Kerr Scott Dam and Reservoir, North Carolina; Texoma Lake, Texas; Wolf Creek Dam Lake Cumberland, Kentucky; and Beaver Lake, Arkansas.

10-14. RECREATION AREA MODERNIZATION PROGRAM (RAMP)

RAMP addresses the modernization of Corps of Engineers recreation areas. Visitors' needs and expectations have changed dramatically since the 1960's and 1970's when most Corps of Engineers lake projects were designed and built. More than 90 percent of the 456 Corps lakes and reservoirs were constructed 20 or more years ago. Lake Shelbyville is one of those lakes that were constructed during this time frame. Many of the Corps of Engineers managed areas are outdated and require modernization to meet the needs of present users, under served populations, and to allow for flexibility to make further modifications as equipment and demographics dictate. RAMP goals include providing safe facilities that meet customer needs and offer the level of service the public expects.

Facility design and services standards are being developed as a result of the RAMP initiative. When finalized, these U.S. Army Corps of Engineers Recreation Facility and Customer Service Standards will be applied to any new construction of Corps of Engineers facilities regardless of whether they are constructed using RAMP funds or by another funding source.

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As of FY 2003, Congress has chosen not to include funding for the RAMP program because it is a new start. Since funding is in doubt for the RAMP program, Headquarters has selected 17 areas for priority funding whenever the program may be initiated.

Lake Shelbyville is one of those 17 areas that were selected. The proposed modernization at Lake Shelbyville includes moving the authorization of 86 campsites from Whitley Creek Recreation Area to the Bo Wood Recreation Area. Support facilities, such as comfort stations, drinking fountains, and shower buildings will conform to ADA standards and be barrier free. The proposed modernization also includes the demolition of existing facilities, such as shower buildings, comfort stations, and roads in the Whitley Creek Recreation Area campground. The projected cost of this modernization is \$1,200,000.

10-15. COOPERATING ASSOCIATIONS.

Cooperating associations are used to accomplish such broad goals as natural resource management, interpretative services, and visitor service activities on civil works water resource projects, fee-owned lands, and other areas for which the Corps of Engineers has administrative and management responsibilities. Associations aid the Corps of Engineers through a variety of activities, which may include the following:

- a. Supporting special events; interpretive, educational, or scientific activities; exhibits and programs; including presentations and demonstrations that further public understanding and appreciation of the mission of the Corps of Engineers or a particular water resource development project.
- b. Supporting natural resource management or public programs at or near Corps of Engineers projects through conservation and educational activities and special events; and also by providing scientific, logistical, maintenance, and other support.
- c. Acquiring display materials, historical objects, equipment, supplies, materials, goods or other items, or services appropriate for management, operation, interpretive, educational, and visitor service functions.
- d. Providing services to visitors through the sale, production, publication, and/or distribution of appropriate interpretive and educational items, such as publications, maps, visual aids, audiotapes, pamphlets, handicrafts, and other objects directly related to the recreation, scientific, interpretive and educational goals and mission of a project, a group of projects and/or the Corps of Engineers as a whole.

- e. Acting as a principal distribution medium for those educational and scientific publications of the government and trade that relate to the Corps of Engineers and/or project mission, mandate or management efforts and provide the public with inexpensive and technically accurate materials.

Kaskia-Kaw Rivers Conservancy Cooperating Association. A cooperative agreement between the Corps of Engineers and the Kaskia-Kaw Rivers Conservancy was signed and put in place in July 2000. The Corps of Engineers authorizes the Association to provide, and the Association agrees to provide interpretive and educational services and/or research and scientific services to the public. As part of the agreement, the Association may operate a sales area on a continuous or intermittent basis. A sales area is located in the Lake Shelbyville Visitor Center.

10-16. NATIONAL RECREATION RESERVATION SERVICE™ (NRRS™).

NRRS™ is a joint program of the U.S. Army Corps of Engineers and other Federal agencies to provide customers with access to one-stop shopping reservations for camping facilities managed by these agencies. With over 49,500 camping facilities to choose from at more than 1,700 locations the NRRS™ is the largest camping reservation service in North America.

The public may make reservations for campsites and other activities (i.e. picnic shelters) through a toll-free telephone number, by accessing the Internet, or at project campgrounds. Customers making reservations are provided a variety of payment options including credit cards, personal checks, or cash.

All of the recreation areas that offer camping at Lake Shelbyville have a portion of their campsites in the reservation system. All of the picnic shelters, except the large shelter located in Dam West Recreation Area, are in the reservation system.

10-17. MANAGEMENT OF FLOWAGE EASEMENT LANDS

A total of 6,237 flowage easement acres have been purchased on privately owned property adjoining Lake Shelbyville and are administered by the Operations Manager. These easements provide storage for floodwater at the lake on those lands that lie between federal property and maximum flood pool elevations as well as protection against the creation of floatable debris and pollution of project waters.

Responsibilities. It is the policy that all applications for a flowage easement permit or consents be submitted to the Operations Manager. The Operations Manager will coordinate permits for normal structures with approval

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authority resting with the Construction Operations Technical Policy Branch (CO-T). Applications for water control structures will be forwarded by the Operations Manager through CO-T to the Real Estate Management and Disposal Branch who will then coordinate with District elements to include, at a minimum the Regulatory Office, Engineering Office, and Office of Counsel. Consents for water control structures will be approved by the Deputy District Engineer, however, only the District Engineer will sign rejections.

Clean Water Act Compliance. It is the policy that flowage easement permits or consents will not be issued until a Section 404 Permit has been issued or until the Regulatory Office provides notice, in writing, that a 404 Permit is not required.

Normal Structures. It is the policy that permits for normal structures are administered in accordance with the “Requirements for Structures on Flowage Easement Lands...” at the locations specified in the Operation Management Plan.

Water Control Structures. It is the policy that water control structures are prohibited unless all of the following criteria are met.

- a. Consent must be approved and executed by both the consentee and the Government prior to the commencement of work.
- b. Consentees for water control structures must provide equal, compensatory storage for the volume of water that the proposed structure will displace. Compensatory storage facilities must be self-operating, requiring no mechanical operations such as pumping or draining. At Lake Shelbyville a total of 1,000 acre-feet of storage is set aside for wetland development with no more than 500 acre-feet of storage being utilized during the period of 1 March through 30 September of each year. In addition, no more than 250 acre-feet of storage will be utilized on any individual stream course feeding the lake to include: Kaskaskia River, West Okaw River, Sand Creek, Wilborn Creek, Wolf Creek, Jonathon Creek, Asa Creek, Marrowbone Creek, and Whitley Creek. Areas that are designed to meet the Natural Resources Conservation Service (NRCS) wetland development standards may be eligible to participate. It is the responsibility of the Lake Shelbyville Project Office to inventory storage capacity for wetland development. The Lake Shelbyville Operational Management Plan will be the official tracking document.
- c. Plans and specifications for a water control structure and its compensatory storage facilities shall be included with the consent application. Plans shall include design of the facility including dimensions, height of levees, if applicable, proposed depth of impounded water, etc. The Operations Manager is authorized to return to the originator those applications that do not

meet the criteria described herein. Signatures on approved consents, both Government and consentee must be notarized.

d. Consents will not be issued if the District Engineer determines that there is a reasonable likelihood that either the water control structure or its compensatory storage facility would cause direct or indirect drainage of any kind to property belonging to another person or entity. Further, all consents for water control structures shall provide for the District Engineer to alter or revoke consent if the consented structure is found to be detrimental to other property owners. Upon alteration or revocation of the consent the consentee shall proceed diligently to correct or remove the structure at the consentee's expense. Failure to pursue diligent correction or removal shall result in legal action by the District Engineer.

e. Compensatory facilities are to be maintained in proper working order by the consentee. Failure to properly maintain these facilities may result in consent revocation.

f. Once consent is approved, Corps of Engineers officials will conduct periodic compliance inspections during the construction phase and on occasional basis throughout the duration of the consent. By the acceptance of consent for water control structures, the consentee grants to the Corps of Engineers access to water control and compensatory structures for facility inspections.

g. Consent for water control structures shall run with the land and shall be binding upon all subsequent owners of the property or be removed by the landowner prior to sale or transfer of the property. The consentee shall be required to file the consent upon the local county land records and furnish the District with the original recording document with verification of the recording document with verification of the recording contained thereon.

It is the policy that the Real Estate Management and Disposal Branch shall file each permit or consent with the records for the appropriate flowage easement tract.

Third Party Consents. Third party consents shall be handled in accordance with ER 405-1-12, paragraph 8-40, Consent Agreement.

10-18. KASKASKIA RIVER WATERSHED

a. General.

The Kaskaskia River is an important and prominent natural feature in Central and Southwestern Illinois. It is the second largest river system within Illinois, originating in Champaign County and flowing in a southwesterly direction for

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approximately 292 miles, where it unites with the Mississippi River, in Randolph County. The Kaskaskia River Watershed (KRW) covers all, or parts, of 22 counties and encompasses an area of 5,746 square miles (3,677,787 acres) or 10.2% of the entire state. There are 8,680 miles of tributary streams, including the main river channel, (33% of the state stream-miles), and 843 lakes or ponds covering 79,037 acres. Two large U.S. Army Corps of Engineers (USACE) reservoirs, Carlyle Lake and Lake Shelbyville, add another 37,000+ acres of surface water. The elevation at the Kaskaskia River headwaters is 740 feet NGVD, and drops to 368 feet NGVD at the Corps Kaskaskia River Navigation Project Lock and Dam near the confluence with the Mississippi River.

Agriculture is the predominant land use within the Kaskaskia River Basin, and 82% (3,016,000 acres) of the land is used for agricultural purposes. Of that 82%, most is cropland, (63%), with other significant land utilized as grassland, (19%). Corn and soybeans are important to the region, but producers also grow 25% of the entire state's crop of wheat. Livestock production, including dairy, swine, poultry and beef cattle is a significant industry, especially in Clinton, Randolph and Washington Counties.

Forest cover within the watershed is significant (9% of land area 331,000 acres), particularly along the streams. Good wetland resources also occur (4.5% of land area, 165,500 acres), along streams, where clay soils drain poorly and flooding makes development improbable. The climatic differences from the headwaters to the mouth are substantial, and create a great diversity in the native flora and fauna found within the watershed.

The largest bottomland hardwood forest within Illinois, at 43,000 acres, is located on the Kaskaskia River floodplain between Carlyle Lake and Fayetteville. One tract within this forest is the single largest contiguous tract in Illinois (7,300 acres) and is approximately two miles wide at certain points. In addition, the vast majority of the state's high quality southern flat wood forest occurs within the watershed.

The population of the KRW in 2000 was approximately 553,000. Urban land use in 1990 was only 3% (110,300 acres) of the watershed. There are approximately 100 small villages and cities. Madison and St. Clair Counties in the East Metropolitan St. Louis area have the largest concentrations of the urban populations and urban sprawl is a concern in this part of the watershed.

Due to its overall size and its importance within the region, a better understanding of the history of the watershed and its present condition is necessary. Future plans to maintain the vitality of the watershed are being developed and implemented.

The health of Lake Shelbyville is directly related to the health of the Kaskaskia River watershed. The water quality of the streams that feed into the

upper Kaskaskia basin has an effect on the watershed. Issues of water quality, sediment control, and incorporating good conservation practices on lands adjacent to Corps of Engineers property are supported and encouraged in the effort to reduce impacts of sedimentation and poor water quality on Federal lands.

b. Kaskaskia Watershed Association (KWA)

There is a diversity of interests, stakeholders, and partners within the watershed that are dedicated to improving the natural resources, the economy, and the quality of life for all residents within the region. Issues do exist and must be addressed, but the residents of the watershed are looking to a healthy natural resource, positive economic benefits, and better quality of life. There is agreement that the watershed is important and that a better, healthier, and more prosperous resource will be good for all.

The Kaskaskia Watershed Association (KWA) was created to represent the entire watershed while recognizing the uniqueness and diversity within the river. They started meeting together in 1996 and incorporated and received their non-for-profit status in 2002, with equal representation from each group. Their goal is to develop, enhance, and protect the ecological and socio-ecological values of the natural resources within the Kaskaskia River Watershed. Eight different coalition groups within the watershed are working together under the KWA umbrella to coordinate and invest resources to address watershed concerns, issues, and opportunities.

In combining the groups to form the KWA in a not-for-profit status from the headwaters of the Kaskaskia River at Champaign to the confluence of the Mississippi River the stakeholders realize the watershed is very diverse but their goals are the same: communication, erosion, siltation, recreation, fish and wildlife, flood damage reduction, water supply, industrial, navigation, economic development, and eco-systems. Working together the coalition is able to combine resources of people, past investments, and existing economics and programs to further their goals and objectives in enhancing and preserving the watershed. Key organizations by river reach are as follows.

1. Reach I – Champaign to Lake Shelbyville Dam
 - Lake Shelbyville Development Association (LSDA)
 - Upper Kaskaskia C2000 Ecosystem Partnership

2. Reach II – Lake Shelbyville Dam to Carlyle Lake Dam
 - Carlyle Lake Association (CLA)
 - Mid Kaskaskia Coalition
 - Carlyle Lake Watershed C2000 Ecosystem Partnership

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3. Reach III – Carlyle Lake Dam to Fayetteville
 - Okaw River Basin Coalition (ORBC)
 - Original Kaskaskia Area Wilderness, Inc. (OKAW)
 - Kaskaskia River/Shoal Creek C2000 Ecosystem Partnership

4. Reach IV – Fayetteville to Confluence of Mississippi River
 - Lower Kaskaskia Stakeholders, Inc. (LKSI)
 - Lower Kaskaskia/Silver Creek Ecosystem C2000 Partnership
 - Sinkhole Plain C2000 Ecosystem Partnership

The existing base of natural resources in the Kaskaskia River Watershed is under pressure, but with proper planning and implementation, a restoration and protection project can yield good results with minimal public costs. Federal and state agencies, in collaboration with local interests, have worked together to develop local initiatives that will lead future protection and restoration efforts within the watershed.

The Kaskaskia River Watershed stakeholders are ready to move forward with planning, restoration, protection, improvement, and development efforts. They are committed to a holistic approach based upon the broad concerns within the watershed. Funding to pay for these projects will have to come from local sources with assistance from state and federal agencies and legislators.

c. Upper Kaskaskia Ecosystem Partnership

- History of the Partnership. The Upper Kaskaskia River Ecosystem Partnership evolved from an organized group of landowners representing the seven county Farm Bureaus and Soil and Water Conservation Districts in the watershed. Since 1995, the group has sought to promote nitrogen management, filter strips, no-till, and other best management practices.

The organization was designated as an Ecosystem Partnership of the Conservation 2000 Program in 1998 by the Illinois Department of Natural Resources' Office of Realty and Environmental Planning. This status has provided a mechanism, as well as funding, to bring interested stakeholders into a dialogue about the future of the watershed. The Partnership sponsored three public meetings in August of 1998 to identify resource concerns within the watershed and then appointed a Technical Advisory Committee to gather data regarding those concerns so that a plan could be developed to improve water quality, increase wildlife habitat, and address specific issues.

Goals of the Partnership.

The goals of the Upper Kaskaskia Ecosystem Partnership are to:

- Protect and enhance water quality in the Kaskaskia River Basin and Lake Shelbyville.
- Protect and enhance wildlife habitat in the Kaskaskia River Basin and Lake Shelbyville.

The Partnership is committed to pursuing these goals in ways that:

- Promote voluntary efforts of individual landowners and organizations.
- Maintain and improve the economy of the entire watershed.

The Partnership looks to its Technical Advisory Committee to provide the information necessary for developing a specific Plan of Action consistent with these goals and principles.

Plan of Action. In order to accomplish the goals of the Partnership, the Local Planning Council will continue to:

- 1) Pursue funding.
- 2) Establish sub-watershed stakeholder committees.
- 3) Participate in the larger Kaskaskia Watershed Association.

These three activities will provide the means for addressing the specific recommendations of the Technical Advisory Committee. Recommendations are prioritized for each of the four main resource concern categories. Items with equal priority are designated with a letter after the numerical marking.

Water Quality.

1a. Install native conservation cover and/or native vegetative filter strips along each mile of channel in the watershed.

1b. Increase one-on-one contact with each owner/operator in the watershed to develop an awareness of water quality concerns and make them aware and encourage the Conservation Reserve Enhancement Program (CREP).

2a. Help protect groundwater resources by helping landowners identify and properly seal abandoned wells and bore holes.

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2b. Develop a real incentive program for nutrient and pesticide management implementation, documentation, and reporting.

Other recommendations not prioritized:

- Promote practices such as reduced tillage, diversified cropping, and others that increase soil organic matter, increase carbon sequestering, improve soil permeability, and reduce acidity (pH) levels of cropland in the watershed.

- Promote nutrient and pesticide management of all land throughout the watershed.

- Promote the construction of small ponds (1/2 to 1 acre) throughout the watershed to help trap pollutants.

- Inventory filter strips, grassed waterways, and other conservation practices within the partnership area.

- Analyze municipal discharges and other storm water management issues (i.e., volume and velocity of discharges, water quality)

Wildlife Habitat.

1a. Enroll land in conservation easements to permanently protect valuable habitat areas.

1b. Increase one-on-one contact with each owner/operator in the watershed to develop an awareness of natural resource concerns and to encourage CRP enrollment.

Economic Resources.

Suggestions for promoting economically and environmentally beneficial practices include:

- Target specific areas with special grant funding or programs (EPA 319 grants, IDNR C-2000 grants, NRCS EQIP priority areas) to address natural resource concerns.

- Improve economic resources by utilizing the CRP program more effectively thereby causing a significant influx of federal dollars into the watershed.

- Improve pasture and hay land management within the watershed area to promote more economic use of marginal farmland.

- Support research of new and innovative natural resource management techniques such as agro-forestry, water-table management, organic farming, cover crops, etc.

10-19. GROUP CAMP FACILITY PLAN.

Seven group camps currently exist at Lake Shelbyville. They are located at Okaw Bluff Group Camp Area (2 group camp facilities), Wilborn Creek Recreation Area (1 group camp), and Lone Point Recreation Area (4 group camps). Four will exist after the proposed changes are made and two will be included in future actions.

1. Okaw Bluff Group Camp includes two full-service housing units that were acquired when the lake was constructed. The two existing housing units combined can accommodate up to fifty-five people. These housing units are available to the public year-round by reservation. The US Navy Construction Battalion, commonly known as the Sea Bees, utilizes these units monthly. The Corps of Engineers utilizes these units to conduct an annual special event: the Deer Hunt for People with Disabilities.

The Lake Shelbyville Shoreline Erosion Plan identified the two housing units to be within the erosion limits of the shoreline and will be impacted in the near future. Impacts by erosion will necessitate removal from their existing location and re-allocating the authorized structures to another location. There are no other facilities at Lake Shelbyville that can provide the type of accommodations needed to serve the public and to conduct the Deer Hunt for Persons with Disabilities. This program has a fourteen-year history and would have to be eliminated if suitable accommodations are not provided.

In addition, the Sea Bees have provided a valuable service to Lake Shelbyville and the Corps of Engineers since 1980. They have generated an average O&M savings to the project of \$40,000 annually. Their ability to continue to work at Lake Shelbyville will be eliminated if overnight accommodations are not available at Lake Shelbyville.

Proposed action includes removal and replacement of the Stone House facilities to a different area within the Okaw Bluff Group Camp Area and replacing the existing facilities with an enclosed universally accessible multi-purpose group shelter, six mini-shelters, and a mini-shower building. The feasibility of combining together the multi-purpose group shelter and mini-shower building facilities will be investigated before installation begins. The multi-purpose group shelter will have a kitchenette and fireplace. The mini-shelters will accommodate up to thirty people. The public will utilize these facilities by reservation when the Corps of Engineers or other partner groups are not using it for project operations. These facilities will also be used to enhance special events and on-site interpretive programs and workshops.

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Proposed action includes removal and replacement of the Frame House facilities to the existing Group Camp located within the Wilborn Creek Recreation Area, consolidating the two group camp facilities, and replacing them with five mini-shelters, an enclosed universally accessible multi-purpose group shelter, and mini-shower building. The feasibility of combining together the multi-purpose group shelter and mini-shower building will be investigated before installation begins. The multi-purpose shelter will have a kitchenette and fireplace. The mini-shelters will accommodate up to 25 people. These facilities are explained in more detail below in section 10 -19.2.

2. Wilborn Creek Group Camp includes 15 primitive campsites, which can accommodate from 15 to 120 people, a flush comfort station, two water hydrants, and a fire ring. This camp is underutilized, but has potential to fill a niche that doesn't exist at Lake Shelbyville.

Proposed actions include renovating and consolidating the camp with facilities from Okaw Bluff Frame House in the following ways.

- Renovate fifteen non-electric campsites to 50-amp electrical service with impact areas. Remove and replace the campsites in the area if necessary.
- Day-use area comfort station #1 and picnic shelter have been removed due to underutilization and the existing group camp comfort station will be removed. The picnic shelter and two comfort station facilities will be consolidated with the Okaw Bluff Frame House facilities, and replaced with a multi-purpose group picnic shelter and mini-shower building as mentioned above in the Okaw Bluff Group Camp description.
- Five mini-shelters will be added to the group camp area as part of the consolidation of the two group camp areas.

3. Lone Point Recreation Area includes four group camps, which includes 31 campsites that can accommodate from 31 to 248 people. Three of the four group camps are located within the main campground. They were not designed as group camps and do not satisfactorily meet the customers needs for group camp facilities. The camps are intermingled with the rest of the campground so the group separation and gathering areas generally associated with group camps is not present. It is proposed that three group camps within the main campground be converted back to 21 individual sites. The remaining group area, Walleye Group Camp, which includes 10 campsites and picnic shelter, will remain and continue to be utilized as a group camp as it meets the proper design criteria. Comfort Station #3 in the main campground at Lone Point has

been removed and will be replaced with a mini-shower building within the Walleye Group Camp area.

4. Bo Wood Recreation Area. During the consolidation of Bo Wood and Whitley Creek campground, conversion of existing campsites in the Bo Wood campground into a group camp is proposed. With the layout of the new Bo Wood campground entrance road it would be feasible to convert existing campsites 47 – 55 (9 campsites), which will accommodate from 9 to 72 people, into a group camp. A flush comfort station and playground is located near these campsites and can be utilized when converted into a group camp. The comfort station will be removed and replaced with a mini-shower building. The day use picnic shelter in Lone Point Recreation Area will be removed and replaced with a new pre-fabricated shelter in this group camp area. Based on customer needs the group camp amenities will increase utilization and revenue generated.

5. Whitley Creek Recreation Area. Future action includes renovating a portion of the area into a group camp area. The area that will be utilized includes the area where existing campsites 59-84 (26 campsites), which will accommodate from 26 to 208 people, are located.

6. Opossum Creek Recreation Area. Future action includes adding a group camp in Opossum Creek Recreation Area. The area that would be utilized for the group camp is located west of the Opossum Creek fishing pond.

10-20. MARKETING AND PUBLIC RELATIONS.

The Corps of Engineers public relations campaign is designed to keep the public informed in hopes of them becoming better stewards and safer users of public lands and waters. The Corps of Engineers hopes that people will become interested in participating as volunteers or community leaders, and federal, state, and local agencies will become willing to enter into challenge partnerships or offer donations to enhance the resources at Lake Shelbyville.

Through public relations the Corps of Engineers makes a positive effort to foster the support of neighbors, state and federal agencies, local sheriff and law enforcement personnel, citizen groups, local chamber of commerce, tourism agencies, and the general public. Establishing relationships and cooperative alliances with the local community is a key element to long-term success in building partnerships that enhance our management objectives.

One aspect of a good public relations campaign is marketing, which is simply defined as a customer-focused way of doing business. Marketing involves a process of listening to our customers, then planning and providing products and services to meet their needs both efficiently and effectively within

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our capability. Valuing customer's input is vital to creating happy customers who return and tell their friends about Lake Shelbyville.

The Lake Shelbyville Operational Management Plan identifies the Corps of Engineers specific marketing strategy and objectives along with target groups who can assist in achieving the three marketing goals. The Corps of Engineers first goal is to strengthen partnerships and seek new ones to leverage project fiscal resources. Second goal is to utilize available resources to positively impact perceptions, knowledge, and behavior. Third goal is to cooperate with efforts to identify opportunities to increase visitation and enhance economic impact to the region.

Ways to achieve these marketing goals can be as simple as a word-of-mouth referral or involve an intensive regional media campaign. The medium used to relay the message to potential customers or target audiences can include, but is not limited to, news releases, call-in information line, web sites, brochures, fliers, public service announcements, displays, newsletters, interpretive programs both on- and off-site, word-of-mouth referral, sports shows, welcome and visitor centers, special events, and radio, television, and newspaper interviews.

The majority of customers to Lake Shelbyville are from Illinois and its surrounding states. Lake Shelbyville competes primarily with other recreation and vacation destinations within the Midwest. The mode of travel to and from Lake Shelbyville is typically via private vehicles. Thus, any action that affects the use of private vehicles will affect domestic pleasure travel to and from Lake Shelbyville. Reduction in the supply or increases in the cost of gasoline could affect private vehicle usage and domestic travel patterns and may restrict travel for some people. Through proper marketing and public relation techniques local travel within the Midwest Region to make Lake Shelbyville a recreational and vacation destination can be enhanced.

Through an integrated public relations and marketing campaign, the Corps of Engineers will continue to work to increase the customer recall of Lake Shelbyville. To most effectively maximize the budget, the majority of the Lake Shelbyville promotional efforts will be focused on Illinois and its surrounding states. Partnerships with other entities, direct marketing, public relations, and the Internet will allow the Corps of Engineers to cost effectively reach beyond the primary market to other domestic travelers.

Section XI

Special Concerns

SECTION XI – SPECIAL CONCERNS

11-01. LOCAL DEVELOPMENT ON ADJACENT LANDS

The land acquisition policy and physical characteristics at Lake Shelbyville prevent private land ownership or development near or adjacent to the shores of the lake. However, the recreational attractiveness of the project has resulted in subdivision platting in the vicinity of the lake. Several of these subdivisions are located on land formerly used as agricultural fields south of the Kaskaskia Arm of the lake and north of the Bruce-Findlay Road on the east side of the lake. Moultrie County Planning Commission zoning ordinances have regulated growth and quality of development, which has produced a development pattern complementary to the project and the general area. Additional subdivisions have been developed just north of Shelbyville. Problems could occur as the urban sprawl continues into the rural areas around Lake Shelbyville. To protect the Lake Shelbyville watershed lands and waters, additional zoning regulations in both Shelby and Moultrie counties may need to occur.

11-02. LAKE REGULATION AND FLOOD CONTROL STORAGE

At Lake Shelbyville there are two levels of flood control capacities, the flood control pool and the induced surcharge pool.

The flood control pool is that portion above elevation 599.7 (top of joint-use pool) feet NGVD and below elevation 626.5 feet NGVD and contains 474,000 acre-feet of storage. The main purpose of this pool is to store inflows that exceed downstream channel capacities (1,800 cfs). The range of releases from this pool can vary from 10 cfs to 4,500 cfs.

The induced surcharge pool is that portion above elevation 626.5 feet NGVD and below 630.5 feet NGVD and has storage of 107,100 acre-feet. Releases from the induced surcharge pool shall be increased or decreased, on a sliding scale, according to the pool stage. The minimum release shall be 4,500 cfs at elevation 626.5 feet NGVD and the maximum release shall be 116,300 cfs at elevation 630.5 feet NGVD. Should elevation 630.5 feet NGVD be exceeded the spillway gates will be opened above the water surface and free outflow conditions will exist. Releases from the induced surcharge pool will result in flooding and damage to the downstream area. If Lake Shelbyville were non-existent, then the daily storage values would be added to the downstream tributary effect causing more severe flooding of the basin. The present plan of regulation for Lake Shelbyville is to maintain the lake at pool elevation 599.7 from 1 April to 1 December. The pool will be lowered in the winter drawdown

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level of 594.0 feet mean sea level for the remainder of the year. Fluctuations of the lake level will be most noticeable when heavy precipitation in the basin increases the inflow into the lake at a rate that would cause flooding downstream if passed through the dam and not stored. Downstream releases may exceed full bank (1,800 cfs) during the winter months. This will cause flooding in the low lands but at this same time of the year the crops have been harvested and the trees are dormant.

11-03. EFFECTS OF FLOOD CONTROL

As indicated in the 1974 Lake Shelbyville Environmental Impact Statement, the operation of Lake Shelbyville is intended to achieve the greatest possible benefit for each project purpose over the long run. Compromises are an inherent part of the operations and some adverse impacts are inevitable.

Downstream – The degree of effects on the downstream landowners depends on the severity of the storm causing flooding, and the elevation to which the lake is raised above the top of the joint-use pool. When the level of the lake is below elevation 610 feet NGVD and a storm producing heavy runoff both above and below the dam occurs, the releases from the reservoir will be low until the tributaries and the Kaskaskia River downstream of Shelbyville Dam have crested and within-bank flows can be maintained. An adverse effect of this plan of regulation is that the duration of high flow is extended considerably. The prolonged high river stage raises the ground water level to a point where downstream landowners' fields, though not flooded by surface flow, are completely saturated and unworkable. When the lake rises above elevation 610 feet NGVD, the plan is to release between 1,800 and 4,500 cfs from the lake. The release will flood the lands downstream of the dam and could occur once every five years for a period of three weeks. In addition, it could adversely affect the planting, growing, and harvesting of crops.

Upstream - As the level of the lake rises, portions of land used for recreation are inundated, thereby restricting their use. The degree and length of restriction depends upon the severity of the flood. A flood of the magnitude that can be expected once every five years will have some detrimental effects upon recreation at the lake. All of the recreation areas will remain open; however, some swimming, picnic, camping, and boat launching facilities will be inundated. Side effects of the area being inundated include the destruction of grass turf, loss of trees, accumulation of driftwood, reduction of visitation, and loss of marina income. The soils here are highly erosive and fluctuation of the water level plus wave action from wind and boats cause an eroded condition along the shoreline. Erosion also produces excessive turbidity along the water's edge. Vegetation destruction because of flooding increases possible erosion due to storm water runoff. Floods in excess of a five-year frequency cause proportionately greater damages. The fish population could be adversely affected if spawning coincides with receding high water.

11-04. LAKE FLUCTUATION IMPACTS ON FACILITIES

Lake fluctuation affects the use of swimming beaches, boat launching ramps, recreation facilities and marinas. Lake fluctuation also impacts shoreline erosion and fish spawning. These impacts are addressed in the following paragraphs.

Swimming beaches are developed so that they are functional with a fluctuating water level of plus or minus five feet. Water levels between five and ten feet above the normal summer pool cover the developed sand beach and reduce swimming activities (about 15 percent of the time). The swimming beach is closed once water levels are ten feet above normal summer pool (about 6 percent of the time). These higher water levels are generally occurring in May, June and July when visitation is the highest. Future actions include investigating the possibility of converting one of the beach areas into a high water beach.

The five-year flood renders boat-launching ramps unusable. High water boat ramps become operational when water covers the main boat ramps. There are nine high water ramps located around Lake Shelbyville. They are located at Dam West, Lithia Springs, Opossum Creek, Lone Point, Bo Wood, and Wilborn Creek Recreation Areas, Wolf and Eagle Creek State Parks, and Findlay Marina. These ramps allow boaters uninterrupted access to the water. However, the high water boat launching ramps are designed as two lane ramps and become congested within the ramp parking lots and at the ramps themselves especially on weekends. To reduce this congestion more high water ramps may need to be constructed or the existing ramps should be widened where it is feasible. For marina activity to continue temporary walkways have to be put in place and boat shuttles have to be provided so that the visitors can access the facility.

Management practices undertaken to reduce the effect of flooding on the recreation activities include the planting of water-tolerant trees and shrub species to preserve vegetative cover on low-lying recreation land, raising low portions of access roads to assure access to campgrounds and picnic areas during times of moderate flooding, riprap protection of key recreation areas which are subject to erosion at high pool stages, protecting lift stations from flooding so that toilet facilities can be used during moderate flooding, and drawing the pool elevation down to winter pool each fall so that additional flood storage capacity is achieved. The drawdown, allows the flood waters to be contained within the joint-use pool first, utilizing the flood control pool only as necessary on more severe floods. The drawdown has the adverse effect of exposing mud flats in shallow, thereby restricting access to portions of the lake by water. Since recreation activities are at a low intensity during the programmed drawdown, there is little adverse effect on recreation. In drought

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years, however, seasonal pool cannot be reached by the first of April. The low water level does affect recreation as beaches are not fully usable, the bare strip around the lake is unsightly, and fewer boaters are on the lake.

Steps taken to counteract the effects of low water levels include the construction of boat channels from the launching ramps to deep water and excavation of underwater portions of launching ramps to accommodate boats during a moderate drawdown. The Corps of Engineers will continue to work with the Illinois Department of Natural Resources during the fish spawning season. The two agencies will work together to create and place artificial fish habitat structures in Lake Shelbyville. During fish spawning season, the level of the lake is maintained, when possible, at a constant elevation to assist in productive fish spawning, nesting and rearing activities. If the pool is low during spawning season, it will be raised slowly.

Recreation facilities such as lift stations, picnic shelters, comfort stations, and shower buildings will be removed and replaced with new facilities in a location above 614 feet NGVD where possible to avoid frequent inundation.

To reduce the effects of flooding the breakwaters at Findlay Marina and Lithia Springs Marina have been raised and the breakwater at Eagle Creek State Park will be raised. The breakwater at Eagle Creek State Park is located near the boat ramp. Findlay and Lithia Springs Marina breakwaters have been raised to 613 feet above sea level.

11-05. ACCESS TO PUBLIC LANDS

The following actions are proposed relative to real estate interests at the project that will improve operations if instituted.

(1) Six parcels of project land, totaling approximately 1,100 acres, are inaccessible because they are not contiguous to any road, and can only be reached by crossing private land. Access to these lands by project management personnel and/or their agents is essential for the following reasons:

(a) Resource management through development of food plots, succession control, timber stand improvement, reforestation, archaeological survey, etc.

(b) Fire protection of project land and protection of adjacent private property from fires originating on public land.

(c) Cleanup and debris removal.

(d) Boundary and surveillance.

(e) Protection of the resource through enforcement of Title 36.

The six parcels of project land that are inaccessible are located in Opossum Creek Recreation Area, Pine Tree Ridge Multiple Resource Area, Buck Run Multiple Resource Area, Slaughterhouse East Multiple Resource Area, Skull Creek Multiple Resource Area, and Log Cabin Multiple Resource Area.

It is proposed that an easement estate be acquired to provide a means of ingress and egress to six parcels of remote public land for use by the Government, its officers, agents, employees, and contractors in the management of Lake Shelbyville, reserving to the landowners the right to cross over or under the right-of-way.

(2) Dam East Recreation Area. It is anticipated that due to shoreline erosion a portion of the maintenance complex service road will be eliminated. This will not only affect access to the maintenance complex, but also access to one of the trilateration towers that is used to monitor the dam. An easement or purchase of private property would be necessary to access federal property that is now accessible by the service road.

(3) The public will be precluded from the use of these easements. The general locations of these proposed access easements are shown on Plate 4. Technical details, costs, and descriptive information will be provided in a supplement to the Real Estate Design Memorandum.

11-06. MAJOR FACILITY CONSOLIDATION, RENOVATION, AND/OR REPLACEMENT (CRR)

The majority of existing facilities at Lake Shelbyville were constructed during the late 1960's and early to mid 1970's. While these facilities were adequate at the time of construction, some have now exceeded their estimated useful life. Age of the facilities, combined with increasing and changing demands from visitors, have in many cases resulted in facilities in such a condition that routine maintenance is not sufficient to make repairs. These facilities now require either major renovation or complete replacement of the existing facility in order to remain operational.

While the masonry and brick comfort stations located in recreation areas would normally have a useful life of up to fifty years, many factors significantly reduce this estimate. These buildings are unheated during the off-season and their masonry construction is subjected to the full effects of freeze and thaw actions during the winter. Intensive cleaning services required because of heavy use have increased the amount of moisture in building materials. As a result, a series of cracks have begun to develop in the concrete slabs, which

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serve as foundations for these structures. In addition, the masonry block and brick walls, as well as the mortar joints, have begun to deteriorate. These conditions will require full replacement of both buildings and foundations. In addition, these buildings do not fully comply with the Uniform Federal Accessibility Standards for the disabled, which will require complete renovation of the interiors to correct.

In-ground electrical service lines have an estimated useful life of eight to ten years. The existing electrical lines in recreation areas that provide service to campsites and other facilities are deteriorating. Insulation surrounding the electric cable has begun to break down and cause periodic faults and loss of power within the recreation areas. Electrical usage during peak periods of the recreation season often exceeds the capacity of the electrical service lines resulting in blown-circuit breaker conditions or low voltage to camping areas. Also, current amperage requirements for existing electrical hookup boxes located at the campsites exceed the amperage available in the electrical distribution panels. Many new recreational vehicles have electrical system wired for 50-amp service. Existing electrical hookup boxes provide a maximum of 30-amp service. Renovation of the electrical service for these areas will require replacement of all in-ground service lines, as well as replacing the electrical distribution panels with panels which will allow for higher amperage. Individual electrical hookup panels at campsites will require upgrading to provide for 50-amp service.

Shower buildings serving the recreation areas are starting to exceed their useful life. Some of the main shower buildings have large cracks in the main walls. Other shower facilities were created in the recreation areas by converting a flush comfort station into a mini-shower building. Most of these are inadequate in servicing the number of visitors. These facilities are also in need of structural repair and amenities need to be added to properly serve the visitors. The shower buildings were not originally designed to meet the needs of disabled individuals. Most existing shower facilities are not in compliance with the current guidelines and laws concerning accessibility to disabled individuals. These facilities require renovation in order to meet current guidelines and laws concerned with universal accessibility.

The vault comfort stations located in the Lithia Springs, Whitley Creek, Little Bluestem (Area F), and Camp Camfield areas were estimated to have a useful life of twenty to twenty-five years. These facilities were not constructed with materials treated to resist moisture. This has allowed decay to form in the inner walls of the structural framing of these facilities. The concrete vaults that collect wastewater in some of these facilities are not watertight and allow ground water to enter and exit vaults depending on groundwater levels. These buildings will require removal, renovation, or replacement soon.

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The water distribution system was adequate when it was constructed, but now it has many problems. Normal aging along with weather conditions have made the lines brittle and corroded. Each spring when the water is turned on numerous leaks occur. The shut-offs themselves have become worn and corroded. Water fountains and hydrants do not meet current standards regarding anti-flowback and prevention of contamination. Eventually the entire water system will need to be replaced.

Some facilities in the recreation areas are underutilized and will be removed, replaced, or consolidated with other facilities.

Table 18 provides a list of proposed actions for Corps of Engineers facilities. It lists the facilities that need to be consolidated, renovated, or replaced as well as new and future proposed actions. Proposed new actions are in addition to existing facilities. Future actions are actions that may occur beyond the ten-year time frame of this Master Plan Update. Cost estimates for new and CRR actions are provided in Section XIII. The Lake Shelbyville Operational Management Plan (OMP) provides detailed information for each year, as required.

There are three commercial concession marina facilities and one resort located at Lake Shelbyville. Future commercial development will require the preparation of a market potential and feasibility analysis study.

**TABLE 18
LAKE SHELBYVILLE
PROPOSED NEW, CONSOLIDATION, RENOVATION, OR REPLACEMENT
AND FUTURE ACTIONS FOR CORPS OF ENGINEERS FACILITIES**

Facility	Consolidate	Renovate	Replace	New	Future
Main Dam OP-1 Section 8.04.a. Plate 20					
Piezometers (as needed)			X		
Electrical System		X			
Roadway Light Electrical System			X		
East & West Gallery Spiral Staircases			X		
Machinery (as needed)		X	X		
Bridge and other metal works		X			
Security items				X	
Pedestrian & Bike Walkway/Trail					X
Project Administration Complex and Visitor Center OP-2 Section 8.04.b. Plate 20					
Maintenance Complex OP-3 Section 8.04.c. Plate 20					
Project Administration Complex	X		X		
Operations and maintenance facility	X		X		
Visitor Center	X (possibly)		X		
Visitor Center Front Entrance Doors & Comfort Station		X			
Land Treatment Systems OP 7 – 10 Section 8.04.g-j.					
Land Treatment Plants	X		X		
Whitley Creek Land Treatment System OP-9 Section 8.04.i.					
Fish Nursery Pond					X
Dam West Recreation Area – Area 1 Section 8.05.a. Plate 6					

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Facility	Consolidate	Renovate	Replace	New	Future
Vending Area		X			
Electrical Service		X			
Beach Picnic Shelter			X		
Snowmobile Trail		X			
Overlook / Comfort Station / Picnic Shelter	X		X		
Water lines			X		
Fish Nursery Pond				X	
Land Lease to City of Shelbyville				X	
Overlook Berm Picnic Shelter Electric Service				X	
Beach Shower Building Replacement					X
Feasibility of High Water Beach					X
Opossum Creek Recreation Area – Area 2 Section 8.05.b. Plate 7					
High Water Boat Ramp	X	X			
Comfort Station #1			X		
Add-on shower buildings		X			
Primary Boat Ramp			X		
Water Lines			X		
Campsite Water and Sewer Hookups				X	
Tent Campsite Electrical Service				X	
Multipurpose Trail					X
Group Camp					X
Campsites – Remove 4					X
Coon Creek Recreation Area – Area 3 Section 8.05.c. Plate 8					
Comfort Station #11	X		X		
Comfort Station near site 176	X		X		
Nature Trail		X			
Comfort Station #8	X		X		
Comfort Station # 5	X		X		
Comfort station on A or B leg	X		X		
Add-on Shower House on A-leg	X		X		
Add-on Shower House on E-leg	X		X		
Add-on Shower House on H-leg	X		X		
Campsites (26 total)		X	X		
Water lines			X		
Shoreline Stabilization		X			
Trail from fee booth to main shower				X	
Second Trailer Dump Station				X	
Additional Parking Spaces				X	
Campsite Sewer and Water Hookups				X	
Lone Point Recreation Area – Area 4 Section 8.05.d. Plate 9					
Secondary Exit and Roadway		X			
Day Use Picnic Shelter			X		
Comfort Station #3			X		
Main Shower Building			X		
Amphitheater			X		
Fee Booth			X		
Water Lines			X		
Campsites # 29 and 30			X		
Shoreline Stabilization		X			
Tent Campsite Electrical Service				X	
Campsite Water and Sewer Hookups				X	
Wilborn Creek Recreation Area – Area 7 Section 8.05.g. Plate 11					
Picnic Shelter	X		X		
Group Camp Comfort Station	X		X		
Group Camp Campsites		X			
Comfort Station #1	X		X		

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Facility	Consolidate	Renovate	Replace	New	Future
Water and Sewer Lines			X		
Fish Cleaning Station			X		
Boat Ramp Comfort Station			X		
Shoreline Stabilization		X			
Multipurpose Trail					X
Feasibility of High Water Beach					X
Concession Site					X
Bo Wood Recreation Area – Area 8 Section 8.05.h. Plates 13 and 13a					
Nature Trail			X		
Campsites 47 –55		X			
Entrance Road		X			
Campground	X	X	X		
Fish Cleaning Station			X		
Campsite Water and Sewer Hookups				X	
Comfort Station in proposed group camp area			X		
Sullivan Beach and Okaw Bluff Group Camp – Area 10 Section 8.05.j. Plate 14					
Okaw Bluff Nature Trail		X			
Water lines			X		
Okaw Bluff Frame House	X		X		
Okaw Bluff Stone House	X		X		
Sullivan Beach Picnic Shelter			X		
Feasibility of High Water Beach					X
Whitley Creek Recreation Area – Area 11 Section 8.05.k. Plate 16					
Campground	X		X		
Amphitheater			X		
Playground			X		
Vault Comfort Station			X		
Concession Site				X	
High Water Boat Ramp				X	
Shoreline Stabilization		X			
Group Camp					X
Multipurpose Trail					X
Lithia Springs Recreation Area – Area 13 Section 8.05.n. Plate 18					
Amphitheater			X		
D leg entrance parking lot		X			
Boat Ramp Parking Lot		X			
South B-leg Comfort Station	X		X		
Picnic Shelter			X		
Vault Comfort Station			X		
Add-on Shower House #1	X		X		
Add-on Shower House #2	X		X		
Day-use Comfort Station			X		
Fish Cleaning Station			X		
Water lines			X		
Additional Parking Spaces				X	
Campsites Water and Sewer Hookups				X	
Sand Volleyball Court				X	
Beach Outdoor Shower				X	
Bench Shelters				X	
Campground Expansion					X
Multipurpose Trail					X
Dam East Recreation Area – Area 14 Section 8.05.o. Plate 5					
Comfort Station #2	X		X		
Comfort Station #1	X		X		
Non-native Grass Area		X			
Possible Concession Site				X	
Picnic Shelter Vehicle Access				X	

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Facility	Consolidate	Renovate	Replace	New	Future
Easement or Purchase of Private Land					X
Multipurpose Trail					X
Spillway Recreation Area – Area 15 Section 8.05.p. Plate 5					
Comfort Station #2			X		
Spillway East Fish Cleaning Station			X		
Spillway West Fish Cleaning Station	X		X		
Non-native Grass Area		X			
Parking Area				X	
Multipurpose Trail					X
Project Wide					
Campsite Electrical Service		X			
Primary Boat Ramps		X			
Water Tower Point Multiple Resource Area LD-1 Section 8.06.a.(1)					
Multipurpose Trail Segment					X
Arrowhead Multiple Resource Area LD-2 Section 8.06.a.(2)					
Illini Trail		X			
Chief Illini Multiple Resource Area LD-3 Section 8.06.a.(3)					
Illini Trail		X			
Camp Camfield Multiple Resource Area LD-4 Section 8.06.a.(4) Plate 12					
Trail System		X			
'79 YCC Amphitheater			X		
McClure Pond Multiple Resource Area LD-5 Section 8.06.a.(5)					
Multipurpose Trail Segment					X
Slaughterhouse West Multiple Resource Area LD-6 Section 8.06.a.(6)					
Multipurpose Trail Segment					X
Woods Lake Multiple Resource Area LD-8 Section 8.06.a.(8) Plate 14					
Access Trails		X			
Adams Multiple Resource Area LD-11 Section 8.06.a.(11)					
Multipurpose Trail Segment					X
Refuge Point Multiple Resource Area LD-12 Section 8.06.a.(12)					
Multipurpose Trail Segment					X
Big Red's Timber Multiple Resource Area LD-16 Section 8.06.a.(16)					
Multipurpose Trail Segment					X
Water Plant Multiple Resource Area VM-10 Section 8.06.c.(10)					
Multipurpose Trail Segment					X
Whitley Creek Bottoms Multiple Resource Area VM-13 Section 8.06.c.(13)					
Wetland and Fish Nursery Pond				X	
Houser Multiple Resource Area VM-15 Section 8.06.c.(15)					
Multipurpose Trail Segment					X
Seven Hills Multiple Resource Area VM-16 Section 8.06.c.(16)					
Multipurpose Trail Segment					X
Sand Creek Multiple Resource Area VM-17 Section 8.06.c.(17)					
Multipurpose Trail Segment					X
Lithia Springs Chautauqua Environmental Sensitive Area ES-C-2 Section 8.07.b. Plate 19					
Wooden Bridge			X		
Interpretive Signage				X	
Security Lighting				X	
Waterborne Comfort Station					X

11-07. SEWAGE TREATMENT SYSTEMS

a) Wastewater Treatment Systems

Whitley Creek Land Treatment Facility. A preliminary engineering report – sewer system evaluation for Whitley Creek and Wilborn Creek wastewater

facilities was completed in September 2001. Wastewater from the Bo Wood Recreation Area, Sullivan Marina and Campground, Okaw Bluff Group Camp, Sullivan Beach, and Whitley Creek Recreation Area is collected in sewers and pumped to the Whitley Creek Land Treatment Facility. The land treatment facility was constructed in 1995 when it replaced a package activated sludge plant that was abandoned and demolished. The facility is permitted by the Illinois Environmental Protection Agency (IEPA) to treat 19,800 gallons per day. The sewage is collected in a 1.3-acre (1.3 million gallon) facultative lagoon and then pumped to an approximate 3-acre spray field for final discharge. Overall, the facility is well maintained and has had no serious problems, complaints, or discharge violations, but this facility is nearing capacity and is under restrictions by the IEPA for additional flows. There is no runoff or stream discharge from the spray field. The facility is limited to spray irrigation during periods when the fields are not saturated, rainfall is not imminent, and when the ground is not frozen or snow covered. However, a tremendous amount of infiltration occurs through the system and must be monitored very closely during high rainfall to ensure that it does not over top the lagoon.

Sending the wastewater to the City of Sullivan will require constructing the necessary lift stations, force mains, and improvements in or near the Bo Wood Recreation Area so that the wastewater from the recreation areas currently served may be sent to Sullivan for treatment. Estimated costs of connecting to the City of Sullivan sewage system includes installing city sewer system for \$303,000.00 and an annual operation and maintenance cost of \$9,210.00. Existing facility costs \$28,000.00 to operate and maintain annually. The annual savings of this project would be \$18, 790.00.

Wilborn Creek Wastewater Treatment Plant. The existing extended aeration mechanical treatment plant was constructed in 1973 and has a permitted capacity of 15,000 gallons per day. Because of the seasonal variations of flow, the plant is very difficult to operate during the winter when the flows are the lowest. The discharge permit requires that the effluent be chlorinated and de-chlorinated prior to discharging to Lake Shelbyville. The plant was cited by the IEPA for failure to meet the effluent chlorine concentration and for failure to install a de-chlorination system. These problems have been corrected with installation of a tablet feeder for de-chlorination. However, due to low recreation use during parts of the year the plant continues to exceed acceptable chlorine discharge levels allowed by IEPA. This is due to low water inflow that is inadequate to dilute the chlorine. The plant is in poor condition and should be replaced with a treatment system better suited to variable flow and operating conditions. The Corps of Engineers has approached the City of Sullivan to replace the plant with a pump station to transfer the sewage to the city for treatment.

Abandoning the facility will require constructing a lift station, force main, and improvements so that the wastewater may be sent to the City of Sullivan for

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treatment. Estimated costs of connecting to the City of Sullivan sewage system include installing city sewer system for \$314,000.00 and an annual operation and maintenance cost of \$9,108.00. Existing facility costs \$34,200.00 to operate and maintain annually. The annual savings of this project would be \$25,092.00.

b) Gravity Sewers and Lift Stations

Whitley Creek Recreation Area. The installation of the existing campground sewers and lift stations was completed in 1973. The Whitley #1 lift station receives wastewater from the recreation area and the Sullivan Beach lift station. It then pumps to the Whitley #2 lift station, which pumps to the lagoon at the Whitley Land Treatment Facility. The gravity sewers and manholes in the Whitley Creek Recreation Area have not been inspected but observation of the pumping stations indicates there are infiltration and inflow (I & I) problems in this area. The manholes are brick construction and may be a source of I & I. It is proposed that the Whitley Creek Recreation Area be closed and facilities will be consolidated with the facilities at the Bo Wood Recreation Area. When the consolidation is complete, the removal of the sewers from service will reduce the amount of I & I sent to the Whitley Land Treatment Facility for treatment.

Sullivan Marina and Campground. Gravity sewers in the camping area at the marina collect and send wastewater to a lift station that pumps the wastewater across the lake and into the Sullivan Beach lift station. There is a flow meter on the force main located near the beach lift station. There are no known problems with the sewers in this area although there may be some I & I from the collection system. The Sullivan Marina and Campground contributes approximately 12% of the design capacity of the Whitley Creek Land Treatment Facility. It should be possible to reduce these flows by locating and repairing the sources of I & I in the collection system.

Okaw Bluff Group Camp. Sewage collected at the Okaw Bluff Group Camp is pumped to the Sullivan Beach lift station. There are no known problems with the sewers or lift station in this area. These facilities will be removed due to shoreline erosion. The removal and replacement of the facilities at the group camp are mentioned in the Shoreline Erosion Management Plan.

Sullivan Beach. The Sullivan Beach lift station receives sewage from Sullivan Marina and Campground, Okaw Bluff Group Camp, and Sullivan Beach Recreation Area. There is a problem with the lift station being submerged during high lake level events. This does not result in a major increase in flow, but does shut down the Sullivan Beach, Sullivan Marina, and Okaw Bluff Group Camp lift stations. The Sullivan Beach lift station will be raised to an elevation that will make it become manageable during periods of high water.

Bo Wood Recreation Area. The existing Bo Wood campground sewers were telescoped in 1999. The gravity sewer pipes are plastic and there are some leaking joints. However, there is no evidence of collapse, failure, or significant root intrusions. There are sags and low spots that have collected significant amounts of seepage, solids, and debris and the gravity sewers should be cleaned. The manholes are brick construction and appear to be a source of I & I. The amount of flow caused by I & I is not known, as a complete flow study was not conducted. Removing the seepage and solids will help reduce odors at the manholes and lift stations and will lower the concentrations of influent biological oxygen demand (BOD) treated at the land treatment facility. These manholes and sewers will be replaced or abandoned during the construction of the new Bo Wood campground. This will reduce I & I flow to the Whitley Creek Land Treatment Facility.

Prior to 1994, wastewater from the Bo Wood camping area was treated on-site with an extended aeration treatment plant. Before this time, the Bo Wood plant received flow from the Whitley Creek Recreation Area via the Whitley #2 pump station and force main running north across the lake. The Bo Wood plant was abandoned and replaced with a pump station in 1995 when the Whitley Creek Land Treatment Facility was completed. The force main under the lake was reversed and the Bo Wood wastewater was then pumped south across the lake to the Whitley Creek #2 lift station.

Wilborn Creek Recreation Area. Gravity sewers collect wastewater for treatment at the extended aeration mechanical treatment plant. The sewers have not been inspected, but observations indicate there are I & I in the sewer system. To help eliminate I & I into the sewer system after it is connected to the Sullivan Force Main the sewer lines will need to be replaced that run from the boat ramp comfort station, picnic area comfort station, and fish cleaning station to the lift station that services those facilities.

c) Wastewater Treatment Alternative with the City of Shelbyville

The City of Shelbyville provides sewer service to Dam West, Dam East, and Spillway Recreation Areas. The Dam East Recreation Area also includes the Administration, Visitor Center, and Maintenance buildings. The City of Shelbyville has a contract with the Corps of Engineers to provide this service. A proposal has been made to the city to expand its sewer services to also include Opossum Creek, Coon Creek, Lone Point, and Lithia Springs Recreation Areas. Lithia Springs Recreation Area also includes the Lithia Springs Marina.

A wastewater land treatment system located at the Lithia Springs Recreation Area handles approximately 1.6 million gallons of wastewater annually. The sewage is collected in a facultative lagoon and then pumped to a spray field for final discharge. The facility is limited to spray irrigation during

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periods when fields are not saturated, rainfall is not imminent, and when the ground is not frozen or snow covered.

The wastewater treatment facilities at Opossum Creek and Lithia Springs Recreation Areas have a projected life of 50 years. During this period significant maintenance will need to be performed. It is estimated that each wastewater lagoon will need to be cleaned out, liner replaced, and new rock riprap installed at a minimum 2.5 times during the projected life. At the end of the projected life it is anticipated that a total rebuild will be necessary.

The total cost requires that the project be installed in two phases. Factors that have an impact on the project are land easements, funding, and grants. The City of Shelbyville and Shelby County are in good position to receive CDAP grants. The total cost of the two phases is estimated at \$1,073,000.00. Annual operation and maintenance of the project is estimated at \$24,500.00. Annual operation and maintenance of the existing facilities is \$47,500.00. Annual savings would be \$23,000.00.

d) Wastewater Alternatives for Findlay Marina

Sewage at Findlay Marina is being collected in three holding tanks totaling 4,500 gallons. Sewage volume requires the tanks to be pumped out every week throughout the year and often twice a week during high-use periods between Memorial Day and Labor Day. The marina would like to expand the facility to possibly include such things as cabins, restaurant, and a lodging facility that provides rental rooms. One of the factors that determine if these facilities will be put in place is the availability of a water-borne sewage disposal system. The primary solution is to construct a lift station and force main connection to the Village of Findlay. Other solutions could involve connecting to the City of Shelbyville or Sullivan Force Main.

e) All work concerning sewage treatment will be done in accordance with the appropriate permits from IEPA.

11-08. CONSOLIDATION OF CAMPING OPPORTUNITIES AT WHITLEY CREEK AND FORREST W. "BO" WOOD RECREATION AREAS

None of the campsites that are rented to the public in Whitley Creek Recreation Area have electrical hookups. Numerous large old trees are creating hazards for visitors and make adding electricity to the campsites a poor choice. The current configuration of the campground is also inefficient. It is divided into two separate sections with two entrances. Only one entrance has a fee booth and that creates control and security problems in the area. The buildings in Whitley Creek Recreation Area are approximately 30 years old. Settling problems have made the opening of doors on the main shower building very difficult. Also, some of the masonry wing walls on the comfort stations are

deteriorating more rapidly than expected due to lack of capstones. A vault toilet in this area is in need of extensive repair and should be replaced. A large lift station was installed to pump the sewage from the area to a land treatment facility. This lift station is located in a low area near several campsites and visitor complaints about the odor are common. The sewer and water lines are starting to fail and will require serious renovation in the next few years. At the time of original construction, barrier free design was not considered and people with disabilities have trouble using some of the facilities.

Forrest W. "Bo" Wood Campground currently experiences the highest occupancy rate of any campground at Lake Shelbyville. Consolidating 69 Whitley Creek campsites with the facilities in the Forrest W. "Bo" Wood Recreation Area and providing electrical hookups to them will dramatically increase both the capacity and revenue in the Bo Wood campground. The increase in visitors to the area will benefit the local economy. Other facilities that will be consolidated from Whitley Creek Recreation Area to Bo Wood Recreation Area include one main shower building, one comfort stations, one trailer dump station, and eight water fountains and/or hydrants. Further, consolidating two campgrounds into one provides operational and maintenance cost efficiencies.

Consolidating these two camping areas will have a positive impact on long-term operation and maintenance. The net number of buildings, water lines, sewer lines, acres requiring mowing, roads, sidewalks, and other infrastructure items will be reduced through this consolidation. Operations and maintenance staff, as well as service contractors, will have to make only one stop rather than two to perform their duties, which will increase efficiency. In addition, the public will be better served with newer facilities that are easier to find. Bo Wood Recreation Area is near a state highway while Whitley Creek Recreation Area, although fairly nearby geographically, is located on a secondary road and is more difficult for visitors to find.

Projected cost of modernization is \$1,217,000.00, which includes construction, contract, plans and specifications and S&I. Even without considering savings in O&M cost efficiencies, increased revenue alone should recoup the expense of consolidation in approximately 15 years. It is estimated that this modernization project will result in an O&M cost savings of \$10,000.00 per year.

11-09. ADMINISTRATION AND MAINTENANCE FACILITIES

The existing office facilities at Lake Shelbyville consist of an administration building, a trailer, a small office building, and a small building converted into an office. The administration building was constructed as a resident engineer's office with a two-bay garage in 1963 and has since served as a permanent administration office for the lake management staff. The

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original office building has been supplemented with a trailer, conference room building, and sewage treatment plant building that have been converted into office buildings.

The existing office facilities are inadequate as a project headquarters. Over the years a number of changes have been made to the facilities in an attempt to accommodate the changing functions and responsibilities of the lake management staff. Nevertheless, the complex is deficient as the lake headquarters because of inadequate office space for staff, inefficiencies regarding staff meeting together or with the public, lack of conference area, inaccessibility for persons with disabilities, inefficient utility systems, inefficient heating and cooling systems, and inefficient roof and windows. It is proposed that the administration office headquarters at Lake Shelbyville, which now consists of four separate structures, be consolidated into one building. The replacement building will be administratively and economically efficient, meet current accessibility standards, plumbing and electrical codes. The design will be consistent with the aesthetic qualities of the project area. It is estimated that consolidation of the Administration and Maintenance Complex into one building complex will result in a savings of \$100,000 per year.

Existing condition of office facilities – The existing office facilities are inadequate as a lake headquarters. Over the years a number of changes have been made to the facilities in an attempt to accommodate the changing functions and responsibilities of the lake management staff. Nevertheless, the complex is still inefficient as the lake headquarters, for the following reasons:

Size. The existing administration building is far too small to accommodate the entire staff. Some of the staff has to be housed in separate buildings due to the inefficient size of the administration building. Four different buildings are used for employee office space.

The main administration building was originally built to serve as the resident engineer's office during the construction of the lake. Several modifications to the original design have been made to accommodate the needs of the employees over the years. A small building located in the administration building vehicle compound has been converted into office space. This is a portable building that was abandoned by a contractor several years ago.

In the maintenance compound, which is located over a half a mile away from the administration building, there are two buildings that serve as employee office buildings. One of the buildings was salvaged from a sewage treatment plant and converted into an office building. The other building is a trailer that Carlyle Lake surplused and Lake Shelbyville acquired to use as an office building. This trailer originally served as the resident construction office at Carlyle Lake in the mid-1970's.

Space Utilization. The current Administration buildings do not meet the space utilization requirements for the size of the Lake Shelbyville staff (23 permanent, 4 permanent seasonal employees, and 24 STEP/SCEP employees). According to the Logistics Management Space Utilization Report, January 2003, the net space for all actual office space at Lake Shelbyville equals 2,201 square feet and the gross space for everything except restrooms, kitchen, and heating/cooling utility room equals 2,744 square feet. Existing net square feet per person is 59.97 and gross square feet per person is 74.76. Per Army Regulation 405-70, total net square feet authorized per person is 130 and total gross square feet authorized per person is 162. According to these figures the existing office space is not adequate for the personnel at Lake Shelbyville.

Inefficiency. Because four structures are used for the administration functions an awkward employee-working environment exists at the lake headquarters. For example, a face-to-face meeting often requires walking to another building. This is at best an annoyance and detracts from efficient office protocol. This condition is particularly noticeable during the cold weather months when staff members must bundle up in winter clothing before attending a meeting, which is held in a building other than the one they normally work in. At other times, such as an unscheduled public inquiry at the front office area of the administration building, an employee must be retrieved from their workstation to report to the administration building, for a brief meeting with the inquiring visitor.

Inadequate Meeting Space. The original use for the administration building (then a resident engineer's office) called for a large open area adjacent to the main entrance, two enclosed offices, men and women's restrooms, and a garage area. At the present time the open area near the entrance is used as a reception and clerical space and the garage area has been blocked to create workstations. The building is without an enclosed conference room and the only available space in the building for group meetings is in current employee workstation areas. Consequently, when a meeting is held the employee or employees who normally work in the area are interrupted by meeting participants and they either leave their workstation or make do at their workstation because there are no other unoccupied areas to move to.

Accessibility. None of the four structures meet the current Uniform Federal Accessibility Standards (UFAS) criteria for accessibility. The entranceway and restrooms at the main building are too small for maneuvering when the doors are in the open position. Although the entranceway at the main entrance could be replaced for a reasonable cost the restrooms would require extensive architectural, structural, and plumbing renovation before the building would meet current accessibility criteria. In addition, renovation to accommodate movement and circulation would require more floor area, and if

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done, would reduce the existing space now needed for office and administration functions.

The floor of the trailer within the maintenance compound sits approximately 36 inches above the ground and adjacent parking lot. Access into the trailer requires climbing steps located just outside each of the two entrance doors at both ends of the trailer. The trailer has one restroom and is designated for unisex use. The width dimension of the restroom and door are both 30 inches. For these reasons the trailer is physically incapable of serving disabled users.

The makeshift office building located within administrative building compound is not accessible due the door not being at ground level. The doorway is located about 18 inches off of the ground and requires anyone entering this office to step up into the office.

The small building in the maintenance compound that serves as office space has one restroom and it is designated for unisex use. The width dimension of the restroom and door are not wide enough for accessibility. The entrance doorway is also not wide enough. For these reasons this building is physically incapable of serving disabled users.

Utility Systems. Each structure has its own heating, cooling, and electrical systems. A separate system for each structure is inefficient and necessitates a duplication of operational and maintenance time, expense, and a need for different replacement parts for each system. The resources currently being used to keep four administrative structures operational can be more effectively used elsewhere at the lake. The incoming electrical service panel boxes and telephone switchboard for the main administration building are located in the storage and lunch facility room. This location for electrical and telephone connections is a hazard for office staff and an obstacle for electrical and telephone personnel. The existing wiring for electronic equipment and telephones does not have the capacity to provide the proper services needed. The systems have been re-wired several times creating tripping hazards throughout the office.

Heating and Cooling System. The main administration building is not energy efficient. It is heated and cooled by a boiler system with individual registers under windows and near entrance doors. Over the years attempts have been made to balance the heating and cooling temperatures and the humidity level. The cooling system has leaked Freon in the past and must be serviced more than normal to ensure it is working properly. Since the system is outdated parts have to be special ordered.

The trailer is a prefabricated structure with little insulation in the floor, walls, and ceiling. It is hard to heat and cool this building due to the lack of insulation and the inability to add more insulation due to the block building design. Some

interior improvements have been made including replacing all of the windows with double pane sliding windows.

The small building in the maintenance compound has recently undergone some interior remodeling. Building was sealed to reduce water infiltration and to help improve the energy efficiency.

The makeshift building in the administration compound is heated and cooled by a single unit that has to run nearly constantly to keep a relatively comfortable temperature. Water and sewer is not available in this building and workers have to walk to another building to use the restroom.

Roofs. The roof on the administration building has a history of leaking. There is evidence of this throughout the building. Majority of the rooms in the building have several ceiling tiles that are water stained. The roof has been repaired several times in the past. The roof is a flat roof that allows water to pool. When the water does not drain off of the roof properly this increases the chances of the water leaking through the seams of the roof membrane.

The roofs on the trailer and small building within the maintenance compound also have flat roofs and the same problems that exist at the administration building could exist at these buildings.

Windows. The windows that are located throughout the buildings are inefficient. Several of them allow air and moisture to pass through. The windows are only partially operable and worn seals are likely the cause of the infiltration. Minor maintenance repairs have been made on the windows in the administration building to reduce the problem such as replacing the window cranks and caulking the frames. These repairs are just a temporary solution to the problem. Dry wall under windows in the Administration building is deteriorating due to moisture leaking around the windows. All the windows in the trailer had to be replaced due to the large amount of water that was getting inside. Even though the windows were replaced, some infiltration still occurs.

Crack in Southeast Wall. A crack exists in the southeast wall of the administration building. The majority of this crack runs along seams in the masonry brick that is present in the wall. The length of this crack is approximately 30 feet long. Where the crack exists the wall has moved about 1 to 2 inches. The crack is located towards the top of the wall that is enclosed by an interior wall, insulation, and paneling. This makes it hard to monitor any movement or further structural damage that could occur. Wooden and metal supports have been placed in different places along the crack to temporarily stabilize the wall. It is hard to determine how long this temporary solution will last. A permanent solution would require extensive architectural and structural renovation.

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Crack in the Foundation. Due to the administration building settling a crack exists in the southwest corner of the foundation. The crack appears to go through the entire foundation on both sides of the corner. The stress from the foundation being cracked has caused the brick wall above it to crack as well. These cracks are being monitored for further movement.

Potential Health Risk.

Asbestos. Asbestos, which is a hazardous material and health risk when it is disturbed and not handled properly, is associated within the tile in the administration building restrooms.

Mold and Mildew. Mold and mildew is present throughout the office buildings. It is located inside the walls posing a persistent health hazard. Despite several attempts to eradicate the mold and mildew the problem still exists.

Location of New Facility. Three alternatives are identified as potential building sites for a new combined Administration and Maintenance Complex.

- 1) Build a new Administration Building at the site of the existing Maintenance Compound
- 2) Build a new Administration and Maintenance Compound adjacent to existing Administration Building
- 3) Build a new Administration and Maintenance Compound at the Dam West Day Use Area

Evaluation of Alternatives

a. Build a new Administration Building at the site of the existing Maintenance Compound – This site has been determined as unsuitable. All utilities necessary are present. The entrance road to the existing maintenance compound is restricted by the amount of land in public ownership. Additional land would have to be purchased in order to widen the access area to meet highway standards for two-way traffic required for a public entrance road into a new Administration and Maintenance Complex. According to the Shoreline Erosion Plan, approved in 1993, the estimated 30-year erosion limits of the Lake Shelbyville shoreline will impact the Dam East Recreation Area including the Maintenance entrance road in the future, further necessitating the purchase of additional lands. Finally, the road system into the Dam East Recreation Area would have to be revised to allow better visibility and access by the public to a new Administration Complex.

b. Build a new Administration and Maintenance Compound adjacent to existing Administration Building – This is a viable alternative. All necessary, utilities are present. Changes to the public entrance, parking lots and road system would be minor. However, care would have to be taken to ensure a safe entrance and exit for equipment and delivery trucks onto the Dam East roadway due to the large curve that presents a blind spot in the roadway. The site adjacent to the existing administration building was the site of a home with in-ground swimming pool and other structures that were removed after the Corps purchased the land. Care will need to be taken during design and construction to ensure any new structures are not built on top of the old home site or that the area is sufficiently compacted. Although this site is less than ½ mile from the dam, features of the dam are not visible from this location. Nonetheless, security of the dam will be maintained. However, during high security situations, such as Federal Protection Condition (FPCon) Charlie, the Administration Building and Maintenance Complex will be difficult to access due to security restrictions associated with the Dam. This results in bad public relations during potentially stressful events. People who are used to our current location will have no problem finding us. The Maintenance Complex will be much more visible to the public. This is a security and aesthetic problem due to its openness right off of Route 16. The site under this proposal is currently used as a Special Events site. This is the only special events area in a Day Use area on the southern end of the lake that has adequate room that includes a large open area and shade for large events. Construction of an Administration and Maintenance Complex will eliminate the ability to have large events because of the space requirements that will be necessary for storage of equipment, materials and supplies within a compound. The construction of the Maintenance portion of the Complex will be more costly since you can't take advantage of a basement for storage at the location due to requirements of needing an elevator.

c. Build a new Administration and Maintenance Compound at the Dam West Day Use Recreation Area – This is the preferred alternative. All utilities are present at the proposed site and/or adjacent to it. For energy efficiency, this location would be protected on the North side by trees and would face the maximum sun direction during the winter months. The new location will present some initial problems with people finding the building who are used to it being at Dam East. However, many customers use 9th Street to access the existing Administration Building, Dam West and other Corps recreation areas so the change in building location should have minimal impact on public traffic patterns. In addition, the location of the new complex within the Dam West Recreation Area, the busiest day-use area at Lake Shelbyville, will offer convenient access to our customers and will provide for quicker emergency response times to incidents within this busy area. The Maintenance Complex can be built behind the Administration Building off the existing high water boat ramp parking lot thus creating a more secure and aesthetically pleasing

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presence. The area near the high water boat ramp is currently used as a storage area for large materials and building the complex in that location will eliminate multiple storage areas. The Lake Shelbyville Dam is less than ½ mile from Dam West and the entire lake-side of the dam is visible from this area therefore security of the Dam will be maintained. In addition, access to the Administration Building and Maintenance Complex will not be limited during FPC levels or other high security measures undertaken on behalf of the Dam and may in fact deter current vandalism problems within the Dam West Area ensuring a higher security presence. Access to the Administration Complex during high water situations will not be an issue with proper planning and will increase public safety efforts during high-water when the recreation facilities within Dam West are closed due to inundation. The Dam West Beach is the largest and busiest beach at Lake Shelbyville. As a result, several interpretive programs, ranger patrols and maintenance activities take place in this area. Having the Administration and Maintenance Complex within the Dam West Recreation Area will increase response time and driving time to this area. As an alternative, incorporating a Visitor Center with the Administration and Maintenance Complex in this location would allow for consolidation of administrative personnel, better access to our customers and more room for special events. Using the existing hillside to incorporate a two-story Administration Building will reduce costs as it is cheaper to build vertically than horizontally, and lower portions of the building can be used for storage of materials and supplies reducing the additional structures that will be needed for the Maintenance portion of the complex. Good planning will eliminate the need for an elevator by using a combination of ramp walkways, sidewalks and parking spaces on the upper and lower sections of the building. The proposed site is currently reserved for a future resort area. By designating the site of the existing Administration Building as a future resort site, it would allow for future development in the Dam East Recreation Area that incorporates the Special Event site and Visitor Center with convenient public access and high visibility from Route 16. Keeping a future resort separate from the Corps' recreation facilities at Dam West Recreation Area will distribute public use of the project and eliminate conflicting uses within the Dam West Recreation Area. For example, overnight resort customers would be disturbed by the noise of early take off by large fishing tournaments that use the boat ramp at 5:00 a.m. or earlier. Moving the authorization of the resort site to Dam East Recreation Area will eliminate problems with collection of Day Use Fees within the Dam West Recreation Area. In addition, moving the resort site to Dam East Recreation Area will eliminate potential economic impact and/or safety concerns during high-water events when the Dam West Recreation Facilities are closed due to inundation. A proposed action in this Master Plan is to add a pedestrian/bike trail across the main dam. The trail would provide easy access from Dam East Recreation Area to Dam West Recreation Area and could be utilized by the Dam East Resort customers.

Recommendations. The administration office headquarters at Lake Shelbyville, which now consists of four separate structures, should be consolidated into one complex. A new complex should be administratively and economically efficient, accessible, and designed to be consistent with the aesthetic qualities of the lake area. Further study will be scheduled and funded to make final determination of the most feasible alternative and design for a replacement administration and maintenance complex facility.

Pictures of the existing office facilities and conditions are located in the Appendix 2.

11-10. VISITOR CENTER FACILITIES

The Lake Shelbyville Visitor Center was completed in 1979 and the last complete exhibit update was in 1985. The following items need to be addressed.

- The total usable square footage in the Lake Shelbyville Visitor Center is 2,852 square feet (lobby 612 sq ft, exhibit room 1,170 sq ft, multipurpose room 780 sq ft, restrooms 290 sq ft). Reasonable square footage to accommodate customer needs associated with the visitor center and to make the facility efficient would be 4,000 to 6,000 square feet.

- Most of the exhibits are showing their age and are in need of repair or replacement, especially the ones that have some type of mechanical device. These types of exhibits are experiencing frequent breakdowns which create inconveniences for the visitors. The Lake Shelbyville introduction video that is shown regularly in the Visitor Center was last updated in 1996. The newest exhibit is an interactive kiosk that was purchased and installed in 1998. Problems are already being experienced with this exhibit and require being updated on a regular basis to reflect current information.

- Located in the entrance lobby are two large displays that deal with Corps of Engineers history and the purposes of Lake Shelbyville as well as an information kiosk, a sales area, and a reception area. The entrance lobby space is too small to accommodate all of the visitor needs. Tours are conducted on a frequent basis and generally there is not enough space in the lobby to address an entire group together so other arrangements have to be made. That creates an inconvenience for the tour group and the person conducting the tour.

- The Corps of Engineers has a cooperative agreement with the Kaskia-Kaw Rivers Conservancy to operate a sales area in the Visitor Center to support Corps operations. The sales area was placed in the entrance lobby, which is a congested area and is too small to serve the needs of the visitors. This is the only area in the visitor center where the person working in the

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reception area could control the sales area, but due to this area being a high traffic area it is difficult to protect the sales products from damage or theft at all times.

- The multipurpose room is used for functions that include a theater, meeting room, classroom, program area, and exhibit area. Since this room is used for many diverse purposes it creates problems, such as there is no room to display any traveling exhibits and still have room for visitors to view videos such as the Lake Shelbyville Introductory Video.

- Location of New Facility. Five alternatives were identified as potential building sites for a new visitor center.

- 1) Replace and consolidate visitor center with new administration building at the site of the existing maintenance complex.
- 2) Replace and consolidate visitor center with new administration and maintenance complex adjacent to existing Administration Building
- 3) Replace and consolidate visitor center with new administration and maintenance complex in the Dam West Recreation Area.
- 4) Replace or renovate visitor center in Dam East Recreation Area.
- 5) Locate new visitor center in the Woods Lake East area.
- 6) Partnering with the Illinois Department of Natural Resources to locate the visitor center somewhere along the Bruce-Findlay Road, Road 7 on Plate 4.

- Depending on the time frame concerning the replacement of the visitor center, it is proposed that the front entrance doors and comfort station be renovated to meet Uniform Federal Accessibility Standards. The comfort station entry is on the outside of the building. The renovation would include creating an interior entrance for the comfort station. The sinks and toilet facilities in the comfort station are operated by button mechanisms that are hard to use and cause visitors some inconveniences and it is recommended that these operating mechanisms be replaced with more user-friendly mechanisms.

Pictures of the existing visitor center facilities and conditions are located in the appendix 2.

11-11. SHORELINE USE MANAGEMENT POLICY.

The subject of shoreline management is fully addressed in the Shoreline Use Management Policy, which is included in the Lake Shelbyville Operational Management Plan. The Shoreline Use Management Policy was prepared and implemented as a management tool to lessen the impact of private exclusive use along the public shoreline of Lake Shelbyville. The policy was prepared under authority of Title 16 United States Code 460d; Title 36 Code of Federal Regulations 327.30 Lakeshore Management at Civil Works Projects as implemented by Engineer Regulation 1130-2-406, 31 October 1990. The objective of the policy is to provide guidance for the protection of shorelines. Four basic considerations were used in formulating and updating the Shoreline Use Management Policy. These were: a) demand for water oriented recreational facilities is increasing while the amount of shoreline is fixed; b) development of private property adjacent to the project is certain to continue; c) shoreline erosion continues to be a problem at Lake Shelbyville and steps must be taken to minimize shoreline erosion, especially in recreation areas and areas with adjacent development; d) the ownership of land adjoining public projects does not convey special rights or privileges to use public land and waters.

No private docks or structures exist or are allowed on the Lake Shelbyville shoreline. The only facilities that exist or are allowed along the shoreline are commercial concessions or public facilities.

Mowing permits are issued according to District policy. The only mowing permits that are issued at Lake Shelbyville are for a field tile that existed on private land prior to government ownership and twenty-one situations resulting from a boundary line resurvey in 1980. The field tile now spans both public and private land and a single annual mowing is permitted. Permits to mow a seventy-five foot radius from an occupied residence were issued to those twenty-one individuals whose home or outbuilding existed prior to government ownership of land at Lake Shelbyville and was adversely affected by the boundary line moving close to their private residence or outbuilding causing hardship as a result of the 1980 resurvey.

Due to erosion of the shoreline southeast of Bo Wood Recreation Area, it may be necessary to acquire additional land in Sections 23 and 26 of T13NR5E, Moultrie County, Illinois. The shoreline has eroded to within 100 feet of the fee boundary in some locations. Three privately owned homes bordering government lands could eventually be affected as well.

Another area where it will be necessary to acquire additional land or an easement on private property is in the Dam East Recreation Area to ensure access to federal property. This acquisition of land or easement is necessary because in approximately 15 to 20 years a portion of the maintenance complex

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access road, which also serves one of the three trilateration station will be impacted due to the effects of shoreline erosion.

11-12. SHORELINE EROSION

Shoreline erosion at Lake Shelbyville is caused by a combination of factors: fluctuating lake level, waves created by wind and boat actions, and the soil surrounding Lake Shelbyville being predominately glacial sandy clay with little resistance to erosion.

The Final Letter Report, Lake Shelbyville Shoreline Erosion Management Plan, 29 January 1993, which is a supplement to this Master Plan, was prepared to recommend the facilities needing protection, consolidation, removal, or replacement because of predicted shoreline erosion over the next 30 years (baseline 1990). The following is the summary from the Shoreline Erosion Management Plan.

Some endangered facilities must be protected to ensure safety of the dam. Some parks must be protected immediately because of the limited land base for public use. Therefore, Dam East, Dam West, and Lithia Springs Recreation Areas along with Okaw Bluff Group Camp, Eagle Creek State Park, Sullivan and Findlay Marina are areas considered to be first priority for protection, removal, or replacement of facilities. The locations of lesser priority are Bo Wood, Lone Point, Coon Creek, Opossum Creek, Whitley Creek, and Wilborn Creek Recreation Areas along with Wolf Creek State Park. All other areas are lower priority for work to be performed due to the length of time (approximately 15 years) before the facilities are threatened.

Shoreline erosion at the Bo Wood Recreation Area is becoming so severe that it is threatening not only to jeopardize the user but also many of the facilities themselves. Our study indicates, based on past rates, that within another 20 –30 years (baseline 1990) the erosion will destroy enough of the Bo Wood facilities that operation of the campground will be impractical economically. A detailed cost analysis shows that protecting the camping facilities is cost prohibitive. Therefore, removing and replacing with new facilities is the only reasonable alternative. After receiving significant public comments about the economic and aesthetic value of this area to the Sullivan, Illinois community, the Corps of Engineers propose to remove and replace all camping facilities to another location within the Bo Wood Recreation Area. This solution will better serve our neighbors and guests as we retain full use of one of our highest quality public use areas.

Review plan and make amendments as needed in the future. An additional feasibility study will be conducted to define cost effective methods to provide shoreline erosion protection in the Coon Creek, Lone Point, and Lithia

Springs Recreation Areas that ensures the continued use of all existing recreation facilities and infrastructure.

Recommended Plan.

The following areas and the facilities have been identified in an environmental assessment report and the proposed recommended action of erosion management to be taken, such as protection, removal, or replacement has been determined. An environmental assessment and Finding of No Significant Impact (FONSI) report is located in the Final Letter Report, Lake Shelbyville Shoreline Erosion Management Plan, March 1993.

a) Concerning the Shoreline Erosion Management Plan, the following work has been completed.

Dam East and Dam West Recreation Areas

- Protected the trilateration station to preserve historical data concerning movement of the dam.
- Protected the land near the Visitor Center to ensure adequate space for special events in this area.
- Protected the boat ramp.
- Protected the large point of land north and east of the beach. This peninsula is necessary to protect the beach from wave action.
- Removed and replaced picnic shelter from Opossum Creek to Dam West for fishing tournaments and large group events.

Lithia Springs Recreation Area

- Protected the boat ramp.
- Protected the trilateration station to preserve historical data concerning movement of the dam. Protection of this facility will also protect the campsites and other facilities nearby.
- Protected the beach, nearby campsites and roads.

Findlay Marina

- Protected the land to provide a stable bank to attach docks and to provide for adequate vehicle parking.

Bo Wood Recreation Area

- Protected the boat ramp
- Protected the landfill site that is located north of the picnic shelter.

Opossum Creek Recreation Area

- Removed and replaced the group picnic shelter and parking facilities to the Dam West Recreation Area.

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Lone Point Recreation Area

- Protected the boat ramp

Eagle Creek State Park

- Protected any threatened facilities including the Eagle's Landing Building at the Eagle Creek Lodge.

b) The following work still needs to be completed under the Shoreline Erosion Management Plan.

Lithia Springs Recreation Area – Part of Phase 1

- Remove and replace 1 to 3 campsites located in the northern part of the campground.

Sullivan Marina and Campground – Part of Phase 1

- Protect the land, as needed, to provide a stable bank to attach docks.
- Protect the docks by constructing a breakwater.
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$775,000.

Bo Wood Recreation Area – Phase 2

- Remove 58 campsites, related facilities and roads. This will leave an uneconomical remnant for a campground; therefore, remove and replace a majority of the campground and access to the boat ramp to another location within the Bo Wood Recreation Area to ensure continued public use of this area.
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$1,617,000.

Whitley Creek Recreation Area – Part of Phase 4

- Protect the boat ramp.
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$431,000.

Opossum Creek Recreation Area – Part of Phase 4

- Protect the boat ramp, but not that portion of the parking lot within the erosion limit. If this part of the parking lot becomes unsafe, remove it.
- This recommendation is removed from the Shoreline Erosion Management Plan. Proposed actions for the Opossum Creek boat ramps are mentioned in Section 8.05.

Coon Creek Recreation Area – Phase 3

- Protect the boat ramp.
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$362,000.
- Protect the beach and the parking area.

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- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$259,000.
- Protect the turnarounds.
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$560,000.

Lone Point Recreation Area – Part of Phase 4

- Protect location along the eastern shoreline of the campground that will be threatened with erosion within the next 30 years (baseline year 1990).
- Cost estimate for the recommended plan according to the Shoreline Erosion Management Plan is \$199,000.
- Designate this area for overnight group use only so that all overnight group use occurs in this area. No new or additional facilities will be provided. (Based on customer needs, utilization, and efficiency this item has been revised in this master plan as stated in Section VIII.).

Okaw Bluff Group Camp – Part of Phase 4

- Remove and replace group camp and remove facilities as they become unsafe.
- Continue as an operation and maintenance area by replacing facilities for the Naval Reserve Construction Battalion (Sea Bees) to utilize.
- Cost estimate for recommended plan according to the Shoreline Erosion Management Plan is \$234,000.

Wilborn Creek Recreation Area – Part of Phase 4

- Protect the boat ramp.
- Cost estimate for recommended plan according to the Shoreline Erosion Management Plan is \$356,000.
- Protect the road and parking lot located in the northwestern part of the area near the beach.
- Cost estimate for recommended plan according to the Shoreline Erosion Management Plan is \$46,000.
- Remove and replace picnic shelter.

Wolf Creek State Park – Part of Phase 4

- Protect the boat ramp.
- Cost estimate for recommended plan according to the Shoreline Erosion Management Plan is \$358,000.

Camp Camfield – Part of Phase 5

- Realign trails as they become unsafe.

Bluestem Future Recreation Area (Area F) – Part of Phase 5

- Realign or remove gravel roadways as they become unsafe.

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11-13. WATER SUPPLY STORAGE DEMANDS.

Currently Lake Shelbyville has 177,795 acre-feet joint-use storage volume. 24,714 acre-feet can be utilized for water supply, which is 13.9% of joint-use volume. Yield estimated is 17 mgd after 40 years of sedimentation.

Currently Carlyle Lake has 230,227 acre-feet joint-use storage volume. 32,692 acre-feet can be utilized for water supply, which is 14.2% of joint-use volume. Yield estimated is 24.5 mgd after 40 years of sedimentation.

The following is a listing of existing State water supply contracts for Lake Shelbyville:

1. Eagle Creek (existing – golf course irrigation) up to 480 acre-feet (lake withdrawal)
2. Holland Energy (existing – electric generation) up to 8.0 mgd release (river withdrawal)
3. Timberlake Golf Course (existing – irrigation) up to 50 acre-feet (lake withdrawal)
4. Shelby County Country Club (existing – irrigation) up to 50 acre-feet (lake withdrawal)
5. Holland Regional Water System (existing – regional public water supply) up to 7.5 mgd release; requests maximum average annual daily release of 5.0 mgd. They intend to share Holland Energy’s withdrawal structure located upstream of Cowden.

Below is a budget analysis of the water supply demands and water supply available:

<u>Formal Request From</u>	<u>Avg Annual Use</u>	<u>Peak Use</u>	<u>Supply</u>	<u>Withdrawal</u>
Gateway PWS	4.0 mgd	6.3 mgd	Carlyle	Lake
Dynegy (Baldwin)	14.35 mgd	58.0 mgd	either	River(Releases)
Prairie State Generating Company	13.35 mgd	18.0 mgd	either	River (Releases)
Totals	31.7mgd	82.3 mgd		

Lake Shelbyville Available Supply

Carlyle Lake Available Supply

Existing Water Supply Contracts:

Eagle Creek Golf Course 480.0 acre-feet
 Shelby Country Club 50.0 acre-feet
 Timberlake Golf Course 50.0 acre-feet
 Holland Energy 8.0 mgd
 Holland Energy 5.0 mgd
 Prairie State Generating Co. 3.5 mgd

Governor’s Run Golf Course 190 acre-feet equivalent to less than 0.2 mgd

Existing Contract Summation = 17 mgd

Available Supply = $17 - 17 = 0$ mgd Available Supply = $24.5 - .2 = 24.3$ mgd

Total Available Supply: Lake Shelbyville and Carlyle Lake = $0 + 24.3 = 24.3$ mgd

Total Average Annual Demand = 31.7mgd

Negative Balance (Demand exceeds Supply) -7.4 mgd

As shown, the total water supply demand exceeds the available supply by 7.4 mgd. Considerations are being made in an effort to satisfy all the requests with a provision for potential time-line allocation reductions based on contract reductions in State storage due to sedimentation and increased needs of public water supply systems. The initial water supply needs of Holland Regional and Gateway will be much less than the quantity being requested since their systems needs are based on phased development of water treatment facilities and service area growth.

Currently the Illinois Department of Natural Resources is conducting an analysis of the lake and river impacts in allocating the remaining water supply storage in Lake Shelbyville and Carlyle Lake.

11-14. BACKLOG MAINTENANCE AND REPAIR PLAN.

The majority of the facilities at Lake Shelbyville were constructed in the early 1970's; therefore, most have exceeded their service life. Age of facilities combined with increasing demands from visitors has resulted in facility conditions in which routine maintenance is not sufficient. These facilities now require either major renovation or complete replacement in order to remain operational. An extensive inventory and analysis was conducted of all facilities and structures at Lake Shelbyville by an employee task force team. Lake Shelbyville work leaders and management reviewed the task force team report and recommendations were made for future maintenance and replacement items. Decisions were made by analyzing conditions of existing facilities and evaluating customer usage trends in an effort to reduce project operation and maintenance costs, better serve the customers, improve efficiency, and increase utilization and revenue. All of the recommendations for future maintenance and replacement items are included in the proposed items for each recreation area in Section VIII.

Machinery in the main dam is approximately 33 years old. Some of the machinery is obsolete and need of repair. To ensure safe and reliable operation of the main dam the machinery system needs to be examined to determine what needs to be replaced or renovated. The metal spiral staircases in the east and west galleries were originally painted with lead-based paint. The staircases are rusting, which is affecting the structural integrity and replacement is needed. The main dam also has confined space and security issues and

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concerns that need to be addressed. Main dam water seepage and pressure monitoring devices (piezometers) are becoming inoperable and need to be replaced as needed.

Most of the electrical service lines in the recreation areas are over 30 years old and are deteriorating and in need of replacement. Some of it does not meet electrical code, parts experience frequent breakdown, and the current 30-amp campsite electrical hookups do not accommodate customer needs. Most camping units today require 50-amp electrical service. Upgrading the camping units from 30-amp service to 50-amp service would reduce operational maintenance; improve efficiency, and increase utilization and revenue.

Water and sewer lines within recreation areas are in need of replacement due to age and deterioration. Many of the lines no longer meet codes, require frequent repair, and are often unreliable. Large quantities of ground water infiltrate the sewage systems through the deteriorating lines causing excessive flows into wastewater treatment facilities and unnecessary wear-and-tear on lift stations.

Some of the comfort stations, shower buildings, water fountains, and hydrants need to be consolidated, renovated, removed, or replaced to reduce operation and maintenance costs, improve efficiency, and accommodate customer needs. Some of the plumbing concerning these facilities does not meet plumbing code and frequent repairs are needed. Some of the comfort station and shower building masonry structures are deteriorating.

All major maintenance and repair work items are reviewed and updated during each fiscal year. All items are ranked in priority order and included in the next scheduled budget request ensuring that the budget request reflects the complete listing of resource needs for the lake. In addition, all items are approved in the Lake Shelbyville Master Plan and the Operational Management Plan.

During each fiscal year, the Backlog Maintenance and Repair (BMAR) list is reviewed. This list ranks all work items at the lake above and beyond the normal Operation and Maintenance (O&M) work at the lake. As new items are identified, they are added to the list. This list forms the basis for future budget requests.

In the last quarter of each fiscal year, the lake develops work plans which detail the specific items of work that need to be done at the lake during the upcoming fiscal year. Included in these work plans are the BMAR work items. While there is never enough funding for all these items, several of the highest priority items are approved conceptually so that if funding becomes available, this work may be done.

Funding is available from several possible sources: O&M funds, cost shares and Congressional additions. Availability varies and constant diligence is required to identify and develop sources. At times, additional funds become available at the end of the fiscal year or from unanticipated sources such as flood damage repairs or security improvements. Advance planning is necessary to be prepared should additional funding become available during each fiscal year from any source.

In short, the lake maintains a comprehensive list of major work items that is reviewed regularly. Funding requests are made through normal channels annually. Additional funding sources are developed and requests are made as opportunities are presented.

11-15. BOAT RAMP FACILITIES

a) General. All of the boat ramps at Lake Shelbyville have a design deficiency because they are not wide enough to meet facility standards, which includes accommodating a courtesy dock. By 1970, all of the primary boat ramps at Lake Shelbyville were constructed based on proposed use criteria and standards that accommodated the average boat and trailer size for that time period. According to current Corps of Engineers Recreation Facilities and Customer Services Standards EM-1110-1-400, minimum boat ramp launch lane width is 15 feet and a courtesy dock must be provided with a minimum width of six feet and a minimum length of twenty feet. By these standards a four-lane boat ramp should be 66 wide and the four-lane ramps at Lake Shelbyville are only 58 feet wide, which is 8 feet short of meeting today's standards.

To accommodate Corps of Engineers recreational standards for public safety each boat ramp has a portable courtesy dock, which takes up at least one lane at each ramp. Due to the size of boats and courtesy dock placement a four-lane boat ramp is only operational as a three-lane ramp and a two-lane boat ramp is only operational as a one-lane ramp. It is proposed to renovate all primary boat ramps except for the one within Dam West Recreation Area to accommodate the courtesy docks so that all of the authorized lanes can be utilized.

Other required or recommended items in EM-1110-1-400 that pertain to boat ramps include minimum of two lanes for standard launch ramps, with actual number of lanes determined by usage demand and additional launch lanes considered where launch line waiting time exceeds 10 minutes during peak periods and carrying capacity makes additional lanes feasible.

b) Dam West Recreation Area Primary Boat Ramp Facility. Dam West Recreation Area is the busiest day-use recreation area at Lake Shelbyville with a total of 481,630 visitor hours in 2003. Available parking spaces for the boat ramp area include 145 vehicle towing trailer spaces and 175 individual vehicle

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spaces. Two individual vehicle spaces will accommodate a trailer and tow vehicle. This area is heavily congested due to use by both the general public and fishing tournament participants, especially on the weekends from Memorial Day to Labor Day. In 2003, from the first weekend in April to the first weekend in September, nine fishing tournaments were held in this area. Two out of the nine tournaments had 100 boats in them and two others had 150 boats in them. During the larger fishing tournaments all of the parking spaces are full and vehicles have to park along the roadsides in the grass. The area experiences both major boat ramp congestion and long waiting periods during these fishing tournaments, especially during the afternoon when all of the tournament boats are trying to get off the water and the general public is trying to get on the water.

The Dam West Recreation Area is authorized a four-lane boat ramp, but due to the courtesy dock and size of boats it only functions as a three-lane ramp and does not meet the current Corps of Engineers facility standards. Renovating the existing ramp to accommodate the courtesy dock is not an option because the area where the ramp is located cannot accommodate the additional width which would include adding to the existing boat maneuvering and backing area. Also, a comfort station would have to be removed to accommodate the construction of the addition and this in turn would not alleviate all of the problems associated with the boat ramp area.

It is proposed that the existing primary boat ramp will remain the same and will be operational as a three-lane boat ramp with a courtesy dock and a two-lane ramp with a courtesy dock will be constructed within the vicinity of the large group shelter to help disperse the use within the area and to better manage fishing tournament activity in conjunction with the large group shelter.

In addition, the existing primary boat ramp within this area becomes non-functional at the lake level of 610. The area near the Dam West large group picnic shelter where the two-lane ramp is proposed has an elevation 612. A boat ramp in this area will extend the visitor operational use of the boat ramps within Dam West Recreation Area.

From 1971 to 2003 in the timeframe of May 1 thru September 30, which is approximately 4,896 days, the lake level was above 612 for 289 days, which comes to approximately 5.9% of the time and the lake level was in between 610 and 612 for 207 days, which comes to approximately 4.2% of the time.

This proposal will bring the total number of boat lanes within the Dam West Recreation Area to five (original 4 lanes plus one lane relocated from Opossum Creek Recreation Area). The total number of authorized boat ramp lanes for Lake Shelbyville will remain the same. However, locations will be adjusted to better accommodate visitor demands and management objectives.

c) Opossum Creek Recreation Area Boat Ramp Facilities. The existing boat ramp facilities within Opossum Creek Recreation Area include a four-lane primary ramp and a two-lane high water ramp. This recreation area is located approximately 5 miles north of Dam West Recreation Area, 5 miles south of Coon Creek Recreation Area and approximately 8 miles southwest of Lone Point Recreation Area. The boat ramps within those other three areas are very heavily used and the Opossum Creek ramp is the least used out of all of the ramps located at Lake Shelbyville. The reason this ramp is not used is because launches must be made on the main portion of the lake where the waves from the wind and boat traffic makes it very difficult to maintain control of a boat while it is being launched.

It is proposed to consolidate the primary ramp within this area with the high water ramp, which is located in a protected cove. A three-lane year round ramp with a courtesy dock would exist after the consolidation is made. Both of the ramps share the same parking lot, so additional parking would not be needed. The parking lot would need to be rehabilitated to remove an incline, which exists at the entrance to the high water ramp. This incline makes it difficult to back down the ramp without losing sight of the boat that is being towed. Removing the incline would be part of rehabilitating the high water ramp into a year round ramp. After the high-water ramp is rehabilitated it will alleviate some of the pressure at the other nearby ramps. In addition, user fee revenue will increase at this ramp as use will increase. Operation and maintenance costs will be reduced because the number of boat ramps that need to be maintained in this area is reduced from two to one.

d) Lithia Springs Recreation Area Boat Ramp Facilities. Three types of visitors, day-users, campground users, and marina users, utilize the boat ramp facilities within Lithia Springs Recreation Area. The boat ramp facilities that are maintained by the Corps of Engineers within this area includes a two-lane primary ramp, two-lane high water ramp, and a parking lot that has twenty-one individual vehicle spaces and forty-six vehicle towing trailer spaces. The Lithia Springs Marina facilities, which are maintained by a private concessionaire, are on both sides of the boat ramp.

Parking and boat launching congestion problems exist for both the Corps of Engineers and the marina because there are not enough parking spaces and launching lanes to accommodate the number and types of users. In 2003, the total number of visitor hours for the Lithia Springs Recreation Area was 4,887,894 and 420,861 visitor hours for the Lithia Springs Marina. Due to lack of parking and other circumstances, day-users utilize the marina parking lots and marina slip renters utilize the day-use boat ramp parking lot. To help alleviate the congestion and increase revenue it is proposed that the existing boat ramp and marina parking lots be enlarged so that the different types of users can be separated and managed more efficiently. The existing two-lane

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primary and high water boat ramps within this area are only useable as a one-lane ramp due to the placement of the courtesy dock. Delays in launching occur due to the size of the ramps and due to both the marina and the public utilizing the ramp at the same time. It is proposed that both these ramps be renovated to accommodate a courtesy dock, so that the ramps can be utilized as two-lane ramps.

e) High Water Boat Ramp Facilities on the Northern Portion of Lake Shelbyville. Currently on the northern portion of the lake there is authorization for two two-lane high water boat ramps. One is located within the Bo Wood Recreation Area and the other one is located within the Wilborn Creek Recreation Area. Due to courtesy dock placement, the existing two-lane ramps function as one-lane ramps, so during periods of high water between lake levels of 610 and 614, only two boat ramp lanes accommodate all lake visitor boat launching activity from the Bo Wood, Wilborn Creek, and Whitley Creek Recreation Areas, Sullivan Marina and Campground, Okaw Bluff Group Camp, and all minor access areas on the northern portion of the lake. During that period of high water, the Bo Wood and Wilborn Creek boat ramps become heavily congested and launch waiting time is usually up to two hours.

The design of the Wilborn Creek high water ramp, which is associated with the primary boat ramp parking lot, is a concern of public health and safety because when the lake level reaches 610.10 the parking lot starts to be inundated by water and is completely inundated at 615.90, which closes the high water ramp.

At the lake level of 615.90 or higher, the single useable launching lane within Bo Wood Recreation Area serves the entire northern portion of the lake. The congestion and launch waiting time at the Bo Wood ramp only increases and at times becomes completely unmanageable when the Wilborn Creek ramp closes. The available parking spaces within the Bo Wood boat ramp area include 49 vehicle towing trailer spaces and 91 individual vehicle spaces. Two individual vehicle spaces can accommodate a trailer and tow vehicle. When the only ramp open on the northern portion of the lake is the one at Bo Wood, the majority of the time all of the spaces are full and vehicles are parked along the road and in the grass areas within the picnic area.

The lake level history for 2002 was as follows:

610.0 to 615.0	40 days
615.1 to 615.8	14 days
615.9 or above	16 days

Total days above 610.0 (May 13 – July 21) 70 days

It is proposed that a four-lane high water ramp be constructed within the Whitley Creek Recreation Area. This would alleviate congestion and launch

waiting times that occur within the Bo Wood and Wilborn Creek Recreation Areas. Before the high water ramp is constructed within the Whitley Creek Recreation Area options of consolidating the primary ramp with the high water ramp will be investigated to reduce operation and maintenance costs.

Table 19
Lake Shelbyville Boat Ramp Elevations

<p>Bo Wood Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 609.94 High water boat ramp becomes usable at elevation 606.0 High water boat ramp becomes unusable at elevation 621.79</p>
<p>Dam West Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 609.94 High water boat ramp becomes usable at elevation 606.0 High water boat ramp becomes unusable at elevation 627.64</p>
<p>Lithia Springs Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 609.81 High water boat ramp becomes usable at elevation 606.0 High water boat ramp becomes unusable at elevation 616.66</p>
<p>Lone Point Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 609.41 High water boat ramp becomes usable at elevation 607.0 High water boat ramp becomes unusable at elevation 624.69</p>
<p>Opossum Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 609.90 High water boat ramp becomes usable at elevation 604.0 High water boat ramp becomes unusable at elevation 629.06</p>
<p>Wilborn Creek Recreation Area</p> <p>Primary boat ramp becomes unusable at elevation 610.10 High water boat ramp becomes usable at elevation 609.0 High water boat ramp crest is at elevation 617.30*</p> <p>*Note: Access to the high water ramp goes under water at elevation 615.90</p>

Section XII

Operational Management Plan Overview

SECTION XII – OPERATIONAL MANAGEMENT PLAN OVERVIEW

12-01 INTRODUCTION

The Operational Management Plan (OMP), under separate cover, details implementation of several program areas only conceptually addressed in the Master Plan: recreation, shoreline management, forest management, fire management, fish and wildlife management and safety.

Master Plans and Operational Management Plans are developed and implemented with a view to their working in tandem. The Master Plan covers all resources of the project including, but not limited to, fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial and out-granted lands, easements and project waters (submerged lands held in fee). This Master Plan focuses on three primary components:

- Regional and ecosystem needs
- Project resource capabilities and suitability
- Expressed public interests and desires

The Master Plan ensures that environmental mandates and considerations are incorporated and that the economy and quality shall be given equal attention in the development of public facilities and support infrastructure. Usually, every ten years, the Master Plan is reviewed and updated and can be supplemented at any time when it becomes appropriate or necessary to do so. Based on an approved Master Plan, the Lake Shelbyville Project develops and implements an Operational Management Plan (OMP) to achieve the objectives stated in the Master Plan.

The Master Plan serves as the planning document that establishes the authority to act and the OMP is the implementation or action document that lays out the actual work, task schedules, costs and funding strategies for realization of the goals and direction set forth in the Master Plan.

Within the OMP, objectives and implementation strategies are established for each major area of emphasis: natural resource management, and park and recreation management.

The OMP, under separate cover, details objectives and strategies to implement programs based on Master Plan resource use objectives, and plans within the environmental stewardship, recreation and flood damage reduction business areas conceptually addressed in the Master Plan. Visitor assistance, public access, environmental compliance, interpretation and outreach, recreation safety, shoreline management, habitat management, fire protection and fish and wildlife management, endangered species protection and

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facilities/infrastructure operations and maintenance are some of the major programs addressed in the OMP. During development or revision of OMPs, emphasis is given to achieving environmental mandates and other ecological imperatives of a national, regional or ecosystem nature. Emphasis is also given to achieving economy in planning, designing, constructing and managing natural and recreational resources, facilities/infrastructure and other services. Concepts are refined into actual work items with schedules and cost estimates for completion.

OMP management strategies must be consistent with authorized project purposes and approved resource use objectives and land use classifications established in the project Master Plan.

The OMP is a five-year plan. The plan was updated in 2004 and will be updated again in 2009. The OMP is dynamic in nature and includes funding, staffing and schedules required to implement management activities and strategies for the entire project. Approval for the OMP and all subsequent updates rests with the District Commander. Portions of the OMP (funding, staffing, equipment needs) are updated each year resulting in a set of work plans that are approved annually by the District Commander. All approved work is based on consistency with the OMP and is contingent on the availability of funds.

For outgranted areas, the OMP will include the outgrantees' management plans for the area and information on how the outgranted areas management supports the overall management objectives of the project. Cooperation and input from partners supporting management objectives and interested customers, organizations and the general public is encouraged during formulation and updating of the OMP.

Site-specific resource management recommendations are included in the OMP. The OMP divides the public lands surrounding the lake into management units called compartments. The compartments were selected using size, topography, land use classification, and access as location criteria. Management objectives are outlined for each compartment within the OMP. Development of the OMP is a concerted effort between Project and District personnel and agency partners.

Key topics addressed under the main business areas (Environmental Stewardship Management, Recreation Management and Flood Damage Reduction) are listed as follows:

Environmental Stewardship

- _ Long Term Objectives of Resource Management
- _ Compartment Descriptions
- _ Topography (slope, aspect, general soil type, etc.)

- _Aquatic Resources (type, temperature, turbidity, etc.)
- _Vegetation (species, size, density, etc.)
- _Fish and Wildlife (species)
- _Special Considerations or Problems (protected or rare/unique habitat, rare and endangered species, national emphasis programs (e.g., Watchable Wildlife, North American Waterfowl Management Program and Neotropical Migratory Birds, etc.), pollution, forest fire control)
- _Management Objectives (for each compartment)
- _Implementation Plan (for each compartment)
- _Management Techniques (to meet objectives)
- _Five-Year Schedule (of management techniques to be applied)
- _Annual Staffing and Equipment needs
- _Annual Costs
- _Coordination (with other elements/agencies/the public)

Recreation Management

- _Safety (employee, contractor, and visitor)
- _Security
- _Visitor Assistance
- _Shoreline Management
- _Private Exclusive Use (existing approved regional plan may be inserted as is)
- _Outgrants
- _Maintenance
- _Recreation Use Fee Program
- _Interpretation
- _Cultural Resources
- _Project Sign Management Plan
- _Special Programs
- _Cooperation (with other agencies and/or special interest groups)
- _Five-Year Program (for park management)
- _Priority List (of annual programs with staffing and funding requirements)

Flood Damage Reduction

- _Develop inventories and prescriptions for operation and maintenance of all federally owned and operated flood damage reduction infrastructure located on public lands and waters.

12-02 RESOURCE MANAGEMENT

A detailed discussion of project resource management is contained in the Operational Management Plan. The guidelines set forth in this section are to insure consideration, even if only in general terms, of some basic factors

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relative to recreation and resource management that are involved in proper management of the project.

Project activities will be managed from a watershed perspective as it relates to the Kaskaskia River.

- a. Recreation. In the administration of the project, management actions effected include:

(1) The provision of a wide range of outdoor recreation opportunities and facilities in a relatively natural setting. In addition to water-oriented facilities previously discussed, these include: playground equipment, nature trails for education, hiking trails for exercise, wildlife viewing, and photography, hunting opportunities, group camps to serve organized youth groups, and administration of group picnic shelters and picnic areas.

(2) Reduction in conflict of use through activity and area zoning. The administration of project lands as designated in the "Water and Land Use Plan," Plate 2. Measures to be considered include: No Boat marker buoys at swimming areas, control stations at camping areas to provide security and privacy from non-campers, and no-wake boating areas.

(3) Providing visitor information regarding natural resources along with any other outstanding features such as the dam and spillway will be accomplished through various interpretative programs.

(4) The development of policies, which provide for maximum sustained public use without undue deterioration of the project's natural resources.

(5) The provision of additional recreational opportunities through concessions and out grants to state governments and other political subdivisions.

(6) The maintenance of facilities and grounds to a high standard.

(7) The provision of a safe and rewarding outdoor recreation experience to the visiting public.

b. Staffing and Organization. Lake administrative functions are currently housed in four separate buildings. The maintenance compound and facilities are located approximately one-half mile northeast of the administration building. The scattered location of administrative personnel has created inefficiencies in operations at the facility, requiring staff and visitors to traverse between buildings in order to coordinate routine activities. The present condition of the administrative facilities may be described as mediocre, at best. Facilities include the main administration building, a small makeshift building in the

administration building compound, and a small building and a trailer in the maintenance compound. The buildings do not comply with current energy conservation and handicapped accessibility standards.

The administration facility is critical to effective oversight of the Lake Shelbyville project. Consolidating all administration functions within one building will allow the most efficient management of the project, and will be a great improvement over the present, disjointed four building complex. The selected site will provide a visible lakeside and main dam presence and will maintain a close proximity to the maintenance yard. More details concerning the Administration and Maintenance Complex can be found in Section 11-09.

The total staff for Maintenance and Operations assigned to Lake Shelbyville is 51 people, including maintenance, ranger, secretarial and management. At present, the permanent staff is 26, with four permanent seasonal employees.

Project personnel are responsible for inspecting all areas and facilities; writing and inspecting construction, service, and supply contracts; providing minor repairs and preventative maintenance; and maintaining and servicing the hydraulic structures. Contract maintenance activities include erosion repair, grounds maintenance, painting, repair of facilities, road maintenance and repair, mowing recreation areas, solid waste removal, cleaning of recreation facilities, and janitorial services.

TABLE 20
LAKE SHELBYVILLE PROJECT STAFF

1	Operations Manager	GS-13
1	Assistant Operations Manager	GS-12
1	Civil Engineer Technician	GS-10
1	Civil Engineer Technician	GS-09
4	Park Ranger	GS-11
4	Park Ranger	GS-09
4	Park Ranger	GS-07
1	Admin Support Assistant	GS-07
1	Procurement Technician	GS-07
1	Budget Technician	GS-07
4	Park Ranger (6 month Permanent Seasonal)	GS-05
22	Temporary (STEP)	GS-01 -04
3	Maintenance Worker	GS-07
1	Civil Engineer Technician	GS-04/05
2	Temporary (SCEP)	GS-04

12-03 FOREST MANAGEMENT

The Forest Management Plan is part of the Lake Shelbyville Operational Management Plan. Its purpose is to develop, manage, and protect the vegetation resources of the project. The scope of the plan includes providing an inventory of existing vegetative conditions, the implementation of vegetative management for recreational use, the preservation and improvement of wildlife habitats and aesthetic values, the control of soil erosion, the promotion of natural ecological conditions, and development of dependable future resources of available wood products through reforestation, and accepted forest conservation practices. A complete forest inventory was completed in 1989.

a) Plan Preparation

Preparation of the Forest Management Plan is a coordinated effort involving Operations, Planning, and Real Estate elements. The general format of the plan divides the project area into workable compartments and provides a treatment prescription for each, consistent with its land use allocation.

b) Program Needs

During the life of the Forest Management Plan, certain needs will dominate. The most important of these are as follows:

- Establishment of suitable forest cover on recreation areas. There is a need for vegetative cover to serve as shade, screening, buffers, erosion control protection, and wildlife cover.

- Select those open areas which should be reforested and replant them with desirable species.

- Protect steep banks from erosion.

- Develop and hold high population of desirable wildlife.

- Protect areas from overuse.

- Re-establish suitable vegetative cover on areas that are overused and inundated by high water.

- Manage present resources to establish a quality program of timber management, which will support a future sustained yield timber harvesting effort. Before a timber harvest occurs impacts on the environment will be considered.

12-04 FIRE PROTECTION

A fire protection plan that will serve as a guide for the prevention and suppression of forest and grass wildfires on Lake Shelbyville project lands is contained in the Operational Management Plan. The objectives of a good fire protection plan are three-fold: fire prevention, pre-suppression, and fire suppression. These objectives are based on the following guidelines:

- a. Fire Prevention. Reduction of the number of fires from other than natural occurrences. Potential fire problem areas have been determined and are continually evaluated. Prevention programs are established to create public awareness of the destruction caused by fires.
- b. Pre-suppression. Pre-suppression planning is to establish efficient fire detection and response organization utilizing project personnel and existing firefighting units within the Lake Shelbyville area.
- c. Fire Suppression. Once fires have been detected, established procedures to control them are implemented. These procedures are outlined in detail in the Operational Management Plan. The Operations Manager will update the fire protection portion of the Plan annually.

12-05 FISH AND WILDLIFE MANAGEMENT

The objectives and guidelines established in this section are the basis for the preparation and implementation of the portion of the Operational Management Plan dealing with fish and wildlife management practices. The goal of the Corps of Engineers wildlife management program is to improve and sustain the health of the ecosystem. By doing so the Corps of Engineers will strive to provide populations of both game and non-game species so that all interest groups using project facilities will have the opportunity of receiving benefits from wildlife.

a) Policy

The program objective is to provide the maximum number of fish and wildlife species desired for the use and enjoyment of the public, consistent with the joint-use objectives of the project and habitat carrying capacity. One purpose of the Operational Management Plan is to outline the ongoing fish and wildlife habitat development and maintenance program for Lake Shelbyville. The scope of the plan is to biologically evaluate fish and wildlife habitat on specific areas and prescribe practices for improving or maintaining habitat on these areas, to evaluate the success of the plan as it relates to wildlife production, and to maintain cooperation between the Corps of Engineers and other Federal and state agencies in the development of water resource programs. Non-

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consumptive uses of wildlife, such as sightseeing and photography, receive equal consideration with that of consumptive uses, such as hunting. Methods that will be used to enhance the Watchable Wildlife Program at Lake Shelbyville will include but not limited to creating a brochure, creating visitor center displays, and conducting interpretive programs and hikes. The possibility of placing different types of non-game nesting boxes around Lake Shelbyville will be pursued. Vegetative and water level manipulation and agricultural cropping are the principal methods of fish and wildlife habitat improvement and are consistent with other joint uses and basic physical limitations at the Lake Shelbyville project. Project operations procedures are continually being reevaluated and updated as required to support this program. Coordination is maintained with the Illinois Department of Natural Resources to establish criteria and programs for favorable water levels for fish and wildlife habitat.

b) Specific Recommendations

The Operational Management Plan is a coordinated District effort and divides the project area in workable compartments. The Plan provides a prescription for each area based upon its use as described in the Master Plan.

c) Wildlife Management

Fish and wildlife resources will be generally managed as outlined below:

Illinois Department of Natural Resources Fish and Wildlife Management Programs. Much of the Government's fee land and water at the northern end of the project has been licensed to the Illinois Department of Natural Resources. On the 6,341 acres of land and water, the primary effort of the Department has been the intensive development of this area for quality habitat for upland and forest game. Extensive efforts have also been expended for waterfowl habitat development. The State's management objectives for the out granted area are as follows:

- To manage the area to provide high quality habitat conditions for wildlife species that use the Lake Shelbyville area,
- To consider the overall ecology of the river basin from a conservation, aesthetic, and recreation standpoint;
- To make these land and waters available to the public and;
- To provide maximum visitor days of outdoor recreation that is compatible with the resources.

Corps of Engineers Wildlife Management Program. Lands not outgranted to other agencies are managed for a variety of purposes including maintaining existing wildlife populations. This is accomplished primarily through habitat

maintenance activities directed by Corps of Engineers personnel. Predator control in certain areas and regulation of hunter activities are also methods whereby wildlife population levels can be manipulated to achieve desirable levels. Several general land management practices are used to develop or maintain wildlife habitat. Soil type, topography, elevation, size of area, access and land use designation determines which practice or combinations of practices are used. Land units at Lake Shelbyville are divided into 63 management units called compartments. Soil is tested on all sites to be planted and the area fertilized according to soil testing laboratory recommendations. All compartments have written prescriptions describing wildlife habitat improvement recommendations. One-fifth of the compartments are reviewed annually and corresponding prescriptions updated. Land management practices are as follows:

- At developed recreation areas, wildlife habitat improvement includes the planting of tree and shrub species beneficial to wildlife and/or supplemental wildlife food plot plantings. Bluebird and Purple Martin houses are located in several different locations throughout the recreation areas.

- Natural plant succession will be allowed to occur on designated areas. A natural progression from annual weeds to biennial and perennial vegetation, including shrubs, and trees will occur.

- Moderate agricultural practices are applied aimed primarily at prolonging the annual weed production stage. This is accomplished primarily in bottomland areas that are prone to flooding. Natural succession is also retarded on upland areas by mowing or plowing on an irregular basis.

- Agricultural food plots are developed where necessary to provide supplemental, over-winter food sources for wildlife. Food plots are established at areas where there is no adjacent private cropland food source. Agricultural leasing of project lands is an effective tool to accomplish this goal, and will be utilized to the greatest extent practicable.

- Roosting and nesting cover for songbirds, upland game birds and small mammals is provided by establishment/maintenance of mature tall grass prairies or cool season grass plantings. Controlled burning of warm season grasses is accomplished every three years as a minimum.

- In dense stands of timber, mainly oak-hickory association, various forms of timber stand improvement are required to release more desirable mast bearing trees, protect den trees and varying the age to adjoining timber stands to provide essential habitat components for various forms of wildlife.

- All wetland areas will be preserved in their present state to the greatest extent practicable, to benefit wetland species.

- A large number of Canada Geese nest and raise their young at Lake Shelbyville. Many of the geese use the beach areas at Dam West, Sullivan,

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and Wilborn Creek Recreation Areas as molting areas. The interaction between the geese and the public has become a concern. Several practices to control the geese have been considered. Practices that have been used include spraying the vegetation and using equipment that produces a loud noise that encourages the geese to leave the area. These practices have worked to some degree but the problem still exists. Possible solutions to controlling the geese are being sought out by the Corps of Engineers and will be considered if deemed feasible and viable.

Endangered Species. No nationally endangered mammalian, reptilian, amphibian, or fish species are known to presently inhabit the project. However, a public awareness of endangered species will be developed through the posting of informative material on the animal, should sightings occur. Lake personnel will report any observations obtained of endangered species to the District Natural Resource Specialist. Personnel of the U.S. Fish and Wildlife Service will be notified of the sightings.

Diseases of Fish and Wildlife in the Lake Shelbyville Vicinity. Project personnel are alert for signs of fish or wildlife disease outbreaks. Sick or dead specimens are delivered to the U.S. Department of Agriculture's Regional Diagnostic Laboratory at Centralia, Illinois. The District Natural Resource Specialist is immediately notified of die-off problems and they will notify area biologists of the Illinois Department of Natural Resources. The public is notified of serious disease outbreaks through standard media outlets and procedures.

Hunting and Hunter Control. Illinois State Law prescribes rules and regulations pertaining to the public hunting on Corps of Engineers managed lands at Lake Shelbyville. The Illinois Department of Natural Resources Conservation Police Officers enforces these laws. A Memorandum of Agreement between the Corps of Engineers and Illinois Department of Natural Resources allows IDNR to enforce more restrictions on public lands owned by the Corps of Engineers at Lake Shelbyville than other areas in the State when and where applicable.

With over 16,000 acres of land available, Lake Shelbyville is the largest block of public hunting lands in the upper 2/3rds of Illinois. The Corps of Engineers has 47 widely scattered, hunter-fisherman parking lots to provide public access to the 10,566 acres of land under its management jurisdiction. An additional thirty-three metal control gates are in place to control unwanted off-road vehicle usage. To date, there are no restrictions on the number of individuals permitted to hunt on public lands with the exception of shotgun deer and turkey hunters. These limited quota hunts are established by the Illinois Department of Natural Resources. With nearly 13 million people in the State of Illinois and the population continuing to grow, it will eventually become necessary to limit public hunting opportunities at Lake Shelbyville via daily use permits, special use permits, or annual passes in order to perpetuate the wildlife resources and provide for public safety.

Interrelationship Between Programs. Other programs, such as vector control, weed control, and pest control are discussed as an integral part of the Operational Management Plan.

Recreation Site Development. During the planning and development of recreation sites, consideration is given to wildlife through the prudent integration of proposed developments and natural vegetation.

Shoreline and Long-Range Plans. The Operational Management Plan will constitute the annual or short-range working plan for the Lake Shelbyville project. This plan applies to all Corps of Engineers managed lands. Long-range plans that propose the development of intensive recreation areas on presently undeveloped lands will consequently alter the wildlife habitat on these lands.

Fish and Wildlife Management Organization and Responsibility. The Operations Manager, through the Project Natural Resource Specialist, will prepare 1) Compartment Prescriptions and 2) Annual Work Plans, in order to implement the project fish and wildlife program. The Project Natural Resource Specialist is responsible for implementing and updating the Operational Management Plan. Preparation of prescriptions, annual work plans, and the Operational Management Plan five-year update will be a coordinated District effort.

Work Plans and Their Implementation. The Operations Manager, with the assistance of the Project Natural Resource Specialist, prepares annual work plans and appraises wildlife habitat conditions. These plans are used to implement the necessary on-ground work in compliance with the objectives of this section.

d) Fisheries Management

Operation of lake levels for the purpose of fish management includes maintenance of stable or slowly rising water levels during critical spawning seasons (approximately May 15 to June 15), and possible fall and winter drawdowns to increase predation success and productivity.

The Division of Fisheries of the Illinois Department of Natural Resources is responsible for fisheries management at Lake Shelbyville. A fisheries biologist that is stationed in Springfield, Illinois supervises the fish management program.

Crappie, walleye, muskellunge, bluegill, largemouth bass, and white bass populations have become established. Nursery ponds are used to aid in the stocking of walleye and largemouth bass and will be used for the production of crappie if the need arises. Additional construction and use of nursery ponds is proposed. No stocking or management of non-game fish has been implemented.

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In order to collect data to guide management, various research projects and a fallfish population survey are conducted annually by the Department of Natural Resources.

12-06 SHORELINE MANAGEMENT

The subject of shoreline management is fully addressed in the Operational Management Plan (OMP). The Shoreline Management Plan was prepared and implemented as a management tool to prevent private exclusive use along the public shoreline of Lake Shelbyville. The plan was prepared under authority of Title 36 United States Code 460d; Title 36 Code of Federal Regulations 327.30 Shoreline Management at Civil Works Projects as implemented by Engineer Regulation 1130-2-406, 31 October 1990. The objective of the plan is to provide policy and guidance for the protection of shorelines where degradation has occurred. Three basic considerations were used in formulating the Shoreline Management Plan. These were: a) the demand for water oriented recreational facilities is increasing while the amount of shoreline is fixed; b) development of private property adjacent to the project is certain to continue; c) the ownership of land adjoining public projects does not convey special rights or privileges to use of the public land and waters.

12-07 SAFETY AND SECURITY

a. General

A project safety program that identifies common recurring hazards or unsafe conditions and presents actions that will eliminate or reduce them is presented in the Operational Management Plan. The objectives of this plan expressed in general terms are: to assign responsibilities for administration of a viable safety program, to establish programs for training and familiarizing personnel in all aspects of safety, and to present guidelines relative to employee safety and public safety.

EM 385-1-1, "Safety and Health Requirements Manual" and Engineer Regulations in the 385 series establish the safety program requirement for all Corps of Engineers activities and operations. Pertinent provisions of EM 385-1-1 and other applicable regulations are applied to all activities. Resource personnel have become familiar with these instructions and implement and enforce those provisions applicable to all Corps personnel, contract personnel, and the visiting public. Other measures that are employed to maintain health and safety include, but are not limited to the following:

1. The project manager has appointed a member of the project staff as the project safety officer. The project safety officer will develop plans and programs to carry out the provisions of EM 385-1-1.

2. Biweekly Safety meetings are held for project personnel by the professional staff as required by EM 385-1-1.

3. Resource management training courses and requirements comply with Section 1 and 2 of EM 385-1-1.

4. The project safety plan portion of the Operational Management Plan is used in program planning and operation.

5. Personnel also participate in and take advantage of programs offered by organizations such as the National Water Safety Congress, National Safe Boating Council, U.S. Coast Guard, Coast Guard Auxiliary, Power Squadrons, the American Red Cross, and the National Association of State Boating Law Administrations. Guidance and assistance is obtained from the District safety office.

6. Safety equipment and materials such as first aid kits, search, rescue, and recovery equipment, portable signs and barricades, communications equipment, vehicles, motor launches, and fire fighting equipment are maintained at the project.

7. Restricted areas, swimming areas, danger zones, and hazardous areas are properly marked with the appropriate buoys, markers, signs, or barricades which conform to the current Uniform State Waterway Marking System, the Manual on Uniform Traffic Control Devices for Streets and Highways (U.S. Department of Transportation, Federal Highway Commission D6.1, 1978) to insure the public is adequately safeguarded against hazards. The tailwater area and the area immediately above the dam are properly marked with signs and/or buoys. Signs, buoys, or markers have been installed in connection with outlet control structures. Project roads and boat launching ramps are adequately signed, marked, or barricaded for proper use and protection of the visiting public.

8. All facilities and equipment comply with applicable Occupational Safety and Health Administration (OSHA) standards

9. Commercial telephones for emergency use are provided in public areas where feasible.

10. Adequate security lights are provided at all boat launching ramps where lights are available at a reasonable cost.

11. Information bulletin boards are provided in public use areas containing emergency numbers, Title 36 rules and regulations, safety tips and other information of interest to the visitor.

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b. Search, Rescue and Recovery. These activities are properly performed by local and state authorities, and are undertaken by Corps of Engineers personnel only in cases of emergency when situations dictate their necessity. In these cases, coordination with local authorities is essential. Body recovery missions will also be accomplished in coordination with the sheriff's department state police, or other local law enforcement agencies. Safety of personnel is taken into consideration at all times. Proper equipment is available and personnel are trained for this function when these activities are undertaken.

c. Main Dam Security Improvements. Since the events of September 11, 2001, closer examination of security has been required for all Corps of Engineers dams. In March 2002, the Internal Security Assessment Team performed an inspection of the Lake Shelbyville Dam and made recommendations for improving the security of the dam. The recommendations included installing gates, security cameras, and additional fencing.

Section XIII

Cost Estimates

Lake Shelbyville Master Plan
SECTION XIII – COST ESTIMATES

13-01. INTRODUCTION

a. General. Preliminary cost estimates for development of proposed new and renovation or replacement actions at Lake Shelbyville have been developed by the project staff and Engineering Division. Cost estimates developed by Engineering Division are highlighted with a double border. The quantities and costs represent a typical Corps of Engineers guide specification level of design and materials. Costs for IDNR proposed items were provided by the State. During actual detailed design of each element, variations in types and quantities of materials, modifications of facilities, inflationary trends, and results from additional engineering tests will undoubtedly occur. Costs are based on 2003 prices received for similar items of work in the St. Louis District. Total for proposed CRR actions does not include contingency, PED, or construction management costs because these are mostly done in-house.

b. Summary of Costs. Preliminary cost estimates for proposed new actions for Corps of Engineers and State facilities are listed in TABLE 21. Proposed CRR actions are listed in TABLE 22.

c. Financial Analysis. A financial analysis of new items is presented in TABLE 23 below. The benefit to cost ratio for sewer and water hookups is presented for a typical campground installation. This is applicable to any campground where sewer and water hookups are proposed.

TABLE 21
PRELIMINARY COST ESTIMATES FOR PROPOSED NEW ACTIONS

	Item or Description	Qty	Unit	Unit Price	Estimated Amount
US Army Corps of Engineers					
Project Operations					
Main Dam OP-1 Section 8.04.a.	Install roadway gates, additional fencing, and security cameras	1	LS	\$153,000	\$153,000
Recreation Areas					
Dam West – Area 1 Section 8.05.a.	Construct Fish Nursery Pond	1	LS	\$100,000	\$100,000
	Install electrical service to overlook berm picnic shelter	1	JB	\$2,000	\$2,000
Opossum Creek – Area 2 Section 8.05.b.	Install water and sewer campsite hookups.	11	EA	\$670	\$7,370
	Install 30-amp electrical service to tent-only campsites	22	EA	\$450	\$9,900
Coon Creek – Area 3 Section 8.05.c.	Install water and sewer campsite hookups	39	EA	\$670	\$26,130

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
	Construct trail for pedestrian and bike traffic from fee booth area to main shower building	1	JB	\$15,000	\$15,000
	Install additional parking spaces throughout campground	20	EA	\$500	\$10,000
	Install second trailer dump station	1	JB	\$5,000	\$5,000
Lone Point – Area 4 Section 8.05.d.	Install 30-amp electrical service to tent-only campsites	7	EA	\$450	\$3,150
	Install sewer and water campsite hookups	15	EA	\$670	\$10,050
Bo Wood – Area 8 Section 8.05.h.	Install sewer and water campsite hookups	33	EA	\$670	\$22,110
Whitley Creek – Area 11 Section 8.05.k.	Construct high water boat ramp	1	EA	\$91,940	\$91,940
Lithia Springs – Area 13 Section 8.05.n.	Install water and sewer hookups at campsites	16	EA	\$670	\$10,720
	Install sand volleyball court, outdoor shower, and two bench shelters at beach	1	LS	\$4,000	\$4,000
	Install additional parking spaces throughout the campground	15	EA	\$500	\$7,500
Dam East – Area 14 Section 8.05.o.	Install vehicle access to picnic shelter	1	JB	\$2,000	\$2,000
Spillway – Area 15 Section 8.05.p.	Construct parking lot	1	JB	\$10,000	\$10,000
Environmentally Sensitive Areas					
Lithia Springs Chautauqua ES-C-2 Section 8.07.b.	Install interpretive signage to this area	1	JB	\$10,000	\$10,000
	Install security lighting to this area	1	JB	\$15,000	\$15,000
Subtotal:\$514,870					
Contingency – 30% (New Actions): \$154,461					
Planning, Engineering, & Design – 15% (New Actions): \$77,231					
Construction Management – 10% (New Actions): \$51,487					
Corps of Engineers Total Project Cost: \$798,049					
Illinois Department of Natural Resources Facilities					
IDNR/Eagle Creek – Area 5 Section 8.05.e.	Install cabins in campground area	20	EA	\$10,000	\$200,000
	Construct storage building	1	JB	\$80,000	\$80,000
	In Resort Area: Construct 50 universally accessible floating courtesy docks with full electric service, walkway to connect resort with lakefront, small	1	LS	\$2,000,000	\$2,000,000

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
	gazebo, 45' X 100' patio				
	Install footbridges to connect tent camping areas	1	LS	\$3,000	\$3,000
IDNR/Wolf Creek – Area 12 Section 8.05.l.	Install cabins in campground area	20	EA	\$10,000	\$200,000
	Install electricity and dump station at Equestrian Campground	1	LS	\$600,000	\$600,000
	Construct shower building in campground	1	JB	\$350,000	\$350,000
	Install hazardous material storage building	1	JB	\$50,000	\$50,000
IDNR/Wildlife Management Areas Section 8.06.b.	Install hazardous material storage building	1	JB	\$50,000	\$50,000
IDNR Total Project Cost: \$3,533,000					

**TABLE 22
PRELIMINARY COST ESTIMATES FOR PROPOSED CRR ACTIONS**

	Item or Description	Qty	Unit	Unit Price	Estimated Amount
US Army Corps of Engineers Facilities					
Project Operations Facilities					
Main Dam OP-1 Section 8.04.a.	Install maintenance lifts and other needed equipment to deal with confined space issues, renovate electrical system, and replace electrical system concerning roadway lights	1	LS	\$318,000	\$318,000
	Replace east and west gallery staircases	1	LS	\$74,000	\$74,000
	Replace piezometers	1	LS	\$10,000	\$10,000
	Re-paint bridge & other metal works	1	LS	\$306,840	\$306,840
Administration Complex, Maintenance Complex, and Visitor Center OP-2 Section 8.04.b.	Prepare a study to determine the cost feasibility and design of replacing and consolidating facilities	1	JB	\$103,000	\$103,000
Visitor Center OP-2 Section 8.04.b(2)	Remove amphitheater from Whitley Creek and replace near Visitor Center	1	JB	\$50,000	\$50,000
	Renovate front entrance doors and comfort station to make them universally accessible	1	LS	\$12,000	\$12,000

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
Recreation Areas					
Dam West – Area 1 Section 8.05.a.	Replace overlook and comfort station with a picnic shelter with an attached comfort station	1	LS	\$150,000	\$150,000
	Remove Opossum Creek boat ramp and replace within this area that will service the large group picnic shelter and fish tournament area	1	JB	\$93,640	\$93,640
	Renovate vending area, which will include removing and replacing the Dam West Beach picnic shelter	1	LS	\$30,000	\$30,000
	Upgrade electric service in area	1	LS	\$50,000	\$50,000
	Replace all water lines	1	LS	\$30,000	\$30,000
Opossum Creek – Area 2 Section 8.05.b.	Day Use Comfort Station #1 has been removed, remove Add-on shower house #1, consolidate and replace facilities with a main shower building	1	LS	\$259,077	\$259,077
	Renovate high water boat ramp so that it can be used year round	1	JB	\$250,000	\$250,000
	Renovate Add-on shower house #2 to remove the shower portion of the building	1	EA	\$1,000	\$1,000
	'79 YCC Camp Camfield amphitheater has been removed and will be replace in this area	1	EA	\$7,000	\$7,000
	Replace all water lines	1	LS	\$30,000	\$30,000
Coon Creek – Area 3 Section 8.05.c.	Remove Comfort station #8, one comfort station on A or B leg, and add-on shower houses on A & E legs and consolidate into two mini-shower buildings	2	JB	\$211,344	\$422,688
	Remove comfort station #5 and add-on shower house on H leg and consolidate into a mini-shower building	1	JB	\$211,344	\$211,344
	Remove and replace campsites primarily pull-off sites	26	EA	\$1,000	\$26,000
	Remove Comfort Station near campsite 176 and consolidate facilities with mini-shower buildings	1	JB	\$5,000	\$5,000
	Replace water lines	1	LS	\$50,000	\$50,000
Lone Point – Area 4 Section 8.05.d.	Replace main shower building	1	LS	\$259,077	\$259,077

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
	Comfort station #3 has been removed and will be replaced with a mini-shower building within the Walleye Group Camp	1	LS	\$211,344	\$211,344
	Remove the amphitheater and replace in a centralized area within the campground	1	JB	\$30,000	\$30,000
	Close secondary campground exit and add a roadway section to connect the road from campsite 79 to the main campground road	1	LS	\$50,000	\$50,000
	Replace fee booth	1	EA	\$20,000	\$20,000
	Replace water lines	1	LS	\$30,000	\$30,000
	Remove and replace campsites # 29 and 30	2	EA	\$1,000	\$2,000
Findlay Marina – Area 6 Section 8.05.f.	Connect to Shelbyville or Findlay Sewer System	1	LS	\$150,000	\$150,000
Wilborn Creek – Area 7 Section 8.05.g.	Day use comfort station #1 and picnic shelter have been removed, remove Group Camp comfort station and consolidate with Okaw Bluff Frame House facilities and replace with multi-purpose group shelter, five mini-shelters, and mini-shower building	1	LS	\$251,344	\$251,344
	Renovate non-electric campsites into impact area campsites with 50-amp electrical service	15	EA	\$1,000	\$15,000
	Replace sewer and water lines	1	LS	\$20,000	\$20,000
	Replace fish cleaning station	1	JB	\$11,550	\$11,550
	Replace boat ramp comfort station	1	LS	\$104,878	\$104,878
Bo Wood – Area 8 Section 8.05.h. Whitley Creek – Area 11 Section 8.05.k.	Remove and consolidate campground facilities	1	LS	\$1,143,000	\$1,143,000
Bo Wood – Area 8 Section 8.05.h.	Renovate existing campsites (47-55) into a group camp area	1	LS	\$20,000	\$20,000
	Replace comfort station in proposed group camp with a mini-shower building	1	LS	\$211,344	\$211,344
	Remove day use picnic shelter from Lone Point Recreation Area and replace within the proposed group camp area	1	JB	\$20,000	\$20,000
	Renovate entrance road	1	JB	\$87,000	\$87,000
	Replace fish cleaning station	1	JB	\$11,550	\$11,550

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
Okaw Bluff – Area 10 Section 8.05.j.	Remove Stone House and Frame House facilities. Replace Stone House with a multi-purpose group shelter, six mini-shelters, and mini-shower building.	1	LS	\$201,330	\$201,330
Okaw Bluff/Sullivan Beach – Area 10 Section 8.05.j.	Replace water lines	1	LS	\$30,000	\$30,000
Sullivan Beach – Area 10 Section 8.05.j.	Replace picnic shelter	1	LS	\$30,000	\$30,000
Lithia Springs – Area 13 Section 8.05.n.	Remove south comfort station on B-leg and add-on shower houses #1 & #2 and consolidate into 2 mini-shower buildings	2	EA	\$211,344	\$422,688
	Remove and replace amphitheater to a centralized area within the campground	1	JB	\$20,000	\$20,000
	Remove Whitley Creek playground set and replace it within this area	1	JB	\$2,000	\$2,000
	Replace all water lines	1	LS	\$50,000	\$50,000
	Renovate and expand boat ramp parking lot	1	JB	\$100,000	\$100,000
	Replace fish cleaning station	1	JB	\$11,550	\$11,550
	Renovate and widen D leg entrance parking lot within the campground	1	JB	\$10,000	\$10,000
	Remove day use comfort station and replace it near the fish cleaning station	1	LS	\$104,878	\$104,878
Lithia Springs Marina – Area 13 Section 8.05.n.	Renovate main parking area	1	JB	\$165,750	\$165,750
Dam East – Area 14 Section 8.05.o.	Comfort Station #2 has been removed and will be consolidated with Comfort Station #1 into a modern designed comfort station	1	LS	\$104,878	\$104,878
Spillway – Area 15 Section 8.05.p.	Replace Comfort Station #2 and make it universally accessible	1	JB	\$104,878	\$104,878
	Remove Spillway fish cleaning stations and consolidate into a universally accessible fish cleaning station within Spillway East Area	1	LS	\$6,000	\$6,000
Coon Creek, Lone Point, Lithia Springs Recreation Areas	Shoreline Erosion Feasibility Study	1	LS	\$15,000	\$15,000

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	Item or Description	Qty	Unit	Unit Price	Estimated Amount
Project Wide – Northern Area	Connect to Sullivan Force Main (Wilborn Creek, Bo Wood, Sullivan Beach, Okaw Bluff Group Camp, Sullivan Marina and Campground, and Whitley Creek)	1	LS	\$600,000	\$600,000
Project Wide – Southern Area	Connect to Shelbyville Force Main (Lithia Springs, Opossum Creek, Coon Creek, and Lone Point)	1	LS	\$1,900,000	\$1,900,000
Project Wide	Renovate existing trails to accommodate multi-purpose use	1	LS	\$35,000	\$35,000
Project Wide	Renovate primary boat ramps to accommodate courtesy docks	8	EA	\$22,000	\$176,000
Low Density Recreation Areas					
Camp Camfield LD-4 Section 8.06.a.(4)	Remove and replace trail footbridges with culverts	1	LS	\$2,000	\$2,000
Woods Lake LD-8 Section 8.06.a.(8)	Remove Vault Comfort Station from Lithia Springs and replace it within this area	1	JB	\$30,000	\$30,000
Environmentally Sensitive Areas					
Lithia Springs Chautauqua ES-C-2 Section 8.07.b.	Remove shelter from Lithia Springs Recreation Area and replace it within this area.	1	JB	\$20,000	\$20,000
	Replace wooden bridge	1	JB	\$2,000	\$2,000
	Remove vault comfort station from Whitley Creek and replace it within this area	1	JB	\$30,000	\$30,000
Corps of Engineers Total Project Cost: \$9,650,472					
	Item or Description	Qty	Unit	Unit Price	Estimated Amount
Illinois Department of Natural Resources Facilities					
IDNR/Eagle Creek	Expand golf course and storm shelter at the Resort	1	LS	\$750,000	\$750,000
IDNR/Eagle Creek	Renovate roads, which includes widening them	1	LS	\$1,700,000	\$1,700,000
IDNR/Eagle Creek	Renovate Breakwater	1	JB	\$500,000	\$500,000
IDNR/Eagle Creek	Upgrade sewer line that runs from this park to Wolf Creek State Park	1	LS	\$500,000	\$500,000
IDNR/Eagle Creek	Renovate campground electrical system	1	LS	\$200,000	\$200,000
IDNR Total Project Cost: \$3,650,000					

Lake Shelbyville Master Plan

**TABLE 23
FINANCIAL COST ANALYSIS FOR NEW FACILITIES**

Typical Campground Water & Sewer Hookups Analysis								
Benefits	Days	Occupancy Rate	Total Days Occupied	Daily Increase in Fee	Annual	Number of Campsites	Total Annual Revenue	Initial Cost
Increased fee collection - \$2.00/campsite/hookup	150	0.45	67.5	\$4	\$270	77	\$20,790	
Increased fee collection - \$2.00/campsite/hookup	30	0.4	12	\$4	\$48	77	\$3,696	
Total Additional Annual Revenue							\$24,486	
Costs								
Increased O&M annual expenses					\$100			
Annualized Construction Cost					\$6,181			\$51,590
Total Annual Costs					\$6,281			
Benefit/Cost Ratio					3.90			

Section XIV

Conclusions and Recommendations

SECTION XIV – CONCLUSIONS AND RECOMMENDATIONS

14-01. CONCLUSIONS

a. Lake Shelbyville became operational in 1970. Since that time, it has become a valued recreational resource for the Midwest region. In addition it has fulfilled its other authorized purposes including flood control on the Kaskaskia and Mississippi Rivers, water supply, navigation, and fish and wildlife conservation.

b. The recreation areas and waters at Lake Shelbyville provide quality public facilities. All lake resources will be continually monitored to ensure these resources are maintained at a high level of quality.

14-02. RECOMMENDATIONS

It is recommended that this updated plan be approved in its entirety to meet operation and management goals and objectives through the year 2014.

Section XV

Appendices

Appendix 1

Pictures of Facilities at Lake Shelbyville

Main Dam



Address Confined Space Issues and Concerns
Paint Bridge and other metal works
Electrical Upgrade



Replace East and West Gallery Spiral Staircases

Dam West Recreation Area



Possible Location for the Administration/
Maintenance Complex



Main Shower Building at Dam West Beach
Remove and Replace Out of Flood Zone



Possible location for Nursery Pond – North of Boat Ramp Parking Lot



Replace Overlook Comfort Station with Picnic Shelter with Comfort Station Attached



Install Electrical Services to the Overlook Berm Picnic Shelter



Rehabilitate Vending Area. Consession Building has been removed, provide vending hookups, and replace and relocate beach picnic shelter

Dam East Recreation Area



Comfort Station #2 has been removed and will be consolidated with Comfort Station #1 – Replacing it with a Modern Design Comfort Station

Spillway Recreation Area



Remove Spillway West Fishing Cleaning Station
Rehabilitate Spillway East Fish Cleaning Station
so that it is universally accessible

Lithia Springs Recreation Area



Vault Comfort Station has been removed
and will be replaced at Woods Lake West



Remove Amphitheater and replace in a
centralized location within the campground



Remove Picnic Shelter and replace it within
the Lithia Springs Chautauqua Area



Connect to Shelbyville Force Main, which
will eliminate the Land Treatment Plant

Lithia Springs Chautauqua Area



The picnic shelter from Lithia Springs Recreation Area will be removed and will be replaced within this area over the two existing springs.

Opossum Creek Recreation Area



Comfort Station #1 has been removed and will be consolidated with other facilities and replaced with a main shower building within the campground



Rehabilitate and Consolidate Comfort Station Shower Buildings



Rehabilitate High Water Boat Ramp so it can be utilized year round – Remove Primary Ramp and Replace within Dam West Recreation Area



Connect to Shelbyville Force Main and eliminate Land Treatment Plant

Coon Creek Recreation Area



- Comfort Station #11 has been removed.
- Relocate Comfort Station #8 and one comfort station on A or B leg.
- Remove Comfort Station near campsite 176
- Relocate Comfort Station #5

Remove the three comfort station shower (Add-on) buildings, consolidate them with the above facilities, and replace with three mini-shower buildings.



Construct another trailer dump station



Turnarounds affected by shoreline erosion



Campsite affected by shoreline erosion

Lone Point Recreation Area



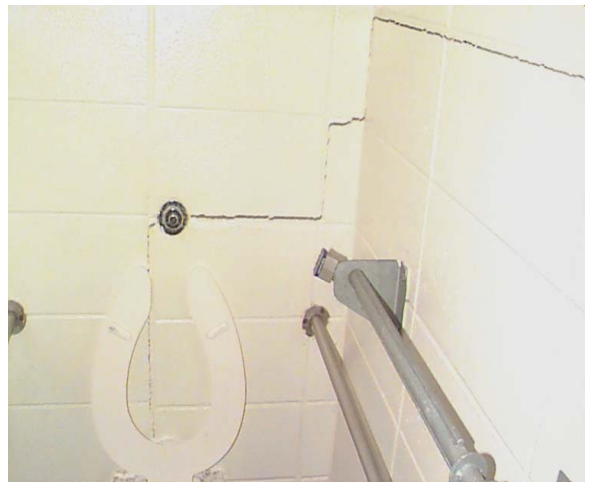
Comfort Station #3 has been removed and will be replaced with mini-shower building within Walleye Group Camp



Replace Main Shower with modern design that includes laundry facilities



Remove Amphitheater and replace in a centralized location within the campground



Crack in the Main Shower Wall

Whitley Creek Recreation Area



Connect to Sullivan Force Main and eliminate Land Treatment Plant



Consolidate campsites and amenities within Bo Wood Recreation Area

Sullivan Beach Recreation Area



Install electrical services to picnic shelter

All Campgrounds



Upgrade campsites from 30-amp to 50-amp electrical service

Okaw Bluff Group Camp



According to the Shoreline Erosion Management Plan, the Okaw Bluff Group Camp Houses are to be removed. Frame house facilities will be replaced within the Wilborn Creek Group Camp with a multi-purpose group shelter, mini-shower and 5 mini-shelters. Stone house facilities will be replaced within Okaw Bluff Area with a multi-purpose group shelter, mini-shower, and 6 mini-shelters.

Bo Wood Recreation Area



Shoreline Erosion along the South Shore of the Bo Wood Campground



According to the Shoreline Erosion Management Plan, due to the effects of shoreline erosion the Bo Wood Campground and picnic area are to be removed and replaced within another location in the Bo Wood Recreation Area.

Wilborn Creek Recreation Area



Rehabilitate campsites



Picnic Shelter and Comfort Station #1 have been removed. Group Camp comfort station will be removed. These facilities will be consolidated with the Okaw Bluff Frame House facilities and replaced with a multi-purpose group shelter, mini-shower building, and 5 mini-shelters.



Connect to Sullivan Force Main and eliminate Land Treatment Plant

Woods Lake



Vault comfort station at Lithia Springs Recreation Area has been removed and will be replaced within in Woods Lake West area and will eliminate the need for porta potty facilities.

Appendix 2

Pictures of Operation Facilities at Lake Shelbyville

Administration Complex
Maintenance Complex
Visitor Center

Administration Building



Administration Complex and Visitor Center



Front of Administration Building



Front Entrance Doors Do Not Meet Uniform Federal Accessibility Standards (UFAS)



Windows are inefficient



Makeshift Storm Window Frames had to be Installed



Moisture is Infiltrating in and around the Window Frames



Existing wiring for electronic equipment and telephones does not have the capacity to provide the proper services needed





Main Hallway used as Storage Area



Attic used as storage area – Pull down Ladder is used to access the attic



Attic Storage



Heating and Cooling Boiler System is not energy efficient



Heating and Cooling Unit



Restrooms do not meet Uniform Federal Accessibility Standards



Asbestos is present



Southeast Wall is cracked



Wall Crack Movement Measurement



Temporary Fix for Cracked Wall



Evidence of leaking roof is present throughout the Administration Building



The roof on the Administration Building is a rubberized flat roof



Evidence of pooling water exists in several places on the Administration Building roof





The roof has been patched in several places to stop it from leaking



Vehicle Compound attached to Administration Building



East side of the Administration Building



Portable building converted into office space



Storage buildings in vehicle compound

Maintenance Complex



Arial photo of Maintenance Complex



Building that provides maintenance work space



Building that is known as the Groves Building that serves as a storage building



Chemical, power tool, paint, and oil storage sheds



Storage building for the Interpretive Services Department



Trailer surplused from Carlyle Lake that serves as the Interpretive Services Office



Salvaged Sewage Treatment Plant Building that serves as the Natural Resources Office



One of the main support beams in the Groves Building that is deteriorated at base

Lake Shelbyville Visitor Center



Front of the Visitor Center



Front entrance doors do not meet Uniform Federal Accessibility Standards



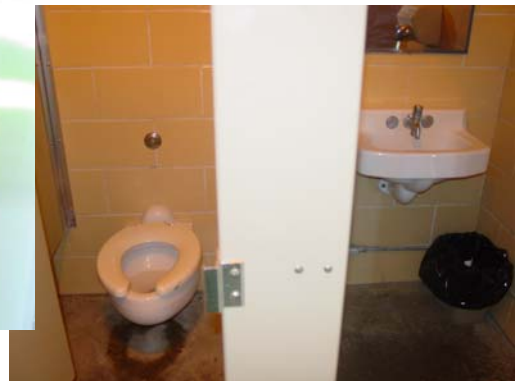
Front lobby is too small to meet all of the visitor needs.



Multipurpose room that serves as a theater, meeting room, classroom, program area, and exhibit area



Aquarium and Terrarium workroom is cramped and is too small.



Restrooms are located outside and do not meet Uniform Federal Accessibility Standards.



Exhibits are showing their age and are in need of repair or replacement



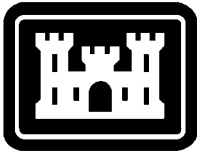
Appendix 3

Public Involvement Plan for Master Plan Update

Appendix 3
Lake Shelbyville
Public Involvement Plan for Master Plan Update

Coordinating the update of this Master Plan with the public and agency partners was very important for identifying resources and determining public needs and desires. Through an informal workshop, programs, letters, St. Louis District web page, and news releases the public and agency partners were involved and informed.

Comments were received at the public workshop held on 10 July 2003 and during a comment period following the workshop. Meet the Manager programs were held in all of the six campgrounds operated by the Corps of Engineers at Lake Shelbyville. At these programs the Master Plan Update was discussed and the public was given an opportunity to ask questions and voice their concerns. During the comment period after the public workshop the Master Plan Update was available on-line at the St. Louis District web page and hard copies were available at the Lake Shelbyville Project Office and Visitor Center for review. Comment cards were distributed to campers and other lake users requesting their input. Several comments were also received through the mail and via email. The Lake Shelbyville and St. Louis District Corps of Engineers personnel provided responses to comments when appropriate.



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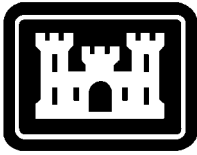
R.R. 4, Box 128B, Shelbyville, IL 62565-9804 • (217) 774-3313 • Fax (217) 774-2233
EMAIL: lakeshelbyville@mvs02.usace.army.mil

Public Workshop Concerning Lake Shelbyville Master Plan Update

Lake Shelbyville, July 7, 2003 – The US Army Corps of Engineers would like to invite you to a Public Workshop concerning the Lake Shelbyville Master Plan Update that will be held on Thursday, July 10, 2003 at the Lake Shelbyville Visitor Center from 5:30 pm until 8:30 pm. The updated master plan provides a current inventory and assessment of land and water resources and physical improvements, a reformulation of resource use objectives, discussions of influences on lake operations and management and an evaluation of existing and future needs required to protect the value of the resource base. Emphasis has been placed on increasing the efficiency of operations and consolidation, relocation, rehabilitation. The update also addresses allocation of lands for future development on Lake Shelbyville.

This meeting is non-formal so you can come and go as you please. Corps of Engineers personnel will be at the meeting to provide information, listen to your comments, and answer any questions that you might have concerning the Master Plan Update.

For more information contact the Lake Shelbyville Project Office at (217) 774-3951.



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Release No.

Al Lookofsky
Contact Person

IMMEDIATE
For Release

R.R. 4, Box 128B, Shelbyville, IL 62565-9804 • (217) 774-3951 • Fax (217) 774-2014
EMAIL: lakeshelbyville@mvs02.usace.army.mil

Request for Public Comments Concerning Lake Shelbyville Master Plan Update

Lake Shelbyville, July 18, 2003 – The US Army Corps of Engineers would like your comments concerning the Lake Shelbyville Master Plan Update. The Master Plan Update can be viewed on-line at www.mvs.usace.army.mil (Click on Lake Shelbyville Master Plan Draft under Hot Issues) or in person at the Lake Shelbyville Administration Building and Visitor Center. Comments can be given in person, emailed to lakeshelbyville@mvs02.usace.army.mil, or mailed to the Lake Shelbyville Project Office, Attn: Master Plan Update, RR 4, Box 128B, Shelbyville, IL 62565.

The updated master plan provides a current inventory and assessment of land and water resources and physical improvements, a reformulation of resource use objectives, discussions of influences on lake operations and management and an evaluation of existing and future needs required to protect the value of the resource base. Emphasis has been placed on increasing the efficiency of operations and consolidation, relocation, rehabilitation.

Comments concerning the Lake Shelbyville Master Plan Update will be taken until Friday, August 1, 2003.

News Releases were sent to the following media contacts.

Newspapers

Beecher City Journal – Beecher City, Illinois
Bloomington Pantagraph – Bloomington, Illinois
Blue Mound Leader – Blue Mound, Illinois
Breeze-Courier – Taylorville, Illinois
Carlinville Democrat – Carlinville, Illinois
Cass County Star Gazette – Cass County, Illinois
Chicago Bureau – AP News – Chicago, Illinois
Clay County Republican – Clay County, Illinois
Decatur Herald and Review – Decatur, Illinois
Dewitt City Constitution – Dewitt, Illinois
Effingham Daily News – Effingham, Illinois
Golden Prairie News – Assumption, Illinois
Greenup Press – Greenup, Illinois
Macoupin County Enquirer – Macoupin County, Illinois
Madison County Chronicle – Madison County, Illinois
Mattoon Journal Gazette – Mattoon, Illinois
The Merchandiser – Shelbyville, Illinois
Neoga News – Neoga, Illinois
News-Progress – Sullivan, Illinois
Pana News – Pana, Illinois
Ramsey News Journal – Ramsey, Illinois
Shelby County News Gazette – Windsor, Illinois
Shelbyville Daily Union – Shelbyville, Illinois
Tuscola Review, Tuscola, Illinois
Alton Telegraph – Alton, Illinois

Magazines

Fish and Game Finder
Heartland Outdoors Magazine

Radio Stations

KMOX Radio – St. Louis, Missouri
WGN Radio – Chicago, Illinois
WEJT Radio – Decatur, Illinois
WITY Radio – Illinois
WLKL Radio – Mattoon, Illinois
WLS Radio – Chicago, Illinois
WMCI Radio – Mattoon, Illinois
WSMI – Litchfield, Illinois
WSOY – Decatur, Illinois
WTIM – Taylorville, Illinois
WXEF / WKJT – Effingham, Illinois
WXFM – Mt. Zion, Illinois

Television Stations

WAND-TV – Decatur, Illinois
WCIA-TV – Champaign, Illinois

Agencies

Central Illinois Tourism Council
Douglas Hart Nature Center
Eagle Creek State Park
First Trust Bank of Shelbyville
Findlay Marina
Lithia Springs Marina
Shelbyville Cooperative Extension
Shelby County Office of Tourism
Shelbyville Chamber of Commerce
Shelby Historic House and Inn
Shelbyville Wildlife Management Areas
Sullivan Area Chamber of Commerce
Wolf Creek State Park

02 July 2003

Construction-Operations
Readiness Division

**Typical Letter Sent
to Agency Partners**

Mr. Dan Mohr
Findlay Marina
RR 1, Box 136
Findlay, IL 62534

Dear Dan:

The US Army Corps of Engineers would like for you to review the enclosed Lake Shelbyville Master Plan Update. The updated master plan provides a current inventory and assessment of land and water resources and physical improvements, a reformulation of resource use objectives, discussions of influences on lake operations and management and an evaluation of existing and future needs required to protect the value of the resource base. Emphasis has been placed on increasing the efficiency of operations and consolidation, relocation, rehabilitation and replacement of facilities.

Please provide any comments, questions, or concerns about this plan to me by Friday, July 18, 2003. I can be contacted at the Lake Shelbyville Project Office at 217-774-3951 or they can be sent to my attention at the above address. You are also invited to attend the Public Meeting concerning the Lake Shelbyville Master Plan Update that will be held on Thursday, July 10, 2003 at the Lake Shelbyville Visitor Center from 5:30 pm until 8:30 pm.

Sincerely,

Andrea L. Lewis
Operations Manager

**Master Plan Update Mailing List
Operations Manager's Signature**

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US Dept. of Agriculture Community and
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2118 West Park Court, Suite B
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Pana Lincoln Prairie Bike and Hike Trail
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Pana, IL 62557

Jodi Winn Rooney
IDOT, District 5
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Shelbyville, IL 62565

Dennis Fayhee
Sullivan Marina and Campground
RR 2, Box 35
Sullivan, IL 61951

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Izaak Walton League
1911 McDonald Drive
Champaign, IL 61821

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Whitetails Unlimited, Inc.
1230 Cadwell
Bloomington, IL 61704

Jay Allred
Shelbyville Chamber of Commerce
124 N. Morgan
Shelbyville, IL 62565

Shelby County Office of Tourism
315 E. Main
Shelbyville, IL 62565

Gene Davis
NRCS
111 N. Cedar, Suite 3
Shelbyville, IL 62565

Kathy Niksic
Kaskia-Kaw Rivers Conservancy
711 E. North 9th St.
Shelbyville, IL 62565

Dick Gloede
Shelby County Community Services
PO Box 650
Shelbyville, IL 62565

Jerry Yockey
General Dacey Trail Plan Committee
504 N. Morgan
Shelbyville, IL 62565

Mickey Hrvol
Sullivan Area Chamber of Commerce
7 N. Main
PO Box 287
Sullivan, IL 61951

Gene Wooters
City of Findlay
PO Box 199
Findlay, IL 62534

Eric Bennett
City of Windsor
1016 Maine
Windsor, IL 61957

Steve Jurgens
Upper Kaskaskia Eco Partnership
RR 2, Box 76
Arthur, IL 61911-9314

George Andres
Kaskaskia Watershed Assoc.
412 West 4th
Edwardsville, IL 62025

Tim Hickman
IDNR
Office of Resource Conservation
One National Resource Way
Springfield, IL 62702-1271

Mike McCulley
IDNR, Region 3
Office of Resource Conservation
2005 Round Barn Rd
Champaign, IL 61821

Jim Capel
IDNR, Region 3
Office of Resource Conservation
2005 Round Barn Rd
Champaign, IL 61821

Richard Glazebrook
Eagle Creek State Park
RR 1, Box 6
Findlay, IL 62534

Stacy Stinson
Central Illinois Mountain Bicycling Assoc.
3869 E. Fulton Ave.
Decatur, IL 62521

Rick Hayfer
IL Dept of Public Health
2125 S. First
Champaign, IL 61820

Shelbyville Public Library
154 N Broadway
Shelbyville, IL 62565

Storm Memorial Library
102 S Maple
Windsor, IL 61957

Elizabeth Titus Memorial Library
2 W. Water
Sullivan, IL 61951

Marrowbone Township Library
216 W. Main
Bethany, IL 61914

Illiana Brown
IEPA
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IEPA
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8588 Rt 148
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18 Parkway Drive
Sullivan, IL 61951

Shirley Sullivan
Tri-County Quails Unlimited
802 W Dewitt
Pana, IL 62557

Stan Duzan
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RR 1, Box 42-A
Bethany, IL 61914

Dave Wahl
Kaskaskia Biological Station
RR 1, Box 157
Sullivan, IL 61951

2003 Lake Shelbyville Master Plan Update Comment Card

Public Comment

Your name and address

Comment(s) concerning Master Plan Update

Use the backside of the card to continue if necessary.

From: Scott Enkoff
Address: R.R.1 Box 182D
Shelbyville, IL 62565

1. Hope to see continuing development in recreation. General Dacey trail is a good solid start toward this end.

From: Lazar Hamparzomian
Address: 1505 N. Cedar
Shelbyville, IL 62565

2. A bike only trail would be great for the locals and visitors. And cross-country skiing would a nice touch.

From: Jeffrey Jones
Address: 336 N. Country Club Rd.
Decatur, IL 62521
Jeffandloisjones @MSN.Com

3. I am very interested in Mountain bike trail as well as asphalt/limestone trails for family cycling.

From: Megan Knearem
Address: R.R.1 Box 182a
Shelbyville, IL 62565

4. I hope you build the General Dacey trail.

From: Kate Ross 774-5380
Address: 607 W.N. 1St.
Shelbyville, IL 62565

5. Growing up in Northern Wisconsin (where the mountain bike trails are plentiful). Gave me an opportunity of a lifetime. My father and I would go out riding all summer -having this opportunity to learn about the trails, woods and out door life has impacted my life style and life choices in healthy ways. I strongly urge you to build more trails that are mountain bike accessible that has natural terrain-not paved! By adding this to the list of activities, more people will be drawn to the area and it will also draw more people into the sport. The parks that Shelby County has to offer us are beautiful - A utopia among miles of corn and beans fields. Getting the public out in any way to enjoy what our area has to offer should be the goal (and I believe it is) for the Corps. By adding more trails, more options are available therefore more people will get out! Thank you for providing and maintaining beautiful biking trails.

From: Kim Stinson
Address: 3869 E. Fulton Ave.
Decatur, IL 62521

6. I believe this trail will be a great access to this area. I do use the mountain bike trail at Camp Camfield and support it 100%. A paved trail will be cool for all individuals to enjoy roller blades, bikes, joggers, runners and walkers.

From: Clay and Jill Miller
Address: 209 N. Walnut
Shelbyville, IL 62565

7. We would love to see a bike trail around Lake Shelbyville. Especially as our family grows, it would be wonderful to have another outdoor recreation that we can all enjoy. We were thrilled when we first heard of the project and hope it will progress soon.

From: Marilyn Hamparzomian
Address: 1505 N. Cedar
Shelbyville, IL 62565

8. I would like to see bike trails around the lake that would offer a safer ride for enjoying the beauty and adventure the area offers to bike riding. I would also enjoy being able to safely cross-country ski on the trail in winter.

From: Charles M. Le Crone
Address: 1027 W. Northland Dr.
Shelbyville, IL 62565

9. I hope serious consideration will be given to the building of multi-purpose trails (cycling, walking, running) around the lake. In addition, I hope that the pristine nature of the lake shoreline is maintained.

From: Joan Le Crone
Address: 1027 W. Northland Dr.
Shelbyville, IL 62565

10. I am interested in the proposed bike trail around the lake. We do a lot of bike riding and a trail would add to our enjoyment of the lake and our hobby.

Response: 1-10 comments noted.

From: Rick Olsen
Address: Lithia Resort
R.R.4 Box 105
Shelbyville, IL 62565

11. Extend high water ramp at Lithia making it a year round ramp.

Response: Due to the close proximity of the primary and high water ramps at Lithia Springs Recreation Area to each other extending the high water ramp could cause a problem with congestion in the ramp area, so it is proposed to rehabilitate the primary boat launching ramp to accommodate the courtesy dock so that the two existing launching lanes can be utilized.

12. Bike route on back road to Lithia not 1500.

Response: Comment has been noted and will be taken under consideration during the planning of the General Dacey Trail Plan.

13. Impact to hunting- several issues to discuss.

Response: Lake Shelbyville is utilized for many different recreational purposes, which includes hunting. Before a proposed plan such as the General Dacey Trail Plan will be implemented the effects on the environment and different recreational purposes will be evaluated.

From: Steven Wright
Address: 1004 N. Walnut St.
Shelbyville, IL 62565

14. Better dock system at Corps ramps.

Response: It is proposed to rehabilitate all primary boat launching ramps to accommodate courtesy docks, so that the existing boat ramp lanes can be utilized for loading and unloading.

From: Charlene Ditto
Gregory's Resort
Address: bass4@one-eleven.net

15. Just wanted to touch base with you regarding the (Lithia Spring Campground) beach privileges: I'm not sure what the main problem really is with us using the beach, but I feel there should be something we could compromise on so that total removal of beach privileges might be avoided. Obviously, posting restrictive signs for children ("must be accompanied by parents", etc.) may be in order. Perhaps issuing special passes that would identify whether people are guests of ours, Lithia Resort, or marina folks. If it's a question of money for the Corps, I'm willing (and I'd bet so would everyone else out here) to pay a use fee for the beach and still keep the restriction of having to walk in or ride bikes. As I mentioned at the meeting, I walk there periodically with my grandchildren, and it will be devastating to them if we aren't allowed to go there anymore. I really feel that our resort and Lithia's guests at least don't use that beach much--mostly boating activities. It would put a huge hardship on me to have to use the public beach at 9th street since I am so limited on time being able to leave my business. I just feel that if everyone could put their heads together we could come up with an equitable solution without resorting to wholesale denial of access. Thanks for listening even though I truly feel that minds are already made up. Is part of the problem that if our guests have access to a beach they won't stay at Eagle Creek? It seems to me that the lake is primarily for Eagle Creek to make money on, and the rest of us get the "crumbs". It's hard enough to keep our heads above water financially, and we don't get any perks from the state or DNR, the city, or anyone else. All that is available to us to grow our business is our friendliness to tourists and providing clean, comfortable rooms. We will never have \$2 million given to us to build docks for our guests! So being able to use a beach that gets very little activity anyway, especially during the week, seems like a small potatoes thing to ask.

Response: The beach at the Lithia Springs campground was designed to be utilized by registered campers and their guests. Over the years, the Corps of Engineers has allowed people, who are not camping or visiting someone who is camping, to walk-in and use the beach within the Campground. However, over the years there has been

a notable increase in outside walk-in beach use. This can be contributed to the increase in development of private homes outside the campground and the development of two resorts that advertise the Lithia Springs Beach as a public beach within walking distance of their establishments. The increase in use of the beach by non-registered campers and their guests, have raised concerns that include security and safety issues, conflicts between day use and camping user groups, collection of authorized day-use fees and issues of private exclusive use. As a result, the Corps is enforcing the intent of the designed use of the beach and the policy that only people camping or visiting someone who is camping in Lithia Springs campground can utilize the beach. There are four public beaches located at Lake Shelbyville that can be utilized by the general public: Dam West, Sullivan, Wilborn, and Wolf Creek Beaches. The closest public beach to Lithia Springs Campground is the Dam West Beach, which approximately 5 miles away.

From: Tadd Brachbill
Address: 1702 N. 3rd St.
Shelbyville, IL 62565

16. Bike trails around the lake.

From: Tobi BrachBill
Address: 1702 N. 3rd St.
Shelbyville, IL 62565

17. We need a bike trail.

From: George Frazier
Address: 607 N. Morgan
Shelbyville, IL 62565

18. Try to speed implementation of projects proposed in master plan.

From: Ron & Shelley Koehler
Address: 407 W. Main St.
Shelbyville, IL 62565

19. My husband and I loved biking in Wisconsin parks! We paid a fee didn't mind at all we were sure we were safe and it was beautiful. We can hardly wait to experience the same chance here!!!

From: Brad Jiter
Address: 212 W.N. 3rd St.
Shelbyville, IL 62565

20. Continued preservation of beautiful Lake Shelbyville & its shores.
21. Bike Trails
22. Promotion of lake & areas surrounding lake.
23. Fishing/Hunting /Wildlife areas
24. Overlook (observation areas/towers)

From: Noel Bolinger
Address: 410 N. Broadway
Shelbyville, IL 62562

25. Bike trail is going to be a great asset to the area. Fishing is very important to the area so we cannot forget about it.

From: Jack C Yockey
Address: 416 N. Broadway
Shelbyville, IL 62565

26. I would love to see a bike trail around Lake Shelbyville. We travel to Wisconsin just to ride on good bike trails as a family. This would be a great addition to a great lake.

Response: 16 – 26 comments noted.

From: N. William Kopp
Address: 24 W. 390 Burlington
Naperville, IL 60563

27. New tournament ramp at Dam West area, some form of courtesy dock facility at Dam West to ease congestion when loading & unloading. Bike trail would be a nice extra. Possible fishing pier somewhere in Dam area for public use to increase shore fishing possibilities.

Response: It is proposed to relocate the four-lane boat ramp from Opossum Creek Recreation Area to the Dam West Recreation Area as a three-lane boat ramp that will service the large group picnic shelter and fish tournament area. Currently, at Dam West, there is only a four-lane boat ramp that can be utilized during normal recreation lake levels and a two-lane ramp during periods of high water. The four-lane ramp is heavily used by the public and fishing tournaments participants especially on the weekends from Memorial Day to Labor Day. Relocating the ramp from the Opossum Creek Recreation Area would help alleviate most of that congestion. Lake management will take under consideration that when the large group picnic shelter in Dam West is not reserved, the ramp will be open so that the general public can utilize it. Before the ramp is relocated to Dam West the two-lane high water boat ramp within Opossum Creek Recreation Area would be rehabilitated so that it could be used as a one-lane primary ramp year-a-round.

It is proposed to rehabilitate all primary boat launching ramps including the one within the Dam West Recreation Area to accommodate courtesy docks, so that the existing boat ramp lanes can be utilized for loading and unloading.

A fishing pier currently exists in the Spillway Recreation Area that is universal accessible.

From: Ken Fry
Address: 816 W. Main St.
Shelbyville, IL 62565

28. Bike trail is needed, improvements on 9th Street Boat Ramp, also more parking is needed. Are there plans to look into a Hatchery? Dam West would be an excellent location for the new office complex.

Response: There are no proposed plans to construct a fish hatchery at Lake Shelbyville, but the constructing more fish nursery ponds around Lake Shelbyville is proposed. The Illinois Department of Natural Resources (IDNR) has determined that thirty to forty surface acres of nursery ponds are needed to supplement existing fisheries management efforts on Lake Shelbyville. Nursery ponds are proposed for Dam West Recreation Area, Whitley Creek Bottoms Multiple Resource Area, and under the 1135 project for the Wildlife Management Areas.

From: Lia & Kris Koehler
Address: Not Given

29. We would like to see a bike trail in Shelbyville.

From: Tom Brachbill
Address: 608 W.N. 1st
Shelbyville, IL 62565

30. I support the bike trail and would like to see the initiative begin soon.

From: Jean Rezinias
Address: 602 W.N. 12th St.
Shelbyville, IL 62565

31. Interested in bike/ hiking trails and a map of. Also interested in start/ completion. Thank you.

From: Timothy P. Aydt
Address: 1705 N. Country Club Rd.
Decatur, IL 62521

32. We'd like as many mountain bike trails as possible.

From: Dan Eloe
Address: 520 N. Vine St.
Shelbyville, IL 62565

33. My family and I would like to see the expansion of Lake Shelbyville, to include a bike trail.

From: Mark & Melissa Shanks
Address: 611 N. Will St.
Shelbyville, IL 62565

34. Would love to see bike trail plan become a reality. Thanks!

From: Judy Yockey
Address: 421 N. Broadway
Shelbyville, IL 62565

35. My husband and I are now riding bikes so we would like bike trails around the lake.

From: Merlin G. Billington
Address: 408 E. Preston Box 245
Atlanta, IL 61723

36. Sounds good. Keep up the good work.

From: Delores A Billington
Address: Gate Attendant Lithia Springs
408 E. Preston St.
PO Box 245
Atlanta, IL 61723

37. Everything sounds good to me. You are doing a good job.

Response: 29 – 37 comments noted.

From: Lowell Rice
Address: Lot 56
Opossum Creek Gate Attendant

38. New shower houses, electric and sewer updated.

Response: Proposed actions for Opossum Creek Recreation Area includes the following: 1.) Day-use comfort station #1 has been removed and the two comfort station/shower buildings will be rehabilitated to remove the shower portion of the buildings. The facilities removed will be consolidated and replaced with a large shower building that includes laundry facilities. For public health and safety reasons the shower building will be located in a more suitable location within the campground and the comfort station portion of the comfort station/shower buildings will be left in place. 2.) Install water and sewer hookups to campsites 1 – 22 and 49 – 56 (30 campsites total) to accommodate customer needs. 3.) Upgrade electrical service at all campsites to 50-amp service to accommodate customer needs. 4.) Replace all water lines due to age and deterioration.

From: Susan Monreal
Address: 711 lake Ct.
NewLenox, IL 60451

39. Looking forward to bike trail. We use the lake primarily for boating so we enjoy Lithia Springs facilities. The camping is clean and quite and large sites.

Response: Comment noted.

From: Irene May/ Harold E. May
Address: P.O. Box 723
Ladd, IL 61329

40. Your manager explained more of the reason for the change (to Bo Wood Campground). We have accepted the fact more reasonably. We have a few questions and ideas for better facilities: More dump stations: paved roads: paved pads, room for extra tents on each site: Better tasting water if available, more non-reservable sites, information on activities leaflets, easier entry access when already. Leaving as many trees as possible for shade.

Response: Comments are noted. During the consolidation of Bo Wood and Whitley Creek campgrounds facilities and services to accommodate customer needs are being considered. Making spacious campsites and leaving trees for shade is high on the accommodation list and will be taking into consideration when designing the campsites.

From: Erik Eloc
Address: 520 N. Vine
Shelbyville, IL 62565

41. I am very interested in the in the bike trail. I hope you continue with the planning and construction of the bike trail. I think that this is a great asset for our community. Many people would enjoy it much. Keep it up!

From: Nancy Brachbill
Address: 608 W. N. 1st St.
Shelbyville, IL 62565

42. My concern is with the bike trail and its future. I feel this is a very positive addition to our community- a healthy family activity that will attract the kind of visitors we want. Please contact me if there is a way I can help.

From: Ray Little
Address: 715 E.N. 9th St.
Shelbyville, IL 62565

43. I like the way the trails are laid out. Short loops look great. I will be anxious to see the work start. I think the Corps does a great job.

From: Symantha Aydt
Address: 1705 N. Country Club
Decatur, IL 67521

44. I am most impressed by the continuation of the bike trails. I look forward to the added mileage of trails in the area. I had several friends who wished to support the bicycle trails here tonight but were other wise obligated. I've enjoyed cycling Camp Canfield and would like to see more trails added to the lake. The addition of the paved trails will provide a great opportunity to skate, run, walk, and hike enjoying nature with friends and family. Looks like limitless chances too!

From: Dick Gloede
Address: 727 N. Broadway
Shelbyville, IL 62565

45. Strongly support!
(a) bike/walk trail b)Erosion Control c) Brood Ponds d)Restriction off-road vehicles
46. Request Input on facility relocation –If any
47. Partnering with DNR very good
48. Current administration has done excellent job of partnership.

Response: 41 – 48 comments noted.

From: Dan Mohr
Address: RR#1 Box 136
Findlay, IL 62534

49. Findlay Marina needs sewer service for present needs and future expansion.

Response: It is proposed to connect Findlay Marina to Findlay or Shelbyville sewer system. The expansion of the marina is hindered and will remain hindered unless the wastewater treatment capabilities are increased.

From: Jerry & Wendy Yockey
Address: Not given

50. Having read the entire draft of the Master plan document, I am excited about the future of Lake Shelbyville. I would like to see the General Dacey trail plan fully implemented. Having trails around Lake Shelbyville would create a new safe attraction for visitors. I feel moving the administration building/visitor center to Dam West area is an important change that needs to happen. We have visited several new visitor centers at other parks and our kids have thoroughly enjoyed them. Finally, I like the idea if moving and adding boat ramps to the ninth street new pavilion.

Response: Comment noted.

From: Wayne Cuttill
Address: Lone Point

51. Beach for Lone Point off site 15. Re-work horseshoe pits. Relocate #30 campsite. Internet access, Redo recreation area

Response: Comment concerning beach is noted. Rehabilitating horseshoe pits is will be covered under routine operations and maintenance. It is proposed to relocate campsite #30. This is a small pull-off site that is poorly designed and underutilized. Internet access will be considered when and if new public phones are installed. The Shoreline Erosion Management Plan designates Lone Point Recreation Area for overnight group use only and includes relocating all overnight group use to this area. This designation has been changed to more efficiently meet customer needs and demands. The current group camp plan that is described in Section 10-19 states that the three group camps in Lone Point Recreation Area

that are located inside the main campground will be converted back to individual campsites. Walleye Group Camp in this area will remain as a group camp.

From: Mike & Karen Shinnick
Address: 1017 N. Hennessey St.
Spring Valley, IL 61362

52. We very much enjoy the current campground (Bo Wood Campground). Our favorite- we were disappointed in the change but now understand the urgency and existing problems. New plans sound very good – hope all goes as planned. Other suggestions listed on family members comment card.

From: David Bitzer
Address: 508 N. Morgan
Shelbyville, IL 62565

53. I think the area would benefit greatly from the development of a new Bike trail. Would like the path to be scenic near the lake, and near trees for shade. I would like to have it tie in Lincoln Trails if possible.

54. Would like the lake to be marketed or advertised as a vacation destination and just not a weekend retreat.

From: Don Lewis
Address: Sullivan Area Chamber of Commerce

55. We hope to do all we can to help move the development concepts along.

From: Carl & Jane Leaf
Address: Palatine, IL
bclef1@comcast.net

56. We just wanted to heartily endorse and support the proposed paved trail around Lake Shelbyville. We will be looking forward to coming down to ride it upon its completion.

From: Tim Rothrock
Address: rothrtj@frontiernet.net

57. It is very important to me and I believe it could also be important for the local economy if bike trails can be included in the future development of Lake Shelbyville. The lake has prime topography to develop mountain bike trails and could bring many more tourists to the local economy. I hope the Corps of Engineer will consider this during further development of the lake. It would be outstanding to have world-class mountain bike trails within 5 miles of my home. The lake and the terrain around it make that feasible. Thank you for your consideration of bike trails in the future development of the lake.

From: Debe Wright
Address: Customer Support
Software Solutions Integrated, LLC

58. I think this is a GREAT idea and hope that this project will get rolling as soon as possible! Thanks!

From: Steve Rankin
Address: SSI Support Specialist (Mapping and Hardware)
srankin@ssinews.com
(800) 752-7912

59. I understand you are seeking public feedback concerning development of a bike trail around Lake Shelbyville. Though not a biking enthusiast myself, I think this would be a wonderful enhancement to recreational opportunities in the lake area. A few years ago, I had a job that had me traveling extensively in Kane County along the Fox River. That area had extensive bike trails and seemed to always be busy, even during the non-peak business hours when I was mostly there. I also see possibility of some ride events. I say, "Go for it!"

From: Ben Dawdy
Address: 717 Park Place
Shelbyville, IL 62565

60. I wasn't able to attend your Master Plan meeting on July 10 but would like to express my interest in the bike trails around the lake. I think the trails are an excellent project. There are many people in the community that would use the trails. I see people every day walking and biking out by the city park. I think they would use the trails around the dam area if they were available. I am also a cyclist and know that the trails are always appreciated. I have driven around the state (and out of state) to ride the bike trails. I usually meet people like myself who have driven some distance just to ride a good trail. I believe the lake has some good possibilities for these trails. I have ridden the trail at Camp Canfield and have enjoyed it, as I know others have. Please consider including bicycling and walking trails as part of your Master Plan.

From: Lisa Harvey
Address: Decatur, IL

61. I am writing to express my interest in the bike trail expansion proposal at Lake Shelbyville. I would be thrilled at the opportunities an expanded bike trail would provide. Thank you.

From: Pat Ormiston
Phone #: 797-5515

62. I have spoken with you at several of the trail meetings, and have been involved with building and riding the trails at Camp Camfield. I very much appreciate the opportunity we have for off-road bike riding in the Lake Shelbyville region. My family and I have lived just south of Coal Shaft Bridge for the past 9 years and enjoy riding our bikes. I have traveled all over the United States in search of single track, and I alternate between the Kickapoo State Park, Jubilee State Park, and Independence Park in Marquette Heights during the week. I also make several weekend trips to Indiana, Missouri, Wisconsin, and Kentucky. I believe that Lake Shelbyville has the

natural resources to be better than all of these locations. The most comparable infrastructure would be Land between the Lakes. LBL is one of my family's favorite vacation spots, primarily due to its camping facilities and location to the mountain bike trails. Based on the amount of interest in trails on mtbr.com, I believe there are thousands of individuals and families that would enjoy a similar opportunity at Lake Shelbyville. Lake Shelbyville already has the camping, and I believe there is ample interest in the area to build and maintain a comparable trail network in the Lake Shelbyville area. I understand that most of the meetings have been focused on the proposal of paved trails, and I am in full support of that effort, but the timeframe and financial support needed is much larger than is necessary for single track. We had previously discussed what to do with the Chief Illini trail, and your lack of funds to maintain the trail, I believe there is an opportunity to do some rerouting of the trail to make it fun for a wide range of bikers and hikers, and more maintainable. I have some examples of local park systems developing trail systems and documenting their positive impact on the park usage and local economy thru questionnaires and surveys. Once again I want to thank you for your continued willingness to listen to our requests and ideas, and let you know we anxious to help out in anyway possible. Please feel free to contact me for any reason.

From: Christopher Barnickel
Linda Hall Library of Science Engineering & Technology
5109 Cherry Street
Kansas City, MO 64110
Ph: 816.926.8784
Fx: 816.926.8790
barnickc@lindahall.org

63. As one of many thousands of riders in the US, I am writing to you in support of adding trail around Lake Shelbyville. It is money well spent. Thank you.

From: Terrence Fleury
Address: tfleury@uiuc.edu
217-344-0577

64. I am writing because I heard report of the possible construction of mountain bike trails around Lake Shelbyville and I wanted to say that I am in full support of this idea. Currently, the only place in central Illinois to do any type of mountain biking is Kickapoo Park. I think it would be great to have more trails available to us mountain bikers. Please let me know if you need a statement more formal than this short email. Thank you for your time.

From: Tony Sparks
Address: tskraps@yahoo.com

65. Just a quick note to let you know of me and my family's continued interest in developing more mountain bike trails in the lake Shelbyville area. The potential for our area is unlimited. I have ridden mountain bike trails all over this country including North Carolina, Wisconsin, Georgia, Missouri, Indiana, and, Nevada. I know of at least thirty riders from our area alone that ride Lake Shelbyville trails at least twice a month. I myself ride the local trails twice a week. With more trails in our area we have the opportunity to become a prime midwest mountain bike destination. Mountain biking is a family oriented sport full of people who are respectful of the land

and willing to put in the time and work needed to maintain trails, the local cimba club is continually growing and developing new projects that I hope will soon include more of the Lake Shelbyville Area. Thank you for your time and if you have any questions or need volunteers feel free to contact me anytime. Thanks again.

From: Bryan, Sheila, Trey, James Myers
Address: 115 W. N. 2nd Street
Shelbyville, IL. 62565
217-774-1424
smeyers@ssinews.com

66. I am excited to hear about the possibility of having a bike trail near the lake. My husband and I love to take our children riding but have to drive out of town to take them. We have been waiting a long time for the opportunity to ride closer to home. Please put our names on the list of those who would love to see a bike trail around the lake. Thank you.

From: Kay Sanders
Address: Administrative Assistant
SSI, LLC
217-774-2105
www.agvance.net
ksanders@ssinews.com

67. I'm really looking forward to the bike trail here in Shelbyville. It will be a wonderful new opportunity for all sorts of people (family, couples, singles, etc) to get exercise and spend some time together! Thank you!

From: Marlin & Joyce Howald
Address: Toledo, IL
mhowald@ssinews.com

68. We read about the proposed bike path for Lake Shelbyville in the Mattoon paper recently and wanted to let you know our family thinks it is a great idea. It would be a great addition for families and could draw even more tourism to the area. Pere Marquette State Park near Grafton, IL is one of our favorite places. Since they installed a bike path along the Illinois River from the park lodge to Alton, IL the park has been so busy it is difficult to get reservations at the lodge anymore. We have watched the parking lot and there are cars with bike racks from considerable distance that travel to use the path. Another example is the new Taylorville/Pana bike path. I sat through a presentation of what they have accomplished at a Cumberland County Development meeting a year ago. We were very impressed with the tourism results they were able to document from such a simple idea...a 'bike path'. Families, bikes, water, excercise...it is a natural. Specialty shops, antique shops, rental shops and cafes would likely follow. Every community within 30 miles of the lake could benefit. It will give the area something unique to promote. It is a win/win for everyone. Please continue to support and press for this idea. Thank You.

From: Jessamy Carruthers
Address: jcarruthers@ssinews.com

69. I heard that the Corps of Engineers was considering putting a bike trail around Lake Shelbyville. That sounds like a wonderful idea! I used to live in Taylorville and using the bike trail between there and Pana, and I've missed that since I moved to Shelbyville! Bike riding is fun and great exercise, and this will be a great way to enjoy the lake too. I really hope you're able to put that plan in place. I'll definitely be out there with my bike!

From: Todd and Tamara Erickson
Address: RR 1 Box 242
Shelbyville, IL 62565
terickson@ssinews.com

70. I have just been made aware of the proposed bike trail around Lake Shelbyville and wanted you to know that this is an excellent idea. Before moving to Shelbyville we lived in northern Illinois on a railroad grade that had been converted to a bike trail. It was excellent for family outing (we have 4 small children) and great exercise. Thanks.

From: Sara Bloemer
Address: Software Solutions Integrated
1-800-752-7912
sbloemer@ssinews.com

71. Bike trail around the lake - sounds like a neat idea

From: Sean and Kat
Address: admin@bikejournal.com

72. We just wanted to voice our support of the planned trail system around Lake Shelbyville. A member of my website, www.bikejournal.com, told us about your project. Good luck in the years ahead. Please let us know if there are any other ways in which we can support this project. Thanks.

From: WES BOGLE
Address: Mntbiker68@aol.com

73. I would like to see more bike trails around the lake and would be willing to volunteer some time in help building them. Thanks.

From: Mark E. Finley, LtCol, USAF
113th Weather Flight Commander
Address: Not Given

74. Recreational Biking availability is one of the major things that I base vacation decisions on. I think that more trails of various types around the lake area will promote multi-use of your wonderful facilities! More access to the lake using bike trails!

From: Craig Keeler
Address: Not Given

75. I would love to see more mountain bike trails around the lake, and thank you for the ones we already have.

From: Brian Slever D.V. M. and Becca Siever
Address: Not Given

76. I would really like to see some single track trails built at Lake Shelbyville. As much as I like to go for rides with my wife and two daughters on wider, flatter trails; my favorite pastime is to take my 9 yr. old daughter on some of the tougher single track trails. My daughter and I would both like to place our votes for some gnarly single track at Lake Shelbyville. Thank you!

From: Curt Reichling
Address: Springfield, Il

77. Thank you so much for giving us a chance to share our opinions of trails at the lake. I would love to see more trails there, I have used the existing trails and found them very nice. It is a beautiful lake and beautiful area.

From: Paul Rawson
Address: Not Given

78. As an active member of CIMBA, I would just like to offer my support towards the development of on and off-road bike trails as they are being reviewed under the new master plan for Lake Shelbyville.

From: Steve Lape
Address: Not Given

79. What would a person have to do in order to get some bike trails around Lake Shelbyville? I moved back to Shelbyville from South Carolina and was really disappointed to find that there are no bike trails in the area. I have to drive to Pana and ride a trail to Taylorville and back to avoid traffic. I think a good trail system around the lake or even along part of the lake would be an additional attraction to the area. Almost every camper coming to Shelbyville has at least one bike strapped to it, and where can they ride safely? During the spring and summer months the traffic volume is high due to campers, boaters and general traffic around the lake that I prefer to stay off the roads on my bike. The beauty of Lake Shelbyville could be enjoyed by more users with the addition of bike trails, and would bring more revenue to the area. I would even volunteer my time to assist in making some trails in this area a reality. Thanks for your time.

From: Steve and Carol Goebel
Phone #: Home: 774-2626 Work: (Cowden-Herrick Schools) 618-428-5223.

80. Thanks for the opportunity to address this issue. I am very much interested in the bike path for advancement of recreation at Lake Shelbyville. I have attended meetings at Eagle Creek Resort and am on Jerry Yockey's e-mailing list. My wife, Carol, and I are avid bikers and would love to see a development of a formal bike

trail for the lake. Please feel free to contact me if you are looking for volunteers.
Thanks.

From: Tom Weigand
Address: Decatur, Il.
weigand@ADMWORLD.com

81. It has come to my attention that there has been some discussion of making biking trails at Lake Shelbyville. I would only like to let you know I would be thrilled to have the option of biking nearer home. After using the extensive trail network in southern Wisconsin while living up there I've come to miss that recreational part of my weekly routine. I taken employment in Decatur and have subsequently realized, "you don't know what you're got till it's gone". Count me in as a supporter for any mountain or recreational biking trails that may be proposed.

From: Jay Schubert
Address: Champaign IL
djay@insightbb.com

82. I am writing in support of the efforts of CIMBA to secure additional land around Lake Shelbyville to be used for mountain bike trails. I am an avid mountain biker and I believe there is a heavy demand for additional trails in Central Illinois. Should CIMBA's initiative continue to be met with co-operation it would appear that Lake Shelbyville has the potential to quickly develop into what would become the one of the more highly regarded mountain biking trails in this part of the country and the centerpiece of the Illinois trail systems. As a father of two children, I plan to make more frequent use of the other recreational options that Lake Shelbyville currently has to offer as the General Dacey Trail takes shape and I believe this sentiment is shared by many mountain bikers, both in and out of state. Thank you for your support of this effort.

From: Dr. Theodore Bogart
Address: cabogart@yahoo.com

83. Tourism and the local citizens would benefit from bike trails that would circumnavigate the lake.

From: Dana Miller
Address: danamiller88@msn.com

84. I support the development of more bike trails around the lake!

From: Russ & Lori Manuel
Address: res0p3hi@verizon.net

85. My wife and I are avid mountain bikers living in the Bloomington/Normal, Illinois area and we hear that there are tentative plans for trail development in the Lake Shelbyville area! I can't tell you how great this would be for the thousands of member's in the Central Illinois area and beyond. When we travel we always take our bikes and find trails in whatever area we'll be in via the internet. I believe that trail development in this area would be good in many ways, not the least of which is

local tourism dollars. We are members of the local mtb club CORBA (Comlara Off Road Bicycling Association) and have been busy working on our own trail building project and we have been thrilled to be part of expanding the opportunities to ride in our state. Please consider the many hundreds and possibly thousands of folks who will enjoy the benefits of a new trail system in Illinois in the Lake Shelbyville area if these trails are developed! Thank you.

From: Lori Manuel
Address: Hudson, Illinois

lori.manuel.1979@statefarm.com

86. The word has gone out among Illinois mountain bikers about the possibility of a more extensive trail system at Lake Shelbyville. My husband and I are avid trail riders and trail builders. We live in Central Illinois and would be thrilled to have another trail option at Shelbyville. We travel and ride trails all over the country as well as those close to home and I'm sure we would be frequent visitors to Shelbyville if there were more access for mountain bikes. Please consider the needs and desires of area riders in your future plans. Thank you for your dedication to this effort.

From: Kent M. Kraft, Sec-Treas.
Address: SAMBA
H: 217-787-6974
W: 217-525-9733
C: 217-871-6974
KentKraft@aol.com

87. My name is Kent Kraft, and I am currently Secretary-Treasurer of the Springfield Area Mountain Bike Association (Springfield, Illinois). I am writing to support the creation of more off-road bicycling opportunities. Our club recently held its quarterly meeting to fill out our ride schedule for the rest of the summer and fall. We basically have only two trails to ride in the immediate Springfield area, one of which is only two miles long. We scheduled rides on trails in the St. Louis area, the Shawnee National Forest, Rockford, Bloomington-Decatur, Danville, and Peoria. It was frustrating to realize that with half the summer left, we had scheduled weekend rides on every trail within three hours' drive of Springfield, and a couple that were further away than that. Our club currently has roughly 100 members, and is growing with the sport of mountain biking. Lake Shelbyville is not much more than an hour away from Springfield, and I am confident many of our members would be eager to drive there to ride new trails. We sincerely hope the Army Corps of Engineers will continue to support the creation of additional environmentally stable, natural-surface, single-track bicycling trails.

From: Mike Howard
Address: Peoria ILL
SNGLTRK2061@aol.com

88. I would like to send you a note, letting you know I would like to see bike trails around Lake Shelbyville. I have been camping at the lake for over 30 yrs. Having bike trails will keep me coming out to enjoy your lake!!

From: Mike Defend
Address: MDEFEND@shelby1.com

89. I wanted to write a short letter of support for the Bike Trails that have been proposed to be developed around the lake. I have talked with Jerry Yockey about the project and listened to the details and ideas and feel it would be of benefit to Shelbyville townspeople, as well as lake and campground visitors. I hope the project is approved and thank you for your effort in the process.

From: Dave Eversole
Address: deversol@consolidated.net

90. I was unable to attend the meeting on bike trails at the lake, but I wanted to add my support to the those who favor development of off road trails.

From: Lila and Bob Bolinger
Address: robert@sta-riteginnielou.com

91. The open house was very informative. We support the General Dacey Bike Trail around Lake Shelbyville. It will be an additional tourist attraction for citizens living in this area as well as Lake Shelbyville visitors. Also, Andrea, we want to thank you for your support of our Shelbyville Family Aquatic Center.

From: Donald Galvin
Address: donald@galvinfamily.com

92. I could not make it to the meeting last Thursday. Just wanted to drop you a line and let you know that I'm very interested in seeing more bike and hiking trails around Lake Shelbyville.

From: David A. Price
Address: Financial Consultant
A.G. Edwards & Sons, Inc.
702A N. Keller Drive
Effingham, IL 62401
(217) 342-3373 (877) 807-3373
dave.price@agedwards.com

93. I was not able to make the meeting at the Lake Shelbyville visitor's center last Thursday. Just a couple comments in favor of bike trails... I came from near Peoria originally. They have a beautiful trail along the Rock Island Trail abandoned railway bed use for bikes, walkers, runners. It has proved to be very popular. It provides a means to enjoy a scenic trail and offers a much higher degree of safety than utilizing other means of exploring the countryside. I think something similar around Lake Shelbyville would prove to be at least, or more, popular. Therefore, I hope serious consideration is giving to the project. Thanks!

From: Chris Rewerts
Address: 404 S Chicago Ave
Champaign, IL 61821
217 355 4734
rewerts@roadkill.com

94. I understand the Corps of Engineers are revisiting their Master Plan for Lake Shelbyville and are soliciting public input. I will not be able to attend the public meeting on 10 July, so please accept this email as my input. I think one of the excellent recreational opportunities that has seen a successful start at Camp Camfield is the allocation of access for the creation and use of mountain bike trails, namely singletrack and natural surface trails for off-road bike use. I hope that the Corps new master plan will allow for more trail creation to provide access to a variety of types of trails (to accommodate multiple skill levels) as well as for longer treks that allow for connectivity for other trails, trail heads, camps, natural features, or roads. Thank you for your consideration.

From: KASKASKIA WATERSHED ASSOCIATION, Inc.
George Andres
President
Address: Not Given

95. The Board of Directors of the Kaskaskia Watershed Association adopted a Resolution at its August 20th meeting in support of the Draft Master Plan document for Lake Shelbyville. In this resolution the Board sited three items it considered of particular Significance and importance They include:

- Completion of regional sewer improvement in the vicinity of the Lake
- Development of bike trails around the Lake
- Consolidation of campgrounds and maintenance.

We appreciate the opportunity to comment on the Master Plan. Please advise us if additional information is needed.

From: Jon Edwards
Address: 1505 Ivywood
Springfield, Il 62704
edwards5@famvid.com

96. Please encourage the US Army Corps of Engineers to include the development of more Trails near the perimeter of Lake Shelbyville in their new Master Plan. These will provide additional recreational opportunities for hikers and bicyclists, as well as access for walk-in fishing and natural studies. Such development increases the tourism potential for the lake and general area, attracting the interest of diverse group throughout the entire year. By carefully following the International Mountain Biking Association (IMBA) guidelines for sustainable trails, the alignment, maximum slopes and drainage can all be designed to avoid erosion and require little long-term maintenance. Many central Illinois Organization will provide volunteers to work with your office and the Corps of Engineers to help plan, build and maintain these new trails, so your limited resources will not be further strained. Thanks for your consideration on this matter, and I hope to see you on the future trails.

From: Dana Miller
Member S.A.M.B.A
Address: 307 W. Lafayette
Rushville, IL 62681

97. Mountain biking, or off-road biking, is a sport enjoyed by people who love being caught up in the beauty of nature and experiencing the thrill and resulting good health of exercise. Finding places with good trails to ride in this part of the country is a challenge, as natural trail development for biking is a relatively new concept (primarily in the past 15 years) in the heartland. The number of people who mountain bike on a regular basis is steadily growing. In fact, "adventure sport" participation is the #1 growing form of recreation for Americans over the past decade. Since I possess a huge passion for mountain biking, and a great desire for many others to learn and enjoy the skill, developing natural surface single-track trails in Illinois are extremely important to me. Because mountain bikers ride off-road, we are limited not by land itself, but only by access to the public land at Lake Shelbyville for the purpose of creating more single-track trails and natural surface trail development. Thank you for considering my request. Have a truly great day in the beauty of the lake!

From: Jan Michael Cimarossa
Address: Not Given

98. I am writing to you as a SAMBA club member in Springfield, Illinois. I have been a member of the club now for two years. I understand that a meeting of the Army Corp of Engineers is coming up in regards to some trails in the Shelbyville Lake Area. As an avid mountain biker I am always looking for better and different trails. I have heard the trails around Lake Shelbyville are really good, but we could lose them. I would like to state my opinion at this time, and say we need these trails and would like to see them stay where they are. I know they would be used a great deal by many hikers, and bikers. So please consider leaving the trails or better yet making more if at all possible. Thank you for taking the time to read my concerns.

From: Brian Fogarty
Address: 78 Stonehenge
Mattoon, IL. 61938

99. I am writing in regards to the future of Mountain Bikes trails at Lake Shelbyville. It is my understanding that the Corp of Engineers is making decisions on the future expansion of trails. I am an avid mountain biker and would very much appreciate expansion and would look forward to using the trails. I have recently moved from the St. Joseph IL area where I would ride the mountain bike trails 3 to 4 times per week at Kickapoo State Park. I cannot tell you how much enjoyment I would get out of going to Kickapoo. I know from conversations at the trailhead that people came from far away to enjoy the trails. Mountain Biking is a great form of exercise that is fun and can be enjoyed by all ages and body types. I rode with people from ages 12 to 60 at Kickapoo. It also allows people to get out further into the timber to enjoy the scenery and nature. We would see deer and other animals almost every time out. In all my trips though the trail I never saw anything that appeared to be abuse of the trails or facilities provided. It seems as though most bikers have great respect and love for the trail and do their best to keep them maintained. In closing I hope the

Corp of Engineers will see mountain bike trails as an appropriate low impact use of the land that will get new people to take advantage of the wonderful resource we have in Lake Shelbyville. Thank you for your time.

From: Tom Weber
Address: 1909 Plains Court
Urbana, IL 61802

100. I am writing you regarding the Army Corps review of the Master Plan for Lake Shelbyville. I would like to express my desire to see more natural surface trails for mountain bikes included in the plan. I have thoroughly enjoyed riding on the existing mountain bike trails at Camp Camfield and would love to see much more of this type of trail in the Lake Shelbyville area. Several friends and I have come from Urbana to ride these trails and enjoy your fine facility, and would do so more in the future with an expanded trail system. The CIMBA organization has done a tremendous job for you on the Camp Camfield trails. I would encourage you to take further advantage of CIMBA's volunteer efforts by allowing them access to build and maintain more quality trails of this type. I think it would be a very worthwhile improvement to the facilities at Lake Shelbyville.

From: Illini Bicycle Racing Club
Jamie Kimberley, President
Address: Illini Union Box 60
1401 W. Green St
Urbana, IL 61801

101. The Illini Bicycle Racing Club at the University of Illinois Urbana-Champaign is writing in support of possible expansion of mountain bike trails in the Lake Shelbyville area. Our club consists of over 50 students and faculty who are actively involved in the sport of cycling. In addition to the members of our club, there are many local riders who are not associated with the university and hence not directly associated with our club. While we already have one of Central Illinois best off road biking sites nearby (Kickapoo State Park), more trails at Lake Shelbyville would greatly increase the variety of trails that are available for our members to ride on. The close proximity of Lake Shelbyville makes it an ideal location for weekday afternoon trips from the C-U area. Members of our team are very excited about this prospect and would be willing to donate time to build and maintain a trail network on weekends that we are not committed to racing. I have enclosed a list of members that have expressed interest in a new mountain bike trail network at Lake Shelbyville. It is far from a complete list as I received information about this opportunity yesterday. Please contact me if you have any questions or if there is anything that our club can do to assist the process of opening new trails.

John Rowley
809 W. Stoughton St. Apt #102
Urbana, IL 61801
Johnr448@netscape.net

Rob Keller
502 E Michigan
Apt 35
Urbana, IL 61801
rnkeller@uiuc.edu

Tuan Bui
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Jamie Kimberley
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Celine Louwers
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Davis Scott
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dlscott@uiuc.edu

Michael James Hartlaub
410 W Springfield
Urbana, IL 61801
hartlaub@uiuc.edu

Brandon Patchett
1517 S 7th Ave
Kankakee, IL 60901
patchett@uiuc.edu

From: Gary White
Address: 500 Lincoln St
Chenoa, IL 61726
815-945-5106
gssw@mtco.com

102. I heard that the possibility of re-opening and possibly building new mountain bike trails at Shelbyville was being considered. I would just like you to know that I am very interested in riding on the trails at Shelbyville if they were to re-open. I ride 3 – 4 times a week and make road trips every week. If the trails were to be opened I would make it a habit to venture south to ride. I hope that you will seriously consider how much myself and many other mountain bikers would appreciate some new trails to ride.

From: Eric Harris
Address: RR 3, Box 60
Sullivan, IL 61951
217-797-6306

103. My name is Eric Harris. I am writing to you concerning the Master Plan review for Lake Shelbyville. As an avid mountain biker, I would like to see more trails around the lake. Not only paths for families and children, but also more technical areas for experienced riders. I think this would be a very popular undertaking, and I would be more than willing to donate my time for trail construction and maintenance. Having grown up in Moultrie County, I would have loved to have places to ride my bike in the woods. Maybe we can get some of today's kids and their parents out on the trails! Thank you for your time.

From: Drew Veldhuizen
Address: Not Given

104. My name is Drew Veldhuizen. I am a mountain biker and I would like to see land access at Lake Shelbyville for mountain bike trails. Mountain biking is one of my joys in life and the more trails the merrier. I hope you greatly consider expanding the opportunity for mountain bike trails in Central Illinois.

From: Sta-Rite Ginnie Lou, Inc
Robert N. Bollinger, President
Address: PO Box 435
245 E.S. First Street
Shelbyville, IL 62565
217-774-3921
fax: 217-774-5234

105. For the last several years Jerry Yockey, Dale Smith, Mike Dove and many other Shelby County citizens have worked hard to bring "Bike Trails" to the Lake Shelbyville area. Biking trails will be very popular around Lake Shelbyville. These "Bike Trails" will increase tourism in our area. The City of Shelbyville has made a big commitment to build a new 2.2 million dollar Family Aquatic Center to Forest Park. Biking, hiking, swimming, boating, hunting and fishing are very popular sports here at Lake Shelbyville. Each helps bring more tourists to our area. We urge the U.S. Army Corps of Engineers to include the "Bike Trails" in your Lake Shelbyville Master Plan.

From: Gary and Marla Pruemmer
Address: RR 4, Box 239
Shelbyville, IL 62565
pruemmerfun@consolidated.net

106. We are writing this letter in regards to the future plans for Lake Shelbyville and the surrounding areas. We would like to see the development of a bike/hiking trail. As the parents of two sons, we know our family and friends would enjoy a trail. It could also be a great area of activity for visitors. The development of such a trail would be a wonderful way to enjoy the beautiful scenery surrounding Lake Shelbyville year round. Thank you for your consideration of this worthwhile project.

From: Buffy and Brad McLaughlin
Address: 1341 Flintshire Lane
Lake St. Louis, MO 63367
636-639-5766
buffyandbrad@yahoo.com

107. I understand that the Army Corps of Engineers recently presented a plan of continued development in the areas around Lake Shelbyville. I received a summary of this plan and I am very supportive of developing mountain biking trails, hiking trails, paved cycling paths and boat ramp improvements in the areas around Lake Shelbyville. As a former resident of Decatur, IL and current resident of the St. Louis, MO area, I can verify that these additions to Lake Shelbyville would be beneficial to Central Illinois towns such as Bethany, Shelbyville, Decatur, Sullivan, etc. In addition, I foresee interest

from surrounding areas such as St. Louis, Chicago area, etc. Please let me know if you need further support.

From: Department of the Navy
NMCB 26, Detachment 13
M.A. Murgage, BUC, Officer in Charge
Address: Decatur, IL 62526

108. It is my pleasure to have this opportunity to discuss our long lasting relationship with the Corps of Engineers at Lake Shelbyville, Illinois. We have been working together in this mutually beneficial partnership for around twenty years. During this period, we have saved the Corps hundreds of thousands of dollars, by providing the planning and labor to complete numerous projects at Lake Shelbyville. The Detachment has been very fortunate to have this long time opportunity to complete job construction and military training. This training has greatly enhanced our readiness in construction and military skills. We are very thankful to the Corps for the support they have given us. We appreciate the ideal environment of our facility at the Lake. It has become known as one of the best-kept secrets in the Navy. In the future, we will provide planning and labor to complete the newly proposed Seabee facility. The Corps can be assured that the Seabees from Detachment 13, are committed to continuing our partnership, by providing labor and technical support to maintain the facilities at Lake Shelbyville.

Response: 52 – 108 comments noted.

General comments concerning language within the Master Plan Update were received from the following agencies and appropriate changes to the Update were made.

From: Illinois Department of Natural Resources
Office of Resource Conservation, Region III
Address: 2005 Round Barn Rd
Champaign, IL 61821

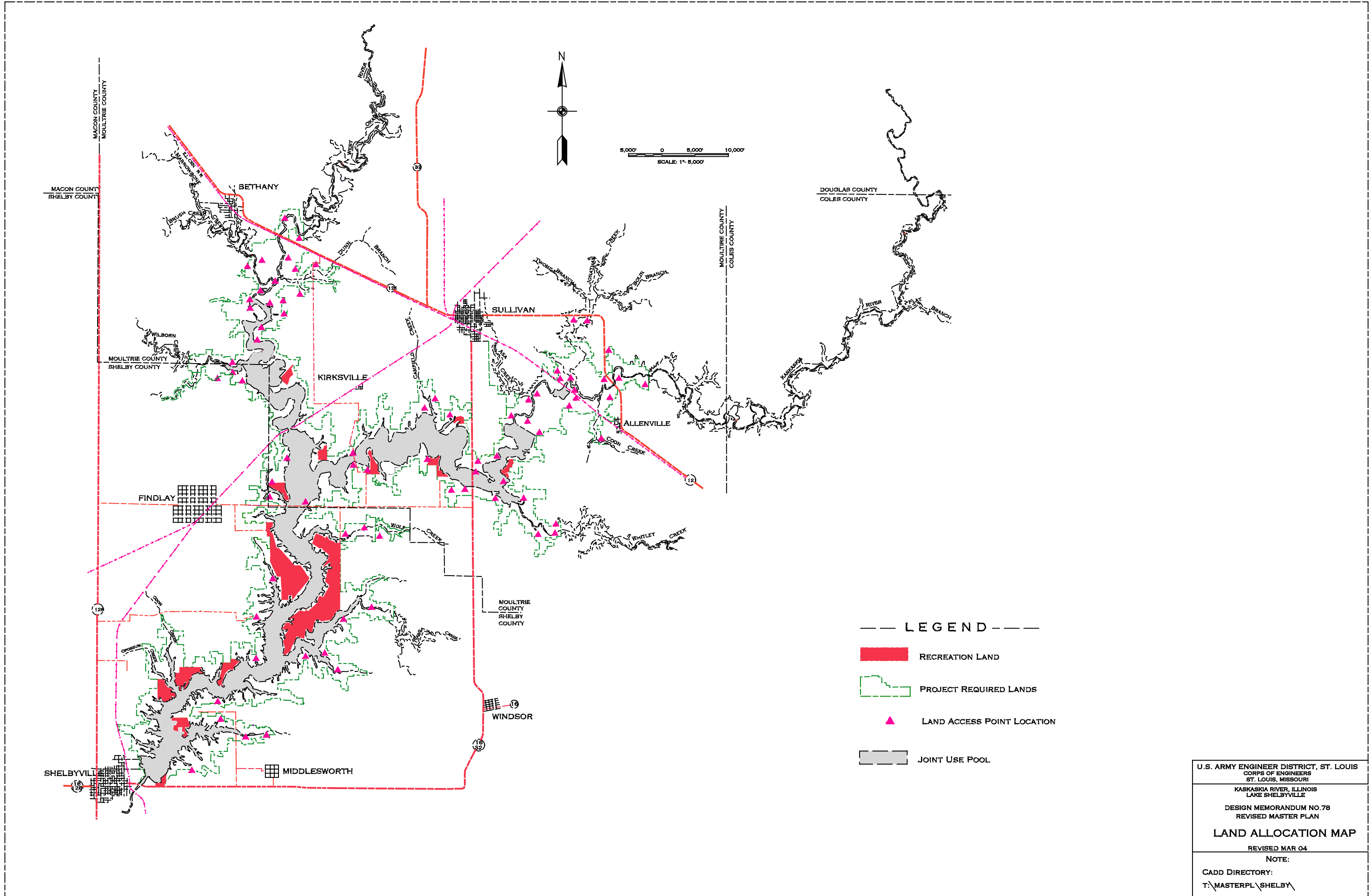
From: Izaak Walton League
Ansel Anderson
Address: 1911 McDonald Drive
Champaign, IL 61821

From: IDOT, District 5
Jodi Winn Rooney
Address: 1473 IL Hwy 133
PO Box 610
Paris, IL 61944-0610

From: NRCS
Gene Davis
Address: 111 N. Cedar, Suite 3
Shelbyville, IL 62565

From: Upper Kaskaskia Eco Partnership
Steve Jurgens
Address: RR 2, Box 76
Arthur, IL 61911-9314

From: IEPA
Illiana Brown
Address: 2125 S. First St
Champaign, IL 61820



— — — LEGEND — — —

- RECREATION LAND
- PROJECT REQUIRED LANDS
- LAND ACCESS POINT LOCATION
- JOINT USE POOL

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
 CORPS OF ENGINEERS
 ST. LOUIS, MISSOURI

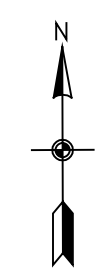
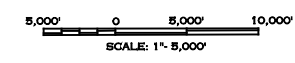
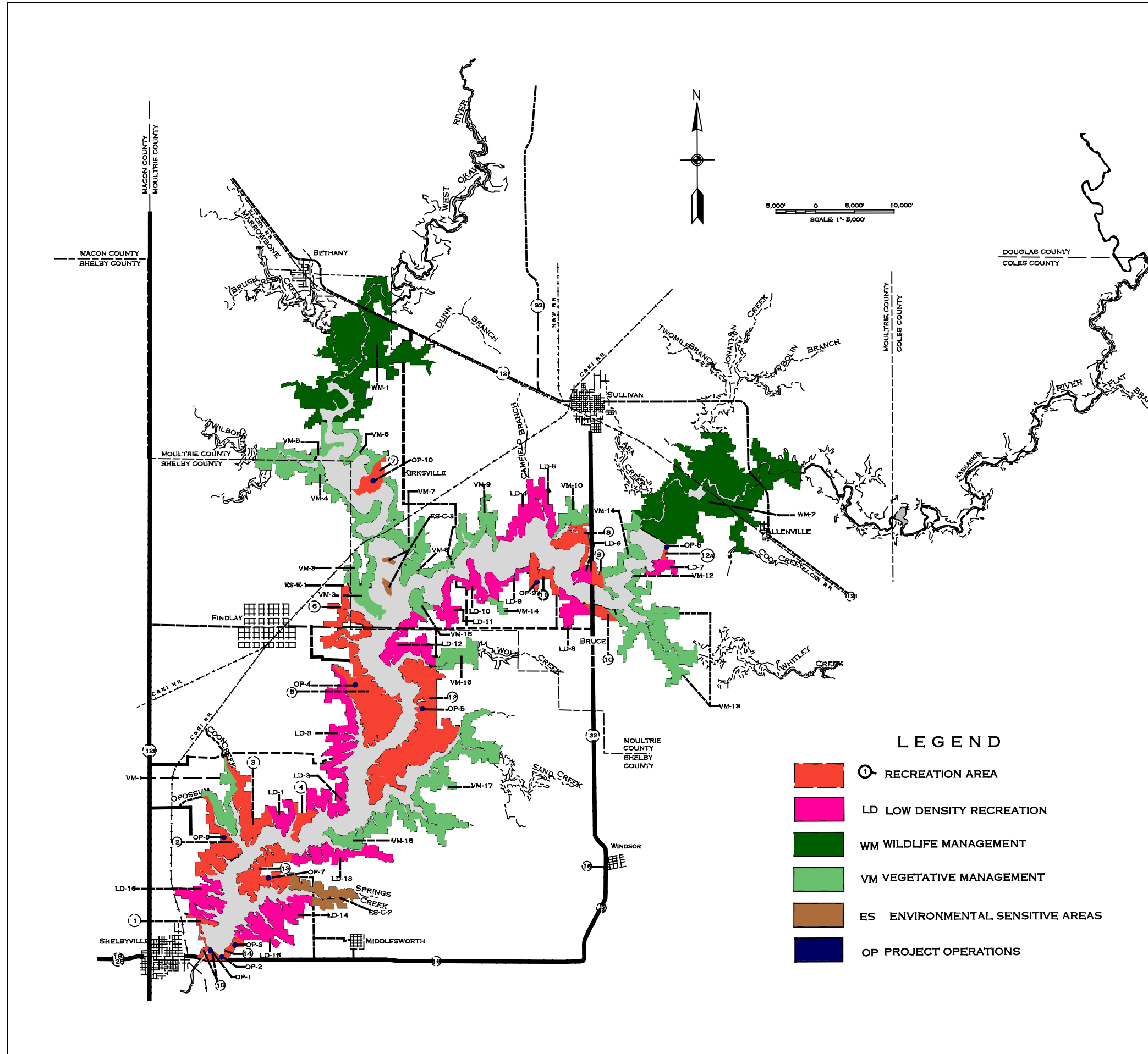
KASKASKIA RIVER, ILLINOIS
 LAKE SHELBYVILLE

DESIGN MEMORANDUM NO. 78
 REVISED MASTER PLAN

LAND ALLOCATION MAP

REVISED MAR 04

NOTE:
 CADD DIRECTORY:
 T:\MASTERPL\SHELBY\

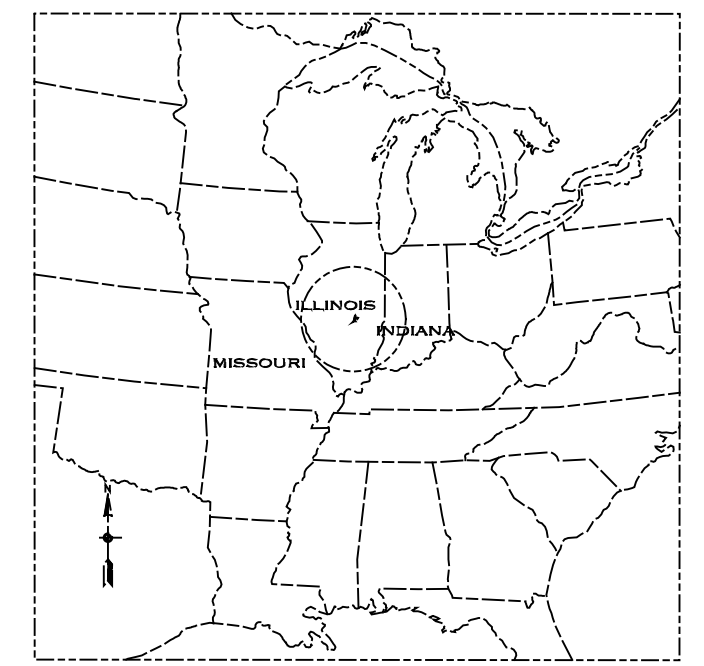
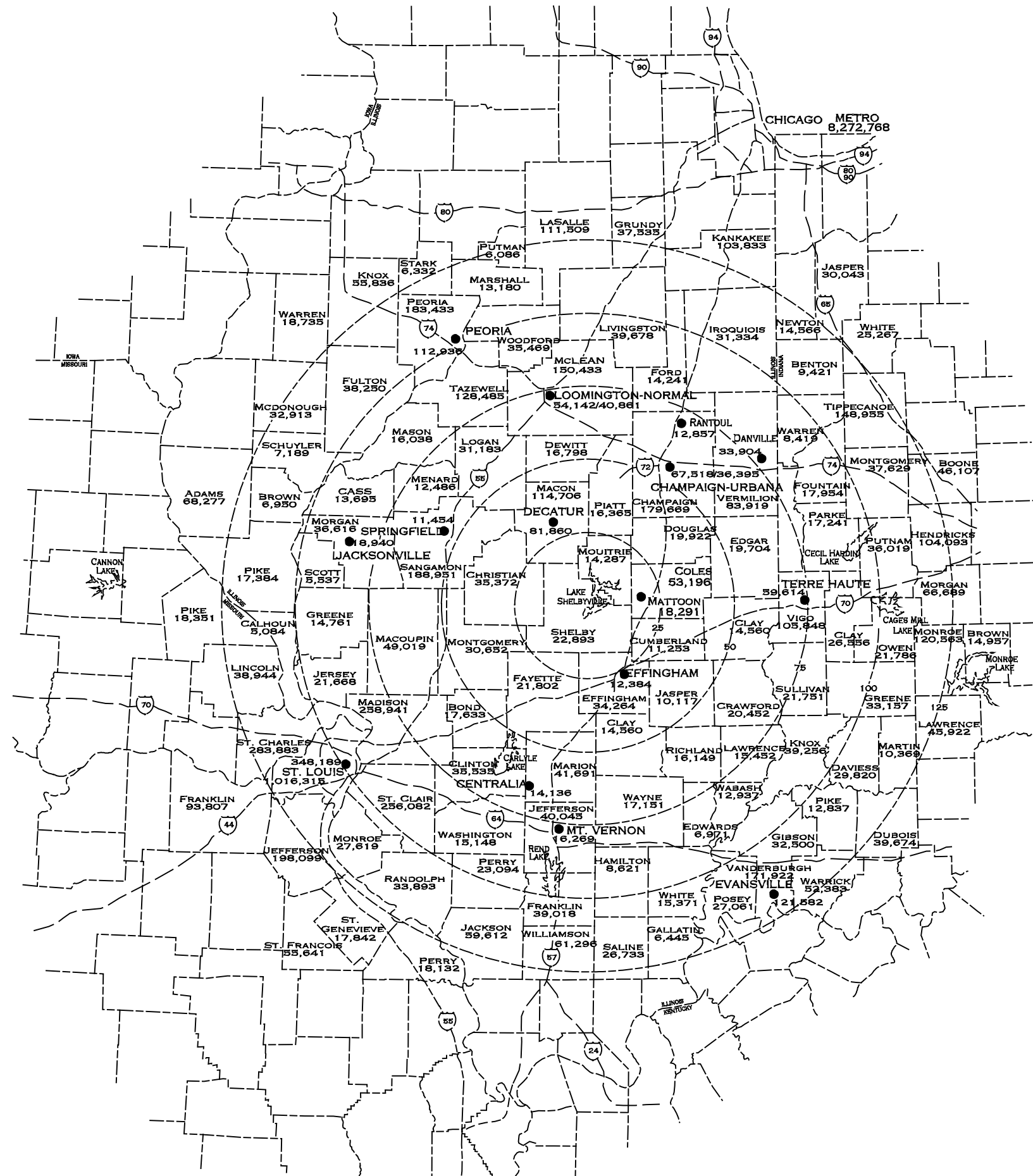


- LEGEND**
- ① RECREATION AREA
 - LD LOW DENSITY RECREATION
 - WM WILDLIFE MANAGEMENT
 - VM VEGETATIVE MANAGEMENT
 - ES ENVIRONMENTAL SENSITIVE AREAS
 - OP PROJECT OPERATIONS

WATER AND LAND USE CLASSIFICATION

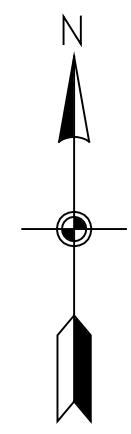
PLATE NO.	AREA NO.	LOCATION NAME	ACRES
①			
RECREATION AREAS			
6	1	DAM WEST RECREATION AREA	203
7	2	OPOSSUM CREEK RECREATION AREA	580
8	3	COON CREEK RECREATION AREA	296
9	4	LONE POINT RECREATION AREA	137
23	5	EAGLE CREEK STATE PARK	1,393
10	6	FINDLAY MARINA	51
11	7	WILBORN CREEK RECREATION AREA	159
13	8	FORREST W. '80' WOOD RECREATION AREA	159
10	9	SULLIVAN MARINA AND CAMPGROUND	72
14	10	SULLIVAN BEACH/OKAW BLUFF RECREATION AREA	272
15	11	WHITLEY CREEK RECREATION AREA	100
24,25	12	WOLF CREEK STATE PARK	2,036
26A,27	12A	KASKASKIA BIOLOGICAL RESEARCH STATION	
18	13	LITHIA SPRINGS RECREATION AREA AND MARINA	492
12A	8	RELOCATION FORREST W. '80' WOOD RECREATION AREA	
5	14	DAM EAST RECREATION AREA	21
5	15	SPILLWAY RECREATION AREA	12
TOTAL			5,983
MULTIPLE RESOURCE MANAGEMENT AREAS - RECREATION - LOW DENSITY			
LD			
	LD-1	WATER TOWER POINT MULTIPLE RESOURCE AREA	155
	LD-2	ARROWHEAD MULTIPLE RESOURCE AREA	300
12	LD-3	CHIEF ILLINI MULTIPLE RESOURCE AREA	788
	LD-4	CAMP CAMFIELD MULTIPLE RESOURCE AREA	443
	LD-5	MCCLEURE POND MULTIPLE RESOURCE AREA	122
	LD-6	SLAUGHTERHOUSE WEST MULTIPLE RESOURCE AREA	61
	LD-7	SURVEY RIDGE MULTIPLE RESOURCE AREA	86
14	LD-8	WOODS LAKE MULTIPLE RESOURCE AREA	184
17	LD-9	BLUESTEM MULTIPLE RESOURCE AREA (AREA F)	140
	LD-10	LIBERTY POINT MULTIPLE RESOURCE AREA	169
	LD-11	ADAMS MULTIPLE RESOURCE AREA	203
	LD-12	REFUGE POINT MULTIPLE RESOURCE AREA	449
	LD-13	SKULL CREEK MULTIPLE RESOURCE AREA	150
	LD-14	LOG CABIN MULTIPLE RESOURCE AREA	422
	LD-15	HUNTER LAKE MULTIPLE RESOURCE AREA	336
	LD-16	BIG RED'S TIMBER MULTIPLE RESOURCE AREA	401
TOTAL			4,416
MULTIPLE RESOURCE MANAGEMENT AREAS - WILDLIFE MANAGEMENT			
WM			
26	WM-1	WEST OKAW WILDLIFE MANAGEMENT AREA	2,415
27	WM-2	KASKASKIA WILDLIFE MANAGEMENT AREA	3,264
TOTAL			5,689
MULTIPLE RESOURCE MANAGEMENT AREAS - VEGETATIVE MANAGEMENT			
VM			
	VM-1	BETHEL MULTIPLE RESOURCE AREA	273
	VM-2	NORTH FINDLAY MULTIPLE RESOURCE AREA	46
	VM-3	WRIGHT CEMETERY MULTIPLE RESOURCE AREA	288
	VM-4	JOHNSONS BLUFF MULTIPLE RESOURCE AREA	1,011
	VM-5	PINE TREE RIDGE MULTIPLE RESOURCE AREA	180
	VM-6	CORNHORN POINT MULTIPLE RESOURCE AREA	174
	VM-7	BUCK RUN MULTIPLE RESOURCE AREA	281
	VM-8	WATERFOWL POINT MULTIPLE RESOURCE AREA	174
	VM-9	TURKEY LANE MULTIPLE RESOURCE AREA	469
	VM-10	WATER PLANT MULTIPLE RESOURCE AREA	199
	VM-11	SLAUGHTERHOUSE EAST MULTIPLE RESOURCE AREA	243
	VM-12	HICKORY RIDGE MULTIPLE RESOURCE AREA	89
	VM-13	WHITLEY CREEK BOTTOMS MULTIPLE RESOURCE AREA	1,112
	VM-14	BEAVER LAKE MULTIPLE RESOURCE AREA	46
	VM-15	HOUSER MULTIPLE RESOURCE AREA	172
	VM-16	SEVEN HILLS MULTIPLE RESOURCE AREA	288
	VM-17	SAND CREEK MULTIPLE RESOURCE AREA	1,466
	VM-18	TURKEY RUN MULTIPLE RESOURCE AREA	193
TOTAL			6,708
ENVIRONMENTAL SENSITIVE AREAS			
ES			
19	ES-E-1	POGUE TIMBER ESA	25
15	ES-C-2	LITHIA SPRINGS CHAUTAUQUA ESA	352
	ES-C-3	OKAW & DOCTORS ISLAND HISTORIC AREA	16
TOTAL			393
PROJECT OPERATIONS			
OP			
5,6,20	OP-1	LAKE SHELBYVILLE MAIN DAM AND OUTLET WORKS	92
5,20	OP-2	ADMINISTRATION COMPLEX AND VISITOR CENTER	15
22	OP-3	MAINTENANCE COMPLEX	10
24	OP-4	EAGLE CREEK STATE PARK OFFICE COMPLEX	
25A	OP-5	WOLF CREEK STATE PARK OFFICE COMPLEX	
	OP-6	KASKASKIA BIOLOGICAL RESEARCH STATION OFFICE COMPLEX	
18	OP-7	LITHIA SPRINGS LAND TREATMENT SYSTEM	
7	OP-8	OPOSSUM CREEK LAND TREATMENT SYSTEM	
16	OP-9	WHITLEY CREEK LAND TREATMENT SYSTEM	
11	OP-10	WILBORN CREEK LAND TREATMENT SYSTEM	
TOTAL			77
PROJECT FEE LANDS			TOTAL 29,241
EASEMENT LANDS			TOTAL 6,237
GENERAL RECREATION WATERS			TOTAL 11,100
PROJECT FEE LANDS AND WATERS			TOTAL 34,341

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
 CORPS OF ENGINEERS
 ST. LOUIS, MISSOURI
 KASKASKIA RIVER, ILLINOIS
 LAKE SHELBYVILLE
 DESIGN MEMORANDUM NO. 7B
 REVISED MASTER PLAN
LAND AND WATER USE PLAN
 REVISED MAR 04
 NOTE:
 CADD DIRECTORY:
 N:\MASTERPL\SHELBY\

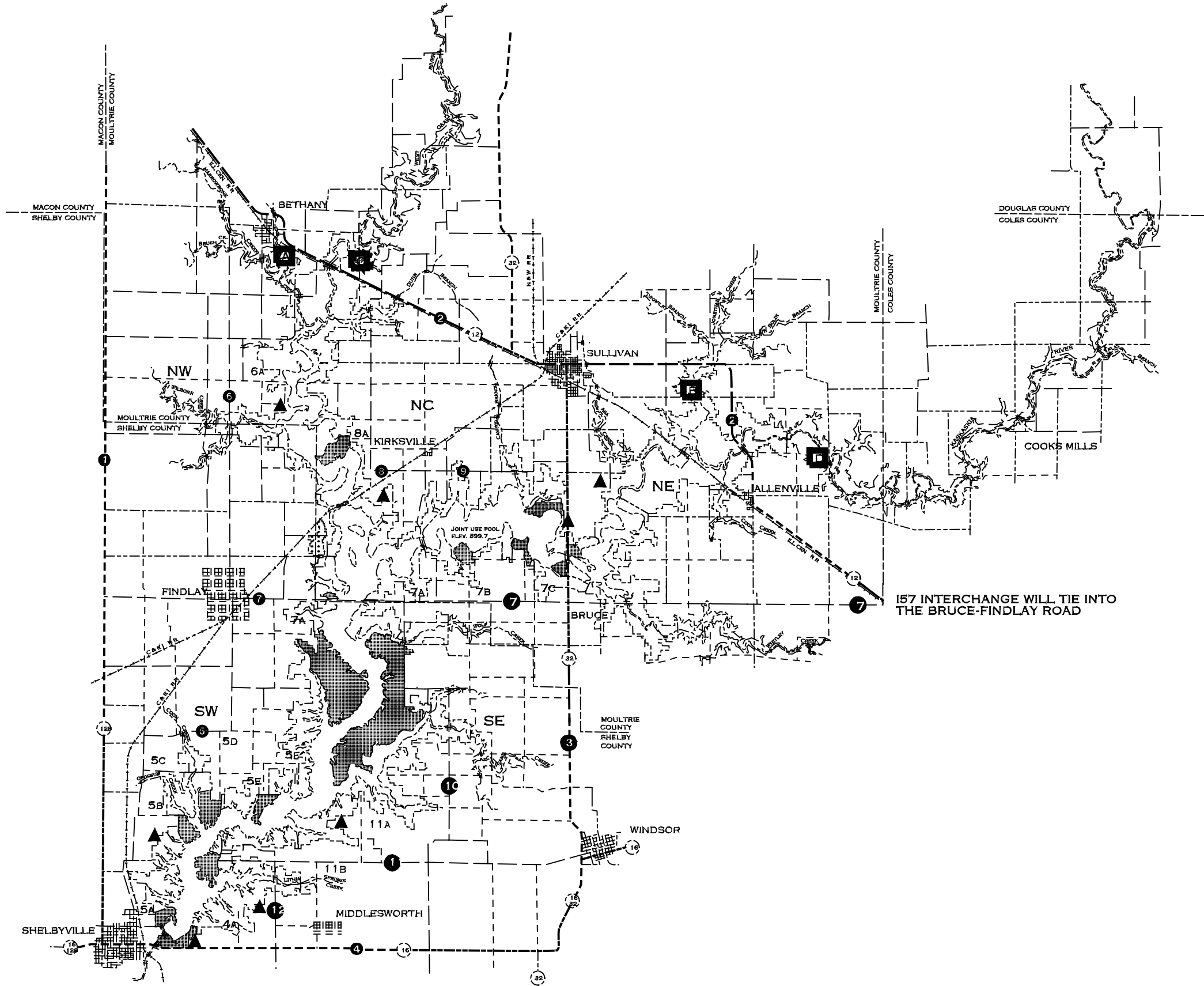


LEGEND
 ● METROPOLITAN AREA
 COUNTY NAMES AND POPULATIONS

UPDATED TO 2000 CENSUS



PM-F	REVISED FOR UPDATE	6-08
SYMBOL	DESCRIPTION	DATE APPROVED
SYMBOL	REVISION	
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI		
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE		
DESIGNED MEMORANDUM NO.7B REVISED MASTER PLAN		
POPULATION DENSITY		
REVISED MAR 04		
NOTE:		
CADD DIRECTORY:		
N:\MASTERPL\SHELBY \		



- PRIMARY ROAD
- SECONDARY ROAD
- TERTIARY ROAD
- - - ACCESS ROAD
- ① ROAD NUMBER
- 6A ACCESS ROAD NUMBER
- DEVELOPED AREA
- ▲ PROPOSED EASEMENTS OR LAND ACQUISITIONS
- SE SECTOR
- Ⓜ BRIDGES PERIODICALLY INUNDATED BY WATER

I57 INTERCHANGE WILL TIE INTO THE BRUCE-FINDLAY ROAD

NOTE: EXPLANATION OF PRIMARY, SECONDARY, AND TERTIARY ROADS ACCORDING TO THEIR NUMBERS CAN BE FOUND IN SECTION 5-04. EXPLANATION OF BRIDGES PERIODICALLY INUNDATED BY WATER ACCORDING TO THEIR LETTER CAN BE FOUND IN SECTION 10-03

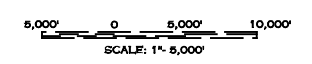
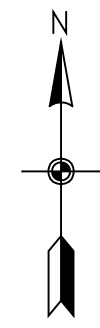


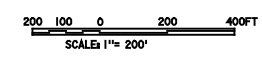
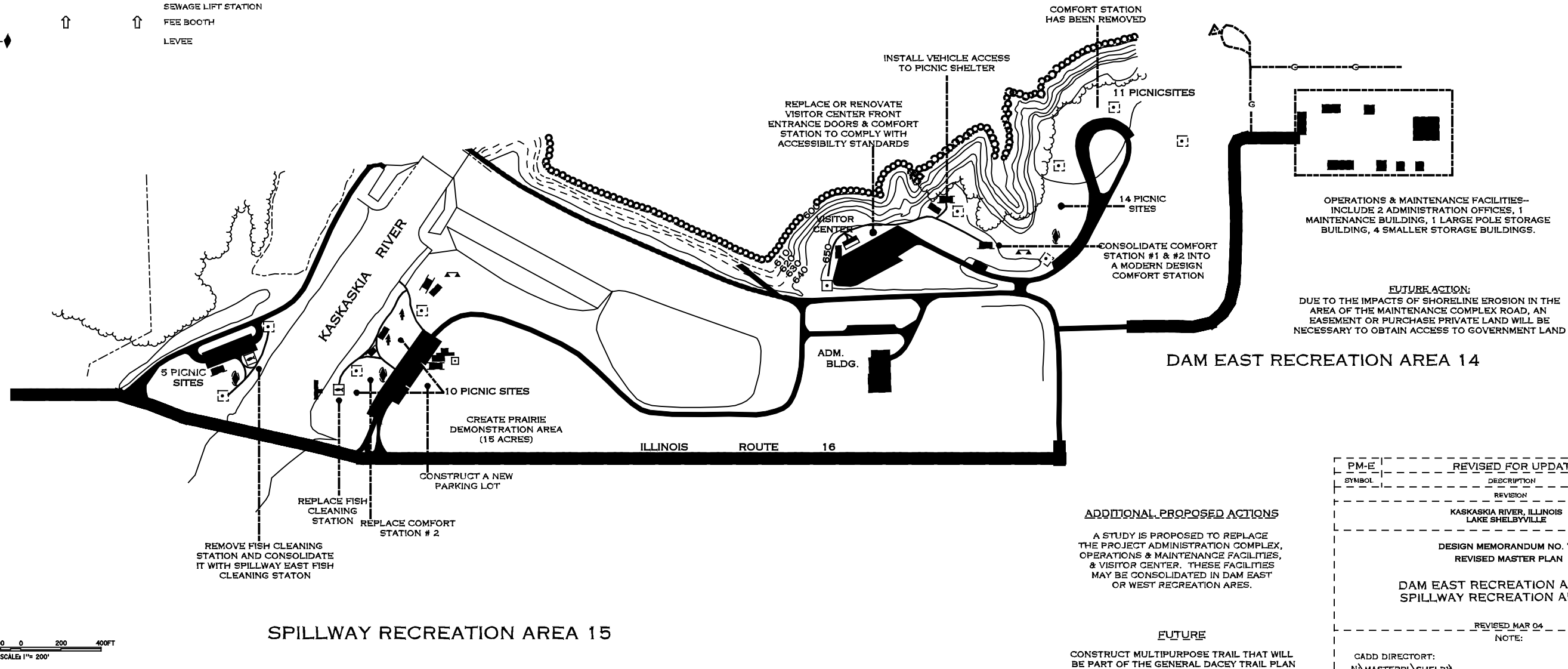
PLATE	REVISED FOR UPDATE	13-04
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE		
DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN		
ROAD NETWORK		
REVISED MAR 04		
NOTE:		
CADD DIRECTORY:		
N:\MASTERPL\SHELBY		

LEGEND

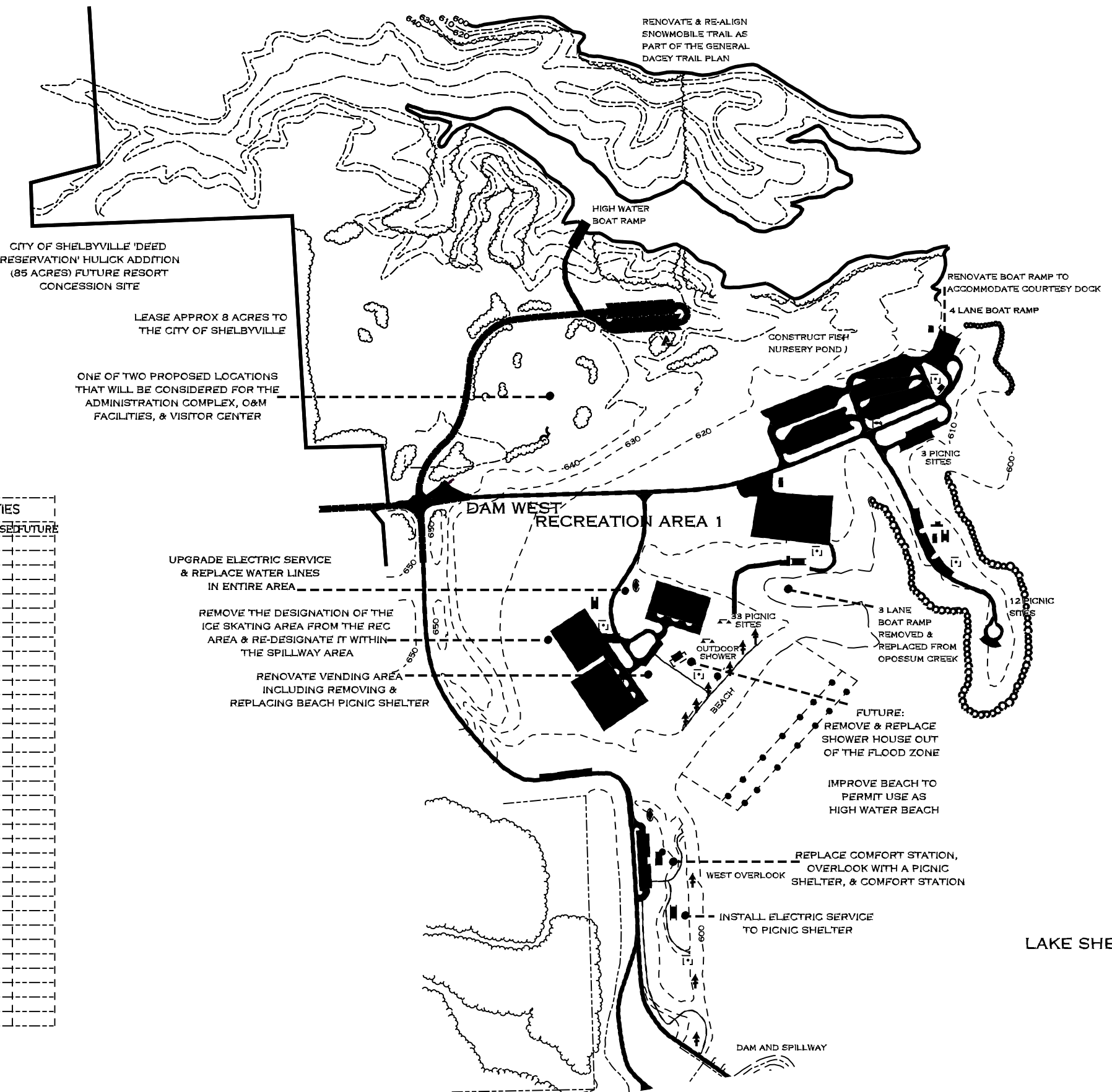
EXISTING	PROPOSED	FUTURE	
---	---	---	PROJECT BOUNDARY
~	~	~	WOODS LINE
-.-.-	-.-.-	-.-.-	JOINT USE POOL-EVEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	ROADS, PARKING & CAMPING PADS (PAVED)
---	---	---	ROADS, PARKING & CAMPING PADS (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	RIPRAP
---	---	---	SHOWER HOUSE
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	BENCH SHELTER
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOTBRIDGE
---	---	---	TRILATERATION STATION
---	---	---	SEWAGE LIFT STATION
---	---	---	FEE BOOTH
---	---	---	LEVEE



DAM EAST RECREATIONAL FACILITIES				SPILLWAY RECREATIONAL FACILITIES			
FACILITY	EXISTING	PROPOSED	FUTURE	FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE				SHOWER HOUSE			
BENCH SHELTER				BENCH SHELTER	2		
CAMP SITE				CAMP SITE			
GROUP CAMP AREA				GROUP CAMP AREA			
FIRE RING				FIRE RING			
TRAILER DUMPING STATION				TRAILER DUMPING STATION			
PICNIC SITE	25			PICNIC SITE	15		
FISH CLEANING STATION				FISH CLEANING STATION	2	1	
SWIMMING BEACH				SWIMMING BEACH			
FISHING PIER				MINI-SHELTER			
OVERLOOK				FISHING PIER	1		
PLAYGROUND EQUIPMENT	1			OVERLOOK			
MINI-SHELTER				PLAYGROUND EQUIPMENT	1		
MULTIPURPOSE GROUP SHELTER				MULTIPURPOSE GROUP SHELTER			
AMPHITHEATER				TRILATERATION STATION			
TRAIL	1			AMPHITHEATER			
SEWAGE TREATMENT PLANT				TRAIL			
VAULT COMFORT STATION				SEWAGE TREATMENT PLANT			
WATERBORNE COMFORT STATION 1				WATERBORNE COMFORT STATION	8		
FOUNTAIN AND/OR HYDRANT	5			VAULT COMFORT STATION			
BOAT LAUNCHING RAMP				FOUNTAIN AND/OR HYDRANT	5		
INFORMATION BOARD	2			BOAT LAUNCHING RAMP			
SEWAGE LIFT STATION	1			INFORMATION BOARD	3		
FOOTBRIDGE	1			SEWAGE LIFT STATION			
CABIN				FOOTBRIDGE			
GROUP PICNIC SHELTER	1			CABIN			
OBSERVATION BLIND				GROUP PICNIC SHELTER	2		
VISITOR CENTER	1			OBSERVATION BLIND			
TRILATERATION STATION	1			VISITOR CENTER			
MARINA				MARINA			



PM-E	REVISED FOR UPDATE	3-04
SYMBOL	DESCRIPTION	DATE APPROVED
	REVISION	
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE		
DESIGN MEMORANDUM NO. 7B		
REVISED MASTER PLAN		
DAM EAST RECREATION AREA, 14		
SPILLWAY RECREATION AREA, 15		
REVISED MAR 04		
NOTE:		
CADD DIRECTOR: N:\MASTERPLAN\SHELBYV		



LEGEND

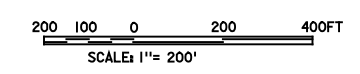
EXISTING	PROPOSED	FUTURE	
---	---	---	PROJECT BOUNDARY
---	---	---	WOODS LINE
---	---	---	JOINT USE POOL-ELEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	ROADS, PARKING & CAMPING PADS (PAVED)
---	---	---	ROADS, PARKING & CAMPING PADS (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	BENCH SHELTER
---	---	---	SHOWER HOUSE
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	RIPRAP
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOT BRIDGE
---	---	---	TRILATERATION STATION
---	---	---	SEWAGE LIFT STATION
---	---	---	FEE BOOTH
---	---	---	LEVEE

DAM WEST RECREATIONAL FACILITIES

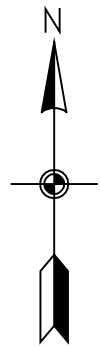
FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE	1		
MINI SHELTER			
CAMP SITE			
FEE BOOTH	1		
GROUP CAMP AREA			
FIRE RING			
TRAILER DUMPING STATION			
PICNIC SITES	48		
FISH CLEANING STATION	1		
BENCH SHELTER	9		
SWIMMING BEACH	1		
FISHING PIER			
OVERLOOK	1	1	
PLAYGROUND EQUIPMENT	2		
TRILATERATION STATION	1		
MULTIPURPOSE GROUP SHELTER			
SEWAGE LIFT STATION	2		
AMPHITHEATER			
TRAIL	1		
SEWAGE TREATMENT PLANT			
VAULT COMFORT STATION			
WATERBORNE COMFORT STATION	4		
FOUNTAIN AND/OR HYDRANT	6		
BOAT LAUNCHING RAMP/LANES	1-4	1-3	
INFORMATION BOARD	6		
OUTDOOR SHOWER	1		
COMFORT STATION/SHOWERS			
FOOT BRIDGE			
CABIN			
GROUP PICNIC SHELTER	4	1	
OBSERVATION BLIND			
VISITOR CENTER			
HIGH WATER RAMP/ LANES	1-2		
MARINA			

FUTURE ACTIONS
 CONSTRUCT TRAIL FOR PEDESTRIAN & BIKE TRAFFIC OUTSIDE GUARDRAIL OF MAIN DAM AS PART OF THE GENERAL DACEY TRAIL PLAN

LAKE SHELBYVILLE



REVISED FOR UPDATE	DATE	BY
DESCRIPTION	DATE	BY
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN DAM WEST RECREATION AREA 1 REVISED MAR 04		
NOTE:		
CADD DIRECTORY:		
N:\MASTERPL\SHELBY\		

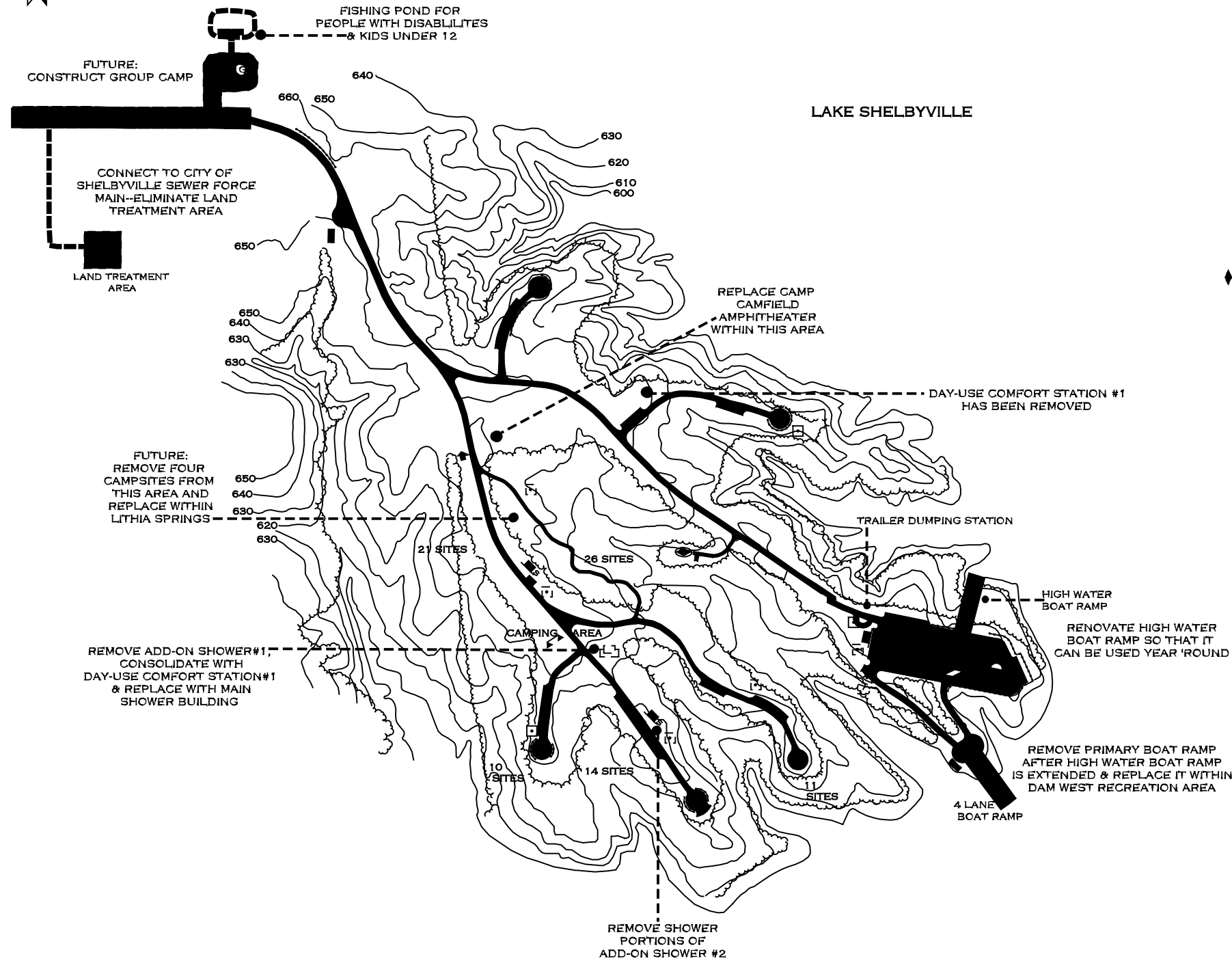


LEGEND

EXISTING	PROPOSED	FUTURE	DESCRIPTION
---	---	---	PROJECT BOUNDARY
---	---	---	WOODS LINE
---	---	---	JOINT USE POOL-EVEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	ROADS, PARKING & CAMPING PADS (PAVED)
---	---	---	ROADS, PARKING & CAMPING PADS (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	COMFORT STATION (SHOWERS)
---	---	---	SHOWER HOUSE
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOTBRIDGE
---	---	---	FEE BOOTH
---	---	---	SEWAGE LIFT STATION
---	---	---	LEVEE

RECREATIONAL FACILITIES

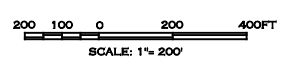
FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE			
WATER & SEWER HOOKUPS		11	
CAMPSITE	82		-4
GROUP CAMP AREA			
FIRE RING			
TRAILER DUMPING STATION	1		
PICNIC SITE			
FISH CLEANING STATION	1		
SWIMMING BEACH			
FISHING PIER	1		
OVERLOOK			
PLAYGROUND EQUIPMENT	1		
FEE BOOTH	1		
MINI SHELTERS			
TRILATERATION STATION			
AMPHITHEATER		1	
TRAIL		1	
SEWAGE TREATMENT PLANT	1		-1
HIGH WATER RAMPLANES	1-2		-1-2
VAULT COMFORT STATION			
WATERBORNE COMFORT STATION	1		
FOUNTAIN AND/OR HYDRANT	1	7	
BOAT LAUNCHING RAMP-LANES	1-4		-1-4
INFORMATION BOARD	2		
COMFORT STATION/SHOWERS	2		-2
FOOTBRIDGE			
CABIN			
GROUP PICNIC SHELTER			
OBSERVATION BLIND			
VISITOR CENTER			
MULTIPURPOSE GROUP SHELTER			
OUTDOOR SHOWER			
MARINA			
SEWAGE LIFT STATION	1		
HIGH/LOW BOAT RAMP			1-2

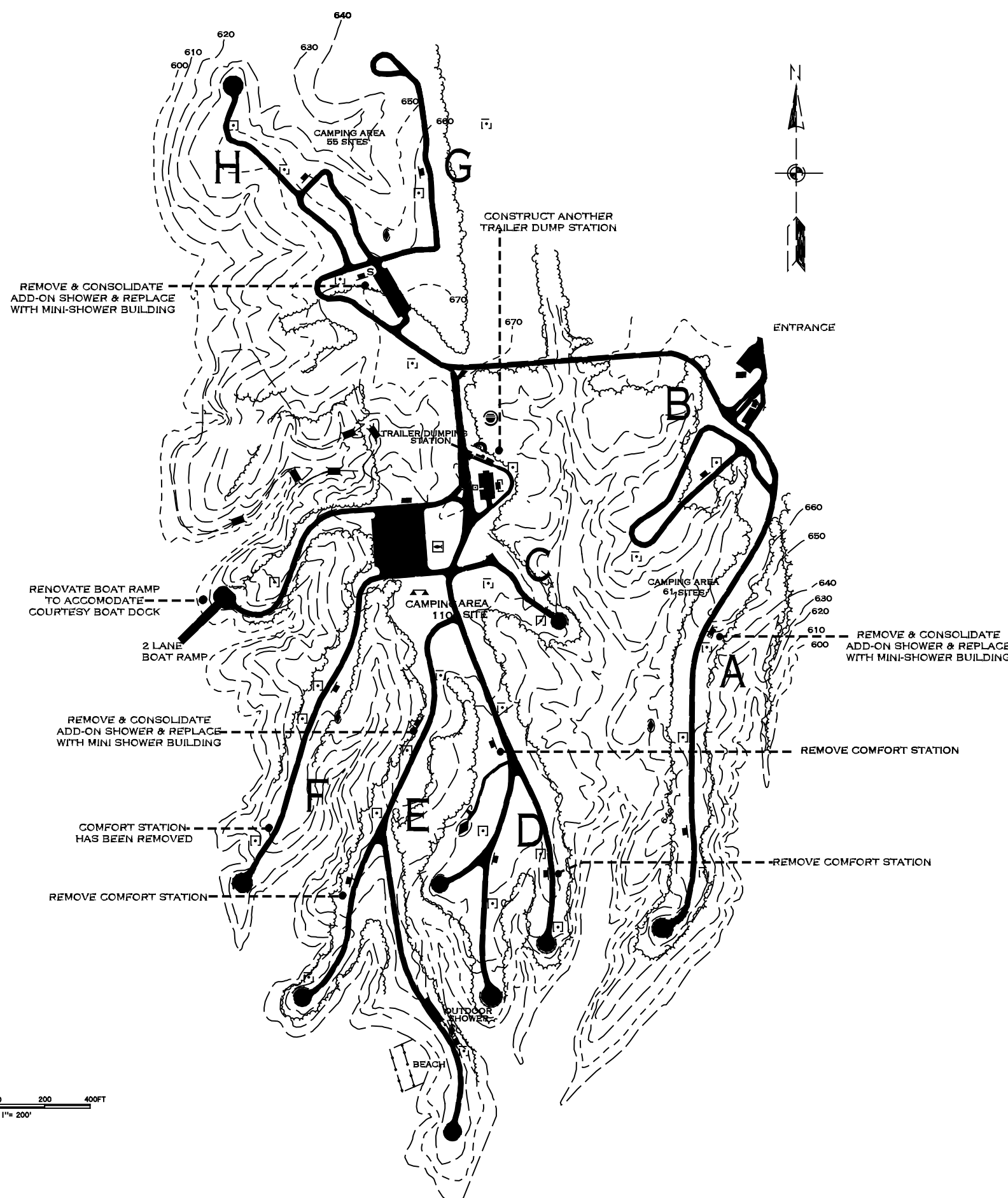


ADDITIONAL PROPOSED ACTIONS

- REPLACE ALL WATER LINES
- INSTALL WATER & SEWER HOOKUPS AT 11 CAMPSITES
- RENOVATE ELECTRICAL SERVICE AT 56 CAMPSITES FROM 30-AMP TO 50-AMP SERVICE
- INSTALL 30-AMP ELECTRICAL SERVICE AT 22 TENT-ONLY CAMPSITES
- FUTURE**
CONSTRUCT MULTI PURPOSE TRAIL AS PART OF LAKE SHELBYVILLE GENERAL DACEY TRAIL PLAN

REVISED FOR UPDATE	3-04
DESCRIPTION	DATE
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN	
OPOSSUM CREEK RECREATION AREA 2	
NOTE: CADD DIRECTORY: N:\MASTERPL\SHELBY\	





RECREATIONAL FACILITIES		
FACILITY	EXISTING	PROPOSED/FUTURE
SHOWERHOUSE	1	
SEWER & WATER HOOKUPS	6	39
CAMP SITE	232	
MINI-SHOWER		3
GROUP CAMP AREA		
FIRE RING		
TRAILER DUMPING STATION	1	1
PICNIC SITE		
FISH CLEANING STATION	1	
SWIMMING BEACH	1	
MINI SHELTER		
FISHING PIER		
OVERLOOK		
PLAYGROUND EQUIPMENT	1	
MULTIPURPOSE GROUP SHELTER		
TRILATERATION STATION		
SEWAGE LIFT STATION	5	
AMPHITHEATER	1	
TRAIL	1	1
SEWAGE TREATMENT PLANT		
PICNIC SHELTER		
VAULT COMFORT STATION		
WATERBORNE COMFORT STATION	10	-5
FOUNTAIN AND/OR HYDRANT	29	
OUTDOOR SHOWER	1	
BOAT LAUNCHING RAMP LANES	1-2	
INFORMATION BOARD	3	
FEE BOOTH	1	
COMFORT STATION/SHOWERS	3	-3
FOOTBRIDGE	5	
CABIN		
HIGH WATER RAMP		
MARINA		
OBSERVATION BLIND		
VISITOR CENTER		

LEGEND

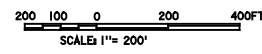
--- PROJECT BOUNDARY
 --- WOODS LINE
 --- JOINT USE POOL-EVEV. 599.7
 --- CONCESSIONAIRE BOUNDARY

EXISTING PROPOSED FUTURE

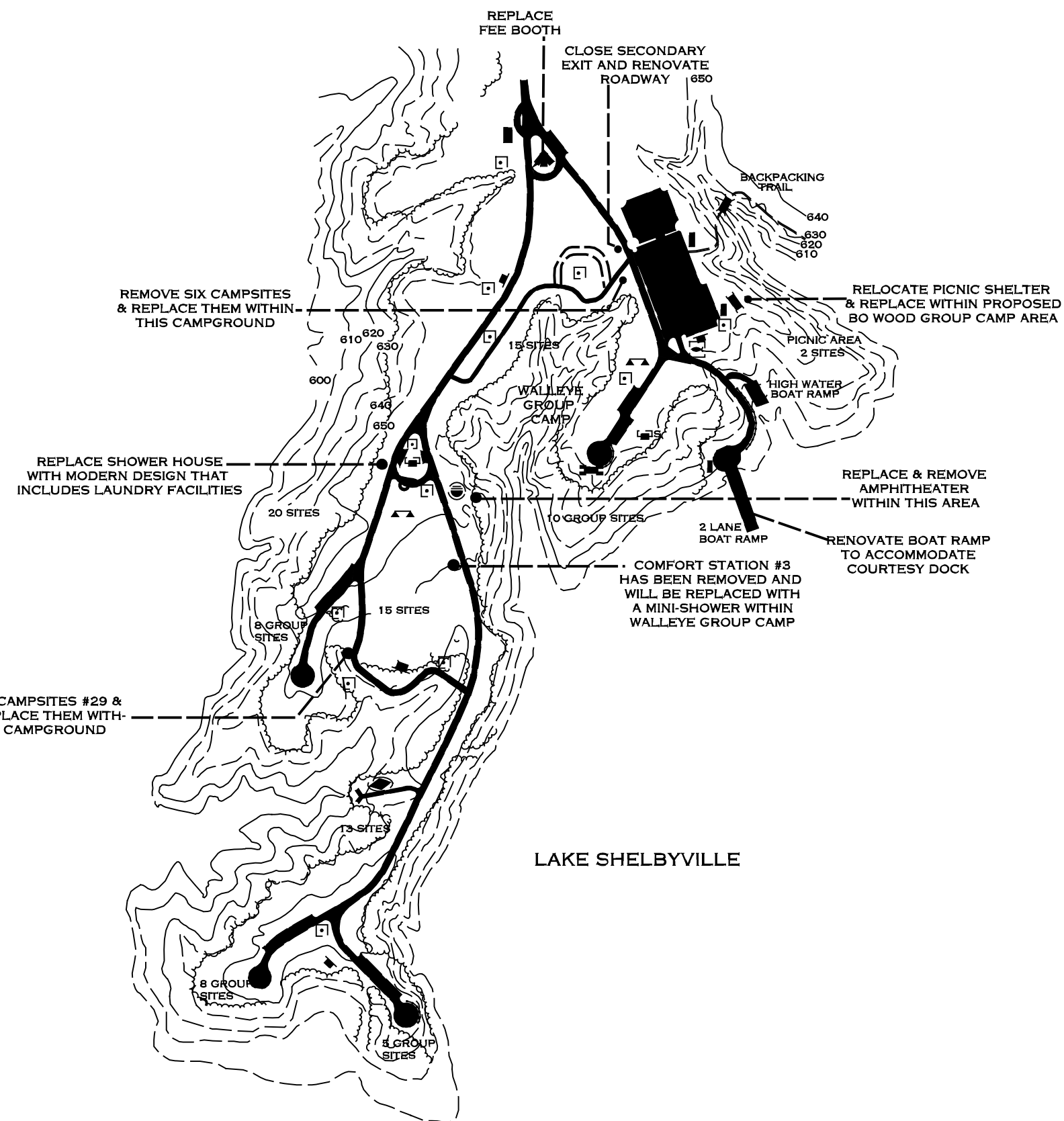
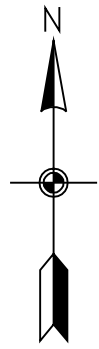
ROADS, PARKING & CAMPING PADS (PAVED)
 ROADS, PARKING & CAMPING PADS (GRAVEL)
 NATURE, INTERPRETIVE & HIKING TRAILS
 COMFORT STATION (WATER BORNE)
 COMFORT STATION (VAULT)
 COMFORT STATION (SHOWERS)
 SHOWER HOUSE
 MINI-SHOWER
 GROUP PICNIC SHELTER
 VISITOR CENTER
 AMPHITHEATER
 OVERLOOK
 FIRE RING
 PLAYGROUND EQUIPMENT
 SWIMMING BEACH
 BOAT LAUNCHING RAMP (PAVED)
 BOAT LAUNCHING RAMP (GRAVEL)
 FISHING PIER
 FISH CLEANING STATION
 TRAILER DUMPING & WATER FILL STATION
 SEWAGE TREATMENT PLANT
 DRINKING FOUNTAIN AND/OR HYDRANT
 INFORMATION BOARD
 FOOT BRIDGE
 FEE BOOTH
 SEWAGE LIFT STATION
 LEVEE

ADDITIONAL PROPOSED ACTIONS

- REPLACE WATER LINES
- REMOVE ONE COMFORT STATION ON A OR B LEG
- INSTALL 20 ADDITIONAL PARKING SPACES
- CONNECT TO CITY OF SHELBYVILLE FORCE MAIN
- INSTALL WATER AND SEWER HOOKUPS TO 39 CAMPSITES
- REMOVE & REPLACE 26 PULL-OFF SITES WITHIN THE CAMPGROUND
- RENOVATE AND REALIGN NATURE TRAIL AS PART OF THE GENERAL DACEY TRAIL PLAN
- CONSTRUCT TRAIL FOR PEDESTRIAN & BIKE TRAFFIC FROM FEE BOOTH AREA TO MAIN SHOWER BUILDING
- RENOVATE ALL CAMPSITES FROM 30-AMP TO 50-AMP ELECTRICAL SERVICE
- SHORELINE EROSION PLAN INCLUDES PROTECTING THE BOAT RAMP, BEACH, BEACH PARKING LOT, & CAMPGROUND TURNAROUNDS
- A STUDY WILL BE CONDUCTED TO DEFINE COST EFFECTIVE METHODS TO PROVIDE PROTECTION THAT IS DEFINED IN THE SHORELINE EROSION PLAN

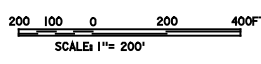


PREPARED BY	REVISIONS	DATE
	1	3-04
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI		
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE		
DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN		
COON CREEK RECREATION AREA 3		
REVISED MAR 04		
NOTE:		
CADD DIRECTORY: N:\MASTERPL\SHELBY		



RECREATIONAL FACILITIES		
FACILITY	EXISTING	PROPOSED/FUTURE
SHOWER HOUSE	1	
CABINS		
CAMPSITE	94	-6
MINI-SHELTER		
GROUP CAMP AREA	4	-3
FIRE RING		
TRAILER DUMPING STATION	1	
PICNIC SITE	2	
FISH CLEANING STATION	1	
SWIMMING BEACH		
HIGH WATER RAMP	1-2	
FISHING PIER		
OVERLOOK		
PLAYGROUND EQUIPMENT	2	
MULTIPURPOSE GROUP SHELTER		
TRILATERATION STATION		
AMPHITHEATER	1	
TRAIL	1	
SEWAGE TREATMENT PLANT		
PICNIC SHELTER	2	-1
VAULT COMFORT STATION		
WATERBORNE COMFORT STATION	4	
FOUNTAIN AND/OR HYDRANT	11	
BOAT LAUNCHING RAMP	1-2	
INFORMATION BOARD	4	
FEE BOOTH	1	
MARINA		
FOOTBRIDGE	1	-1
OBSERVATION BLIND		
VISITOR CENTER		
SEWAGE LIFT STATION	1	
SEWER & WATER HOOKUPS		15
MINI-SHOWER		1

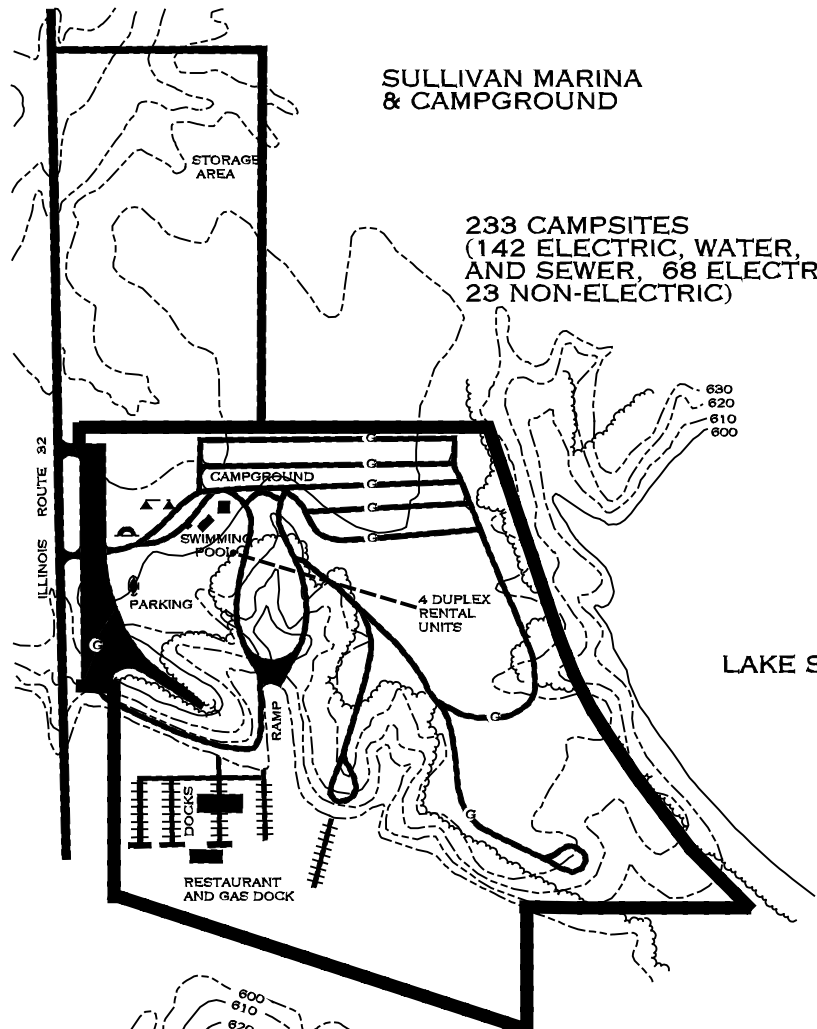
LEGEND	
EXISTING	FUTURE
--- (dashed)	PROJECT BOUNDARY
--- (dotted)	WOODS LINE
--- (dash-dot)	JOINT USE POOL-EVEV. 599.7
--- (solid)	CONCESSIONAIRE BOUNDARY
--- (dashed)	ROADS, PARKING & CAMPING PADS (PAVED)
--- (dotted)	ROADS, PARKING & CAMPING PADS (GRAVEL)
--- (dash-dot)	NATURE, INTERPRETIVE & HIKING TRAILS
--- (solid)	COMFORT STATION (WATER BORNE)
--- (dashed)	COMFORT STATION (VAULT)
--- (solid)	SHOWERHOUSE
--- (dashed)	TRAILER DUMPING & WATER FILL STATION
--- (dotted)	SEWAGE TREATMENT PLANT
--- (dash-dot)	GROUP PICNIC SHELTER
--- (solid)	VISITOR CENTER
--- (dashed)	GROUP AMPHITHEATER
--- (dotted)	OVERLOOK
--- (dash-dot)	FIRE RING
--- (solid)	PLAYGROUND EQUIPMENT
--- (dashed)	SWIMMING BEACH
--- (dotted)	BOAT LAUNCHING RAMP (PAVED)
--- (dash-dot)	BOAT LAUNCHING RAMP (GRAVEL)
--- (solid)	FISHING PIER
--- (dashed)	FISH CLEANING STATION
--- (dotted)	DRINKING FOUNTAIN AND/OR HYDRANT
--- (dash-dot)	INFORMATION BOARD
--- (solid)	FOOTBRIDGE
--- (dashed)	SEWAGE LIFT STATION
--- (dotted)	FEE BOOTH
--- (dash-dot)	LEVELS
--- (solid)	MINI-SHOWER



- ADDITIONAL PROPOSED ACTIONS**
- CONNECT TO THE CITY OF SHELBYVILLE FORCE MAIN.
 - INSTALL SEWER AND WATER HOOKUPS TO 15 CAMPSITES
 - REPLACE ALL WATER LINES
 - INSTALL 30-AMP ELECTRICAL SERVICE AT SEVEN TENT-ONLY CAMPSITES
 - REMOVE GROUP CAMP DESIGNATIONS FROM ALL GROUP CAMPS WITH THE EXCEPTION OF WALLEYE GROUP CAMP
 - RENOVATE 84 CAMPSITES FROM 30-AMP TO 50-AMP ELECTRICAL SERVICE
 - RENOVATE AND RE-ALIGN ILLINI TRAIL AS PART OF THE GENERAL DACEY TRAIL PLAN
 - FUTURE: RELOCATE 6 CAMPSITES TO LITHIA SPRINGS

SHORELINE EROSION PLAN INCLUDES PROTECTING LOCATIONS ALONG THE EASTERN SHORELINE OF THE CAMPGROUND. A STUDY WILL BE CONDUCTED TO DEFINE COST EFFECTIVE METHODS TO PROVIDE PROTECTION THAT IS DEFINED IN THE SHORELINE EROSION PLAN.

DATE	REVISION	DESCRIPTION	DATE	APPROVED
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS				
CORPS OF ENGINEERS				
ST. LOUIS, MISSOURI				
KASKASKIA RIVER, ILLINOIS				
LAKE SHELBYVILLE				
DESIGN MEMORANDUM NO. 7B				
REVISED MASTER PLAN				
LONE POINT RECREATION AREA 4				
REVISED MAR 04				
NOTE:				
CADD DIRECTORY:				
N:\MASTERPL\SHELBY\				

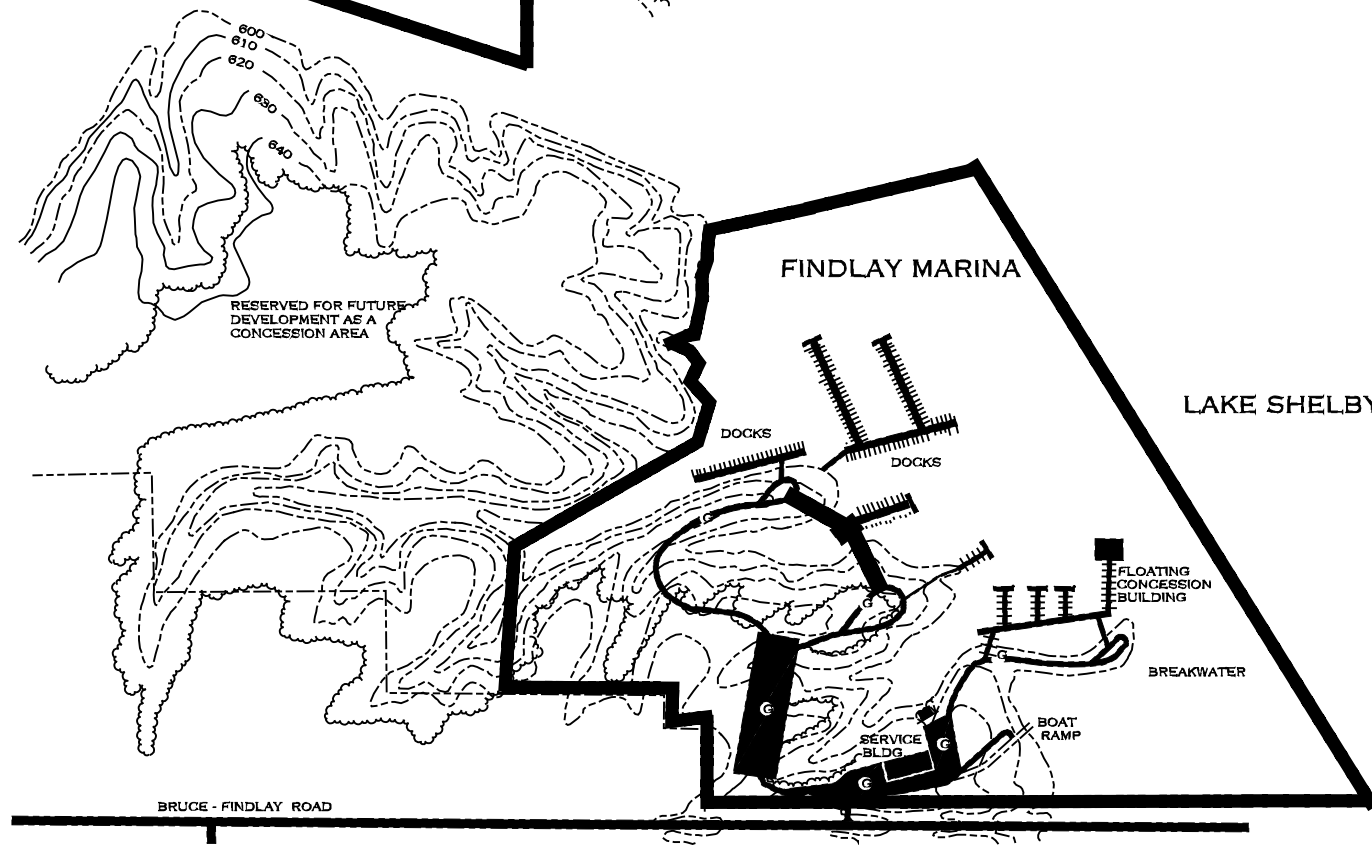


PROPOSED ACTION:
CONNECT TO SULLIVAN FORCE MAIN.
THIS WILL ELIMINATE LIFT STATION.

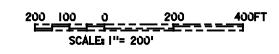


LEGEND

EXISTING	PROPOSED	FUTURE	DESCRIPTION
---	---	---	PROJECT BOUNDARY
~~~~	~~~~	~~~~	WOODS LINE
---	---	---	JOINT USE POOL-EVEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
==	==	==	ROADS, PARKING & CAMPING PADS (PAVED)
-G-	-G-	-G-	ROADS, PARKING & CAMPING PADS (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	SHOWER HOUSE
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOTBRIDGE
---	---	---	SEWAGE LIFT STATION
---	---	---	FEE BOOTH
---	---	---	LEVEE



**ADDITIONAL PROPOSED ACTIONS**  
PROPOSED LINE FROM FINDLAY OR  
SHELBYVILLE TO PROVIDE SEWER SERVICES



DATE	DESCRIPTION	BY	DATE	APPROVED

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS  
CORPS OF ENGINEERS  
ST. LOUIS, MISSOURI

KASKASKIA RIVER, ILLINOIS  
LAKE SHELBYVILLE

DESIGN MEMORANDUM NO. 7B  
REVISED MASTER PLAN

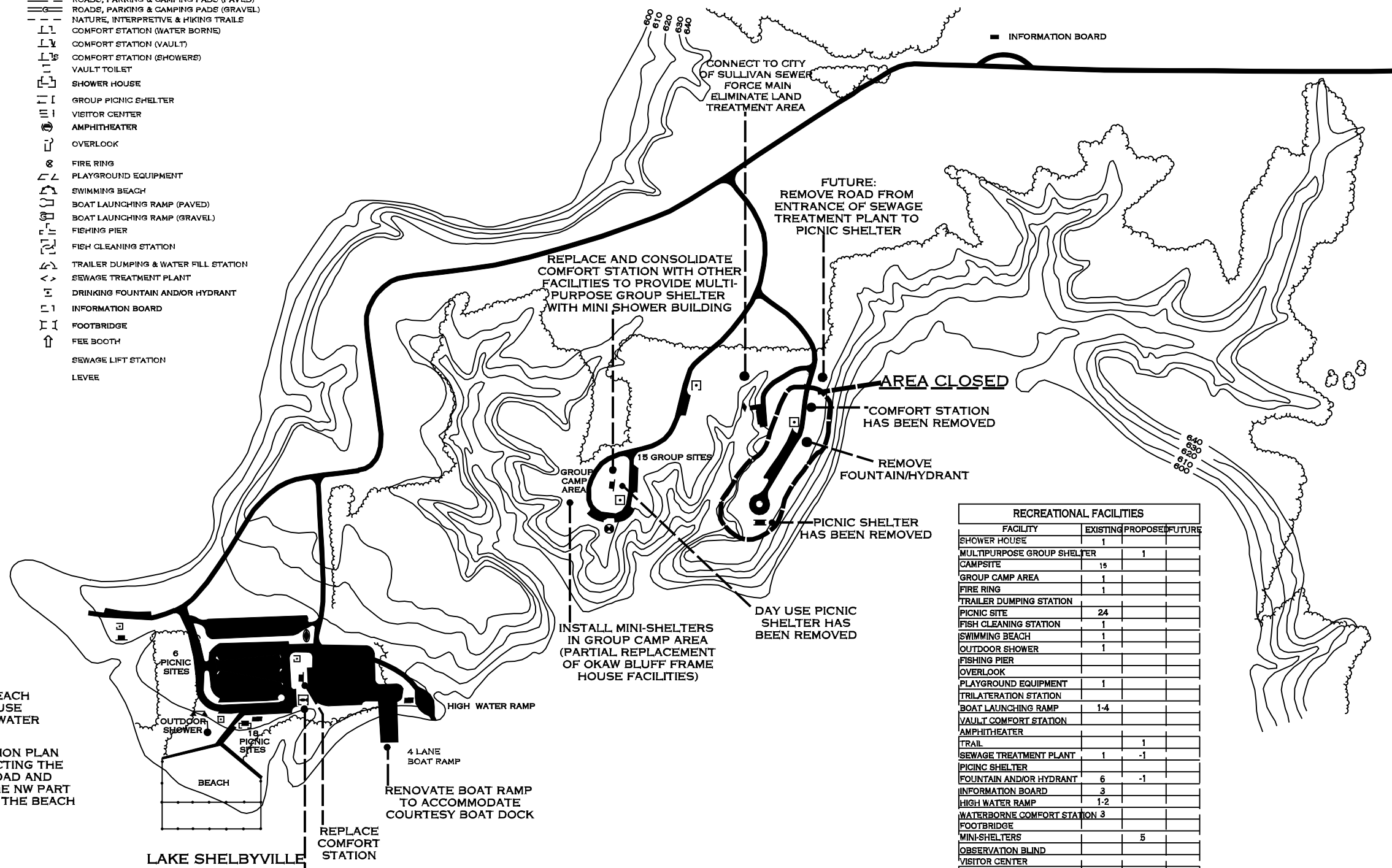
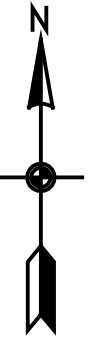
**CONCESSION SITES**  
FINDLAY MARINA 6  
SULLIVAN MARINA AND CAMPGROUND 9

REVISED MAR 04

NOTE:  
CADD DIRECTORY:  
N:\MASTERPL\SHELBY\

**LEGEND**

EXISTING	PROPOSED	FUTURE	
---	---	---	PROJECT BOUNDARY
---	---	---	WOODS LINE
---	---	---	JOINT USE POOL-ELEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	ROADS, PARKING & CAMPING PADE (PAVED)
---	---	---	ROADS, PARKING & CAMPING PADE (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	COMFORT STATION (SHOWERS)
---	---	---	VAULT TOILET
---	---	---	SHOWER HOUSE
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOTBRIDGE
---	---	---	FEE BOOTH
---	---	---	SEWAGE LIFT STATION
---	---	---	LEVEE



RECREATIONAL FACILITIES			
FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE	1		
MULTIPURPOSE GROUP SHELTER		1	
CAMPSITE	15		
GROUP CAMP AREA	1		
FIRE RING	1		
TRAILER DUMPING STATION			
PICNIC SITE	24		
FISH CLEANING STATION	1		
SWIMMING BEACH	1		
OUTDOOR SHOWER	1		
FISHING PIER			
OVERLOOK			
PLAYGROUND EQUIPMENT	1		
TRILATERATION STATION			
BOAT LAUNCHING RAMP	1-4		
VAULT COMFORT STATION			
AMPHITHEATER			
TRAIL		1	
SEWAGE TREATMENT PLANT	1	-1	
PICNIC SHELTER			
FOUNTAIN AND/OR HYDRANT	6	-1	
INFORMATION BOARD	3		
HIGH WATER RAMP	1-2		
WATERBORNE COMFORT STATION	3		
FOOTBRIDGE			
MINI-SHELTERS		5	
OBSERVATION BLIND			
VISITOR CENTER			
MARINA			
SEWAGE LIFT STATION	1		
MINI-SHOWER		1	

**FUTURE ACTIONS**

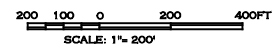
THE DAY USE AREA SOUTH OF THE LAND TREATMENT PLANT WILL BE CONSIDERED AS A FUTURE CONCESSION AREA

CONSTRUCT MULTIPURPOSE TRAIL AS PART OF GENERAL DACEY TRAIL PLAN

**ADDITIONAL PROPOSED ACTIONS**

REPLACE WATER & SEWER LINES

RENOVATE 15 CAMPSITES TO 50 AMP ELECTRICAL SERVICE WITH IMPACT AREAS



DATE	REVISION	DESCRIPTION	DATE	APPROVED
3-04				

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS  
CORPS OF ENGINEERS  
ST. LOUIS, MISSOURI

KASKASKIA RIVER, ILLINOIS  
LAKE SHELBYVILLE

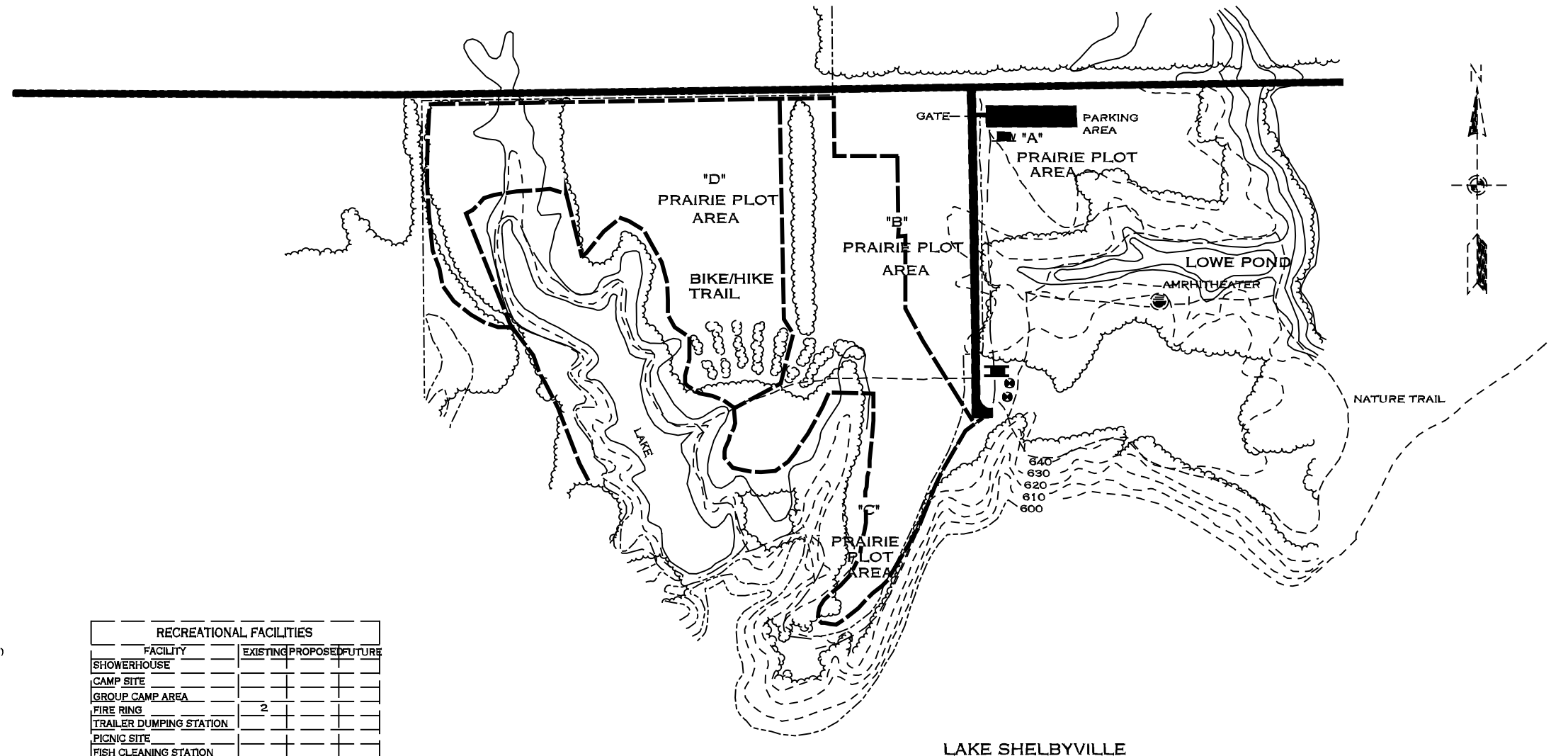
DESIGN MEMORANDUM NO. 7B  
REVISED MASTER PLAN

**WILBORN CREEK RECREATION AREA 7**

REVISED MAR 04

NOTE:  
CADD DIRECTORY:  
N:\MASTERPL\SHELBY\





LAKE SHELBYVILLE

**LEGEND**

---	PROJECT BOUNDARY
~~~~~	WOODS LINE
-.-.-	JOINT USE POOL-ELEV. 599.7
---	CONCESSIONAIRE BOUNDARY
---	EXISTING
---	PROPOSED
---	FUTURE
█	COMFORT STATION (WATER BORNE)
█	COMFORT STATION (VAULT)
█	SHOWER HOUSE
█	GROUP PICNIC SHELTER
█	VISITOR CENTER
█	AMPHITHEATER
█	OVERLOOK
█	FIRE RING
█	PLAYGROUND EQUIPMENT
█	SWIMMING BEACH
█	BOAT LAUNCHING RAMP (PAVED)
█	BOAT LAUNCHING RAMP (GRAVEL)
█	FISHING PIER
█	FISH CLEANING STATION
█	TRAILER DUMPING & WATER FILL STATION
█	SEWAGE TREATMENT PLANT
█	DRINKING FOUNTAIN AND/OR HYDRANT
█	INFORMATION BOARD
█	FOOT BRIDGE
█	SEWAGE LIFT STATION
█	FEE BOOTH
█	LEVEE

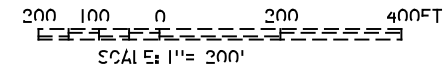
RECREATIONAL FACILITIES				
FACILITY	EXISTING	PROPOSED	FUTURE	
SHOWERHOUSE				
CAMP SITE				
GROUP CAMP AREA				
FIRE RING	2			
TRAILER DUMPING STATION				
PICNIC SITE				
FISH CLEANING STATION				
SWIMMING BEACH				
FISHING PIER				
OVERLOOK				
PLAYGROUND EQUIPMENT				
MINI-SHELTERS				
MULTIPURPOSE GROUP SHELTER				
AMPHITHEATER	1			
TRAIL	2			
SEWAGE TREATMENT PLANT				
PICNIC SHELTER	1			
VAULT COMFORT STATION	1			
WATERBORNE COMFORT STATION				
FOUNTAIN AND/OR HYDRANT				
BOAT LAUNCHING RAMP				
INFORMATION BOARD	3			
TRILATERATION STATION				
FOOT BRIDGE	3	-3		
CABIN				
OBSERVATION BLIND				
VISITOR CENTER				
MARINA				
SEWAGE LIFT STATION				

ADDITIONAL PROPOSED ACTION

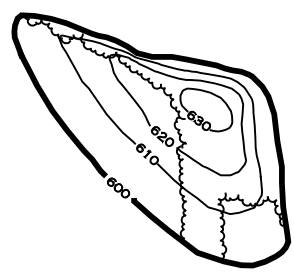
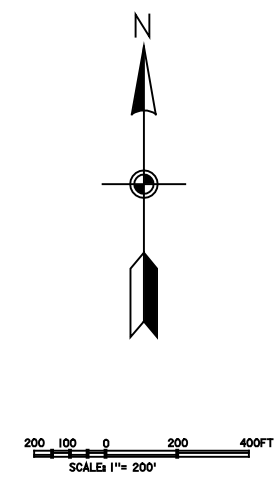
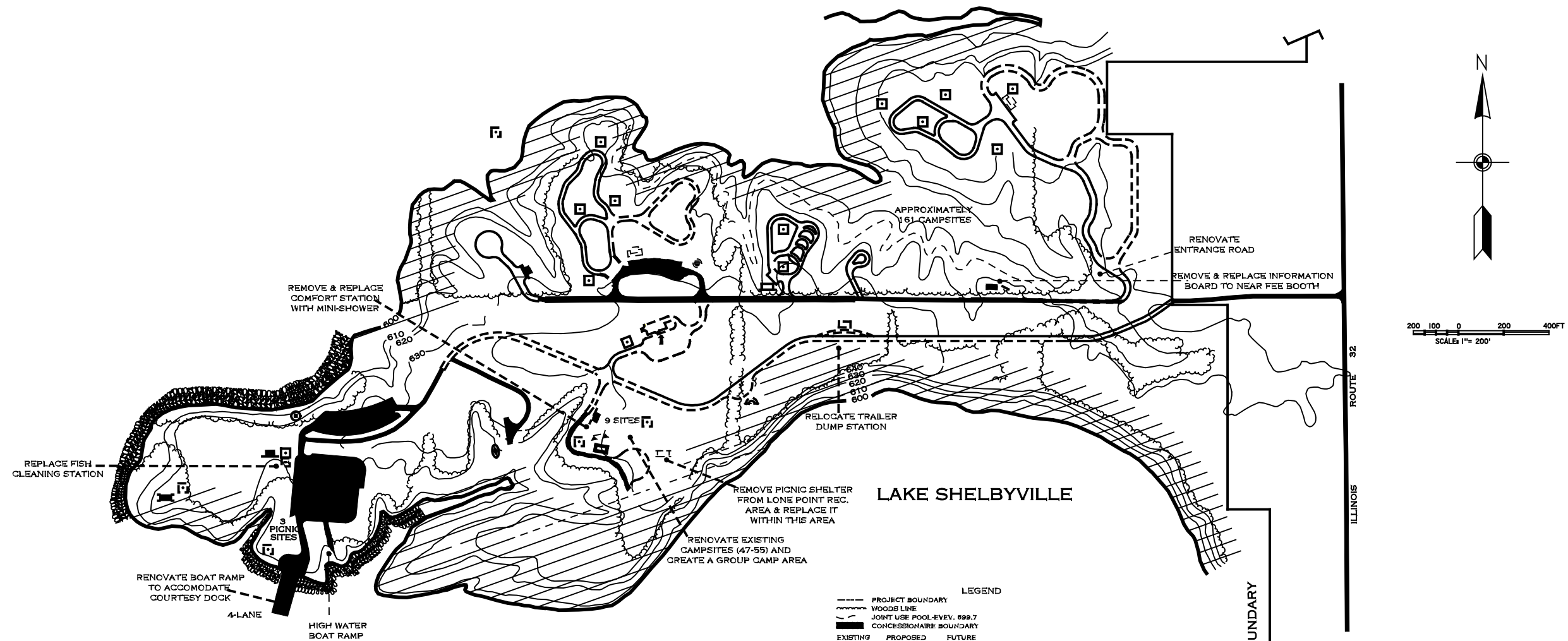
REMOVE AND REPLACE TRAIL FOOT BRIDGES WITH CULVERTS

RENOVATE AND RE-ALIGN EXISTING TRAIL SYSTEM INTO A MULTI-PURPOSE TRAIL SYSTEM AS PART OF THE GENERAL DACEY TRAIL PLAN

AMPHITHEATER ALONG 79 TRAIL HAS BEEN REMOVED AND WILL BE REPLACED WITHIN OPOSSUM CREEK AREA



PM-E	REVISED FOR UPDATE	3-04
SYMBOL	DESCRIPTION	DATE APPROVED
REVISION		
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI		
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN CAMP CAMFIELD ECOLOGICAL STUDY AREA-LD-4 REVISED MAR 04		
NOTE: CADD DIRECTORY: N:\MASTERPL\SHELBY\		



LEGEND

EXISTING	PROPOSED	FUTURE	DESCRIPTION
---	---	---	PROJECT BOUNDARY
---	---	---	WOODS LINE
---	---	---	JOINT USE POOL-ELEV. 599.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	COMFORT STATION (SHOWERS)
---	---	---	SHOWER HOUSE
---	---	---	MINI-SHOWER
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILLING STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOT BRIDGE
---	---	---	FEE BOOTH
---	---	---	SEWAGE LIFT STATION
---	---	---	RIP RAP
---	---	---	LEVEE
---	---	---	SHORE LINE THAT WILL BE LOST TO EROSION

RECREATIONAL FACILITIES

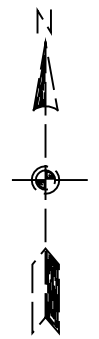
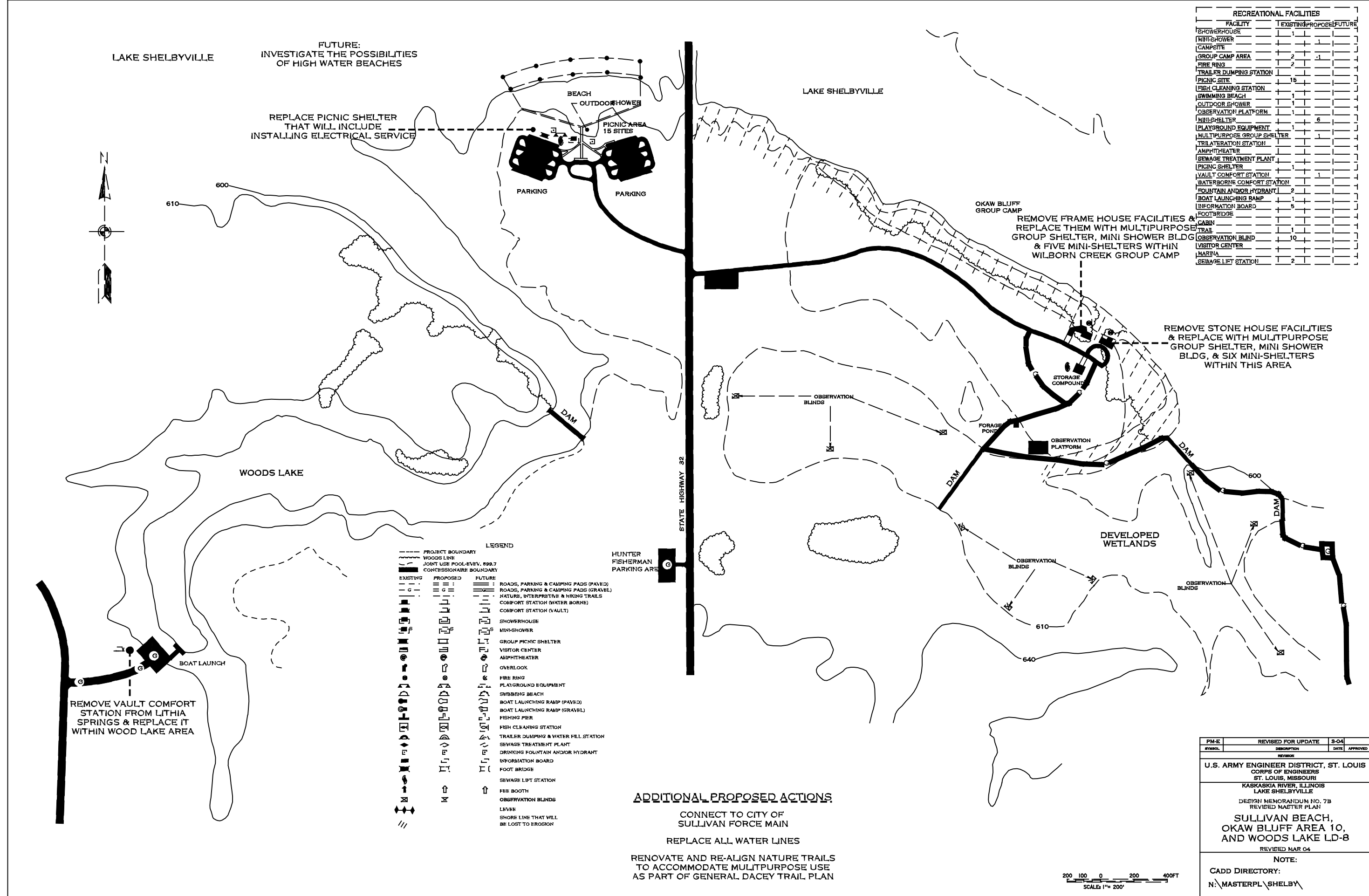
FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE	1	1	1
MINI-SHOWER	1	1	1
CAMP SITE	84	69	
SEWER & WATER HOOKUPS		33	
GROUP CAMP AREA		1	
FIRE RING			
TRAILER DUMPING STATION	1	1	
PICNIC SITE	7	-2	
FISH CLEANING STATION	1		
SWIMMING BEACH			
MINI SHELTER			
FISHING PIER			
OVERLOOK			
PLAYGROUND EQUIPMENT		2	
MULTIPURPOSE GROUP SHELTER			
TRILATERATION STATION			
SEWAGE LIFT STATION		3	
AMPHITHEATER		1	
TRAIL		1	
SEWAGE TREATMENT PLANT			
PICNIC SHELTER	1	1	
VAULT COMFORT STATION			
WATERBORNE COMFORT STATION	4	-1	
FOUNTAIN AND/OR HYDRANT	11	8	
BOAT LAUNCHING RAMP	1-4		
INFORMATION BOARDS		3	
FEE BOOTH		1	
MARINA			
HIGH WATER RAMP		1-2	
GABIN			
OBSERVATION BLIND			
VISITOR CENTER			

ADDITIONAL PROPOSED ACTIONS

- EXISTING FACILITIES ARE SHOWN ON PLATE 13
- INSTALL WATER & SEWER HOOKUPS TO 33 CAMPSITES
- UPGRADE ALL CAMPSITES
- 50 AMP ELECTRICAL SERVICE
- CONNECT TO CITY OF SULLIVAN SEWER FORCE MAIN
- REPLACE TRAIL AND INCORPORATE IT IN THE LAKE SHELBYVILLE GENERAL DACEY TRAIL PLAN
- CONSOLIDATE 86 CAMPSITES, 1 SHOWER HOUSE, 8 FOUNTAIN-HYDRANTS, AND 1 TRAILER DUMP STATION FROM THE WHITLEY CREEK RECREATION AREA ACCORDING TO SHORELINE EROSION PLAN

PD-E	---	REVISED FOR UPDATE	2-04
PD-F	---	REVISED FOR UPDATE	2-98
BY/NO.	---	DATE	APPROVED
REVISION			
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI			
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE DESIGN MEMORANDUM NO 7B. REVISED MASTER PLAN			
REVISED FORREST W "BO" WOOD RECREATION AREA 8			
REVISED MAR 04			
NOTE:			
CADD DIRECTORY:			
T:\MASTERPL\SHELBY\			

RECREATIONAL FACILITIES			
FACILITY	EXISTING	PROPOSED	FUTURE
SHOWERHOUSE	1	1	
MINI-SHOWER		1	1
CAMPFIRE	1	1	
GROUP CAMP AREA	2	1	1
FIRE RING	2	1	1
TRAILER DUMPING STATION	1		1
PICNIC SITE	15		
FISH CLEANING STATION	1	1	
SWIMMING BEACH	1	1	
OUTDOOR SHOWER	1	1	
OBSERVATION PLATFORM	1	1	
MINI-SHELTER		1	6
PLAYGROUND EQUIPMENT	1	1	
MULTIPURPOSE GROUP SHELTER	1	1	
TRAILERATION STATION	1	1	
AMPHITHEATER	1	1	
SEWAGE TREATMENT PLANT	1	1	
PICNIC SHELTER	1	1	
VAULT COMFORT STATION	1	1	
WATERBORNE COMFORT STATION	1	1	
FOUNTAIN AND/OR HYDRANT	2	1	
BOAT LAUNCHING RAMP	1	1	
INFORMATION BOARD	1	1	
FOOT BRIDGE	5	1	
CABIN	1	1	
TRAIL	1	1	
OBSERVATION BLIND	10	1	
VISITOR CENTER	1	1	
MARINA	1	1	
SEWAGE LIFT STATION	2	1	



LEGEND

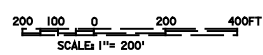
EXISTING	PROPOSED	FUTURE	DESCRIPTION
---	---	---	PROJECT BOUNDARY
---	---	---	WOODS LINE
---	---	---	JOINT USE POOL-ELEV. #99.7
---	---	---	CONCESSIONAIRE BOUNDARY
---	---	---	ROADS, PARKING & CAMPING PADS (PAVED)
---	---	---	ROADS, PARKING & CAMPING PADS (GRAVEL)
---	---	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	---	---	COMFORT STATION (WATER BORNE)
---	---	---	COMFORT STATION (VAULT)
---	---	---	SHOWERHOUSE
---	---	---	MINI-SHOWER
---	---	---	GROUP PICNIC SHELTER
---	---	---	VISITOR CENTER
---	---	---	AMPHITHEATER
---	---	---	OVERLOOK
---	---	---	FIRE RING
---	---	---	PLAYGROUND EQUIPMENT
---	---	---	SWIMMING BEACH
---	---	---	BOAT LAUNCHING RAMP (PAVED)
---	---	---	BOAT LAUNCHING RAMP (GRAVEL)
---	---	---	FISHING PIER
---	---	---	FISH CLEANING STATION
---	---	---	TRAILER DUMPING & WATER FILL STATION
---	---	---	SEWAGE TREATMENT PLANT
---	---	---	DRINKING FOUNTAIN AND/OR HYDRANT
---	---	---	INFORMATION BOARD
---	---	---	FOOT BRIDGE
---	---	---	SEWAGE LIFT STATION
---	---	---	FEE BOOTH
---	---	---	OBSERVATION BLINDS
---	---	---	LEVEE
---	---	---	SHORE LINE THAT WILL BE LOST TO EROSION

ADDITIONAL PROPOSED ACTIONS

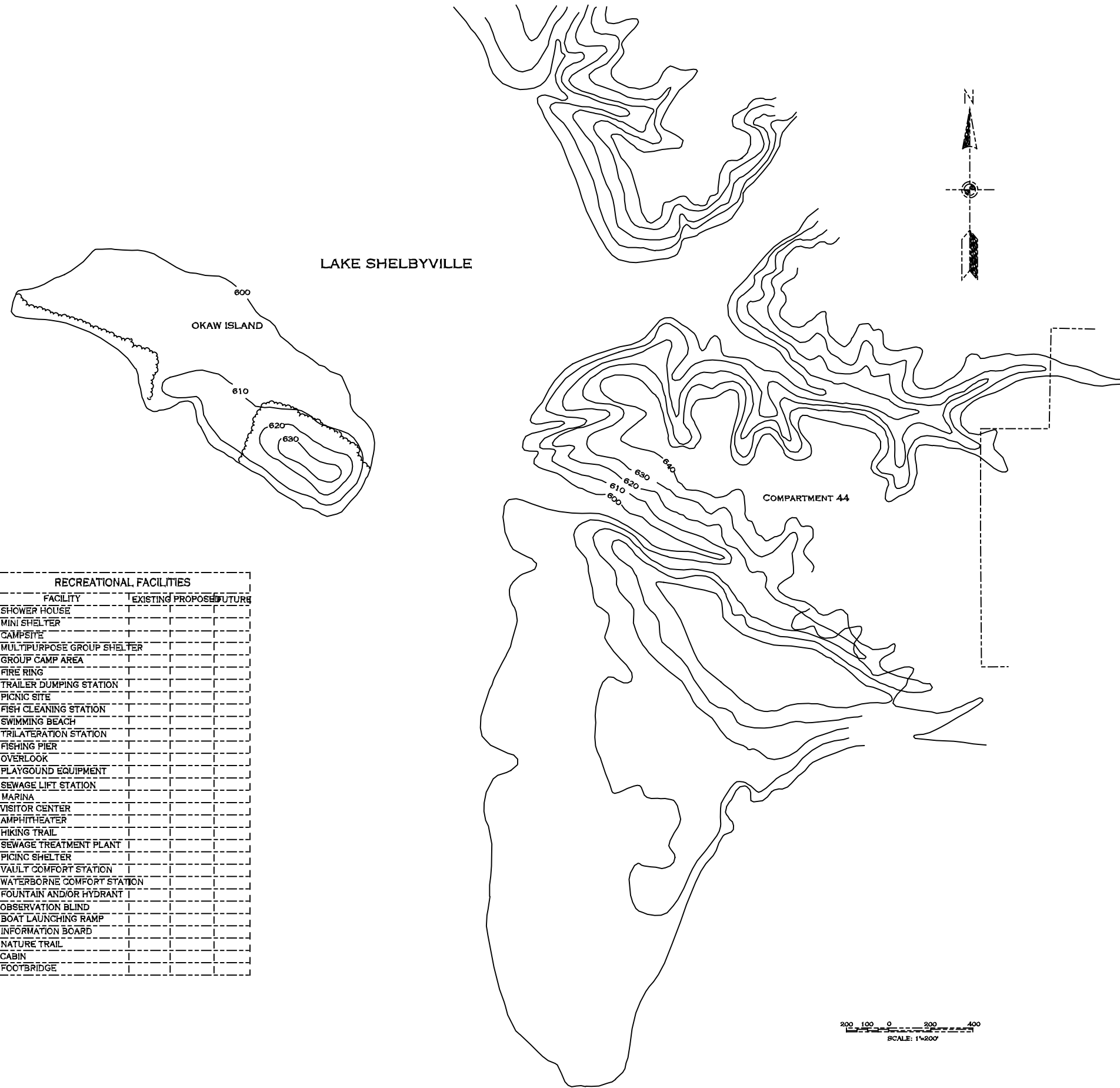
CONNECT TO CITY OF SULLIVAN FORCE MAIN

REPLACE ALL WATER LINES

RENOVATE AND RE-ALIGN NATURE TRAILS TO ACCOMMODATE MULTIPURPOSE USE AS PART OF GENERAL DACEY TRAIL PLAN



PM-E	REVISED FOR UPDATE	3-04
SYMBOL	DESCRIPTION	DATE APPROVED
REVISION		
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI		
KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE		
DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN		
SULLIVAN BEACH, OKAW BLUFF AREA 10, AND WOODS LAKE LD-8		
REVISED MAR 04		
NOTE:		
CADD DIRECTORY:		
N: MASTERPL\ SHELBY\		

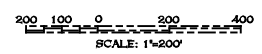


LEGEND

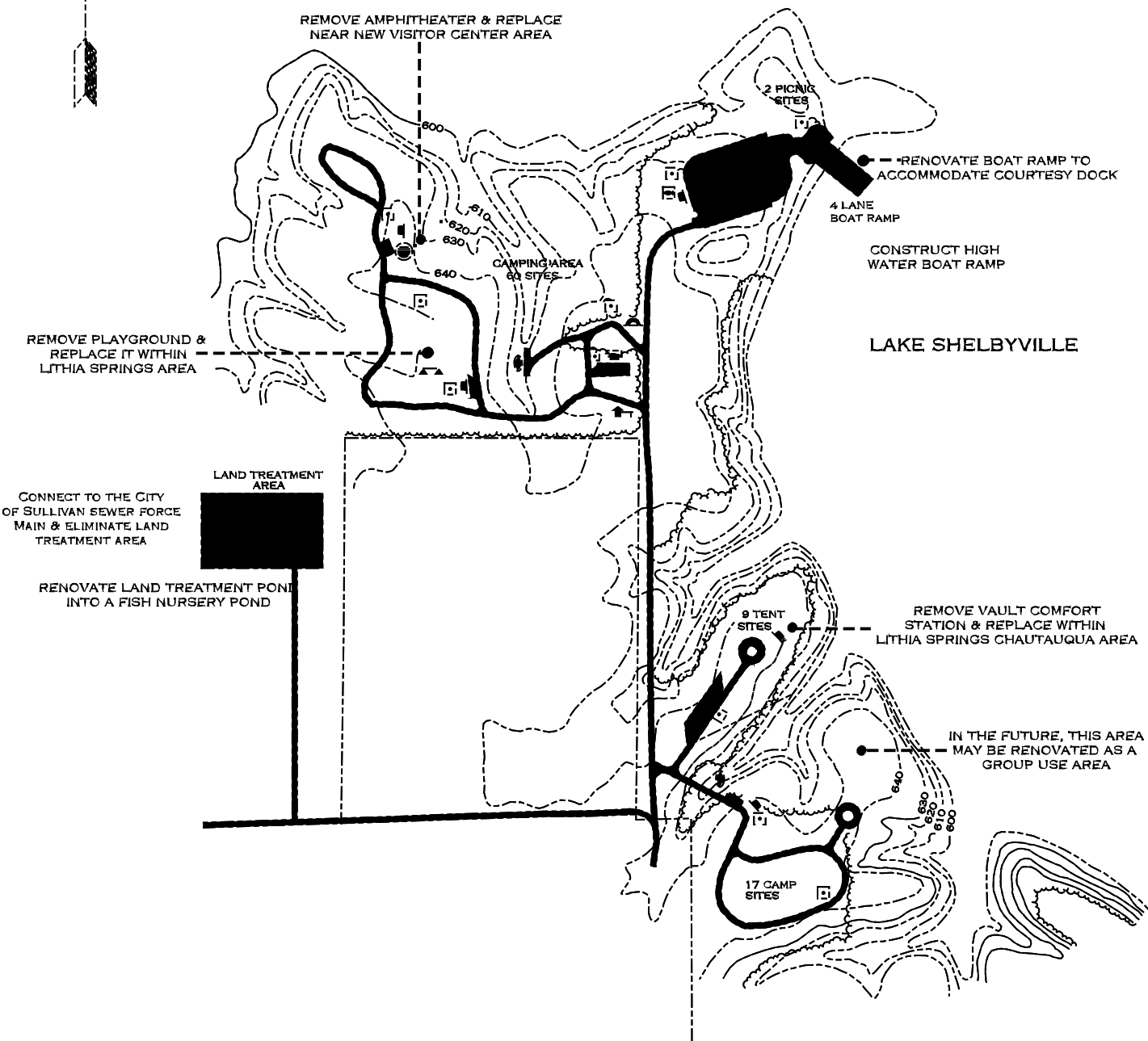
---	PROJECT BOUNDARY				
~	WOODED LINE				
---	JOINT USE POOL-ELEV. 599.7				
---	CONCESSIONAIRE BOUNDARY				
---	EXISTING	---	PROPOSED	---	FUTURE
---	ROADS, PARKING & CAMPING PADS (PAVED)	---	ROADS, PARKING & CAMPING PADS (GRAVEL)	---	NATURE, INTERPRETIVE & HIKING TRAILS
---	COMFORT STATION (WATER BORNE)	---	COMFORT STATION (VAULT)	---	FOOTBRIDGE
---	SHOWER HOUSE	---	FEE BOOTH	---	GROUP PICNIC SHELTER
---	VISITOR CENTER	---	GROUP AMPHITHEATER	---	OVERLOOK
---	DRINKING FOUNTAIN AND/OR HYDRANT	---	FIRE RING	---	PLAYGROUND EQUIPMENT
---	SWIMMING BEACH	---	BOAT LAUNCHING RAMP (PAVED)	---	BOAT LAUNCHING RAMP (GRAVEL)
---	FISHING PIER	---	FISH CLEANING STATION	---	INFORMATION STATION
---	TRAILER DUMPING & WATER FILL STATION	---	SEWAGE TREATMENT PLANT	---	SEWAGE LIFT STATION
---	LEVEE				

RECREATIONAL FACILITIES

FACILITY	EXISTING	PROPOSED	FUTURE
SHOWER HOUSE			
MINI SHELTER			
CAMPSITE			
MULTIPURPOSE GROUP SHELTER			
GROUP CAMP AREA			
FIRE RING			
TRAILER DUMPING STATION			
PICNIC SITE			
FISH CLEANING STATION			
SWIMMING BEACH			
TRILATERATION STATION			
FISHING PIER			
OVERLOOK			
PLAYGROUND EQUIPMENT			
SEWAGE LIFT STATION			
MARINA			
VISITOR CENTER			
AMPHITHEATER			
HIKING TRAIL			
SEWAGE TREATMENT PLANT			
PICNIC SHELTER			
VAULT COMFORT STATION			
WATERBORNE COMFORT STATION			
FOUNTAIN AND/OR HYDRANT			
OBSERVATION BLIND			
BOAT LAUNCHING RAMP			
INFORMATION BOARD			
NATURE TRAIL			
CABIN			
FOOTBRIDGE			



PD-E SYMBOL	REVISION	REVISOR	DATE	APPROVED
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MISSOURI KASKASKIA RIVER, ILLINOIS LAKE SHELBYVILLE DESIGN MEMORANDUM NO. 7B REVISED MASTER PLAN OKAW ISLAND AREA ES-C-3 REVISED MAR 04				
NOTE:				
CADD DIRECTORY:				
T:\MASTERPL\SHELBY\				



RECREATIONAL FACILITIES		
FACILITY	EXISTING	PROPOSED/FUTURE
SHOWERHOUSE	1	-1
MINI SHELTERS		
CAMPSITE	86	86
GROUP CAMP AREA		
FIRE RING		
TRAILER DUMPING STATION	1	-1
PICNIC SITE	2	
FISH CLEANING STATION	1	
SWIMMING BEACH		
MULTIPURPOSE GROUP SHELTER		
FISHING PIER		
OVERLOOK		
PLAYGROUND EQUIPMENT	1	-1
HIGH WATER BOAT RAMP		1-4
TRILATERATION STATION		
MARINA		
AMPHITHEATER	1	-1
TRAIL		1
LAND TREATMENT PLANT	1	-1
PICNIC SHELTER		
VAULT COMFORT STATION	1	-1
WATERBORNE COMFORT STATION	4	-3
FOUNTAIN AND/OR HYDRANT	9	-9
BOAT LAUNCHING RAMP	1-4	
INFORMATION BOARDS	2	
FEE BOOTH	1	-1
FOOTBRIDGE		
CABIN		
OBSERVATION BLIND		
VISITOR CENTER		
SEWAGE LIFT STATION	2	-1

LEGEND

--- PROJECT BOUNDARY
 ~~~~~ WOODS LINE  
 - - - - - JOINT USE POOL-ELEV. 599.7  
 [ ] CONCESSIONAIRE BOUNDARY

EXISTING    PROPOSED    FUTURE

[Symbol] ROADS, PARKING & CAMPING PADS (PAVED)  
 [Symbol] ROADS, PARKING & CAMPING PADS (GRAVEL)  
 [Symbol] NATURE, INTERPRETIVE & HIKING TRAILS  
 [Symbol] COMFORT STATION (WATER BORNE)  
 [Symbol] COMFORT STATION (VAULT)  
 [Symbol] SHOWERHOUSE  
 [Symbol] GROUP PICNIC SHELTER  
 [Symbol] VISITOR CENTER  
 [Symbol] AMPHITHEATER  
 [Symbol] OVERLOOK  
 [Symbol] FIRE RING  
 [Symbol] PLAYGROUND EQUIPMENT  
 [Symbol] SWIMMING BEACH  
 [Symbol] BOAT LAUNCHING RAMP (PAVED)  
 [Symbol] BOAT LAUNCHING RAMP (GRAVEL)  
 [Symbol] FISHING PIER  
 [Symbol] FISH CLEANING STATION  
 [Symbol] TRAILER DUMPING & WATER FILL STATION  
 [Symbol] SEWAGE TREATMENT PLANT  
 [Symbol] DRINKING FOUNTAIN AND/OR HYDRANT  
 [Symbol] INFORMATION BOARD  
 [Symbol] FOOTBRIDGE  
 [Symbol] SEWAGE LIFT STATION  
 [Symbol] FEE BOOTH  
 [Symbol] LEVEE

**ADDITIONAL PROPOSED ACTIONS**

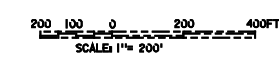
SHORELINE EROSION PLAN INCLUDES PROTECTING THE BOAT RAMP

THE 86 CAMPSITES & AMENITIES AT THIS AREA ARE TO BE RELOCATED TO BO WOOD RECREATION AREA 8

AFTER CAMPGROUND AMENITIES ARE RELOCATED, THIS AREA WILL REMAIN DESIGNATED A RECREATION AREA & WILL BE CONSIDERED AS A FUTURE CONCESSION AREA

**FUTURE**

MULTIPURPOSE TRAIL PROPOSED AS PART OF LAKE SHELBYVILLE GENERAL DACEY TRAIL PLAN



|                                                                                     |                    |               |
|-------------------------------------------------------------------------------------|--------------------|---------------|
| PM-E                                                                                | REVISED FOR UPDATE | 3-04          |
| BY/NO. 1                                                                            | DESCRIPTION        | DATE APPROVED |
| REVISION                                                                            |                    |               |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI |                    |               |
| KARKARIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE                                        |                    |               |
| DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN                                     |                    |               |
| <b>WHITLEY CREEK<br/>RECREATION AREA 11</b>                                         |                    |               |
| REVISED MAR 04                                                                      |                    |               |
| NOTE:                                                                               |                    |               |
| CADD DIRECTORY:                                                                     |                    |               |
| N:\MASTERPL\SHELBY\                                                                 |                    |               |

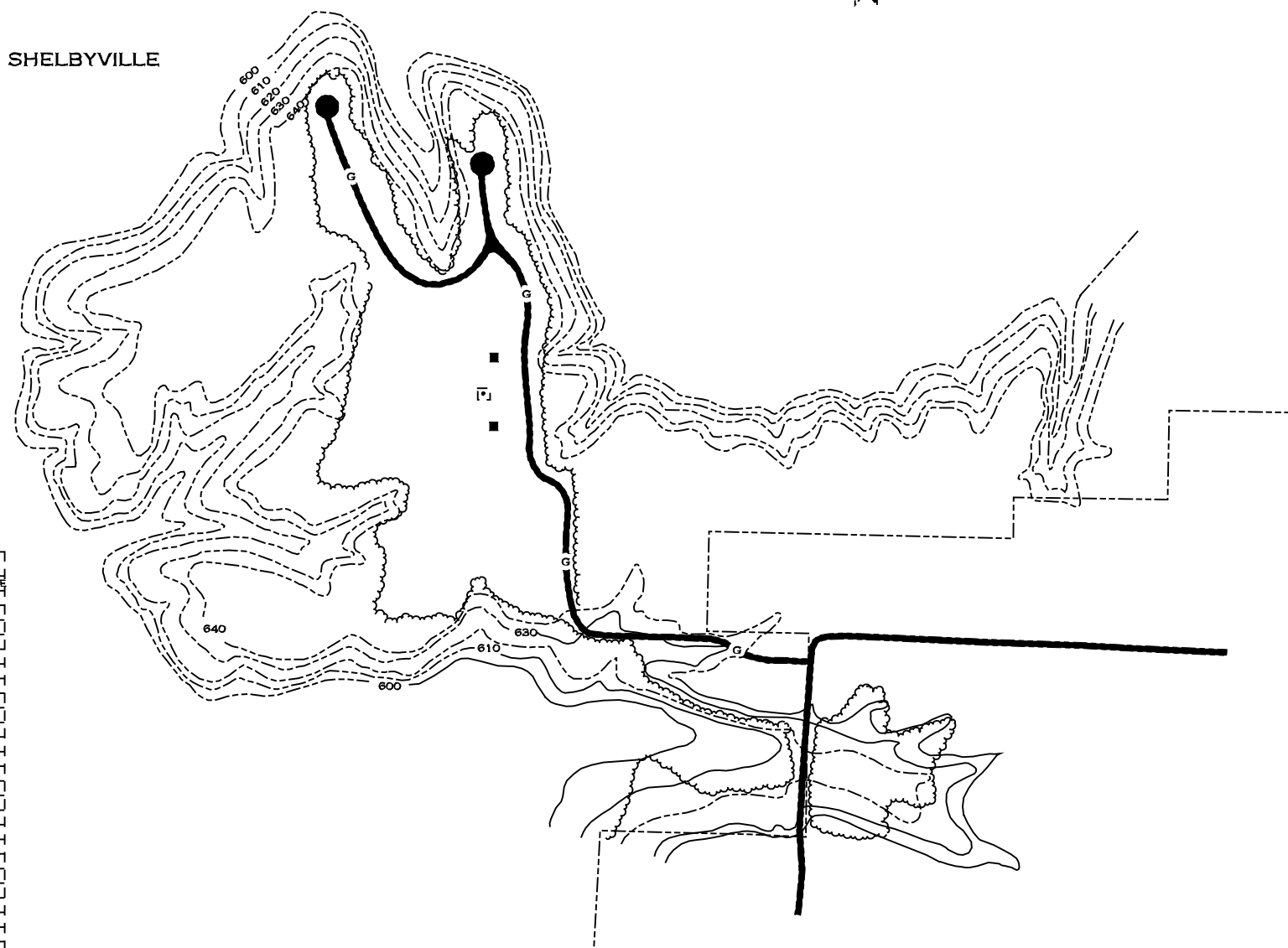


LAKE SHELBYVILLE



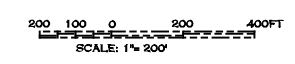
**LEGEND**

|       |                            |     |                                        |
|-------|----------------------------|-----|----------------------------------------|
| ---   | PROJECT BOUNDARY           |     |                                        |
| ~     | WOODE LINE                 |     |                                        |
| -.-.- | JOINT USE POOL-EVEY. 599.7 |     |                                        |
| ---   | CONCESSIONAIRE BOUNDARY    |     |                                        |
| ---   | EXISTING                   | --- | PROPOSED                               |
| ---   |                            | --- | FUTURE                                 |
| ---   |                            | --- | ROADS, PARKING & CAMPING PADE (PAVED)  |
| ---   |                            | --- | ROADS, PARKING & CAMPING PADE (GRAVEL) |
| ---   |                            | --- | NATURE, INTERPRETIVE & HIKING TRAILS   |
| ---   |                            | --- | COMFORT STATION (WATER BORNE)          |
| ---   |                            | --- | COMFORT STATION (VAULT)                |
| ---   |                            | --- | VAULT TOILET                           |
| ---   |                            | --- | SHOWER HOUSE                           |
| ---   |                            | --- | GROUP PICNIC SHELTER                   |
| ---   |                            | --- | VISITOR CENTER                         |
| ---   |                            | --- | AMPHITHEATER                           |
| ---   |                            | --- | OVERLOOK                               |
| ---   |                            | --- | FIRE RING                              |
| ---   |                            | --- | PLAYGROUND EQUIPMENT                   |
| ---   |                            | --- | SWIMMING BEACH                         |
| ---   |                            | --- | BOAT LAUNCHING RAMP (PAVED)            |
| ---   |                            | --- | BOAT LAUNCHING RAMP (GRAVEL)           |
| ---   |                            | --- | FISHING PIER                           |
| ---   |                            | --- | FISH CLEANING STATION                  |
| ---   |                            | --- | TRAILER DUMPING & WATER FILL STATION   |
| ---   |                            | --- | SEWAGE TREATMENT PLANT                 |
| ---   |                            | --- | DRINKING FOUNTAIN AND/OR HYDRANT       |
| ---   |                            | --- | INFORMATION STATION                    |
| ---   |                            | --- | FOOT BRIDGE                            |
| ---   |                            | --- | SEWAGE LIFT STATION                    |
| ---   |                            | --- | FEE BOOTH                              |
| ---   |                            | --- | LEVEE                                  |



**RECREATIONAL FACILITIES**

| FACILITY                   | EXISTING | PROPOSED | FUTURE |
|----------------------------|----------|----------|--------|
| SHOWER HOUSE               |          |          |        |
| MINI SHELTERS              |          |          |        |
| CAMPFIRE                   |          |          |        |
| GROUP CAMP AREA            |          |          |        |
| FIRE RING                  |          |          |        |
| TRAILER DUMPING STATION    |          |          |        |
| PICNIC SITE                |          |          |        |
| FISH CLEANING STATION      |          |          |        |
| SWIMMING BEACH             |          |          |        |
| MULTIPURPOSE GROUP SHELTER |          |          |        |
| FISHING PIER               |          |          |        |
| OVERLOOK                   |          |          |        |
| PLAYGROUND EQUIPMENT       |          |          |        |
| INFORMATION STATION        |          |          |        |
| MARINA                     |          |          |        |
| AMPHITHEATER               |          |          |        |
| TRAIL                      |          |          |        |
| SEWAGE TREATMENT PLANT     |          |          |        |
| PICNIC SHELTER             |          |          |        |
| VAULT TOILET               |          | 2        |        |
| WATERBORNE COMFORT STATION |          |          |        |
| FOUNTAIN AND/OR HYDRANT    |          | 1        |        |
| BOAT LAUNCHING RAMP        |          |          |        |
| INFORMATION BOARD          |          |          |        |
| SEWAGE LIFT STATION        |          |          |        |
| FOOTBRIDGE                 |          |          |        |
| CABIN                      |          |          |        |
| OBSERVATION BLIND          |          |          |        |
| VISITOR CENTER             |          |          |        |



|                                                                                                                                                                                                                                                                                                                     |                    |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------|
| FILE                                                                                                                                                                                                                                                                                                                | REVISED FOR UPDATE | 3-04 |
| NO.                                                                                                                                                                                                                                                                                                                 | DESCRIPTION        | DATE |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI<br>KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE<br>DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN<br>(AREA F)<br>BLUESTEM MULTIPLE<br>RESOURCE AREA LD-9<br>REVISED MAR 04<br>NOTE:<br>CADD DIRECTORY:<br>N:\MASTERPL\SHELBY\ |                    |      |



LAKE SHELBYVILLE

**LEGEND**

| EXISTING | PROPOSED | FUTURE | DESCRIPTION                             |
|----------|----------|--------|-----------------------------------------|
| ---      | ---      | ---    | PROJECT BOUNDARY                        |
| ---      | ---      | ---    | WOODS LINE                              |
| ---      | ---      | ---    | JOINT USE POOL-ELEV. 599.7              |
| ---      | ---      | ---    | CONCESSIONAIRE BOUNDARY                 |
| ---      | ---      | ---    | ROADS, PARKING & CAMPING PADS (PAVED)   |
| ---      | ---      | ---    | ROADS, PARKING & CAMPING PADS (GRAVEL)  |
| ---      | ---      | ---    | NATURE, INTERPRETIVE & HIKING TRAILS    |
| ---      | ---      | ---    | COMFORT STATION (WATER BORNE)           |
| ---      | ---      | ---    | COMFORT STATION (VAULT)                 |
| ---      | ---      | ---    | COMFORT STATION (SHOWERS)               |
| ---      | ---      | ---    | SHOWER HOUSE                            |
| ---      | ---      | ---    | MINI-SHOWER                             |
| ---      | ---      | ---    | GROUP PICNIC SHELTER                    |
| ---      | ---      | ---    | VISITOR CENTER                          |
| ---      | ---      | ---    | GROUP AMPHITHEATER                      |
| ---      | ---      | ---    | OVERLOOK                                |
| ---      | ---      | ---    | FIRE RING                               |
| ---      | ---      | ---    | PLAYGROUND EQUIPMENT                    |
| ---      | ---      | ---    | SWIMMING BEACH                          |
| ---      | ---      | ---    | BOAT LAUNCHING RAMP (PAVED)             |
| ---      | ---      | ---    | BOAT LAUNCHING RAMP (GRAVEL)            |
| ---      | ---      | ---    | FISHING PIER                            |
| ---      | ---      | ---    | FISH CLEANING STATION                   |
| ---      | ---      | ---    | TRAILER DUMPING & WATER FILL STATION    |
| ---      | ---      | ---    | SEWAGE TREATMENT PLANT                  |
| ---      | ---      | ---    | DRINKING FOUNTAIN AND/OR HYDRANT        |
| ---      | ---      | ---    | INFORMATION BOARD                       |
| ---      | ---      | ---    | FOOTBRIDGE                              |
| ---      | ---      | ---    | SEWAGE LIFT STATION                     |
| ---      | ---      | ---    | FEE BOOTH                               |
| ---      | ---      | ---    | LEVEE                                   |
| ---      | ---      | ---    | BENCH SHELTER                           |
| ---      | ---      | ---    | SHORE LINE THAT WILL BE LOST TO EROSION |

**RECREATIONAL FACILITIES**

| FACILITY                   | EXISTING | PROPOSED | FUTURE |
|----------------------------|----------|----------|--------|
| SHOWER HOUSE               | 1        |          |        |
| CAMP SITE                  |          | 128      |        |
| GROUP CAMP AREA            |          | 1        | 2      |
| MINI-SHOWER                |          |          |        |
| TRAILER DUMPING STATION    | 1        |          |        |
| PICNIC SITE                |          |          |        |
| FISH CLEANING STATION      | 1        |          |        |
| SWIMMING BEACH             | 1        |          |        |
| HIGH WATER RAMP            |          | 1-2      |        |
| FISHING PIER               |          |          |        |
| OVERLOOK                   |          |          |        |
| PLAYGROUND EQUIPMENT       | 1        | 1        |        |
| SEWAGE & WATER HOOKUPS     | 8        | 16       |        |
| SEWAGE LIFT STATION        | 8        |          |        |
| MARINA                     | 1        |          |        |
| AMPHITHEATER               | 1        |          |        |
| TRAIL                      |          |          | 1      |
| LAND TREATMENT PLANT       | 1        | -1       |        |
| PICNIC SHELTER             | 2        | -1       |        |
| VAULT COMFORT STATION      | 1        | -1       |        |
| WATERBORNE COMFORT STATION | 6        | -1       |        |
| FOUNTAIN AND/OR HYDRANT    | 16       | -1       |        |
| OUTDOOR SHOWER             |          | 1        |        |
| BOAT LAUNCHING RAMP        |          | 1-2      |        |
| INFORMATION BOARD          |          | 2        |        |
| FEE BOOTH                  |          | 1        |        |
| COMFORT STATION/SHOWERS    | 2        | -2       |        |
| FOOT BRIDGE                |          |          |        |
| CABIN                      |          |          |        |
| BENCH SHELTER              |          | 2        |        |
| OBSERVATION BLIND          |          |          |        |
| VISITOR CENTER             |          |          |        |

**MARINA RECREATIONAL FACILITIES**

| FACILITY                   | EXISTING | PROPOSED |
|----------------------------|----------|----------|
| PICNIC SITE                | 5        |          |
| WATERBORNE COMFORT STATION | 3        |          |
| BOAT RENTAL                | 1        |          |
| MARINA PUMP OUT STATION    | 1        |          |
| BOAT SLIPS                 | 339      |          |
| RESTAURANT                 | 1        |          |
| INFORMATION BOARD          | 3        |          |

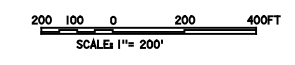
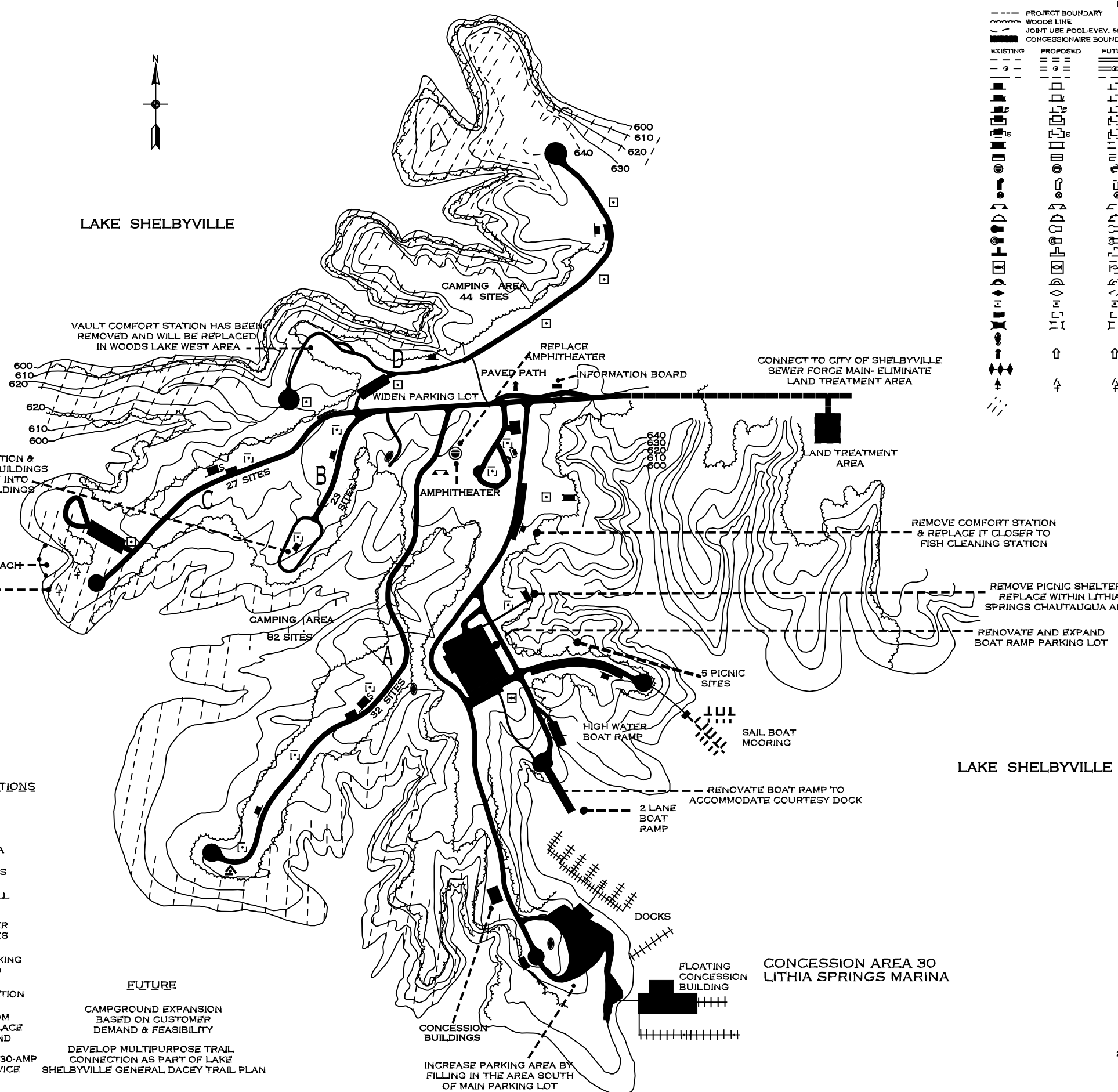
**ADDITIONAL PROPOSED ACTIONS**

- INSTALL OUTDOOR SHOWER AT BEACH
- INSTALL TWO BENCH SHELTERS IN BEACH AREA
- REPLACE ALL WATER LINES
- INSTALL SAND VOLLEYBALL COURT NEAR BEACH
- INSTALL SEWER AND WATER HOOKUPS TO 16 CAMPSITES
- INSTALL 15 ADDITIONAL PARKING SPACES IN CAMPGROUND
- REPLACE FISH CLEANING STATION
- REMOVE PLAYGROUND FROM WHITLEY CREEK AREA & REPLACE IT WITHIN THIS CAMPGROUND
- RENOVATE 26 CAMPSITES FROM 30-AMP TO 50-AMP ELECTRICAL SERVICE

**FUTURE**

- CAMPGROUND EXPANSION BASED ON CUSTOMER DEMAND & FEASIBILITY
- DEVELOP MULTIPURPOSE TRAIL CONNECTION AS PART OF LAKE SHELBYVILLE GENERAL DACEY TRAIL PLAN

INCREASE PARKING AREA BY FILLING IN THE AREA SOUTH OF MAIN PARKING LOT



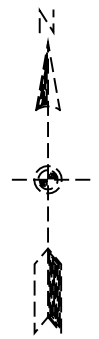
REVISED FOR UPDATE 13-04

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS  
 CORPS OF ENGINEERS  
 ST. LOUIS, MISSOURI  
 KASKASKIA RIVER, ILLINOIS  
 LAKE SHELBYVILLE  
 DESIGN MEMORANDUM NO. 7B  
 REVISED MASTER PLAN  
**LITHIA SPRINGS RECREATION AREA AND MARINA 13**  
 REVISE MAR 04

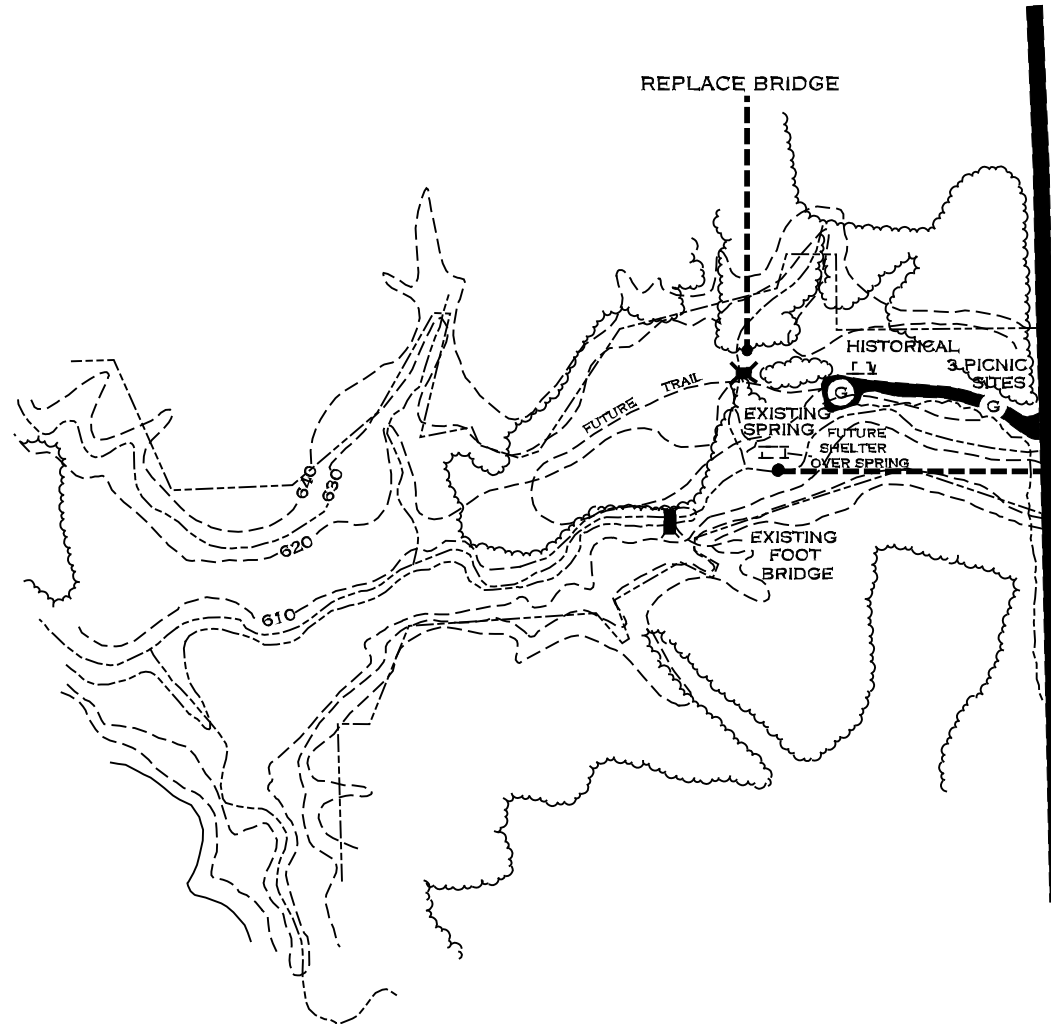
NOTE:  
 CADD DIRECTORY:  
 N:\MASTERPL\SHELBY

LEGEND

- PROJECT BOUNDARY
  - ~ WOODS LINE
  - - - JOINT USE POOL-ELEV. 599.7
  - ▬ CONCESSIONAIRE BOUNDARY
- | EXISTING | PROPOSED | FUTURE |                                        |
|----------|----------|--------|----------------------------------------|
| ▬        | ▬        | ▬      | ROADS, PARKING & CAMPING PADS (PAVED)  |
| ▬        | ▬        | ▬      | ROADS, PARKING & CAMPING PADS (GRAVEL) |
| ▬        | ▬        | ▬      | NATURE, INTERPRETIVE & HIKING TRAILS   |
| ▬        | ▬        | ▬      | COMFORT STATION (WATER BORNE)          |
| ▬        | ▬        | ▬      | COMFORT STATION (VAULT)                |
| ▬        | ▬        | ▬      | SHOWER HOUSE                           |
| ▬        | ▬        | ▬      | GROUP PICNIC SHELTER                   |
| ▬        | ▬        | ▬      | VISITOR CENTER                         |
| ▬        | ▬        | ▬      | AMPHITHEATER                           |
| ▬        | ▬        | ▬      | OVERLOOK                               |
| ▬        | ▬        | ▬      | FIRE RING                              |
| ▬        | ▬        | ▬      | PLAYGROUND EQUIPMENT                   |
| ▬        | ▬        | ▬      | SWIMMING BEACH                         |
| ▬        | ▬        | ▬      | BOAT LAUNCHING RAMP (PAVED)            |
| ▬        | ▬        | ▬      | BOAT LAUNCHING RAMP (GRAVEL)           |
| ▬        | ▬        | ▬      | FISHING PIER                           |
| ▬        | ▬        | ▬      | FISH CLEANING STATION                  |
| ▬        | ▬        | ▬      | TRAILER DUMPING & WATER FILL STATION   |
| ▬        | ▬        | ▬      | SEWAGE TREATMENT PLANT                 |
| ▬        | ▬        | ▬      | DRINKING FOUNTAIN AND/OR HYDRANT       |
| ▬        | ▬        | ▬      | INFORMATION BOARD                      |
| ▬        | ▬        | ▬      | FOOTBRIDGE                             |
| ▬        | ▬        | ▬      | SEWAGE LIFT STATION                    |
| ▬        | ▬        | ▬      | FEE BOOTH                              |
| ▬        | ▬        | ▬      | LEVEE                                  |



| RECREATIONAL FACILITIES    |          |          |        |
|----------------------------|----------|----------|--------|
| FACILITY                   | EXISTING | PROPOSED | FUTURE |
| SHOWER HOUSE               |          |          |        |
| MINI SHELTERS              |          |          |        |
| CAMP SITE                  |          |          |        |
| GROUP CAMP AREA            |          |          |        |
| FIRE RING                  |          |          |        |
| TRAILER DUMPING STATION    |          | 3        |        |
| PICNIC SITE                |          |          |        |
| FISH CLEANING STATION      |          |          |        |
| SWIMMING BEACH             |          |          |        |
| MULTIPURPOSE GROUP SHELTER |          |          |        |
| FISHING PIER               |          |          |        |
| OVERLOOK                   |          |          |        |
| PLAYGROUND EQUIPMENT       |          |          |        |
| TRILATERATION STATION      |          |          |        |
| MARINA                     |          |          |        |
| AMPHITHEATER               |          |          |        |
| TRAIL                      |          |          |        |
| SEWAGE TREATMENT PLANT     |          |          |        |
| PICNIC SHELTER             |          |          |        |
| VAULT COMFORT STATION      |          |          |        |
| WATERBORNE COMFORT STATION |          |          |        |
| FOUNTAIN AND/OR HYDRANT    |          |          |        |
| BOAT LAUNCHING RAMP        |          |          |        |
| INFORMATION BOARD          |          |          |        |
| SEWAGE LIFT STATION        |          |          |        |
| FOOTBRIDGE                 |          | 2        |        |
| CABIN                      |          |          |        |
| OBSERVATION BLIND          |          |          |        |
| VISITOR CENTER             |          |          |        |

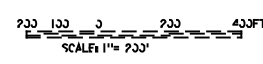


ADDITIONAL PROPOSED ACTIONS  
 INSTALL INTERPRETIVE SIGNAGE  
 INSTALL SECURITY LIGHTING

REMOVE VAULT COMFORT STATION  
 FROM WHITLEY CREEK &  
 REPLACE WITHIN THIS AREA

REMOVE & REPLACE SHELTER  
 FROM LITHIA SPRINGS  
 RECREATION AREA TO HERE

FUTURE:  
 REPLACE VAULT COMFORT STATION  
 WITH A WATER BORNE FACILITY



|                                                                                                                                      |                    |    |      |          |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------|----|------|----------|
| DATE                                                                                                                                 | REVISED FOR UPDATE | BY | DATE | APPROVED |
|                                                                                                                                      |                    |    |      |          |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI<br>KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE |                    |    |      |          |
| DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN                                                                                      |                    |    |      |          |
| LITHIA SPRINGS CHAUTAUQUA<br>HISTORICAL AREA ES-C-2                                                                                  |                    |    |      |          |
| REVISED MAR 04                                                                                                                       |                    |    |      |          |
| NOTE:                                                                                                                                |                    |    |      |          |
| CADD DIRECTORY:                                                                                                                      |                    |    |      |          |
| N:\MASTERPL\SHELBY                                                                                                                   |                    |    |      |          |

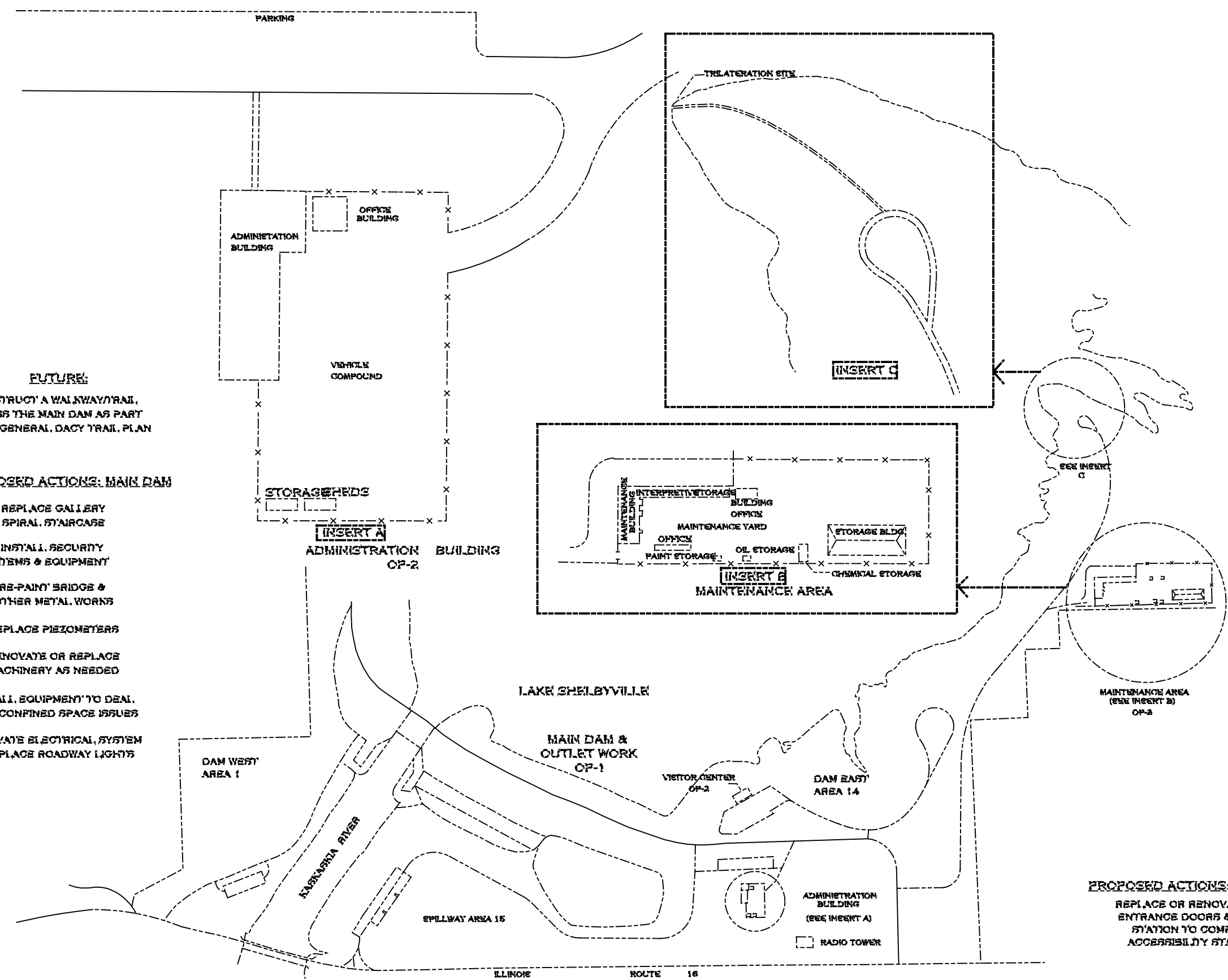


**LEGEND**  
 - - - - - PROJECT BOUNDARY  
 ○ TRILATERATION STATION

**FUTURE:**  
 CONSTRUCT A WALKWAY/TRAIL,  
 ACROSS THE MAIN DAM AS PART  
 OF THE GENERAL DACY TRAIL PLAN

**PROPOSED ACTIONS: MAIN DAM**

- REPLACE GALLERY SPIRAL STAIRCASE
- INSTALL SECURITY ITEMS & EQUIPMENT
- RE-PAIN BRIDGE & OTHER METAL WORKS
- REPLACE PIEZOMETERS
- RENOVATE OR REPLACE MACHINERY AS NEEDED
- INSTALL EQUIPMENT TO DEAL WITH CONFINED SPACE ISSUES
- RENOVATE ELECTRICAL SYSTEM & REPLACE ROADWAY LIGHTS



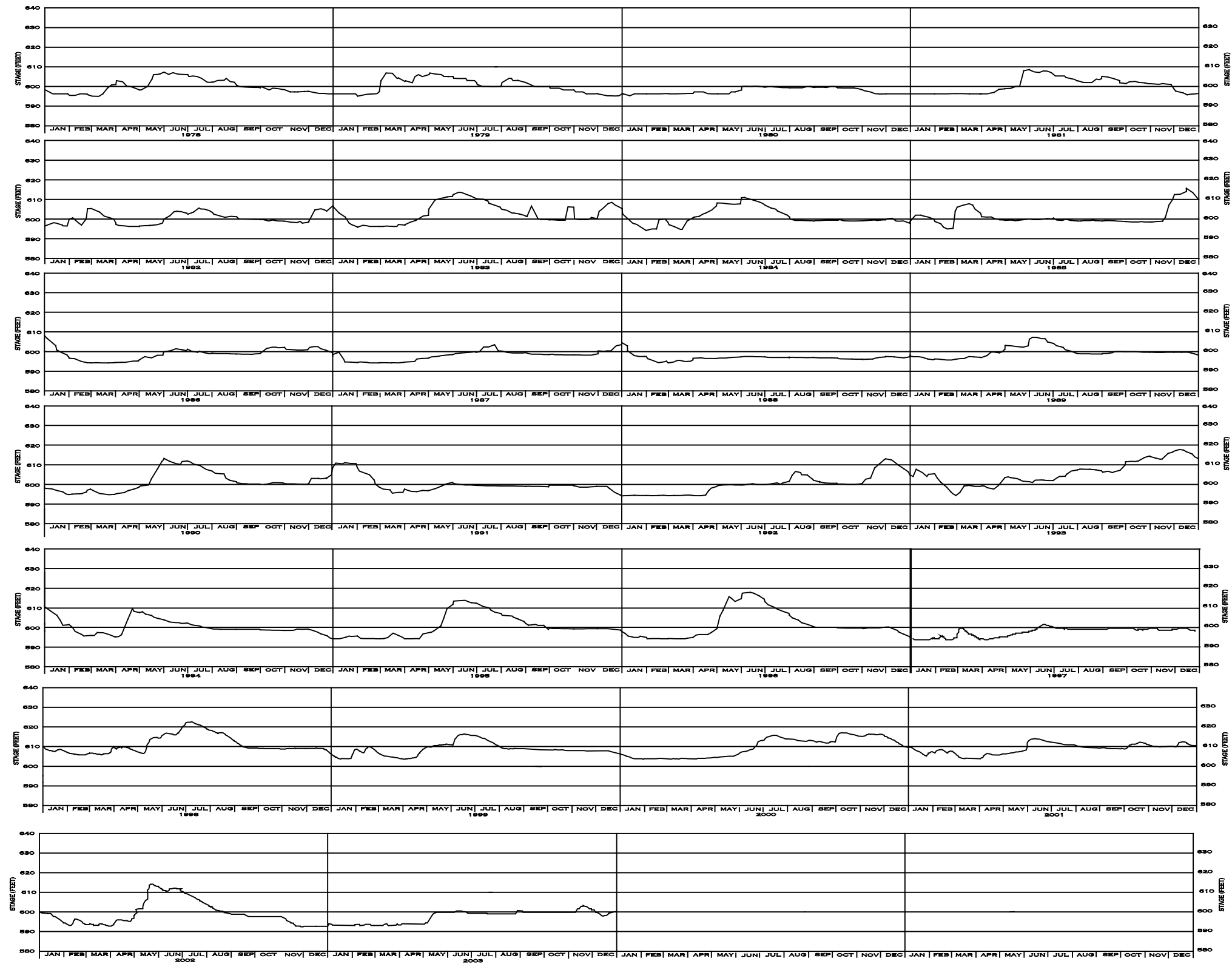
**IF RECOMMENDED BY STUDY THE ADMINISTRATION COMPLEX, O&M AREA, & VISITOR CENTER WILL BE CONSOLIDATED IN AN AREA WITHIN DAM WEST OR DAM EAST RECREATION AREAS.**

**PROPOSED ACTIONS: VISITOR CENTER**

- REPLACE OR RENOVATE FRONT ENTRANCE DOORS & COMFORT STATION TO COMPLY WITH ACCESSIBILITY STANDARDS

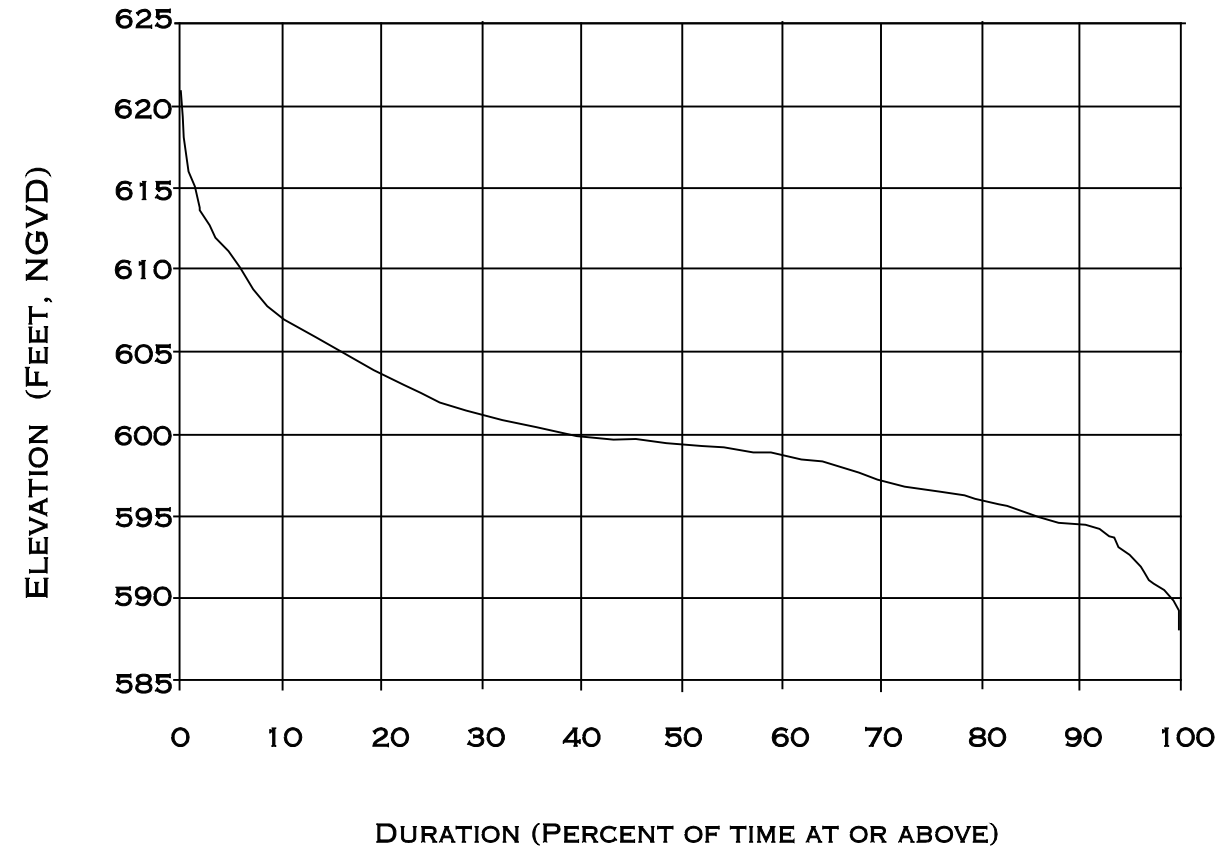
| REVISED FOR UPDATE                                                                                                                   | DATE | BY |
|--------------------------------------------------------------------------------------------------------------------------------------|------|----|
|                                                                                                                                      |      |    |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI<br>KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE |      |    |
| DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN                                                                                      |      |    |
| PROJECT STRUCTURE'S<br>SITE PLAN                                                                                                     |      |    |
| NOTE:<br>CADD DIRECTORY:<br>N:\MASTERPL\SHELBY\                                                                                      |      |    |



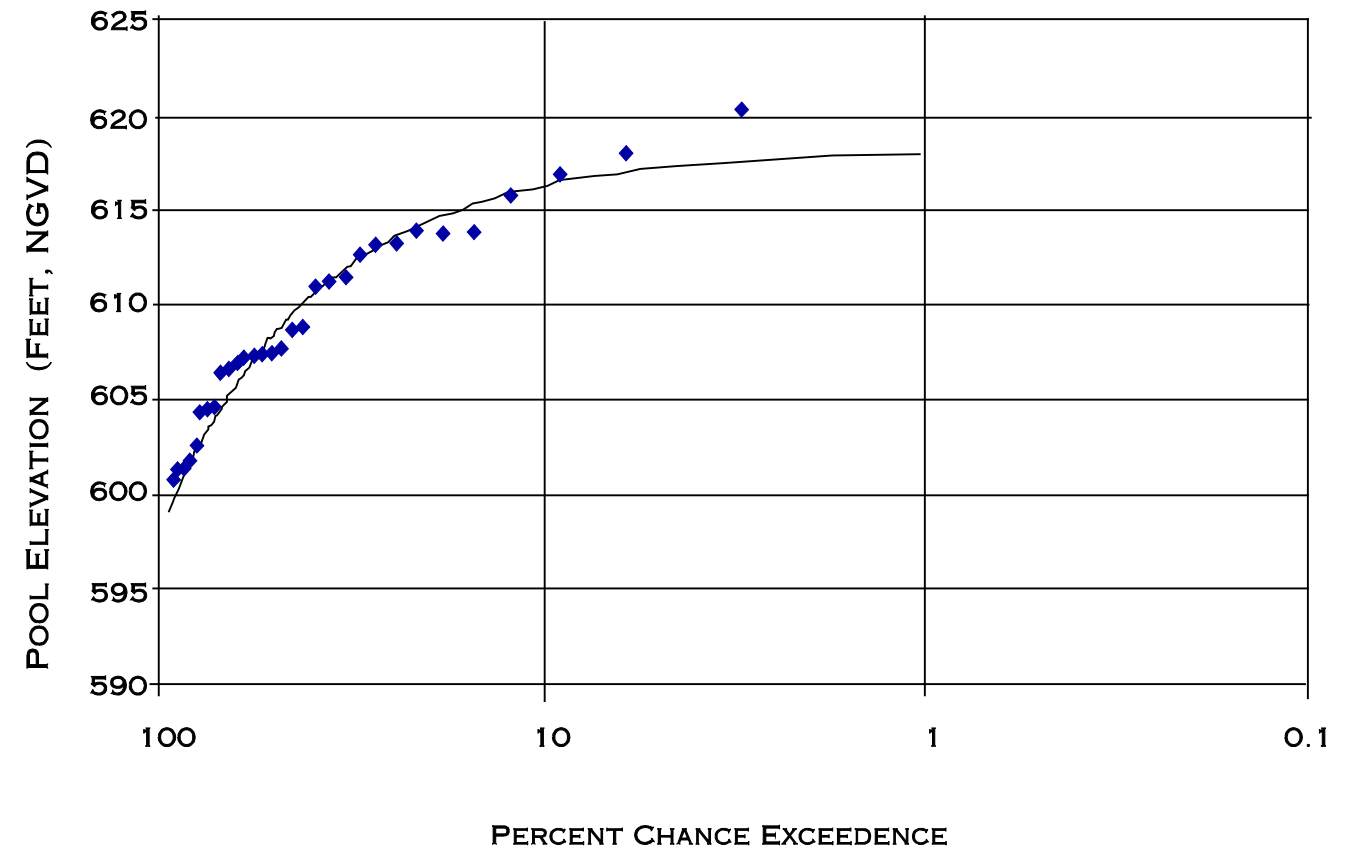


|                                                                                     |                    |      |          |
|-------------------------------------------------------------------------------------|--------------------|------|----------|
| PM-E                                                                                | REVISED FOR UPDATE | 3-04 |          |
| SYMBOL                                                                              | DESCRIPTION        | DATE | APPROVED |
| REVISION                                                                            |                    |      |          |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI |                    |      |          |
| KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE                                       |                    |      |          |
| DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN                                     |                    |      |          |
| FLUCTUATION<br>OF<br>RESERVOIR LEVEL                                                |                    |      |          |
| NOTE:                                                                               |                    |      |          |
| CADD DIRECTOR:<br>N:\MASTEPL\SHELBY\                                                |                    |      |          |

LAKE SHELBYVILLE- POOL DURATION CURVE (1971-2002)

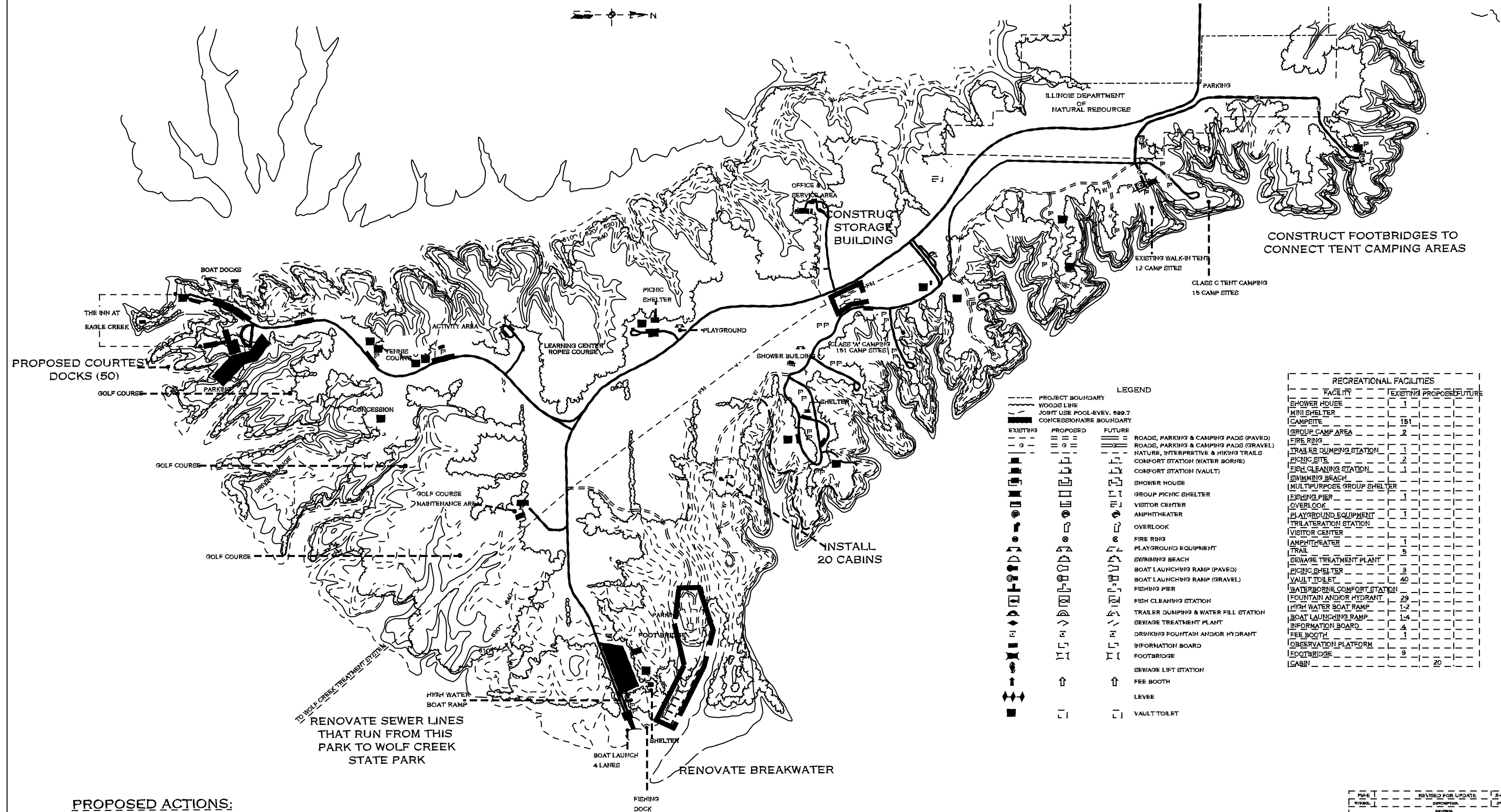


LAKE SHELBYVILLE- FREQUENCY CURVE (1971-2002)



| PD-E                                                                                             | REVISION | DATE | APPROVED |
|--------------------------------------------------------------------------------------------------|----------|------|----------|
|                                                                                                  | REVISOR  |      |          |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI              |          |      |          |
| KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE<br>DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN |          |      |          |
| <b>POOL DURATION CURVE</b><br><b>POOL FREQUENCY CURVE</b>                                        |          |      |          |
| REVISED MAR 04                                                                                   |          |      |          |
| NOTE:<br>CADD DIRECTOR:<br>N:\MASTERPL\SHELBY                                                    |          |      |          |

(IRASC: 1SHEL.B.EXT & 2SHEL.B.EXT)



PROPOSED COURTESY DOCKS (50)

INSTALL 20 CABINS

RENOVATE SEWER LINES THAT RUN FROM THIS PARK TO WOLF CREEK STATE PARK

RENOVATE BREAKWATER

**PROPOSED ACTIONS:**  
 RENOVATE CAMPGROUND ELECTRICAL SYSTEM  
 EXPAND GOLF COURSE AND STORM SHELTER  
 RENOVATE ROADS WITHIN THE PARK  
 RENOVATE AND RE-ALIGN ILLINI TRAIL AS PART OF THE GENERAL DACEY TRAIL PLAN

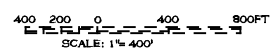
**FUTURE ACTIONS:**  
 CONSTRUCT VISITOR CENTER

**LEGEND**

|     |                                        |
|-----|----------------------------------------|
| --- | PROJECT BOUNDARY                       |
| --- | WOODS LINE                             |
| --- | JOINT USE POOL-ELEV. 599.7             |
| --- | CONCESSIONAIRE BOUNDARY                |
| --- | EXISTING                               |
| --- | PROPOSED                               |
| --- | FUTURE                                 |
| --- | ROADS, PARKING & CAMPING PADS (PAVED)  |
| --- | ROADS, PARKING & CAMPING PADS (GRAVEL) |
| --- | NATURE, INTERPRETIVE & HIKING TRAILS   |
| --- | COMFORT STATION (WATER BORNE)          |
| --- | COMFORT STATION (VAULT)                |
| --- | SHOWER HOUSE                           |
| --- | GROUP PICNIC SHELTER                   |
| --- | VISITOR CENTER                         |
| --- | AMPHITHEATER                           |
| --- | OVERLOOK                               |
| --- | PLAYGROUND EQUIPMENT                   |
| --- | TRAIL                                  |
| --- | SEWAGE TREATMENT PLANT                 |
| --- | PICNIC SHELTER                         |
| --- | VAULT TOILET                           |
| --- | WATERBORNE COMFORT STATION             |
| --- | FOUNTAIN AND/OR HYDRANT                |
| --- | HIGH WATER BOAT RAMP                   |
| --- | BOAT LAUNCHING RAMP                    |
| --- | INFORMATION BOARD                      |
| --- | DRINKING FOUNTAIN AND/OR HYDRANT       |
| --- | INFORMATION BOARD                      |
| --- | FOOTBRIDGE                             |
| --- | SEWAGE LIFT STATION                    |
| --- | FEE BOOTH                              |
| --- | LEVEE                                  |
| --- | VAULT TOILET                           |

**RECREATIONAL FACILITIES**

| FACILITY                   | EXISTING | PROPOSED | FUTURE |
|----------------------------|----------|----------|--------|
| SHOWER HOUSE               | 1        | 1        | 1      |
| MINI SHELTER               | 1        | 1        | 1      |
| CAMP SITE                  | 181      | 1        | 1      |
| GROUP CAMP AREA            | 2        | 1        | 1      |
| FIRE RING                  | 1        | 1        | 1      |
| TRAILER DUMPING STATION    | 1        | 1        | 1      |
| PICNIC SITE                | 2        | 1        | 1      |
| FISH CLEANING STATION      | 1        | 1        | 1      |
| SWIMMING BEACH             | 1        | 1        | 1      |
| MULTIPURPOSE GROUP SHELTER | 1        | 1        | 1      |
| FISHING PIER               | 1        | 1        | 1      |
| OVERLOOK                   | 1        | 1        | 1      |
| PLAYGROUND EQUIPMENT       | 1        | 1        | 1      |
| TRILATERATION STATION      | 1        | 1        | 1      |
| VISITOR CENTER             | 1        | 1        | 1      |
| AMPHITHEATER               | 1        | 1        | 1      |
| TRAIL                      | 1        | 1        | 1      |
| SEWAGE TREATMENT PLANT     | 1        | 1        | 1      |
| PICNIC SHELTER             | 3        | 1        | 1      |
| VAULT TOILET               | 40       | 1        | 1      |
| WATERBORNE COMFORT STATION | 1        | 1        | 1      |
| FOUNTAIN AND/OR HYDRANT    | 29       | 1        | 1      |
| HIGH WATER BOAT RAMP       | 1-2      | 1        | 1      |
| BOAT LAUNCHING RAMP        | 1-4      | 1        | 1      |
| INFORMATION BOARD          | 4        | 1        | 1      |
| FEE BOOTH                  | 1        | 1        | 1      |
| OBSERVATION PLATFORM       | 1        | 1        | 1      |
| FOOTBRIDGE                 | 9        | 1        | 1      |
| CABIN                      | 20       | 1        | 1      |



U.S. ARMY ENGINEER DISTRICT, ST. LOUIS  
 CORPS OF ENGINEERS  
 ST. LOUIS, MISSOURI  
 KASKASKIA RIVER, ILLINOIS  
 LAKE SHELBYVILLE  
 DESIGN MEMORANDUM NO. 7B  
 REVISED MASTER PLAN  
**EAGLE CREEK STATE PARK AREA 5**  
 REVISED MAR 04  
 NOTE:  
 CADD DIRECTORY:  
 N:\MASTERPL\SHELBY

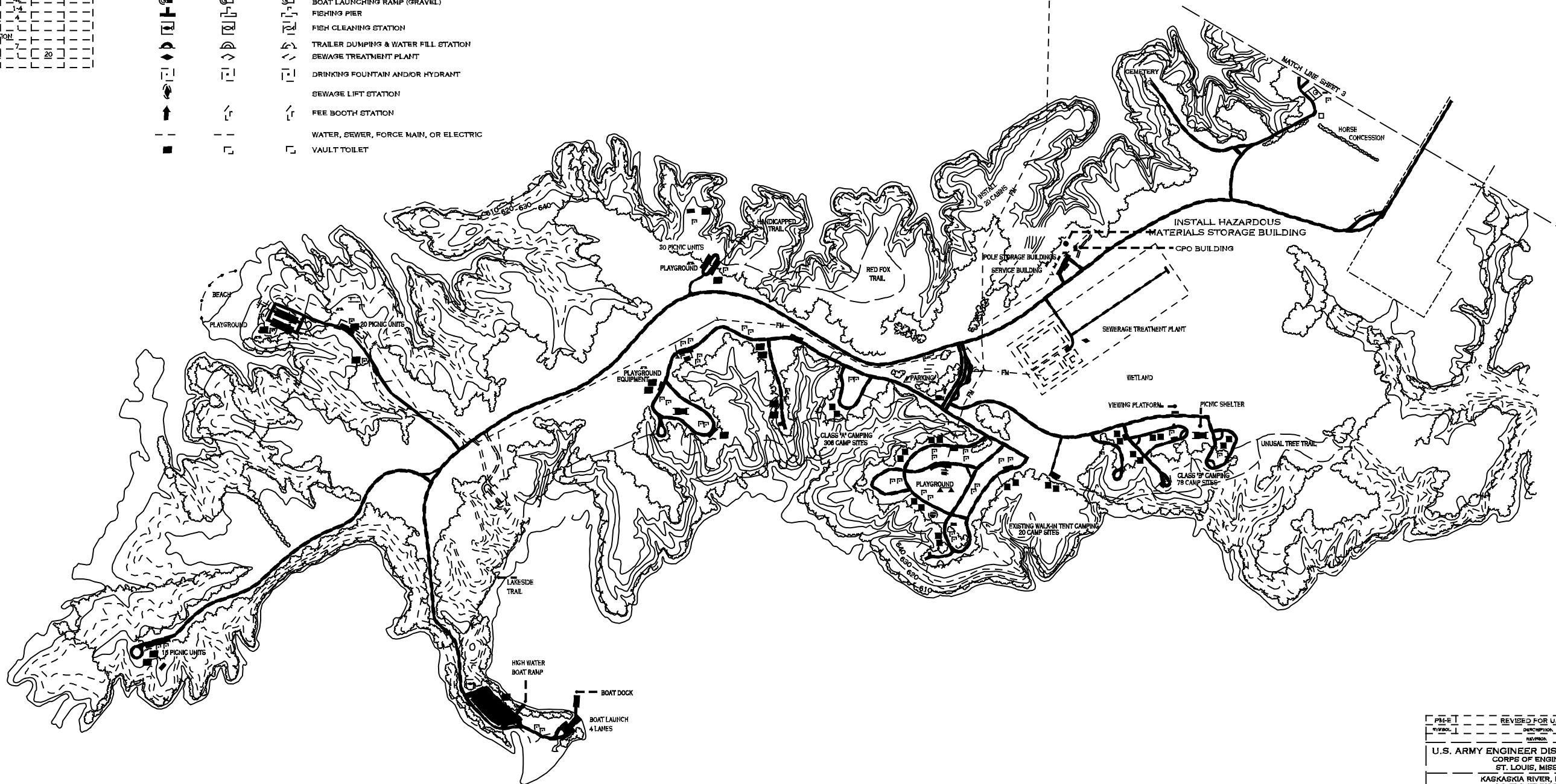
RECREATIONAL FACILITIES

| FACILITY                   | EXISTING | PROPOSED | FUTURE |
|----------------------------|----------|----------|--------|
| SHOWER HOUSE               | 2        |          |        |
| CAMP SITE                  | 828      |          |        |
| GROUP CAMP AREA            | 3        |          |        |
| TRAILER DUMPING STATION    |          |          |        |
| PICNIC SITE                | 58       |          |        |
| FISH CLEANING STATION      | 1        |          |        |
| SWIMMING BEACH             | 1        |          |        |
| OBSERVATION PLATFORM       | 3        |          |        |
| FISHING PIER               | 1        |          |        |
| PLAYGROUND EQUIPMENT       | 4        |          |        |
| AMPHITHEATER               | 1        |          |        |
| SEWAGE LIFT STATION        | 3        |          |        |
| HIGH WATER PUMP            | 1-2      |          |        |
| FIRE RING                  |          |          |        |
| VISITOR CENTER             |          |          |        |
| TRAIL                      | 7        |          |        |
| SEWAGE TREATMENT PLANT     |          |          |        |
| PICNIC SHELTER             | 2        |          |        |
| Vault TOILET               | 48       |          |        |
| MOUNTAIN AND/OR HYDRANT    | 42       |          |        |
| BOAT LAUNCHING RAMP        | 1-4      |          |        |
| INFORMATION BOARD          | 4        |          |        |
| FEE BOOTH                  |          |          |        |
| WATERBORNE COMFORT STATION |          |          |        |
| FOOTBRIDGE                 | 7        |          |        |
| CABIN                      |          |          | 20     |
| OBSERVATION BLIND          |          |          |        |

LEGEND

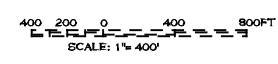
| EXISTING | PROPOSED | FUTURE   |
|----------|----------|----------|
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |
| [Symbol] | [Symbol] | [Symbol] |

ROADS, PARKING & CAMPING PADE (PAVED)  
 ROADS, PARKING & CAMPING PADE (GRAVEL)  
 NATURE, INTERPRETIVE & HIKING TRAILS  
 COMFORT STATION (WATER BORNE)  
 COMFORT STATION (VAULT)  
 SHOWER HOUSE  
 GROUP PICNIC SHELTER  
 VISITOR CENTER  
 GROUP AMPHITHEATER  
 OVERLOOK  
 FIRE RING  
 PLAYGROUND EQUIPMENT  
 SWIMMING BEACH  
 BOAT LAUNCHING RAMP (PAVED)  
 BOAT LAUNCHING RAMP (GRAVEL)  
 FISHING PIER  
 FISH CLEANING STATION  
 TRAILER DUMPING & WATER FILL STATION  
 SEWAGE TREATMENT PLANT  
 DRINKING FOUNTAIN AND/OR HYDRANT  
 SEWAGE LIFT STATION  
 FEE BOOTH STATION  
 WATER, SEWER, FORCE MAIN, OR ELECTRIC  
 VAULT TOILET



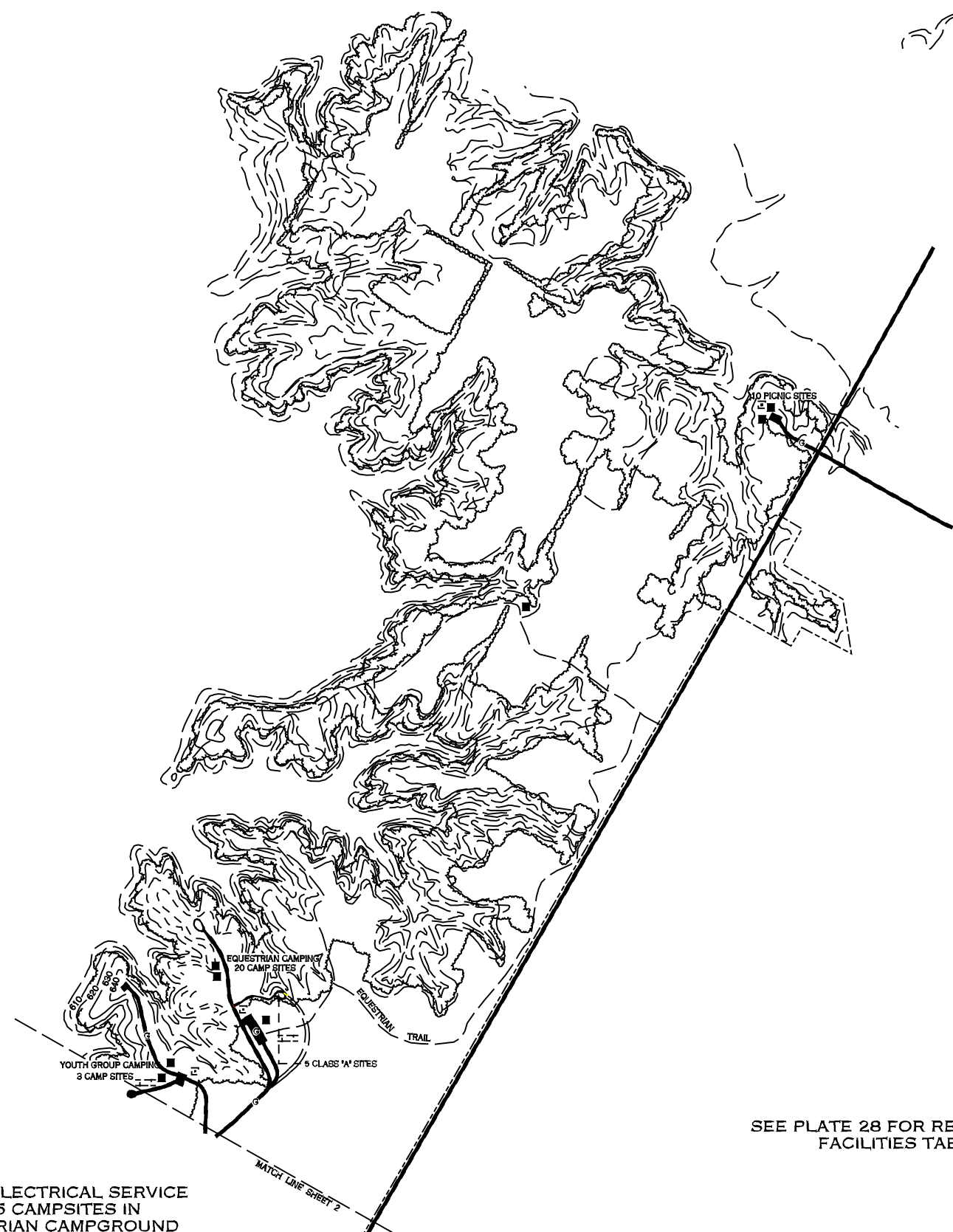
**PROPOSED ACTIONS**  
 CONSTRUCT SHOWER HOUSE IN CAMPGROUND

**FUTURE**  
 CONSTRUCT MULTIPURPOSE TRAIL AS PART OF GENERAL DACEY TRAIL PLAN



|                                                                                     |                    |        |      |          |
|-------------------------------------------------------------------------------------|--------------------|--------|------|----------|
| DATE                                                                                | REVISED FOR UPDATE | BY/NO. | DATE | APPROVED |
|                                                                                     |                    |        |      |          |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI |                    |        |      |          |
| KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE                                       |                    |        |      |          |
| DESIGN MEMORANDUM NO. 7B<br>REVISED MASTER PLAN                                     |                    |        |      |          |
| <b>WOLF CREEK<br/>         STATE PARK 12</b>                                        |                    |        |      |          |
| REVISED MAR 04                                                                      |                    |        |      |          |
| NOTE:                                                                               |                    |        |      |          |
| CADD DIRECTORY:<br>N:\MASTERPL\ SHELBY                                              |                    |        |      |          |



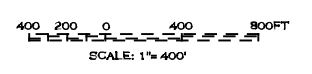


SEE PLATE 28 FOR RECREATION FACILITIES TABLE

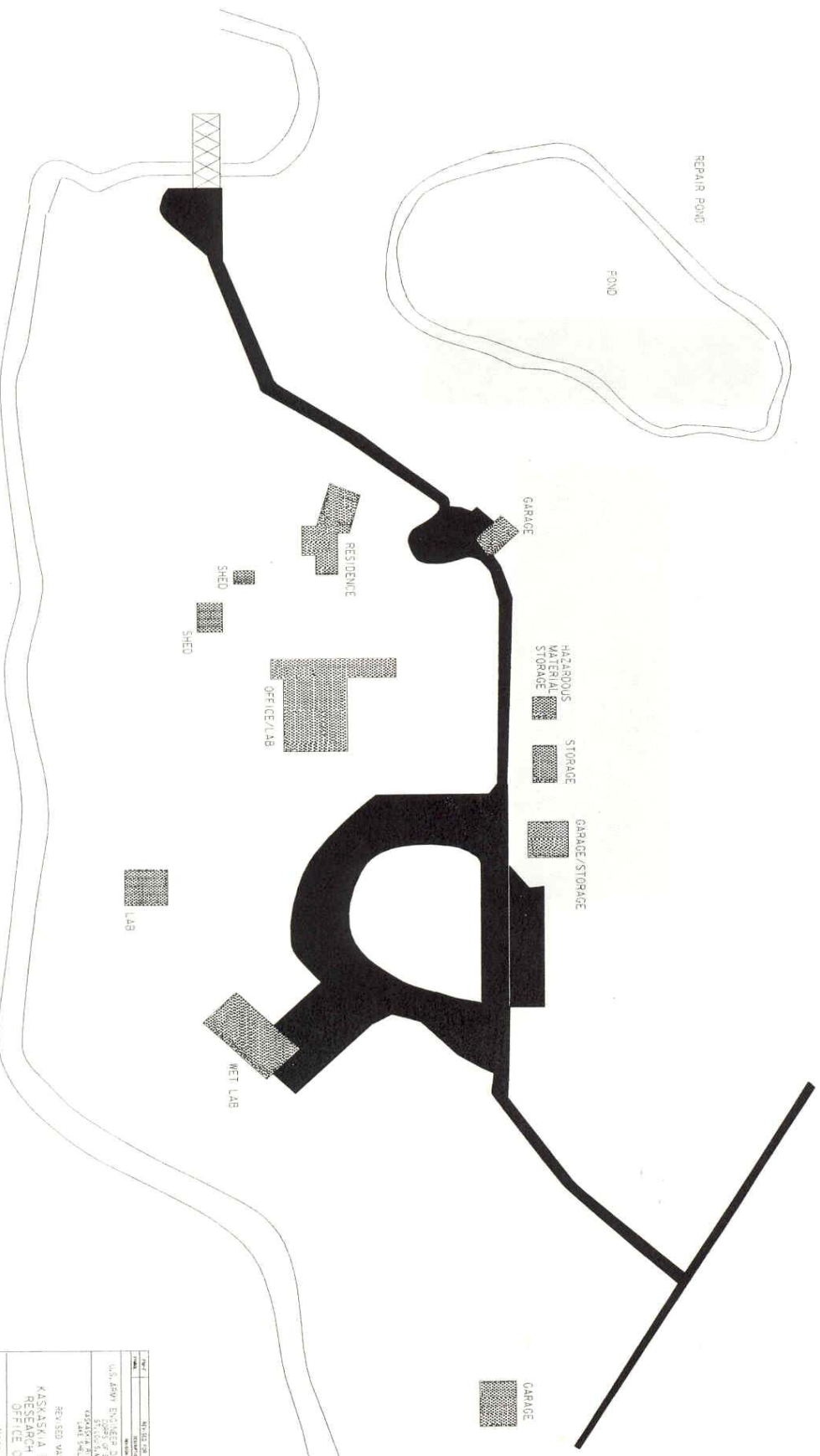
INSTALL ELECTRICAL SERVICE TO 25 CAMPSITES IN EQUESTRIAN CAMPGROUND

INSTALL TRAILER DUMP STATION TO EQUESTRIAN CAMPGROUND

| LEGEND |           |           |           |                                        |
|--------|-----------|-----------|-----------|----------------------------------------|
|        | EXISTING  | PROPOSED  | FUTURE    |                                        |
|        | - - - - - | - - - - - | - - - - - | PROJECT BOUNDARY                       |
|        | [Symbol]  | [Symbol]  | [Symbol]  | WOODS LINE                             |
|        | [Symbol]  | [Symbol]  | [Symbol]  | JOINT USE POOL-EVEV. 599.7             |
|        | [Symbol]  | [Symbol]  | [Symbol]  | CONCESSIONAIRE BOUNDARY                |
|        | [Symbol]  | [Symbol]  | [Symbol]  | ROADS, PARKING & CAMPING PADS (PAVED)  |
|        | [Symbol]  | [Symbol]  | [Symbol]  | ROADS, PARKING & CAMPING PADS (GRAVEL) |
|        | [Symbol]  | [Symbol]  | [Symbol]  | NATURE, INTERPRETIVE & HIKING TRAILS   |
|        | [Symbol]  | [Symbol]  | [Symbol]  | COMFORT STATION (WATER BORNE)          |
|        | [Symbol]  | [Symbol]  | [Symbol]  | COMFORT STATION (VAULT)                |
|        | [Symbol]  | [Symbol]  | [Symbol]  | SHOWER HOUSE                           |
|        | [Symbol]  | [Symbol]  | [Symbol]  | GROUP PICNIC SHELTER                   |
|        | [Symbol]  | [Symbol]  | [Symbol]  | VISITOR CENTER                         |
|        | [Symbol]  | [Symbol]  | [Symbol]  | AMPHITHEATER                           |
|        | [Symbol]  | [Symbol]  | [Symbol]  | OVERLOOK                               |
|        | [Symbol]  | [Symbol]  | [Symbol]  | FIRE RING                              |
|        | [Symbol]  | [Symbol]  | [Symbol]  | PLAYGROUND EQUIPMENT                   |
|        | [Symbol]  | [Symbol]  | [Symbol]  | SWIMMING BEACH                         |
|        | [Symbol]  | [Symbol]  | [Symbol]  | BOAT LAUNCHING RAMP (PAVED)            |
|        | [Symbol]  | [Symbol]  | [Symbol]  | BOAT LAUNCHING RAMP (GRAVEL)           |
|        | [Symbol]  | [Symbol]  | [Symbol]  | FISHING PIER                           |
|        | [Symbol]  | [Symbol]  | [Symbol]  | FISH CLEANING STATION                  |
|        | [Symbol]  | [Symbol]  | [Symbol]  | TRAILER DUMPING & WATER FILL STATION   |
|        | [Symbol]  | [Symbol]  | [Symbol]  | SEWAGE TREATMENT PLANT                 |
|        | [Symbol]  | [Symbol]  | [Symbol]  | DRINKING FOUNTAIN AND/OR HYDRANT       |
|        | [Symbol]  | [Symbol]  | [Symbol]  | INFORMATION BOARD                      |
|        | [Symbol]  | [Symbol]  | [Symbol]  | FOOT BRIDGE                            |
|        | [Symbol]  | [Symbol]  | [Symbol]  | SEWAGE LIFT STATION                    |
|        | [Symbol]  | [Symbol]  | [Symbol]  | FEE BOOTH                              |
|        | [Symbol]  | [Symbol]  | [Symbol]  | LEVEE                                  |
|        | [Symbol]  | [Symbol]  | [Symbol]  | VAULT TOILET                           |



| PM-E                                                                                                                                                                                                                                                                                                                        | REVISION | DATE | APPROVED |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|----------|
|                                                                                                                                                                                                                                                                                                                             |          |      |          |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS<br>CORPS OF ENGINEERS<br>ST. LOUIS, MISSOURI<br>KASKASKIA RIVER, ILLINOIS<br>LAKE SHELBYVILLE<br>DESIGN MEMORANDUM NO.7B<br>REVISED MASTER PLAN<br><br><b>WOLF CREEK<br/>                 STATE PARK 12</b><br><br>REVISED MAR 04<br>NOTE:<br>CADD DIRECTORY:<br>N:\MASTERPL\SHELBY\ |          |      |          |



| NO. | DESCRIPTION             | DATE | BY |
|-----|-------------------------|------|----|
| 1   | ISSUED FOR DESIGN       |      |    |
| 2   | ISSUED FOR CONSTRUCTION |      |    |

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS  
 OFFICE OF THE DISTRICT ENGINEER  
 400 SOUTH MAIN STREET  
 ST. LOUIS, MISSOURI 63102

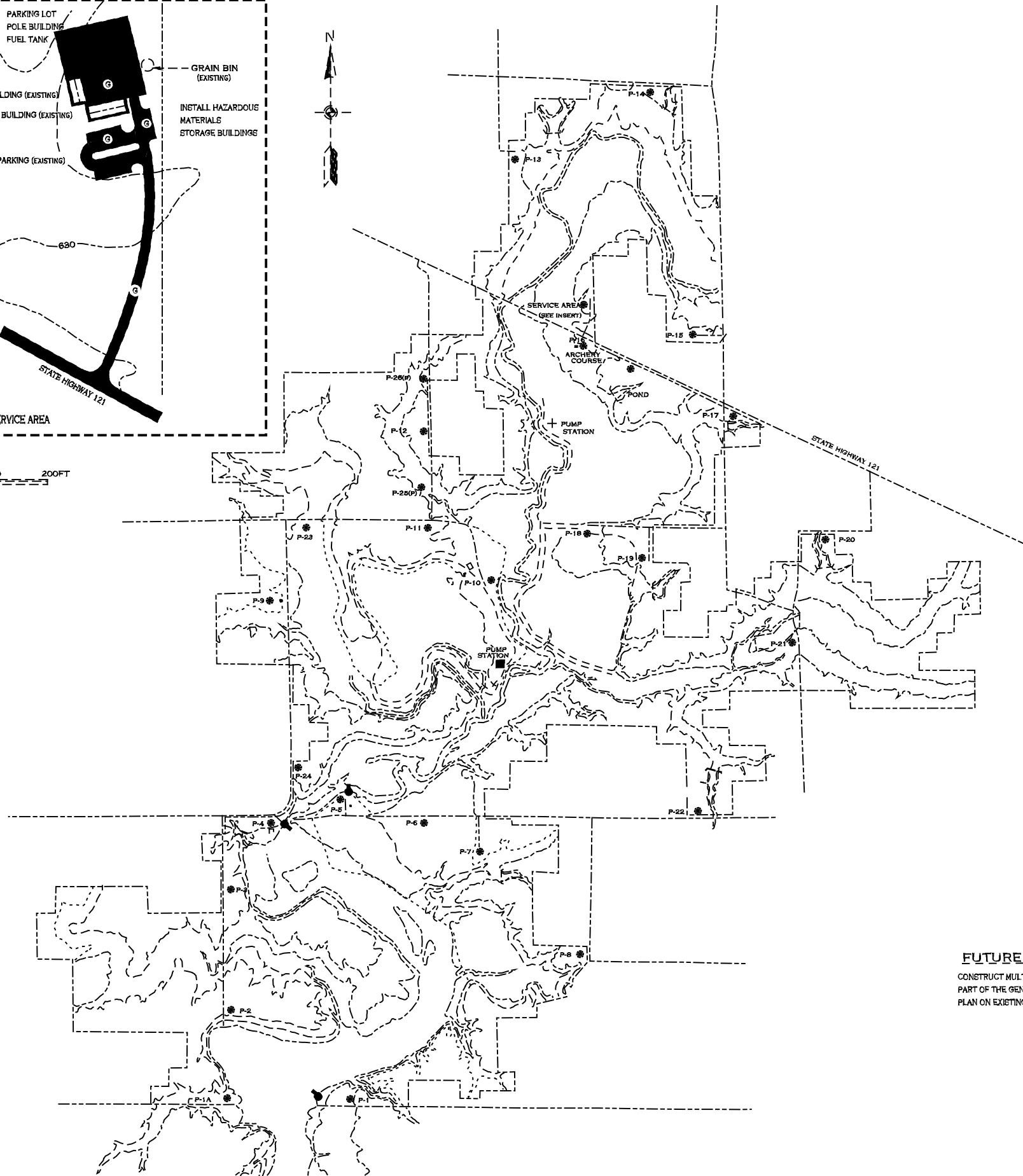
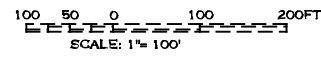
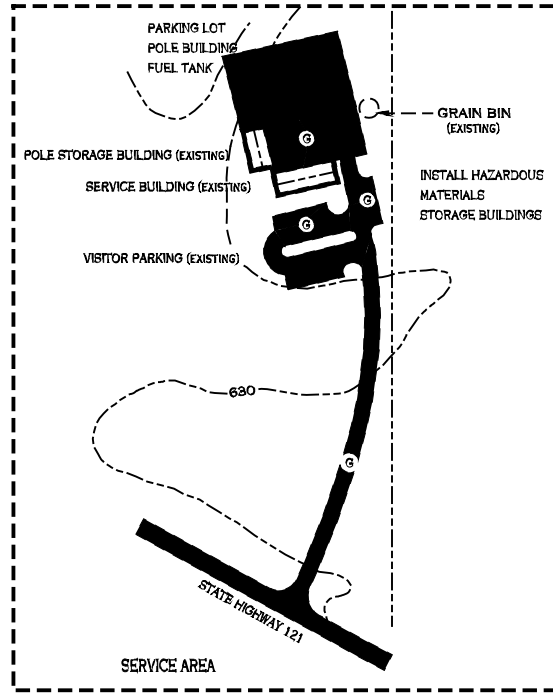
REVISION MASTER: R.A.M.  
**KASKASKIA BIOLOGICAL RESEARCH STATION OFFICE COMPLEX**

Chief Designer:  
 R.A. Madsen (SMB/DVA)

PLATE 253

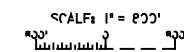
| RECREATIONAL FACILITIES    |          |                 |
|----------------------------|----------|-----------------|
| FACILITY                   | EXISTING | PROPOSED/FUTURE |
| SHOWER HOUSE               | [Symbol] | [Symbol]        |
| MINOR BOAT LAUNCHING AREA  | [Symbol] | [Symbol]        |
| CAMP SITE                  | [Symbol] | [Symbol]        |
| GROUP CAMP AREA            | [Symbol] | [Symbol]        |
| FIRE RING                  | [Symbol] | [Symbol]        |
| TRAILER DUMPING STATION    | [Symbol] | [Symbol]        |
| PICNIC SITE                | [Symbol] | [Symbol]        |
| FISH CLEANING STATION      | [Symbol] | [Symbol]        |
| SWIMMING BEACH             | [Symbol] | [Symbol]        |
| MARINA                     | [Symbol] | [Symbol]        |
| FISHING PIER               | [Symbol] | [Symbol]        |
| OVERLOOK                   | [Symbol] | [Symbol]        |
| PLAYGROUND EQUIPMENT       | [Symbol] | [Symbol]        |
| SEWAGE LIFT STATION        | [Symbol] | [Symbol]        |
| VISITOR CENTER             | [Symbol] | [Symbol]        |
| AMPHITHEATER               | [Symbol] | [Symbol]        |
| TRAIL                      | [Symbol] | [Symbol]        |
| SEWAGE TREATMENT PLANT     | [Symbol] | [Symbol]        |
| PICNIC SHELTER             | [Symbol] | [Symbol]        |
| VAULT COMFORT STATION      | [Symbol] | [Symbol]        |
| WATERBORNE COMFORT STATION | [Symbol] | [Symbol]        |
| FOUNTAIN AND/OR HYDRANT    | [Symbol] | [Symbol]        |
| BOAT LAUNCHING RAMP        | [Symbol] | [Symbol]        |
| INFORMATION BOARD          | [Symbol] | [Symbol]        |
| OBSERVATION BLIND          | [Symbol] | [Symbol]        |
| FOOTBRIDGE                 | [Symbol] | [Symbol]        |
| CABIN                      | [Symbol] | [Symbol]        |

| LEGEND   |          |          |                                        |
|----------|----------|----------|----------------------------------------|
| EXISTING | PROPOSED | FUTURE   |                                        |
| [Symbol] | [Symbol] | [Symbol] | ROADS, PARKING & CAMPING PADS (PAVED)  |
| [Symbol] | [Symbol] | [Symbol] | ROADS, PARKING & CAMPING PADS (GRAVEL) |
| [Symbol] | [Symbol] | [Symbol] | NATURE, INTERPRETIVE & HIKING TRAILS   |
| [Symbol] | [Symbol] | [Symbol] | COMFORT STATION (WATER BORNE)          |
| [Symbol] | [Symbol] | [Symbol] | COMFORT STATION (VAULT)                |
| [Symbol] | [Symbol] | [Symbol] | SHOWER HOUSE                           |
| [Symbol] | [Symbol] | [Symbol] | GROUP PICNIC SHELTER                   |
| [Symbol] | [Symbol] | [Symbol] | VISITOR CENTER                         |
| [Symbol] | [Symbol] | [Symbol] | AMPHITHEATER                           |
| [Symbol] | [Symbol] | [Symbol] | OVERLOOK                               |
| [Symbol] | [Symbol] | [Symbol] | FIRE RING                              |
| [Symbol] | [Symbol] | [Symbol] | PLAYGROUND EQUIPMENT                   |
| [Symbol] | [Symbol] | [Symbol] | SWIMMING BEACH                         |
| [Symbol] | [Symbol] | [Symbol] | BOAT LAUNCHING RAMP (PAVED)            |
| [Symbol] | [Symbol] | [Symbol] | BOAT LAUNCHING RAMP (GRAVEL)           |
| [Symbol] | [Symbol] | [Symbol] | FISHING PIER                           |
| [Symbol] | [Symbol] | [Symbol] | FISH CLEANING STATION                  |
| [Symbol] | [Symbol] | [Symbol] | TRAILER DUMPING & WATER FILL STATION   |
| [Symbol] | [Symbol] | [Symbol] | SEWAGE TREATMENT PLANT                 |
| [Symbol] | [Symbol] | [Symbol] | DRINKING FOUNTAIN AND/OR HYDRANT       |
| [Symbol] | [Symbol] | [Symbol] | INFORMATION BOARD                      |
| [Symbol] | [Symbol] | [Symbol] | FOOTBRIDGE                             |
| [Symbol] | [Symbol] | [Symbol] | SEWAGE LIFT STATION                    |
| [Symbol] | [Symbol] | [Symbol] | FEE BOOTH                              |
| [Symbol] | [Symbol] | [Symbol] | GRAVEL PARKING LOTS                    |
| [Symbol] | [Symbol] | [Symbol] | LEVEE                                  |



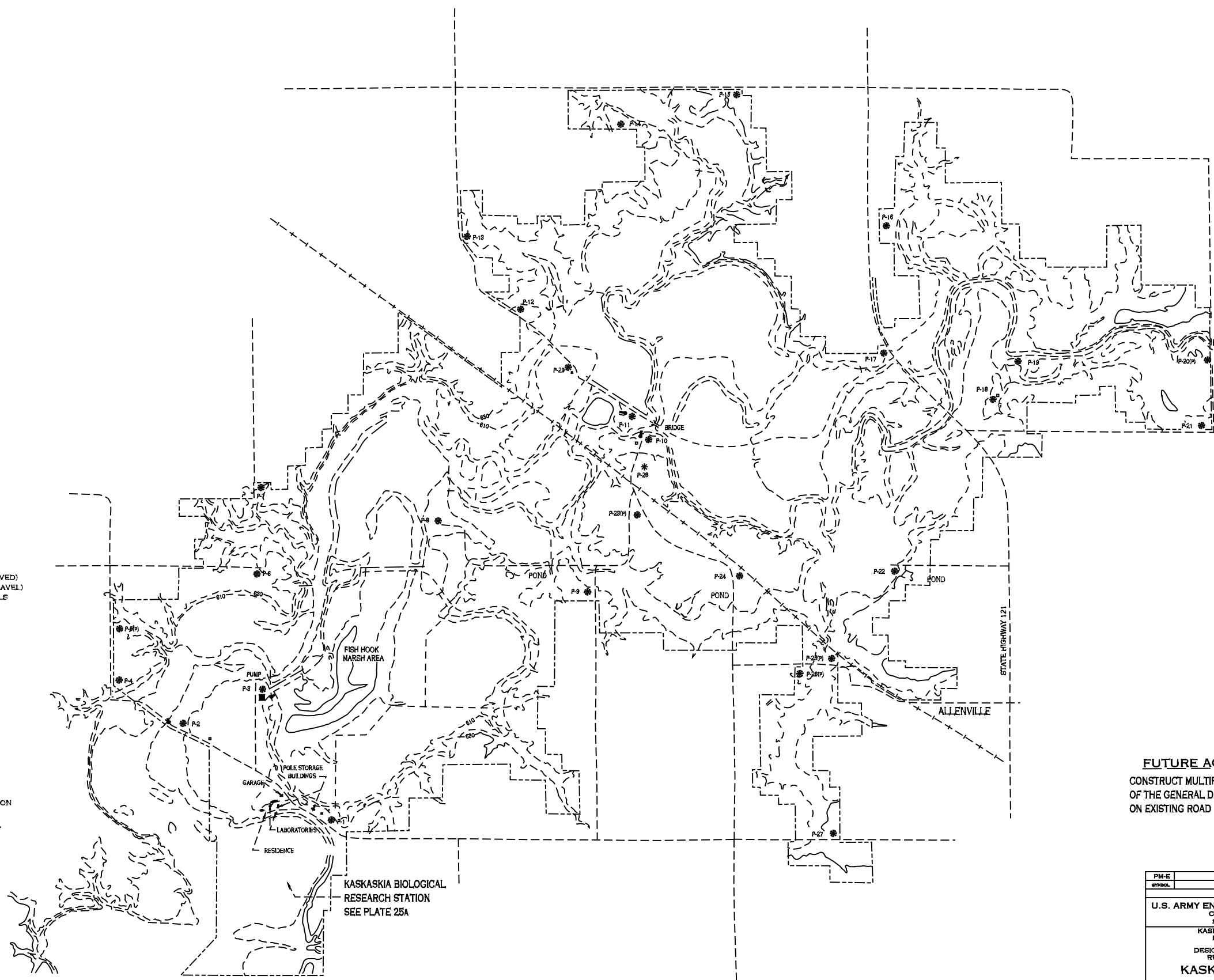
**FUTURE ACTION**

CONSTRUCT MULTIPURPOSE TRAIL AS  
PART OF THE GENERAL DAGEY TRAIL  
PLAN ON EXISTING ROAD RIGHT OF WAYS



| PM-F                                   | REVISION FOR UPDATE | 3-04 |
|----------------------------------------|---------------------|------|
| NO.                                    | DESCRIPTION         | DATE |
| SYMBOL                                 | REVISION            |      |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS |                     |      |
| CORPS OF ENGINEERS                     |                     |      |
| ST. LOUIS, MISSOURI                    |                     |      |
| KASKASKIA RIVER, ILLINOIS              |                     |      |
| LAKE SHELBYVILLE                       |                     |      |
| DESIGN MEMORANDUM NO. 73               |                     |      |
| REVISED MASTER PLAN                    |                     |      |
| <b>WEST OKAW WILDLIFE</b>              |                     |      |
| <b>MANAGEMENT AREA WM-1</b>            |                     |      |
| REVISED MAR 04                         |                     |      |
| NOTE:                                  |                     |      |
| CADD DIRECTORY:                        |                     |      |
| N:\MASTERPL\SHELBY                     |                     |      |

| RECREATIONAL FACILITIES    |          |                 |
|----------------------------|----------|-----------------|
| FACILITY                   | EXISTING | PROPOSED/FUTURE |
| SHOWER HOUSE               |          |                 |
| CAMP SITE                  |          |                 |
| GROUP CAMP AREA            |          |                 |
| FIRE RING                  |          |                 |
| TRAILER DUMPING STATION    |          |                 |
| PICNIC SITE                |          |                 |
| FISH CLEANING STATION      |          |                 |
| SWIMMING BEACH             |          |                 |
| FISHING PIER               |          |                 |
| OVERLOOK                   |          |                 |
| PLAYGROUND EQUIPMENT       | 1        |                 |
| TRAIL                      |          |                 |
| AMPHITHEATER               |          |                 |
| TRAIL                      | 1        | 1               |
| SEWAGE TREATMENT PLANT     |          |                 |
| PICNIC SHELTER             |          |                 |
| VAULT COMFORT STATION      | 3        |                 |
| WATERBORNE COMFORT STATION |          |                 |
| FOUNTAIN AND/OR HYDRANT    |          |                 |
| BOAT LAUNCHING RAMP        | 4        |                 |
| INFORMATION BOARD          |          |                 |
| FOOT BRIDGE                |          |                 |
| CABIN                      |          |                 |
| OBSERVATION BLIND          |          |                 |
| VISITOR CENTER             |          |                 |
| MARINA                     |          |                 |
| SEWAGE LIFT STATION        |          |                 |

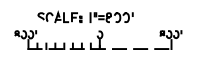


LEGEND

|       |                                        |
|-------|----------------------------------------|
| ---   | PROJECT BOUNDARY                       |
| ~~~~~ | WOODS LINE                             |
| ----- | JOINT USE POOL-ELEV. 599.7             |
| ----- | CONCESSIONAIRE BOUNDARY                |
| +++   | RAILROAD                               |
| ---   | EXISTING                               |
| ---   | PROPOSED                               |
| ---   | FUTURE                                 |
| ---   | ROADS, PARKING & CAMPING PADS (PAVED)  |
| ---   | ROADS, PARKING & CAMPING PADS (GRAVEL) |
| ---   | NATURE, INTERPRETIVE & HIKING TRAILS   |
| ---   | COMFORT STATION (WATER BORNE)          |
| ---   | COMFORT STATION (VAULT)                |
| ---   | SHOWER HOUSE                           |
| ---   | GROUP PICNIC SHELTER                   |
| ---   | VISITOR CENTER                         |
| ---   | AMPHITHEATER                           |
| ---   | OVERLOOK                               |
| ---   | FIRE RING                              |
| ---   | PLAYGROUND EQUIPMENT                   |
| ---   | SWIMMING BEACH                         |
| ---   | BOAT LAUNCHING RAMP (PAVED)            |
| ---   | BOAT LAUNCHING RAMP (GRAVEL)           |
| ---   | FISHING PIER                           |
| ---   | FISH CLEANING STATION                  |
| ---   | TRAILER DUMPING & WATER FILL STATION   |
| ---   | SEWAGE TREATMENT PLANT                 |
| ---   | DRINKING FOUNTAIN AND/OR HYDRANT       |
| ---   | INFORMATION BOARD                      |
| ---   | FOOT BRIDGE                            |
| ---   | SEWAGE LIFT STATION                    |
| ---   | FEE BOOTH                              |
| ---   | GRAVEL PARKING LOTS                    |
| ---   | LEVEE                                  |

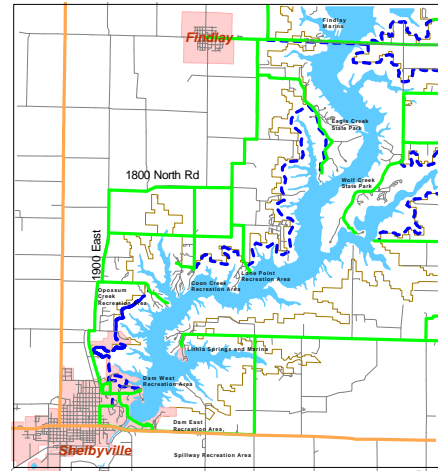
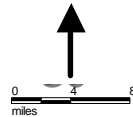
**FUTURE ACTION**  
 CONSTRUCT MULTIPURPOSE TRAIL AS PART  
 OF THE GENERAL DACEY TRAIL PLAN  
 ON EXISTING ROAD RIGHT OF WAYS

KASKASKIA BIOLOGICAL  
 RESEARCH STATION  
 SEE PLATE 25A



| PM-E                                   | REVISED FOR UPDATE | 3-04          |
|----------------------------------------|--------------------|---------------|
| SYMBOL                                 | DESCRIPTION        | DATE APPROVED |
| REVISION                               |                    |               |
| U.S. ARMY ENGINEER DISTRICT, ST. LOUIS |                    |               |
| CORPS OF ENGINEERS                     |                    |               |
| ST. LOUIS, MISSOURI                    |                    |               |
| KASKASKIA RIVER, ILLINOIS              |                    |               |
| LAKE SHELBYVILLE                       |                    |               |
| DESIGN MEMORANDUM NO. 7B               |                    |               |
| REVISED MASTER PLAN                    |                    |               |
| <b>KASKASKIA WILDLIFE</b>              |                    |               |
| <b>MANAGEMENT AREA</b>                 |                    |               |
| WM-2                                   |                    |               |
| REVISED MAR 04                         |                    |               |
| NOTE:                                  |                    |               |
| CADD DIRECTORY:                        |                    |               |
| N:\MASTERPL\ SHELBY\                   |                    |               |





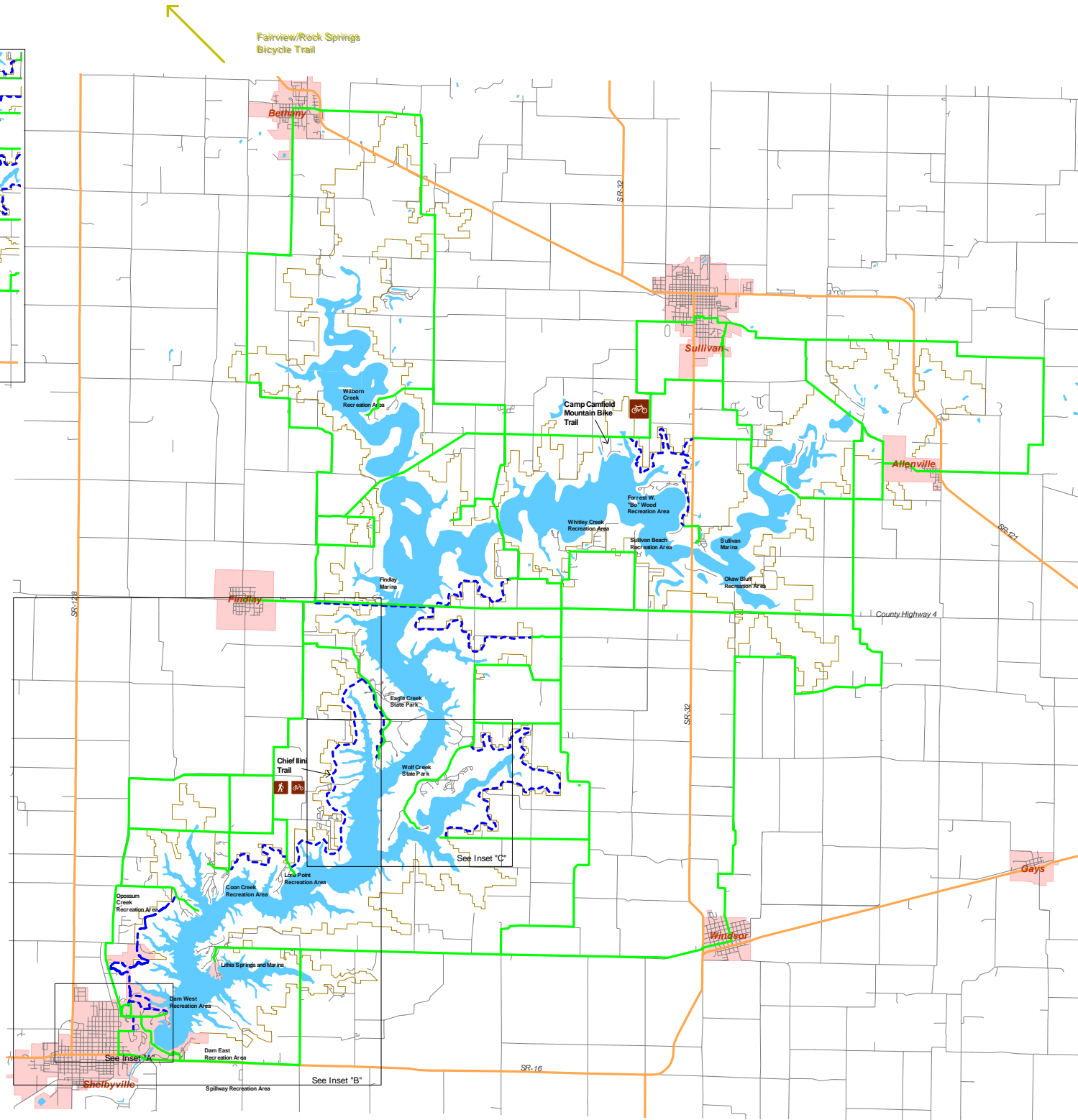
Inset "B"



Inset "C"



Inset "A"



To Lincoln Prairie Trail via State Route 16

To Hidden Springs State Forest

Lincoln Heritage Trails via County Highway 4

### General Dacey Trail

Suggested Trail Alignment Along Existing Right-of-Way

Suggested Trail Alignment on Corps of Engineers Property

Corps of Engineers Property Line

- Bicycle Trail
- Snowmobile Trail
- Hiking Trail
- Equestrian Trail

Potential connections to other regional trails

