The US Army Corps of Engineers would appreciate your comments concerning the Lake Shelbyville Master Plan Update.

The text portion of the Master Plan Update can be viewed by clicking on the link below. If you would like to view the appendices and/or plates that can be done by stopping by the Lake Shelbyville Project Office or Visitor Center.

Comments can be emailed to lakeshelbyville@mvs02.usace.army.mil
or mailed to
Lake Shelbyville Project Office
Master Plan Update
RR 4, Box 128B
Shelbyville, IL 62565

Comments concerning the Lake Shelbyville Master Plan Update will be taken until Friday, August 1, 2003.

Lake Shelbyville

Kaskaskia River, Illinois

Design Memorandum No. 7B

The Master Plan

DRAFT

US Army Corps of Engineers
St. Louis District

Original 1964
Revised 1974
Updated 1979, 1984, 1998, 2003

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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 started out as a supplement and after further review of the 1998 update it was determined that an update was needed to make it functional as a working document that can be used to operate and manage Lake Shelbyville. It presents a current inventory and assessment of land and water resources and physical improvements, 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 rehabilitation 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, 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 this 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 had a chance to review and comment on this plan.

The St. Louis District Engineer approves the plan however; this does not assure that all proposed projects will 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

Memorandum Number	Title	Date Submitted
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

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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 (2000)
b. ER 1130-2-550 Recreation Operations and Maintenance Policies (chg 3,2002)
c. ER 1165-2-400 Water Resource Policies and Authorities, Recreation Planning, Development, and Management Policies (chg 1,1988)
d. ER 1110-2-400 Design of Recreation Sites, Areas, and Facilities (1988)
e. ER 1130-2-540 Environmental Stewardship Operations and Maintenance Policies (chg. 1, 2002)
f. EP 1130-2-540 Environmental Stewardship Operations and Maintenance Guidance and Procedures (chg. 1, 2002)
g. EM 1110-1-400 Recreation Planning and Design Criteria (1987)
h. EP 1130-2-550 Recreation Operations and Maintenance Guidance and Procedures (chg 3, 2002)
i. ER 1130-2-406 Shoreline Management at Civil Works Projects (chg 2, 1999)
j. ER 405-1-12 Real Estate Handbook (chg 34, 2000)
k. ER 1120-2-404 Investigation, Planning and Development of Water Resources - Federal Participation in Recreational Development (1970)

l. 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.

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

a. <u>Original Master Plan - Supplements and Letters</u>. 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 ENGCW-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.

(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 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:

(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) WRDA 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) WRDA 1992 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 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 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.

(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.

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

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.

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:

(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

Drainage area:	
Upstream from dam site (sq. mi.)	1,030
Upstream from mouth (sq. mi.)	5,840
<u>Lake</u>	
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
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

<u>Main Dam</u>	
Type	Earth Embankment
Elevation, top of dam, NGVD	643.0
Height above streamed, 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.

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 25 and 26. Actual lake level fluctuation hydrographs for the period 1978 through 2001 are shown on Plate 25. Pool stage duration and frequency

curves are shown on Plate 26 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 25 and 26. 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 if federal, state, local governments, and private enterprise provided the required facilities, services and commodities that were proposed in the plan. In 1972, the actual visitation was 3,901,000, 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, or approximately 60% of the projected number. Visitation from 1980 through 2002 has remained stable with yearly average annual projections of 2,829,000 for the life of the project. 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 2002.

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

TABLE 2
LAKE SHELBYVILLE
ACTUAL VISITATION DATA 1970 - 2002

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	29,730,966	2,249,105
1993	3,536,086	FY 93	28,937,037	2,224,451
1994	3,069,358	FY 94	26,092,771	2,057,358
1995	3,001,489	FY 95	29,240,093	2,442,064
1996	2,804,417	FY 96	28,636,090	2,333,992
1997	2,908,891	FY97	30,539,312	2,429,032
1998	2,958,829	FY98	31,950,797	2,610,169
1999	2,927,405	FY99	31,648,502	2,518,445
2000	2,884,436	FY00	32,835,186	2,715,510
2001	3,060,415	FY01	33,407,129	2,835,099
2002		FY02	32,833,146	2,548,136

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 1,874 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, washhouses, electrical, water and sewer hookups, and nature trails.

(2) Construction General Funds expended for recreational facilities amounts to $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 2001 through 30 September 2002 amounted to $1,931,911. Maintenance cost on-site for the same period was $2,319,176, for a total on-site operation and maintenance cost of $4,251,087.

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 7,457acres, which were designated for Priority 1, Intensive Recreation development in the preliminary and original Master Plan.

(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 6,341 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 6,341 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 2,717 acres and is located near Bethany in Moultrie County. The Kaskaskia Wildlife Management Area, consists of 3,624 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

ITEM		COST
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

ITEM		COST
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. The current private capital investment representing Gross Fixed Assets for this facility is $1,321,945. 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. The

current private capital investment representing Gross Fixed Assets for this facility is $1,511,524. A site plan of the lease area is presented on Plate 10.

(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. The current private capital investment representing Gross Fixed Assets for this facility is $961,528. The lease area is included in Plate 21 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 27 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 listing of all recreational facilities that will be provided at Lake Shelbyville by the Corps of Engineers after all of the new, consolidation, relocation, rehabilitation, and replacement actions listed in Section VIII take place.

TABLE 4
LAKE SHELBYVILLE SUMMARY - EXISTING RECREATIONAL DEVELOPMENT

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
Campsite		82	232	95	15	84			86	126				720	178	404		582		233		233	1535
Campsite Electric		62	226	95		84				126				593	131	304		435		68		68	1096
Campsite (Electric, Water, and Sewer)			6											6						142		142	148
Campsite Non-electric		20			15				86					119	47	100		147		23		23	289
Group Camp				4	1			2						7	2	3		5					12
Cabin House								2						2									2
Cabin / Mini Shelter																1		1					1
Picnic Units	48			2	24	5	15		2		25	15	2	149	110	55	4	169			5	5	323
Group Picnic Shelters	4			2		1	1			1	1	2	1	14	4	2		6	1			1	21
Bench Shelter	9											2		11									11
Comfort Station (Vault)									1				3	5	40	46		86	1			1	92
Comfort Station (Waterborne)	4	1	10	4	3	4			4	6	2	3		45							3	3	48
Shower House	1	2	4	1	1	1	1		1	3				15	1	2		3		1		1	19
Laundry Facility (Wash House)			1			1			1	1				4						1		1	5
Land Treatment System		1			1				1	1				4		1		1					5
Lift Station	2	1	5	1	1	3	1	1	2	3	1	2		24*	6	3		9		*1			33
Fountain and/or Hydrant	6	7	29	11	5	11	2		10	16	5	5	1	108	29	42		71					179
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					12
Fee Booth	1	1	1	1		1			1	1				7	1	1		2					9
Primary Boat Ramp Launch Lanes	4	4	2	2	4	4			4	2				26	4	4		8	2	1		3	37
Secondary Boat Ramp Launch Area													5	5			5	5					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					6
Outdoor Beach Shower	1		1		1		1							4									4
Trail			1	1		1		1					4	6	5	8	1	14					22
Foot Bridge			4	1						1	1		24	31	9	7	5	21					52
Information Board	6	2	3	4	3	3	2	3	2	3	2	3	5	41	4	4	2	10	1	1	3	5	56
Overlook	1													1									1
Fishing Pier		1										1		2			1	1					3
Fishing Pond		1											15	16			5	5					21
Observation Blinds								10						10			3	3					13
Observation Platform								1						1	2	3	3	8					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									3
Sand Volleyball Court	1		1											2									3
Horseshoe Pits			2	1	1	1		1	1	1	1			9						1		1	10
Ice Skating Rink	1													1									1

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
Amphitheater			1	1		1			1	1			1	6		1		1					7
Visitor Center											1			1									1
Marina																			1	1	1	3	3
Boat Slips (Wet)																			378	195	339	912	912
Restaurant															1			1		1	1	2	3
Swimming Pool															2			2		1		1	3
Lodge/Rental Room Facility															1			1		2		2	3
Golf Course															1			1					1

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

TABLE 4a
LAKE SHELBYVILLE SUMMARY FOR CORPS OF ENGINEERS FACILITIES - RECREATIONAL DEVELOPMENT AFTER PROPOSED ACTIONS TAKE PLACE

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
Campsite		82	232	95	15	170				126				720
Campsite Electric		52	149	95	15	85				112				508
Campsite (Electric, Water, and Sewer)		30	83			85				14				212
Campsite Non-electric														0
Group Camp				1	1	1		1						4
Multi-purpose Building								1						1
Mini-shelter					5									5
Picnic Units	48			2	24	5	15		2		25	15	2	138
Group Picnic Shelters	5			1	1	2	1				1	2		13
Bench Shelter	9									2		2		13
Comfort Station (Vault)													5	5
Comfort Station (Waterborne)	4	3	6	3	2	4			1	6	2	3		34
Shower House	1	1	7	2	2	2	1			3				19
Laundry Facility (Wash House)			1	1		1				1				5
Land Treatment System														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	20	2		1	16	5	5	1	108
Trailer Dump Station		1	2	1		2				1				7
Fish Cleaning Station	1	1	1	1	1	1			1	1		1		9
Fee Booth	1	1	1	1		1				1				6
Primary Boat Ramp Launch Lanes	7	2	2	2	4	4			4	2				27
Secondary Boat Ramp Launch Area													5	5
High Water Boat Ramp Launch Lanes	2	2	2	2	2	2			4	2				18
Swimming Beach	1		1		1		1			1				5
Outdoor Beach Shower	1		1		1		1			1				5
Trail	1	1	2	1	1	1	1	1	1	1	1	1	14	27****
Foot Bridge			4	1						1	1			7
Information Board	6	2	3	4	3	3	2	3	1	2	2	3	5	39
Overlook														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			2	1	1		12
Swing Set Area			1	1		1								3
Sand Volleyball Court	1		1							1				3
Horseshoe Pits		1	2	1	1	2		1		1	1			10
Ice Skating Rink												1		1
Amphitheater		1	1	1		1			***	1			1	6
Visitor Center											**			1

* - 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 relocated to an area determined feasible based on a cost study. *** - Whitley Creek Amphitheater will be relocated near the new Visitor Center.
**** - Most of these trails will interconnect and will form the Lake Shelbyville Green way Trail.

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 Illinoisan 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

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.

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 as eligible: 11Sy-305 at Lone Point and 11Mt-203, -207, -208, -209, -211 at Bo Wood. Future plans call for testing, followed by mitigation if necessary, at 11Mt-203, -207, and -209.

(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

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.

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 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 nine campgrounds, providing 1,535 campsites. There are 312 picnic sites, 6 beaches, a Visitor Center, 20 trails, and 30 boat launching areas (12 Primary, 10 Secondary, 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 seven others: Clark, Coles, Cumberland, Dewitt, Edgar, 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 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	4,287
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				2,896,016
Missouri				
St. Louis				348,189

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 which 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, dispersed throughout the counties. While non-farm residences are no longer restricted to the towns, most are still centered around them. Agriculture remains the dominant use of land in both counties, although recent developments are beginning to change the traditional agrarian pattern. Most important has been the influence of Lake Shelbyville 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, 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 growth that has taken place in the last 20 years, however, extensive growth appears unlikely. 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 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.

TABLE 6

CIVILIAN EMPLOYMENT BY INDUSTRY, 2000

COUNTY	MOULTRIE COUNTY		SHELBY	
Industry	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, Accomodation, 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

	1987	1992	1997
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

	1987	1992	1997
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

	1987	1992	1997
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.

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

	FAMILY	HOUSEHOLD
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

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

	MOULTRIE	SHELBY	ILLINOIS
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 the 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

	1990	2000
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

	1990	2000
NUMBER OF HOUSING UNITS	1,884	1,945
PERCENT OWNER OCCUPIED	67.0	72.1
PERCENT RENTER OCCUPIES	27.6	27.9
PERCENT VACANT	5.4	6.4

SHELBY COUNTY

	1990	2000
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

	1990	2000
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 though 1996 there was a decline in visitation, due in part to high water conditions during several of these years that 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. Statistics 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 the 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, Dam East, 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 feasibility 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.

A major project of interest that is tentatively scheduled during the FY 2003-2007 time frame includes a new interchange for Interstate 57 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 2003 – 2007 at the cost of $25.5 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.

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.
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 Bloomington	74
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
Stephen A. Forbes St. Pk.	X	X	X	X	X	X			X	IDNR	44

Illinois	Fishing	Swimming	Boating	Camping	Picnicking	Hunting	Marina	Lodge	Trails	Principal Managing Agency	Miles from Lake Shelbyville
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 were 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 at a lake elevation of 603 feet NGVD. 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 were 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 in1968. 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 contaminates 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 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 history, goals, and plan of action for the Upper Kaskaskia River Ecosystem Partnership is explained Section 10-19.

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 is located in Section 8-04.p. A 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 fields 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 due to the number of lanes there were several occasions throughout the recreation season that the ramps did not meet customer demands and were congested creating traffic hazards. Increasing the number of high water boat launch lanes should alleviate the problems.

TABLE 14
LAKE SHELBYVILLE

ACTUAL AND ESTIMATED ANNUAL ATTENDANCE (1970 – 2020)

Actual Annual Attendance		
	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	2,249,105 ◆
1993	3,536,086	2,224,451 ◆
1994	3,069,358	2,057,358 ◆
1995	3,001,489	2,442,064 ◆
1996	2,804,417	2,333,992 ◆
1997	2,908,891	2,429,032 ◆
1998	2,958,829	2,610,169 ◆
1999	2,927,405	2,518,445 ◆
2000	2,884,436	2,715,510 ◆
2001	3,060,415	2,835,099 ◆
2002		2,548,136 ◆
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

	Existing Supply				Demand	
Facility	Corps	State	Private Concessionaire	Total	2010 Demand	Existing Supply Excess/Shortage
Camping Units	720 1/	582	233 2/	1535	1563	-28
Picnic Units	215 3/	205 4/	6 5/	426	394	+32
Boat Launch Lanes						
Regular	26 6/	8 7/	3 8/	37	39	-2
High Water	12 9/	4 10/	2 11/	18	32	-14
Linear Swimming Beach	2620 12/	250	0	2870	3421 13/	-551

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.

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 demand and alleviate traffic congestion. 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 demand was not met and the existing high water boat ramp areas were congested beyond capacity on several occasions.

TABLE 16

SUMMARY: PROJECTED RECREATION FACILITY REQUIREMENTS

	2010	2020
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	Haliaeetus leucocephalus
Indiana Bat **	Endangered	Myotis sodalis
Loggerhead Shrike	Species of Concern	Lanius ludovivianus
State List Species	**Status**	**Scientific Name**
False Hellebore ***	Threatened	Veratrum woodii

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. Most recently, the U.S. Fish and Wildlife Service was consulted to provide comments to the Lake Shelbyville Shoreline Erosion Management 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. A new insect-borne disease recently emerged in Illinois.

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

2002. By the end of the year, the state lead 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.

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 works with this agency to enhance and supplement the Lake Shelbyville Water Safety Program and also provides courtesy boat patrol on an as needed basis.

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 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.

g. Illinois Department of Commerce and Community Affairs (Tourism).

h. Illinois Emergency Management Agency.

i. Illinois State Police.

j. Illinois Cooperative Extension Service.

k. Experience Works, Inc.

l. Illinois Audubon Society

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.

c. Kaskia-Kaw Rivers Conservancy.

d. Shelby County Community Services.

e. Isaak Walton League.

f. Shelbyville General Dacey Trail Committee.

g. Central Illinois Mountain Bicycling Association.

h. Shelby County Search and Rescue Dive Team.

i. Moultrie County Search and Rescue Dive Team.

j. Lake Shelbyville Development Association.

k. Upper Kaskaskia Ecosystem Partnership.

l. Okaw Valley Soil and Water Conservation District.

m. Douglas Hart Nature Center.

n. American Angling Association.

o. Shelby County Office of Tourism.

p. Shelby County Historical Society,

q. Shelbyville Chamber of Commerce.

r. Sullivan Chamber of Commerce.

s. Kaskaskia Archeological Society.

t. Boy Scout Troops.

u. Girl Scout Troops.

v. 4-H Clubs.

w. Future Farmers of America (FFA).

x. City and County Law Enforcement Agencies.

y. Sierra Club.

z. Whitetails Unlimited.

aa. Illinois Rifleman Association.

bb. Twin Oaks Sporting Clays.

cc. Tri-County Quails Unlimited.

dd. Pheasants Forever.

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. <u>General.</u>

(1) <u>Administration and Management.</u>

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.

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 rehabilitation 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.

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) Disabled Access.

OBJECTIVE: Identify and undertake the modifications necessary with a goal of making facilities accessible to the elderly, people with 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) Interpretation Services and Outreach Program.

OBJECTIVE: Implement a meaningful interpretive services and outreach program to create a greater public awareness, understanding, and appreciation of the project and its resources, not only by using Corps resources but through the development of strong partnerships with the Illinois Department of Natural Resources, local constituent groups and with the support of a Cooperating Association.

DISCUSSION: An Interpretive Services Program has been in effect at Lake Shelbyville since the mid 1970s. The Interpretive Services and Outreach program enhances the Corps image, stirs the public's interest in the scenic, recreational, biological and cultural values of the lake and surrounding area, and also promotes visitor safety on both land and water areas of the project. A Visitor Center, informational brochures, bulletin boards, interpretive nature trails, special events, campground, beach, and Visitor Center presentations are incorporated within the scope of this effort.

By acquainting visitors with the diverse resources of the project and stimulating them to ask questions and explore interpretation enhances their

recreation experience, assists in reducing management concerns, and helps to protect the lake's environment.

(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 rehabilitated to accommodate visitors during periods of high water. During the rehabilitation 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 relocating 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. 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 planning, 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.

(4) Prairies.

OBJECTIVE: Manage existing prairie areas and continue to reestablish scattered plots of native warm season grasses.

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: Reestablish 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 enjoyment through interpretation consistent with other interpretative programs and recreational land uses. A site has been selected for the reburial of inadvertent discoveries of Native American remains as required by the Native American Graves Protection and Repatriation Act (NAGPRA).

(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 area 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 resource 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 will contain further details 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 35,833 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 documents 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 documents for public recreation and the Preliminary Master Plan.

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 zoning 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 the 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 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) Environmentally 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 resource classification and use.

(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.

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 Intensive Use, and Recreation Low Density, 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 other management objectives such as generation of revenue, and wildlife habitat improvement. Lands placed in this category are continuously available for intensive or low-density recreation as a primary land use classification. Forest management is a secondary purpose for these areas.

b. Agricultural Use. The Operational Management Plan for Lake Shelbyville contains provisions for agriculture as a corollary use to obtain 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 full service campsites have been provided. 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. Four areas: Dam West Recreation Area, Dam East Recreation Area, Whitley Creek Recreation Area, and Findlay Marina zoned for Recreation-Intensive Use. These areas are under consideration for future resort concessionaire sites. Decisions to use these areas as resort concession sites will be decided based on the outcome of a future market study.

d. Lakeshore 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 manage 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 through private exclusive use. Such action 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, boast regattas, ski jump exhibitions, etc.

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 Trails. Although off-road vehicles (ORV) are becoming more popular as a recreational use, their use is not allowed at Lake Shelbyville; therefore, no trails or areas have been assigned to their use. The soil conditions here do not allow 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, ORV's 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 300 feet from 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, relocation, rehabilitation, or are a replacement for existing facilities are listed under the Proposed Consolidation, Replacement, Relocation, Rehabilitation (CRRR) Actions heading. A cost estimate of these facilities is 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 CRRR actions. Actions that are proposed to beyond the ten-year time frame of this Master Plan update are listed under Future Actions.

8.04 PROJECT OPERATIONS LANDS

The following paragraphs provide a brief description of all lands classified as Project Operations. Ten areas are designated as Project Operation 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 24. 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 were 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 24.

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:

A walkway/trail for pedestrian and bike traffic will be added 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. A Challenge Partnership Agreement with the City of Shelbyville will be pursued for this project. This walkway/trail will eventually tie into the General Dacey Trail Plan.

Add maintenance lifts and other needed equipment to deal with confined space issues.

Add 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

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 CRRR 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.

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

Replace electrical system concerning main dam roadway lights.

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.

Rehabilitate or replace dam machinery as needed to bring it up-to-date.

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. 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 size of this facility is

too small to accommodate all of the needs that are required to properly serve the lake customers. Challenge Cost Share Partnerships will be pursued to accomplish future projects concerning the visitor center. A more detailed description of the visitor center is in Section 11-10.

OP-2 is shown on Plate 24. 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 CRRR Actions: Prepare a study to determine the design and cost feasibility of replacing, relocating, 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 relocating the Visitor Center somewhere along the Bruce-Findlay Road. During this study the possibility of partnering with other agencies will be pursued.

Depending on the time frame concerning the replacement of the Visitor Center, it is proposed that the front entrance doors and comfort station be rehabilitated to meet Uniform Federal Accessibility Standards and ADA guidelines. The comfort station entry is on the outside of the building. The rehabilitation 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 Administration/Maintenance Complex and Visitor Center study.

Relocate the Whitley Creek Recreation Area amphitheater to the new proposed site of the Visitor Center.

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 24.

Proposed New Actions: None anticipated at this time.

Proposed CRRR Actions: Include this complex in the study to determine the design and the cost feasibility of replacing, relocating, 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/consolidation/relocation 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 Champaign, Illinois, which will be moving to Clinton, Illinois in 2003. 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 27.

Proposed New or CRRR 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 Champaign, Illinois, which will be moving to Clinton, Illinois in 2003. This area is shown on Plate 28.

Proposed New Actions by IDNR:

Add hazardous material storage building.

Proposed CRRR 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 29a.

Proposed New or CRRR 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 21.

Proposed New Actions: None anticipated at this time.

Proposed CRRR 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.

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.

Proposed New Actions: None anticipated at this time.

Proposed CRRR 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.

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 located down an access road on the north side of the road. This area is shown on Plate 16.

Proposed New Actions: None are anticipated at this time.

Proposed CRRR 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.

Future Actions:
Rehabilitate 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 has to have a Class 2 Operator 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 ½ an acre in the central portion of this area, north of the Wilborn Creek Group Camp Area. This area is shown on Plate 11.

Proposed New Actions: None anticipated at this time.

Proposed CRRR 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 to need to contract out for a Class 2 operator will no longer be necessary.

8.05 RECREATION LANDS

A description of all recreation development at Lake Shelbyville is presented in this section. A total of 15 areas are classified as recreational. A summarization of development, including existing facilities 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 169-acre area has been developed as a day-use area. Facilities in this area include forty-eight picnic sites, four picnic shelters, two playground areas (one of the playground areas is accessible to those with disabilities), a fish cleaning station, six fountains/hydrants, two boat launching ramps (primary ramp has four lanes and the high water ramp has two lanes), a swimming beach, shower house, outdoor beach shower, concession building, snowmobile trail, an overlook, four 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 a sand volleyball court. One acre of the parking area is enclosed by levees, which is flooded during the winter months to create an ice skating rink. 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.

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 removed due to the possibility of the Project Administration Complex being relocated in 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, and Whitley Creek Recreation Areas. Decisions to use these areas as potential resort concession sites will be decided based on the outcome of a future market study.

(2) This 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.

(3) Stabilization of parts of the shoreline, relocation 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:

Add 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. Funding for the project will be sought thought a combination of the Continuing Authorities Program, Challenge Partnership Agreements, Donations and the KaskiaKaw Rivers Conservancy Cooperating Association.

Lease approximately 6.8 acres of Corps of Engineers property to the City of Shelbyville. The area that will be leased to the City of Shelbyville is connected to the City's Forest Park on the east side and will be used to expand the city park and it's facilities.

Add electric services to the overlook berm picnic shelter to accommodate customer needs.

Proposed CRRR 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.

Relocate 4-lane ramp Opossum Creek boat ramp to this area as a 3-lane boat ramp that will service the large group picnic shelter and fish tournament area located at Dam West. 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 is not reserved the ramp will be open so that the general public can utilize it. Before the ramp is relocated to this area 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.

Replace overlook and comfort station with a picnic shelter with an attached comfort station. This picnic shelter will be made universally accessible. The current shelter in this area cannot be accessed by vehicle, but only by using a large stairway that is not universally accessible. This creates inconveniences for the lake customers.

Relocate the Ice Skating Rink to the Spillway Area. The ice skating rink is located near the Dam West Beach and when the rink is open the beach area is also open. Vandalism has occurred to the beach facilities as a result of the area being open.

Rehabilitate the vending area, which will include relocating the Dam West Beach 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 relocated closer to the beach facilities to provide easier public access.

Rehabilitate and expand existing snowmobile trail for multi-purpose use as part of the General Dacey Trail Plan.

Replace all water lines due to age and deterioration.

Upgrade electric service in area to accommodate special events.

Future Actions:

In this area relocate beach 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.

Add cabins to the future resort concessionaire site that is leased to the City of Shelbyville north of the city park. Construction of lodging units will require a positive recommendation in a future market study.

b. Area 2. Opossum Creek Recreation Area. This 553-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 (62 of the campsites have electric hookups and 2 are buddy sites), one waterborne comfort stations, two comfort station/shower buildings (these were waterborne comfort stations that have had shower facilities added onto them), seven fountains/hydrants, two boat launching ramps (primary ramp has four lanes and the high water ramp has two lanes), a fish cleaning station, a fishing pond, a fishing pier which is accessible to people with disabilities, a trailer dump station, land treatment system, 1 lift station, 1 fee booth, 2 information boards, and 1 playground. 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:

Add water and sewer hookups to campsites 1 – 22 and 49 – 56 (30 campsites total) to accommodate customer needs.

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR 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.

Day-use comfort station #1 has been removed and will be replaced with a large shower building that includes laundry facilities. For public health and safety reasons the replacement building will be located in a more suitable location within the campground.

Rehabilitate the comfort station/shower buildings and remove the shower portion of the buildings. For public health and safety reasons the comfort station portion of these buildings will be left in place.

Rehabilitate 2-lane high water boat ramp so that it can be used year round. The high water ramp is located in a cove that is more protected than the primary ramp. At times it is difficult to use the primary ramp due to wind and wave action.

Relocate primary boat ramp to Dam West Recreation Area after high water ramp is extended.

Relocate Camp Camfield amphitheater that has been removed from the ’79 trail to this area.

Upgrade electrical service at all campsites to 50-amp service to accommodate customer needs.

Future Actions:

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

Relocate 4 congested campsites to the proposed Lithia Springs Recreation Area campground expansion.

c. Area 3. Coon Creek Recreation Area. This 448-acre area has been developed for camping opportunities. Facilities in this area include 232 campsites all which have electrical service (six campsites have water and sewer hookups and 16 campsites are buddy sites), four shower buildings (one is a main shower building with laundry facilities), a two-lane boat launching ramp, a trailer dump station, ten waterborne comfort stations, 29 fountains/hydrants, a fish cleaning station, a 0.75 mile nature trail, a playground area, sand volleyball court, two sets of horseshoe pits, amphitheater, swimming beach, outdoor beach shower, 5 lift stations, 1 fee booth, 4 foot bridges, and 3 information boards. All of the facilities within this recreation area are shown on Plate 8.

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.

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:

Add trail for pedestrian and bike traffic from fee booth area to main shower building. 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 blinds 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.

Add 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.

Add 2-lane high water boat ramp. During periods of high water the boat ramp usage is concentrated to those areas that have high water ramps. In the areas where a high water ramp exists it is only a two-lane ramp where as most of the primary boat ramps in the same area are four-lane. These things combined create a considerable amount of congestion not only at the boat ramps but also in the ramp parking lots. Adding this boat ramp would alleviate congestion and will better serve the public during periods of high water.

Add 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.

Add water and sewer hookups to the campsites on A & B legs, and to campsites 131 –139, 175, 176, 142 – 144 (77 campsites total) to accommodate customer needs.

<u>Proposed CRRR Actions:</u>

Rehabilitate and expand nature trail to accommodate multi-purpose use that will become part of the General Dacey Trail Plan.

Upgrade all campsites to 50-amp electrical service to accommodate customer needs.

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:

1) Relocate within this area comfort station #8 and one comfort station on A or B leg and replace with a 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 near campsite 155 with a mini-shower building.

3) Comfort station #11 has been removed and remove comfort station near campsite 176. These facilities will be consolidated to provide more toilet facilities in the mini-shower buildings mentioned above in 1) and 2).

Relocate 20 campsites within the area to alleviate congestion and improve public health and safety. Most of the campsites that will be relocated are pull-off sites and they will be converted into impact area sites. If it is determined that more than 20 campsites need to relocated to alleviate congestion then campsite rehabilitation will continue based on funds available and public health and safety issues.

Replace water lines due to age and deterioration.

d. Area 4. Lone Point Recreation Area. This 158-acre area has been developed for day-use and camping opportunities. Facilities in this area include 95 campsites which all have electrical service (30 campsites are located within the group camp areas and 2 campsites are buddy sites), 4 group camp areas, a main shower building, 2 picnic sites, 2 picnic shelters (one is located in a group camp area), 4 waterborne comfort stations, 11 fountains/hydrants, a fish cleaning station, 2 boat launching ramps (primary ramp has two lanes and high water ramp has two lanes), a playground, a swing set area, one 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 an amphitheater. Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat ramp. All facilities within this recreation area are shown on Plate 9.

The Shoreline Erosion Management Plan designates this 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 10-20 states that the three group camps in this area that are located inside the main campground will be re-designated and utilized as 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.

Proposed New Actions: None anticipated at this time.

Proposed CRRR Actions:

The Shoreline Erosion Management Plan includes protecting locations along the eastern shoreline of the campground that will be threatened with erosion with the next 30 years (baseline year 1990).

Rehabilitate and expand the Illini Backpacking Trail to accommodate visitors during periods of high water. This trail will become part of the General Dacey Trail Plan. Part of the trail rehabilitation will include removing all footbridges along the trail due to the high cost of operation and maintenance and public health and safety issues.

Relocate the amphitheater within the campground to a centralized location away from adjacent campsites.

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.

Replace main shower building with a 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.

Relocate day-use picnic shelter to 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) Rehabilitate roadway section to connect the road from campsite 79 to the main campground entrance road.

Future Actions:

Relocate six campsites (Campsites 80 – 85) to Lithia Springs Recreation Area campground expansion 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 June 30, 1997 by the state agency. Existing facilities within this area include 178 campsites, which include 27 tent sites and two group camp areas, 2 picnic sites, 3 picnic shelters, 29 water fountains and/or hydrants, a trailer dump station, four lane boat ramp, two lane high water boat ramp, 40 vault comfort stations, five hiking trails, a cross country ski trail, fish cleaning station, a campground shelter, 1 shower building, 6 lift stations, 1 fee booth, 9 foot bridges, 4 information boards, and a 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 27.

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 compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions by IDNR:

Add twenty cabins in campground area.

Add Storage Building.

Add 50 universally accessible floating docks with full electric service to accommodate the resort customer needs.

Add public docking space for 58 boats in resort area to accommodate customer needs to utilize the resort area.

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

Add footbridges to connect tent camping areas.

Proposed CRRR Actions by IDNR:

Rehabilitate campground electrical system.

Rehabilitate roads within the park that will include widening them.

Upgrade 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.

Rehabilitate breakwater.

Rehabilitate and expand Illini Trail to accommodate visitors during periods of high water. This trail will become part of the General Dacey Trail Plan. Part of the trail rehabilitation 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:

Add Visitor Center.

f. Area 6 – Findlay Marina. This 50-acre area is leased to a concessionaire who provides a full line of marina services. Facilities within this area includes 378 wet boat slips, marine sales and service area, office, gas and convenience store sales area, a vault comfort station, a 2-lane boat launching ramp (this primary ramp can also be used during high water), a information board, and 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.

Add cabins in the area. The building of these facilities will not take place until marina is hooked up to municipal sewer system and will be based on the outcome of a future market study. The marina will be responsible for all expenses associated with these cabins.

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

Proposed CRRR Actions:

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

g. Area 7. Wilborn Creek Recreation Area. This 215-acre area is a day-use and group camp area. Facilities in this area include a swimming beach, two boat launching ramps (primary ramp has four lanes and high water ramp has two lanes), a playground, 24 picnic sites, a group camp area which has 15 campsites, five fountains/hydrants, shower house, 3 waterborne comfort stations, a picnic shelter, a fire ring, a fish cleaning station, 1 lift station, 3 information boards, 1 set of horseshoe pits, and an 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 compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions:

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions:

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

1) Five mini-shelters will be added to the group camp area. These are in exchange for the removal of the Frame House facility at the Okaw Bluff Group Camp approved in the Shoreline Erosion Management Plan.

2) Public health and safety issues concerning the group camp area include the need for showers and more toilet facilities to accommodate customer needs. The following will alleviate those issues. Day-use area comfort station #1 has been removed due to underutilization and group camp comfort station will be replaced. The two comfort station facilities will be consolidated and replaced with a mini-shower building that provides more toilet facilities. The location for the mini-shower building will be in the group camp.

3) Day-use picnic shelter has been removed and will be relocated to group camp area, enclose shelter and install electric service.

4) Upgrade all campsites to 50-amp electrical service to accommodate customer needs. Relocate campsites in the area if necessary.

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.

Part 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.

Remove the road from the entrance of the sewage treatment facility to the picnic shelter. The road will remain open until it has to be closed and removed due to the need for maintenance repairs.

Future Actions:

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

h. Area 8. Forrest W. “Bo” Wood Recreation Area. This 195-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), seven picnic sites, two boat launching ramps (primary ramp has four lanes and high water ramp has two lanes), four waterborne comfort stations, a main shower building with laundry facilities, eleven fountains/hydrants, a trailer dump station, picnic shelter, playground, swing set area, fish cleaning station, an amphitheater, 3 lift stations, 1 fee booth, 3 information boards, and a set of horseshoe pits. 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. All of the facilities within this recreation area are shown on Plate 13.

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:

Add 85 sewer and water campsite hookups to accommodate customer needs.

Proposed CRRR Actions:

According to the Shoreline Erosion Management Plan this campground and picnic area are to be relocated to another location within this recreation area. These relocated facilities will be designed to the current standards for similar recreation facilities. Eighty-six campsites from Whitley Creek will be relocated to this area to improve efficiency. Relocation plan is shown on Plate 13a.

Relocate existing nature trail to make room for the campground relocation. The trail will become part of the General Dacey Trail Plan.

Rehabilitate existing campsites (campsites 47 – 55) and create a group camp area.

Relocate the day-use picnic shelter from the Lone Point Recreation Area to the proposed group camp area.

Upgrade all campsites to 50-amp electrical service to accommodate customer needs.

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

Rehabilitate 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. Rehabilitating this roadway will eliminate this problem.

Future Actions:

Add an additional 50 campsites within this area to accommodate customer needs.

i. Area 9. Sullivan Marina and Campground. This 146-acre area includes 47 acres under lease to the Sullivan Marina and Campground. The lease area consists of a campground and marina concession. It is east side of Illinois Route 32, at north of the highway bridge. Facilities include 195 boat slips, 233 campsites (142 electric, water, and sewer sites, 68 electric sites, and 23 non-electric sites), swimming pool, restaurant, 2 lodging units, one-lane boat ramp, trailer dump station, playground, shower and laundry facilities, office, gas and convenience store sales areas, sand volleyball court, 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 CRRR Actions:

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

Future Actions:

Part of the Shoreline Erosion Management Plan includes installing a breakwater.

j. Area 10. Sullivan Beach and Okaw Bluff Group Camp. This 279-acre area serves two separate and distinct public functions. The Sullivan Beach Recreation Area has been developed for day-use opportunities. Facilities in this area include a swimming beach, shower house, two fountains/hydrants, a playground, fifteen picnic sites, a picnic shelter, a concession site with water and electric service, 1 lift station, 2 information boards, and an outdoor beach shower. The Okaw Bluff Group Camp Area has been developed for day-use and overnight stay opportunities. Facilities in this area include a group camp area, which includes two houses with dormitory and meeting room facilities and an administrative campsite; a nature trail, hunter-fisherman access parking area, equipment storage area, 37 acres of developed wetlands, three information boards, ten observation blinds, an observation platform, 1 lift station, and 1 set of horseshoe pits. Hidden Pond and Bruce West gravel parking lot and secondary access are located in this area. All of the facilities within this recreation area are shown on Plate 14.

According to the Shoreline Erosion Management Plan the two housing facilities in the Okaw Bluff Group Camp will be removed. The Frame House facility will be relocated to the Wilborn Creek Recreation Area and the Stone House facility will be relocated in the Okaw Bluff area. 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, watchable wildlife opportunities, and large 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:

Add electrical service to picnic shelter at Sullivan Beach.

Proposed CRRR Actions:

Remove Stone House facility according to the Shoreline Erosion Management Plan and replace it with a universally accessible multipurpose facility at Okaw Bluff Group Camp. The Navy Reserve Construction Battalion, Army National Guard, and Corps of Engineers will utilize this facility. The Navy Construction Battalion will pay for all expenses to install and maintain a telephone system at this workstation. They also will provide the labor force needed to construct this facility. See Section 10-20 for more information about this facility.

Remove the Frame House facility at Okaw Bluff Group Camp according to the Shoreline Erosion Management Plan and replace it with five mini-shelters in the Wilborn Creek Group Camp Area.

Rehabilitate and expand the Okaw Bluff Nature Trail to accommodate multipurpose use that will become part of the General Dacey Trail Plan. This expansion will include connecting Sullivan Beach to the General Dacey Trail Plan.

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.

Future Actions:

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

k. Area 11. Whitley Creek Recreation Area. This 137-acre area has been developed to provide both day-use and camping opportunities. Facilities within this area include 86 non-electric campsites (3 campsites are buddy sites),

four waterborne comfort stations, a vault comfort station, a main shower building with laundry facilities, nine foundations/hydrants, a trailer dump station, fish cleaning station, two picnic sites, a playground, a four-lane boat launching ramp, an amphitheater, land treatment system, 2 lift stations, 1 fee booth, 2 information boards, and one set of horseshoe pits. The South Shores gravel 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:

The Shoreline Erosion Management Plan includes protecting the boat ramp.

Add 4-lane high water boat ramp. Currently there are two 2-lane high water ramps that service the northern area of the lake and one of them can only be utilized part of the time based on the lake level. Adding this ramp will help alleviate some of the congestion that occurs on the northern end of the lake during periods of high water.

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions:

Connect to City of Sullivan Force Main this will eliminate the 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.

The campground is underutilized, and does not justify the cost of operation and maintenance. Therefore, it is proposed to relocate all 86 campsites, along with their essential support facilities, which includes comfort stations, shower building, water hydrants, and trailer dump station to the relocated and more popular Bo Wood Recreation Area.

Relocate the amphitheater to the new proposed site of the Visitor Center.

Relocate playground to Lithia Springs Recreation Area.

Relocate vault comfort station to Lithia Springs Chautauqua Area.

Future Actions:

This area will be considered as a future development site for a commercial concession that will include overnight lodging. This area will remain classified as a Recreation Area after the campground facilities are relocated to the Bo Wood Recreation Area.

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

l. 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, three group camp areas, 55 picnic sites, 42 water fountains and/or water hydrants, two picnic shelters, a trailer dump station, four lane boat ramp, two lane high water boat ramp, a campground cabin, 46 vault comfort stations, six hiking trails, equestrian/snowmobile trail, two showerhouses, fish cleaning station, amphitheater, four playground sets, horse riding stables, swimming beach, land treatment system, 3 lift stations, 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 28.

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 compartment prescription in the Lake Shelbyville Operational Management Plan.

Proposed New Actions by IDNR:

Add 20 cabins to campground area.

Add electrical service to 25 sites in equestrian campground.

Add trailer dump station at equestrian campground.

Add multipurpose trail as part of the General Dacey Trail Plan.

Add shower house in campground.

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

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

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 29a.

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 CRRR Actions by IDNR: None anticipated at this time.

n. Area 13. Lithia Springs Recreation Area and Marina. This 522-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. Corps facilities in this area includes two boat launching ramps (primary ramp has two lanes and the high water ramp has two lanes), 126 campsites with electricity (10 campsites are buddy sites), a picnic shelter, six waterborne comfort stations, 16 fountains/hydrants, a fish cleaning station, one shower house with laundry facilities, 2 comfort stations w/shower additions, a trailer dump station, playground, swimming beach, an amphitheater, land treatment plant, 3 lift stations, fee booth, 1 foot bridge, 3 information boards, and one 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), a restaurant, gas and convenience store sales area, office, boat sales and maintenance area, 3 waterborne comfort stations, 5 picnic sites, and 3 information boards.

The Shoreline Erosion Management Plan work that has been completed in this area includes protecting the boat ramp, trilateration station and nearby campsites, and beach and nearby campsites. Compartment 5 and Sassafras Lane gravel parking lots are located in this area. All facilities within this recreation area are shown on Plate 21.

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.

Proposed New Actions:

Add fifteen additional parking spaces throughout the campground.

Install sewer and water hookups at 14 campsites to accommodate customer needs.

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Install sand volleyball court, outdoor shower, and two bench shelters at beach to accommodate customer needs.

Proposed CRRR Actions:

Relocate south comfort station in the loop on B leg to another area within the campground due to underutilization and the close proximity to another comfort station.

Upgrade all campsites to 50-amp electrical service to accommodate customer needs.

Relocate amphitheater to a centralized location within this area.

Relocate picnic shelter over the springs in Lithia Springs Chautauqua Area.

Vault comfort station has been removed and will be relocated to Woods Lake.

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.

Relocate playground from Whitley Creek Recreation Area to this area to provide more recreational opportunities in this area.

Replace fish cleaning station due to age and deterioration.

Rehabilitate and expand boat ramp parking lot to accommodate customer needs.

Rehabilitate 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.

Rehabilitate 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:

Two areas within the campground will be developed as customer demand dictates, which will include the addition of 65 campsites and relocating 6 campsites from Lone Point Recreation Area and 4 campsites from Opossum Creek Recreation Area for a total of 75 in this area.

o. Area 14. Dam East Recreation Area. This 63-acre area has been developed as a day-use area. Project operation lands are located in this area. Operation land facilities are described in sections 8-04.b and 8-04.c. Facilities in this area include Administration Complex, Maintenance Complex, Visitor Center, butterfly house and garden, 25 picnic sites, a playground, 2 waterborne comfort stations (one is attached to the visitor center), a picnic shelter, five fountains/hydrants, 1 lift station, 1 foot bridge, 2 information boards, and one set of horseshoe pits. Items identified in shoreline erosion plan that have been completed in this area include protection of the shoreline, which created a berm that can be utilized for bank fishing. 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.

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

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions:

Comfort Station #2 has been removed and will be consolidated with Comfort Station #1 into a modern designed comfort station. Comfort Station #2 is underutilized and Comfort Station #1 needs to be redesigned to accommodate enough space to ensure worker safety while making plumbing and electrical repairs.

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

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:

In approximately 15 to 20 years a portion of the maintenance complex access road, which also serves one of the three trilateration station 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.

p. Area 15. Spillway Recreation Area. This 12-acre area was developed for day-use opportunities. Facilities within this area include 15 picnic sites, two picnic shelters, a playground, two fish cleaning stations, handicap accessible fishing pier, three waterborne comfort stations (one is attached to a picnic shelter), five fountains/hydrants, 2 bench shelters, 2 lift stations, and 3 information boards. The primary attraction to this area is the bank fishing opportunities that exist. The handicap accessible fishing pier was a challenge partnership agreement project between the Corps of Engineers, Isaak 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:

Add multipurpose trail that will be part of the General Dacey Trail Plan.

Add overflow-parking area near the #1 Spillway East picnic shelter. This area will also be utilized as an ice skating rink, which will replace the one in Dam West Recreation Area.

Proposed CRRR Actions:

Replace and relocate Comfort Station #2 closer to the fishing pier and make it universally accessible.

Remove the Spillway West 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 plot will connect with the one proposed for the Dam East Recreation area. The total acreage for the prairie demonstration area will be approximately 15 acres.

8.06 MULTIPLE RESOURCE MANAGEMENT LANDS

The following areas have been classified as Multiple Resource Management Lands, with primary classifications listed as: Recreation – Low Density; Wildlife Management – General, Vegetative Management; Future Recreation; 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 to user access due to a lack of public roads. 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 edge 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:

Add a trail for multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None is anticipated at this time.

(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 story species. An unimproved, secondary road extends to the government fee line near the center of the area, southward, to the lakeshore. Arrowhead road 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. Relocating 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 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 is anticipated at this time.

Proposed CRRR Actions:

Rehabilitate and expand Illini Trail to accommodate visitors during periods of high water. This trail will become part of the General Dacey Trail Plan. Part of the trail rehabilitation 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. Relocating 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 parking lots are located in this area. This area is used for such things as hunting, hiking, and watchable wildlife 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 is anticipated at this time.

Proposed CRRR Actions:

Rehabilitate Illini Trail to accommodate visitors during periods of high water. This trail will become part of the General Dacey Trail Plan. Part of the trail rehabilitation 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 succession stages. Lowe Pond is located in this area. This area also includes a trail system, gravel parking lot and entrance road, vault comfort station, picnic shelter with storage room attached, amphitheater, picnic area, stage area, 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 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 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 CRRR Actions:

Remove and replace trail footbridges with culverts.

Amphitheater along the ’79 trail has been removed and will be relocated to Opossum Creek Recreation Area.

Rehabilitate and expand trail system that will be part of 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 parking lot and the McClure Pond and parking lot is 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 Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None is anticipated at this time.

(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 under story 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 gravel parking lot is located in this area. This area is used for hunting and for sightseeing purposes.

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 Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(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 one-half of the area. The lake shoreline is also tree-covered with medium aged oak-hickories dominating. Over one-half of the area is upland old 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 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 CRRR Actions: None anticipated at this time.

(8) LD-8. Woods Lake Multiple Resource Area. (184 acres)

Description. The major feature of this area is a man-made lake, of approximately 28 acres, known as Woods Lake. Surrounding the lake on the uplands is a mixture of old fields, pasture land, and a small amount of timber.

An unimproved road extends from the Woods Lake East gravel parking lot on Highway 32 across the dam of Woods Lake. A single-lane boat launch ramp and Woods Lake West gravel 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 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 CRRR Actions:

Relocate vault comfort station to this area from Lithia Springs Recreation Area.

Rehabilitate and expand Woods Lake Access trails to accommodate multipurpose use. This will be part of 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 toilets, two water hydrants, and a gravel access road. The Army National Guard utilizes 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 gravel parking lot are located in this area. A site plan of this area is on Plate 18.

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 CRRR Actions: None anticipated at this time.

(10) LD-10. Liberty Point Multiple Resource Area (169 Acres)

Description. The area is a 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 brush, multiflora rose and a mixture of primary and secondary weeds and grasses. Liberty gravel 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 CRRR Actions: None is 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. Coal Shaft South gravel parking lot and secondary gravel boat ramp 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 Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None is anticipated at this time.

(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 extends into the lake in the southwest corner of the area. Two ponds are located near the east side of this tract. Bruce-Findlay Bridge gravel 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 ag lease land.

Proposed New Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(13) LD-13. Skull Creek Multiple Resource Area. (441 acres)

Description. This area is comprised of a narrow strip of shoreline. Both ends are generally heavily timbered with oak-hickory forest. The far 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 purposes. A site plan for this area is presented on Plates 19 and 20.

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 CRRR 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 CRRR Actions: None is anticipated at this time.

(15) LD-15. Hunter Lake Multiple Resource Area. (336 acres)

Description. The vast majority of it is wooded with one old field present. A gravel 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. A site plan of this area is on Plate 23.

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 CRRR Actions: None is 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 Actions:

Add a multipurpose trail that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None is anticipated at this time.

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. (2,717 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 parking areas have been established in the area. The facilities within this area are shown on Plate 30.

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.

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:

Add Hazardous Material Storage Building in the Administrative Office Complex area.

Add multi-purpose trail as part of the General Dacey Trail Plan.

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

(2) WM-2. Kaskaskia Wildlife Management Area. (3,514 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 31.

The Section 1135 project described above in WM-1 is also located in this area. This 1135 Project 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 Actions by IDNR:

Add a multi-purpose trail as part of the General Dacey Trail Plan.

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

c. Vegetative Management Areas.

(1) VM-1. Bethel Multiple Resource Area. (338 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 gravel 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 CRRR Actions: None is 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 Access and North Stub gravel 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 CRRR Actions: None anticipated at this time.

(3) VM-3. Wright Cemetery Multiple Resource Area (288 acres)

Description. The area is long and narrow and in 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 gravel 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 CRRR 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 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 gravel secondary access and parking lot is 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 CRRR 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 CRRR 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 gravel 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 CRRR Actions: None anticipated at this time.

(7) VM-7. Buck Run Multiple Resource Area (472 acres)

Description. The north end of this area is an extremely narrow, tree-covered land mass. The middle portion of this area triples in width 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 a number of different 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 divides the southern section approximately in half. The timbered areas are uneven-aged and predominantly oak-hickory. Ken Kenny's gravel 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 CRRR 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 gradually slopes out into 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 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 based on the compartment prescription in the Lake Shelbyville Operational Management Plan. This compartment contains agricultural lease land.

Proposed New or CRRR 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 gravel 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 ag lease land.

Proposed New or CRRR Actions: None is 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 gravel 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 Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(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 CRRR 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 serial stage and are showing signs of small stem, woody invasion. The timbered area begins with a dense under story 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 CRRR 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 Whitely 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 gravel 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, 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:

Add an approximate 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. Funding will be sought through a combination of the Continuing Authorities Program, Challenge Partnership Agreements, donations, and the Kaskia Kaw Rivers Conservancy.

Proposed CRRR 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 CRRR 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 the edges of the field. The northern part is an old grassy pasture with some large oaks and hickories dispersed throughout. A site plan of this area is provided on Plate 17.

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 Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(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. No future intensive recreational development is planned for this area. Wolf Pond, Rees Ridge, Pear Tree, and Wolf Creek Bridge gravel 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 ag lease land.

Proposed New Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(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 serial stage. The bottomland is largely devoid of vegetation due to relatively long periods of annual inundation. Immediately south of this northern section lies land that is composed of approximately an 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 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 under story 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 interspersion of 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 gravel parking lot is located in this area.

Compartment 12 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 ag lease land.

Proposed New Actions:

Add a trail for multipurpose use that will be part of the General Dacey Trail Plan.

Proposed CRRR Actions: None anticipated at this time.

(18) VM-18. Turkey Run Multiple Resource Area (193 Acres)

Description. The area is a long point 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 CRRR 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

(1) ES-E-1. Pogue Timber Environmentally 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 CRRR Actions: None anticipated at this time.

(2) 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. Some remnants of the old buildings and structures are still evident. The terrain is generally rugged. Most open field borders adjacent to private land are planted with Autumn Olive rows. Lithia Bridge and Chautauqua gravel parking lots are located in this area. A site plan of this area is provided on Plate 22.

Efforts will be made to get this area listed on the National Register of Historic Places.

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:

Add Interpretive Signage, which will include station stops throughout the area that will include historical information and pictures.

Add security lighting to this area.

Proposed CRRR Actions:

Replace wooden bridge due to public health and safety issues.

Relocate picnic shelter from Lithia Springs Recreation Area. Shelter will be placed over the springs in this area.

Relocate vault comfort station from Whitley Creek Recreation Area to this area.

Future Actions:

Replace vault comfort station with a waterborne facility.

(3) ES-C-3. Okaw and Doctor's Island Historic Area. (16 acres)

Description. This area includes two islands that have historic purposes. 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 CRRR 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 increase 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 if 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 Partnership Program, formerly known as Challenge Cost-Sharing 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 expense. Originally named the Challenge Cost-Sharing Program, a change to ER 1130-2-500 renamed it to the Challenge Partnership Program. 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). A MOA is a written agreement between the Corps of Engineers and another agency that provides for the transfer or performance of a technical mission or function. While a Memorandum of Understanding (MOU) is synonymous, the term MOA will be used within the Corps of Engineers for consistency. When the MOA doesn't address specific projects or funding, a Support Agreement will generally be prepared to supplement the MOA. (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 Lake Recreation Demonstration Laboratory. This designation allows, through a waiver, the project to bypass existing rules and regulations that hinder the visiting public to participate 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.

Section IX

Facility Load and Other Design Criteria

SECTION IX - FACILITY LOAD AND OTHER DESIGN CRITERIA

9-01. SITING

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. All new designs will be accessible to people with disabilities and existing facilities will be retrofitted as funding allows.

a. Buildings. Buildings are generally located near areas of tree cover providing the recreational user with isolation and screening from other uses or activities, while also providing an aesthetically pleasing area. If any new buildings are constructed the option of using a pre-fabricated building will be explored to determine the cost effectiveness.

b. 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.

c. 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 vehicles will have access to some areas of the trails. Types of trails at Lake Shelbyville include: 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 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. A further description of the General Dacey Trail Plan can be found in Section 10-10.

d. Roads. Recreation area road placement was limited to level areas located away from extensive tree cover where possible.

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 standard design will be utilized.

a. Comfort station
b. Shower building
c. Picnic shelter
d. Boat launching ramp
e. Picnic site
f. Swimming beach
g. Foot bridge

9-04. INTERPRETIVE DEVICES

Interpretive devices provided include but are not limited to: 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.

9-05. WASTE AND DISPOSAL

Trash, refuse collection, and disposal services are contracted out to private industry.

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 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.

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
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

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 Lake Shelbyville, patches of former agricultural and pasture fields bordered by tree-lined fencerows are found. Most of the area, however, consists of Oak-Hickory woodland. The abandoned fields and pastures are being invaded primarily with Multiflora Rose, Hawthorne, Coralberry, Blackberry, seedling Oak, and Sassafras. 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 low areas will be jeopardized. Since this will not occur often, the chance of flooding should 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 the prevention of large, thick single-type vegetation blocks, which provide little food or edge for wildlife species. Future techniques of land management 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 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 obtained 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.

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 native and introduced 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. During the past eight years, over $216,000 worth of largemouth bass and walleye have been produced in this pond.

The addition of two new fish nursery ponds is proposed for Lake Shelbyville. The locations for the ponds would be in 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 nursery ponds in Dam West Recreation and in Whitley Creek Bottoms the need for thirty to forty surface acres would be met.

Future actions include rehabilitating 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 utilized 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.

g. Prairie Habitat Enhancement. Prior to westward expansion, large portions of Illinois were covered with native grasses and other plants. This 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 demonstration prairie plots, is located within the Camp Camfield Environmental Study Area.

Another proposed area at Lake Shelbyville includes establishing approximately 15 acres of prairie grasses and forbs in the Dam East and Spillway East Recreation Areas.

h. Environmental Study and Demonstration Areas. 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 succession 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 from 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 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 that includes only a boat launch ramp and a courtesy dock.

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 $25 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.

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 $30 administrative

fee 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 and 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 2003 – 2007 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 2003 at a cost of $3.4 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.

e. Bo Wood Recreation Area Access Road. Rehabilitate 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. Rehabilitating 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 rehabilitate the Bo Wood Recreation Area access road.

(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 Cost Share 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.

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 Cost Share 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 6,231 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 connected to City’s Forest Park on the east side. This area will be used to expand the city park and it’s 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 the following section, 10-06.

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.

(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 the 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 $30.00.

(i) A project staffing study was conducted in 1980, which resulted in the staff being reduced. Seven permanent positions have been 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 complete 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 relocating the 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 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, US Fish and Wildlife Service, US 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 345.6-acre wetlands restoration 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 (18,660 lf) forming 16 management compartments with a ditch drainage system (13,560 lf), 27 water control structures, 10 overflow weirs (1,900 lf), rocked roadways to pump sites, and levee revetment on all critical areas. This project will be completed in FY 2003.

The total estimated cost of constructing the proposed modification is $3,437,585. The state of Illinois will provide the 25% non-federal cost-share for the project's planning, design, and construction. The project's O & M (estimated at $8000 per year, with no additional FTE requirement) will be the responsibility of the State of Illinois.

The modification would restore 345.6-acres of wetlands habitat to modern historic conditions 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.

A draft of the Ecosystem Restoration Report with Environmental Assessment and Finding of No Significant Impact has been completed for this project. It is being reviewed and will be sent out for public comment in September 2002.

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-partnered regional initiative centered around Lake Shelbyville. This will be 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 separate groups will construct portions of the trail network. As these individual groups undertake construction projects, they will use the trail master plan as a guiding document.

The initial phase depends upon using both newly constructed and existing trails located on Corps of Engineers' property as well as sharing existing roadways. Whenever possible, it is recommended that additional right-of-way be acquired and a separate trail surface be constructed by a non-federal partner. Trails that currently exist on Corps of Engineers property that will be rehabilitated and expanded 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 trail segments will be constructed include: Opossum Creek, Wilborn Creek, Whitley Creek, Lithia Springs, Dam East, and Spillway Recreation Areas, Wolf 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.

Constructing new trails on acquired right-of-way parallel to existing roadways is the next phase of the Lake Shelbyville Trail network. However, if funding permits it is strongly recommended that the first phase, use of a shared roadway be skipped, and the next phase be implemented instead.

10-11. ENVIRONMENTAL COMPLIANCE.

Actions and activities that the Corps of Engineers proposes must comply with all applicable environmental laws and regulations. Chief among these 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 rehabilitation 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 will have substantial environmental effects. 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). 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.

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.

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 in 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.

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 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 do not serve the needs of the using public. They 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.

As of FY 2002, 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 relocating 86 campsites from Whitley Creek Recreation Area to the Bo Wood Recreation Area. Support facilities, such as comfort stations, drinking foundations, 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. If the budget for RAMP proposed areas is appropriated, the proposed areas will be funded to the programmed $50 million level or to whatever level of funding that is provided.

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. The sales area is located in the Lake Shelbyville Visitor Center.

10-16. NATIONAL RECREATION RESERVATION SERVICE™ (NRRS™).

NRRS™ is a joint program of the USDA Forest Service and the US Army Corps of Engineers 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

Flowage easements 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 and provide protection against the creation of floatable debris and pollution of project waters.

Responsibilites. 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 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 consentees 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 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 not-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 have met for 25+ years and continue to meet within the watershed, investing their own 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 will be 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.

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

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 with this 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.

10-19. 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.

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.

10-20. GROUP CAMP FACILITY PLAN.

Seven group camps currently exist at Lake Shelbyville. They are located at Wilborn Creek Recreation Area (1 group camp), Okaw Bluff Group Camp Area (2 group camp facilities), and Lone Point Recreation Area (4 group camps). Four will exist after the proposed changes are made and one will be included in future actions.

1. Wilborn Creek Group Camp includes 15 primitive campsites, 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 rehabilitating the camp in the following ways.

- Upgrade all campsites to 50-amp electrical service. Relocate the campsites in the area if necessary.

- Day-use area comfort station #1 has been removed due to underutilization and group camp comfort station will be replaced. The two comfort station facilities will be consolidated and replaced with a mini-shower building that provides more toilet facilities.

- Day-use picnic shelter has been removed and will be relocated to group camp area, enclose shelter and install electric service.

- Five mini-shelters will be added to the group camp area. These are in exchange for the removal of the Frame House facility at the Okaw Bluff Group Camp approved in the Shoreline Erosion Management Plan.

- After the completion of the General Dacey Trail Plan within the Wilborn Creek Recreation Area, pedestrian and bicycle riders could easily access the day-use area from the group camp by utilizing the trail.

2. Okaw Bluff Group Camp includes two full-service housing units that were acquired when the lake was constructed. 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.

According to the Lake Shelbyville Shoreline Erosion Plan the two housing units will be impacted by erosion and thus will necessitate removal from their existing location. There are no other facilities at Lake Shelbyville that can provide the type of accommodations needed to conduct the Deer Hunt for Persons with Disabilities. This program has a thirteen-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 significantly reduced, if not eliminated, if overnight accommodations are not available at Lake Shelbyville.

Proposed action includes replacing the Stone House facilities with a multi-purpose universally accessible building that includes the facilities needed for the Sea Bees. This would be a pre-fabricated metal building if possible, with a kitchenette, bathroom with showers and sleeping quarters that can accommodate up to 30 people. In addition, there will be an enclosed portion of the building that can be utilized as a workshop by the Sea Bees and storage area for equipment. The Sea Bees have assured the Corps of Engineers that they will do everything possible to assist in replacing the housing units, which could include constructing the entire facility using materials provided by the Corps of Engineers.

Storing large equipment such as backhoes, tractors, and trailers in this area while projects are taking place on the northern end of the lake reduces road time and maintenance on the equipment and reduces employee travel time to perform certain maintenance and natural resource tasks. In addition, the multi-purpose facility could be reserved by the public when not in use by the Sea Bees or reserved for special events.

3. Lone Point Recreation Area includes four group camps. 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 isolation generally associated with group camps is not present. The arrangement of these group camps is unfavorable and doesn't properly meet the needs of our customers. It is proposed that the three group

camps within the main campground be converted to individual sites. The remaining group camp, Walleye Group Camp, will remain and continue to be utilized as a group camp. Comfort Station #3 has been removed that was in the main campground at Lone Point Campground and it is proposed that it be replaced with at mini-shower building within the Walleye Group Camp area.

4. 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.

5. 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 into a group camp. To accommodate customer needs a flush comfort station and playground is located near these campsites and can be utilized when converted into a group camp. The day use picnic shelter in Lone Point Recreation Area will be relocated to this group camp area.

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 Lake Shelbyville, patches of former agricultural and pasture fields bordered by tree-lined fencerows are found. Most of the area, however, consists of Oak-Hickory woodland. The abandoned fields and pastures are being invaded primarily with Multiflora Rose, Hawthorne, Coralberry, Blackberry, seedling Oak, and Sassafras. 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 low areas will be jeopardized. Since this will not occur often, the chance of flooding should 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 the prevention of large, thick single-type vegetation blocks, which provide little food or edge for wildlife species. Future techniques of land management 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 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 obtained 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.

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 native and introduced 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. During the past eight years, over $216,000 worth of largemouth bass and walleye have been produced in this pond.

The addition of two new fish nursery ponds is proposed for Lake Shelbyville. The locations for the ponds would be in 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 nursery ponds in Dam West Recreation and in Whitley Creek Bottoms the need for thirty to forty surface acres would be met.

Future actions include rehabilitating 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 utilized 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.

g. Prairie Habitat Enhancement. Prior to westward expansion, large portions of Illinois were covered with native grasses and other plants. This 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 demonstration prairie plots, is located within the Camp Camfield Environmental Study Area.

Another proposed area at Lake Shelbyville includes establishing approximately 15 acres of prairie grasses and forbs in the Dam East and Spillway East Recreation Areas.

h. Environmental Study and Demonstration Areas. 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 succession 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 from 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 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 that includes only a boat launch ramp and a courtesy dock.

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 $25 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.

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 $30 administrative

fee 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 and 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 2003 – 2007 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 2003 at a cost of $3.4 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.

e. Bo Wood Recreation Area Access Road. Rehabilitate 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. Rehabilitating 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 rehabilitate the Bo Wood Recreation Area access road.

(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 Cost Share 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.

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 Cost Share 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 6,231 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 connected to City’s Forest Park on the east side. This area will be used to expand the city park and it’s 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 the following section, 10-06.

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.

(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 the 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 $30.00.

(i) A project staffing study was conducted in 1980, which resulted in the staff being reduced. Seven permanent positions have been 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 complete 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 relocating the 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 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, US Fish and Wildlife Service, US 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 345.6-acre wetlands restoration 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 (18,660 lf) forming 16 management compartments with a ditch drainage system (13,560 lf), 27 water control structures, 10 overflow weirs (1,900 lf), rocked roadways to pump sites, and levee revetment on all critical areas. This project will be completed in FY 2003.

The total estimated cost of constructing the proposed modification is $3,437,585. The state of Illinois will provide the 25% non-federal cost-share for the project's planning, design, and construction. The project's O & M (estimated at $8000 per year, with no additional FTE requirement) will be the responsibility of the State of Illinois.

The modification would restore 345.6-acres of wetlands habitat to modern historic conditions 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.

A draft of the Ecosystem Restoration Report with Environmental Assessment and Finding of No Significant Impact has been completed for this project. It is being reviewed and will be sent out for public comment in September 2002.

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-partnered regional initiative centered around Lake Shelbyville. This will be 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 separate groups will construct portions of the trail network. As these individual groups undertake construction projects, they will use the trail master plan as a guiding document.

The initial phase depends upon using both newly constructed and existing trails located on Corps of Engineers' property as well as sharing existing roadways. Whenever possible, it is recommended that additional right-of-way be acquired and a separate trail surface be constructed by a non-federal partner. Trails that currently exist on Corps of Engineers property that will be rehabilitated and expanded 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 trail segments will be constructed include: Opossum Creek, Wilborn Creek, Whitley Creek, Lithia Springs, Dam East, and Spillway Recreation Areas, Wolf 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.

Constructing new trails on acquired right-of-way parallel to existing roadways is the next phase of the Lake Shelbyville Trail network. However, if funding permits it is strongly recommended that the first phase, use of a shared roadway be skipped, and the next phase be implemented instead.

10-11. ENVIRONMENTAL COMPLIANCE.

Actions and activities that the Corps of Engineers proposes must comply with all applicable environmental laws and regulations. Chief among these 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 rehabilitation 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 will have substantial environmental effects. 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). 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.

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.

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 in 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.

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 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 do not serve the needs of the using public. They 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.

As of FY 2002, 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 relocating 86 campsites from Whitley Creek Recreation Area to the Bo Wood Recreation Area. Support facilities, such as comfort stations, drinking foundations, 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. If the budget for RAMP proposed areas is appropriated, the proposed areas will be funded to the programmed $50 million level or to whatever level of funding that is provided.

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. The sales area is located in the Lake Shelbyville Visitor Center.

10-16. NATIONAL RECREATION RESERVATION SERVICE™ (NRRS™).

NRRS™ is a joint program of the USDA Forest Service and the US Army Corps of Engineers 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

Flowage easements 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 and provide protection against the creation of floatable debris and pollution of project waters.

Responsibilites. 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 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 consentees 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 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 not-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 have met for 25+ years and continue to meet within the watershed, investing their own 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 will be 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.

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

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 with this 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.

10-19. 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.

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.

10-20. GROUP CAMP FACILITY PLAN.

Seven group camps currently exist at Lake Shelbyville. They are located at Wilborn Creek Recreation Area (1 group camp), Okaw Bluff Group Camp Area (2 group camp facilities), and Lone Point Recreation Area (4 group camps). Four will exist after the proposed changes are made and one will be included in future actions.

1. Wilborn Creek Group Camp includes 15 primitive campsites, 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 rehabilitating the camp in the following ways.

- Upgrade all campsites to 50-amp electrical service. Relocate the campsites in the area if necessary.

- Day-use area comfort station #1 has been removed due to underutilization and group camp comfort station will be replaced. The two comfort station facilities will be consolidated and replaced with a mini-shower building that provides more toilet facilities.

- Day-use picnic shelter has been removed and will be relocated to group camp area, enclose shelter and install electric service.

- Five mini-shelters will be added to the group camp area. These are in exchange for the removal of the Frame House facility at the Okaw Bluff Group Camp approved in the Shoreline Erosion Management Plan.

- After the completion of the General Dacey Trail Plan within the Wilborn Creek Recreation Area, pedestrian and bicycle riders could easily access the day-use area from the group camp by utilizing the trail.

2. Okaw Bluff Group Camp includes two full-service housing units that were acquired when the lake was constructed. 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.

According to the Lake Shelbyville Shoreline Erosion Plan the two housing units will be impacted by erosion and thus will necessitate removal from their existing location. There are no other facilities at Lake Shelbyville that can provide the type of accommodations needed to conduct the Deer Hunt for Persons with Disabilities. This program has a thirteen-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 significantly reduced, if not eliminated, if overnight accommodations are not available at Lake Shelbyville.

Proposed action includes replacing the Stone House facilities with a multi-purpose universally accessible building that includes the facilities needed for the Sea Bees. This would be a pre-fabricated metal building if possible, with a kitchenette, bathroom with showers and sleeping quarters that can accommodate up to 30 people. In addition, there will be an enclosed portion of the building that can be utilized as a workshop by the Sea Bees and storage area for equipment. The Sea Bees have assured the Corps of Engineers that they will do everything possible to assist in replacing the housing units, which could include constructing the entire facility using materials provided by the Corps of Engineers.

Storing large equipment such as backhoes, tractors, and trailers in this area while projects are taking place on the northern end of the lake reduces road time and maintenance on the equipment and reduces employee travel time to perform certain maintenance and natural resource tasks. In addition, the multi-purpose facility could be reserved by the public when not in use by the Sea Bees or reserved for special events.

3. Lone Point Recreation Area includes four group camps. 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 isolation generally associated with group camps is not present. The arrangement of these group camps is unfavorable and doesn't properly meet the needs of our customers. It is proposed that the three group

camps within the main campground be converted to individual sites. The remaining group camp, Walleye Group Camp, will remain and continue to be utilized as a group camp. Comfort Station #3 has been removed that was in the main campground at Lone Point Campground and it is proposed that it be replaced with at mini-shower building within the Walleye Group Camp area.

4. 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.

5. 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 into a group camp. To accommodate customer needs a flush comfort station and playground is located near these campsites and can be utilized when converted into a group camp. The day use picnic shelter in Lone Point Recreation Area will be relocated to this group camp area.

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, zoning 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 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 FLUCUATION IMPACTS ON FACILITIES

Swimming beaches are developed so that they may be use with a fluctuating water level of plus or minus five feet. Fluctuations from five to ten feet cover the developed sand beach and reduce swimming activities. Swimming is eliminated when water levels exceed approximately ten feet above normal summer pool. Future actions include investigating the possibilitiy 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 when in use result in congestion within the ramp parking lots and at the ramps themselves especially during the 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 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 relocated above 614 feet NGVD where possible to avoid frequent inundation.

To reduce the effects of flooding at Eagle Creek State Park, Findlay Marina, and Lithia Springs Marina, the breakwaters in those areas will be raised. The breakwater at Eagle Creek State Park is located near the boat ramp. Findlay Marina breakwater will be raised to 614 feet above sea level and the breakwater at Lithia Springs Marina will be 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 effect 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, RELOCATION, REHABILITATION, AND/OR REPLACEMENT

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 rehabilitation 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 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 rehabilitation 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. Rehabilitation 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 got 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 rehabilitation in order to meet current guidelines and laws concerned with disabled 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 structures will require removal, rehabilitation, or replacement of the existing buildings.

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. The entire water system will need replacement.

Some facilities in the recreation areas are underutilized and will be removed, relocated, or consolidated with other facilities when they are removed.

Table 18 provides a list of facilities that need to be removed, rehabilitated, or replaced. Future Operational Management Plans for Lake Shelbyville will provide detailed information for each year, as required.

There are three commercial concession marina facilities and one resort located at Lake Shelbyville. Future commercial development of a new lodge or marina will require the preparation of a market potential and feasibility analysis study.

TABLE 18
LAKE SHELBYVILLE
MAJOR FACILITY CONSOLIDATION, RELOCATION, REHABILITATION, AND/OR REPLACEMENT IN PRIORITY ORDER

Facility	Consolidate	Relocate	Rehabilitate	Replace
Project Administration Complex	X	X		X
Operations and maintenance facility	X	X		X
Visitor Center	X (possibly)	X		X
Dam East Comfort Station #2	X	X		X
Dam West Vending Area			X	
Coon Creek Comfort Station #11	X	X		X
Coon Creek Comfort Station near site 176	X	X		X
Lithia Springs Campsite Electrical Service			X	
Lithia Springs Picnic Shelter		X		
Lithia Springs Vault Comfort Station		X		
Bo Wood Campground	X	X	X	X
Opossum Creek High Water Boat Ramp			X	
Main Dam Piezometers (as needed)				X
Main Dam Electrical System			X	
Main Dam Roadway Light Electrical System				X
Main Dam East & West Gallery Spiral Staircases				X
Main Dam Machinery (as needed)			X	X
Camp Camfield Trail System			X	
Lithia Springs Chautauqua Wooden Bridge				X
Lithia Springs Fish Cleaning Station				X
Lone Point Secondary Exit and Roadway			X	
Dam West Ice Skating Rink		X		
Dam West Electrical Service			X	
Dam West Beach Picnic Shelter		X		
Bo Wood Entrance Road			X	
Illini Backpacking Trail			X	
Dam West Snowmobile Trail			X	
Coon Creek Nature Trail			X	
Bo Wood Nature Trail		X		
Okaw Bluff Nature Trail			X	
Woods Lake Access Trails			X	
Opossum Creek Comfort Station #1		X		X
Opossum Creek add-on shower buildings			X	
Coon Creek Campsite Electrical Service			X	
Coon Creek Comfort Station #8		X		X
Coon Creek Comfort Station near site 155				X

Facility	Consolidate	Relocate	Rehabilitate	Replace
Coon Creek comfort station on A or B leg		X		X
Coon Creek campsites (20 total)		X		
Coon Creek water lines				X
Visitor Center Front Entrance Doors & Comfort Station			X	
Whitley Creek Campground	X	X		
Whitley Creek Amphitheater		X		
Whitley Creek Playground		X		
Whitley Creek Vault Comfort Station		X		
Dam East Comfort Station #1	X			X
Spillway Comfort Station #2		X		X
Spillway East Fish Cleaning Station				X
Opossum Creek Primary Boat Ramp		X		X
Wilborn Creek Picnic Shelter		X	X	
Bo Wood Campsites 47 –55			X	
Lone Point Day Use Picnic Shelter		X		
Wilborn Creek Group Camp Comfort Station	X			X
Wilborn Creek Group Camp Campsites			X	
Lone Point Comfort Station #3		X		X
Wilborn Creek Comfort Station #1	X	X		X
Lithia Springs Amphitheater		X		
Lithia Springs D leg entrance parking lot			X	
Lithia Springs Boat Ramp Parking Lot			X	
Lithia Springs South B-leg Comfort Station		X		
Dam West Overlook Comfort Station				X
Opossum Creek Campsite Electrical Service			X	
Lone Point Main Shower Building				X
Lone Point Amphitheater		X		
Lithia Springs water lines				X
Dam West water lines				X
Sullivan Beach/Okaw Bluff Water lines				X
Okaw Bluff Frame House		X		X
Okaw Bluff Stone House		X		X

11-07. SEWAGE TREATMENT SYSTEMS

a) Wastewater Treatment Systems

A preliminary engineering report – sewer system evaluation for Whitley Creek and Wilborn Creek wastewater facilities was completed in September 2001.

Whitley Creek Land Treatment Facility. 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. 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 treatment. Estimated costs of connecting to the City of Sullivan sewage system includes 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 abandoned and relocated to the Bo Wood Recreation Area once the campground improvements there are complete. When 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 and a lift station at the marina collects and sends wastewater to a lift station that pumps it 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 relocation and removal 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.

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 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.

11-08. CONSOLIDATION OF CAMPING OPPORTUNITIES AT WHITLEY CREEK AND FORREST W. “BO” WOOD RECREATION AREAS

None of the 86 campsites 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 rehabilitation 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. Relocating Whitley Creek campsites to 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. 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 relocation and 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 and has since served as a permanent administration office for the lake management staff. The 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 staff. According to the Logistics Management Space Utilization Report, January 2003, the net space for all actual office space at Lake Shelbyville equals 2201 square feet and the gross space for everything except facilities, kitchen, and HVAC equals 2744 square feet. Existing net square feet per position is 59.97 and gross square feet per position 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 Americans with Disabilities Act (ADA) 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 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 infiltrate inside. 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 infiltration 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. The windows in the trailer had to be all replaced due to the large amount of water that was infiltrating inside. Even after 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.

Potential Health Risk. Asbestos, which is a hazardous material when it is disturbed and not handled properly, is associated within the tile in the administration building restrooms. There is mold and mildew present throughout the office buildings.

Location of New Facility. Three alternatives were 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 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 FPCon 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 will distribute public use of the project and eliminate conflicting uses within the Dam West 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. Relocating the resort site to Dam East will eliminate problems with collection of Day Use Fees within the Dam West area. In addition, moving the resort site to Dam East 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 to Dam West 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 building. A new building should be administratively and economically efficient, accessible, and designed to be consistent with the aesthetic qualities of the lake area. It is recommended that a new Administration and Maintenance Complex be constructed at the Dam West Recreation Area.

Pictures of the existing office facilities and conditions are located in the appendices.

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.

- 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 creates 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 requires 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. 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 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 things that includes 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 large 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 visitor center in Dam East Recreation Area.

5) Partnering with the Illinois Department of Natural Resources might result in relocating 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 rehabilitated to meet Uniform Federal Accessibility Standards. The comfort station entry is on the outside of the building. The rehabilitation 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 appendices.

11-11. SHORELINE MANAGEMENT PLAN.

The subject of shoreline management is fully addressed in the Shoreline Management Plan, which is included in the Operational Management Plan. The Shoreline Management Plan was prepared and implemented as a management tool to lessen the impact of private exclusive use along the public shoreline of Lake Shelbyville. The plan 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 plan is to provide policy and guidance for the protection of shorelines. Four basic considerations were used in formulating and updating the Shoreline Management Plan. 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

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 a 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, relocations, consolidation, or removal 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, relocation, or removal 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, relocating the 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 relocate 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.

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, relocation, or removal 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.
- Relocated 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

- Relocated the group picnic and parking facilities to the Dam West Recreation Area.

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

- Relocate 1 to 3 campsites located in the northern part of the campground.

Sullivan Marina and Campground

- Protect the land, as needed, to provide a stable bank to attach docks.
- Protect the docks by constructing a breakwater.

Bo Wood Recreation Area

- Remove 58 campsites, related facilities and roads. This will leave an uneconomical remnant for a campground; therefore, relocate 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.

Whitley Creek Recreation Area

- Protect the boat ramp.

Opossum Creek Recreation Area

- 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.
- Move group camping to Lone Point Recreation Area.

Coon Creek Recreation Area

- Protect the boat ramp.
- Protect the beach and the parking area.
- Protect the turnarounds.

Lone Point Recreation Area

- Protect location along the eastern shoreline of the campground that will be threatened with erosion within the next 30 years (baseline year 1990).
- Designate this area for overnight group use only and relocate all overnight group use to this area. No new or additional facilities will be provided. (Due to customer demand and usage this item has been revised in this master plan as stated in Section VIII).

Okaw Bluff Group Camp

- Relocate group camp and remove facilities as they become unsafe.

- Continue as an operation and maintenance area with relocated facilities for the Naval Reserve Construction Battalion (Sea Bees).

Wilborn Creek Recreation Area
- Protect the boat ramp.
- Protect the road and parking lot located in the northwestern part of the area near the beach.
- Relocate the group camp to Lone Point and use this area for day use as originally designed.
- Relocate picnic shelter.

Wolf Creek State Park
- Protect the boat ramp.

Camp Camfield
- Relocate trails as they become unsafe.

Bluestem Future Recreation Area (Area F)
- Relocate or remove gravel roadways as they become unsafe.

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:

Formal Request From	Avg Annual Use	Peak Use	Supply	Withdrawal
Gateway PWS	4.0 mgd	6.3 mgd	Carlyle	Lake
Dynegy (Baldwin)	14.35 mgd	58.0 mgd	either	River(Releases)
Peabody Energy	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	Governor's Run Golf Course190
Shelby Country Club	50.0 acre-feet	acre-feet equivalent to less than
Timberlake Golf Course	50.0 acre-feet	0.2 mgd
Holland Energy	8.0 mgd	
Holland Energy	7.5 mgd	

Existing Contract Summation = 16 mgd

Available Supply = 17 – 16 = 1 mgd Available Supply = 24.5 – .2 = 24.3 mgd

Total Available Supply:Lake Shelbyville and Carlyle Lake = 1 + 24.3 = 25.3 mgd
Total Average Annual Demand = 31.7mgd
Negative Balance (Demand exceeds Supply) -6.4 mgd

As shown, the total water supply requests exceed the available supply by almost 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 rehabilitation 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, and in some cases, increase user fee revenues. 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 replaced or rehabilitated. 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 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 is 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.

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, relocated, rehabilitated, or replaced to 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.

Section XII

Operational Management Plan Objectives

SECTION XII – OPERATIONAL MANAGEMENT PLAN OBJECTIVES

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 suitabilities
- 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

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 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.

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

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 19
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. 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.

12-04 FIRE PROTECTION

A fire protection plan that will serve as a guide for the prevention and suppression of forest and grass fires 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 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-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.

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 out breaks 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 and the current figures allow 460 full-season shotgun deer permits and 112 single-season turkey permits. 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.

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 SECURTIY

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 visitor 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 or 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.

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

SECTION XIII – COST ESTIMATES

13-01. INTRODUCTION

a. General. Preliminary cost estimates for development of proposed new and rehabilitation, replacement or relocation actions at Lake Shelbyville have been developed by the project staff and Engineering Division. 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.

b. Summary of Costs. Preliminary cost estimates for the proposed new actions and for the proposed CRRR actions for Corps of Engineers and State facilities are listed in TABLE 20.

c. Financial Analysis. A financial analysis for new proposed actions is presented in TABLE 21.

TABLE 20
PRELIMINARY COST ESTIMATES FOR PROPOSED ACTIONS AT LAKE SHELBYVILLE

	Item or Description	Qty	Unit	Unit Price	Estimated Amount
US Army Corps of Engineers Facilities					
Project Operations Facilities					
Administration Complex, Maintenance Complex, and Visitor Center	Prepare a study to determine the cost feasibility and design of replacing, relocating, and consolidating facilities	1	JB	$100,000	$100,000
Visitor Center	Relocate amphitheater from Whitley Creek to the new proposed site of the Visitor Center	1	JB	$50,000	$50,000
Visitor Center	Rehabilitate front entrance doors and comfort station to make them universally accessible	1	LS	$12,000	$12,000
Main Dam	Add trail for pedestrian and bike traffic outside guardrail	1	LS	$505,600	$505,600
Main Dam	Add maintenance lifts and other needed equipment to deal with confined space issues, rehabilitate electrical system, replace electrical system concerning roadway lights, and replace east and west gallery	1	LS	$318,000	$318,000

	staircases				
Main Dam	Add roadway gates, additional fencing, and security cameras	1	LS	$153,000	$153,000
Main Dam	Replace piezometers	1	LS	$10,000	$10,000
Main Dam	Re-paint bridge & other metal works	1	LS	$306,840	$306,840
Recreation Areas					
Dam East	Remove Comfort Station #2 and consolidate with Comfort Station #1 into a modern designed comfort station	1	LS	$104,878	$104,878
Spillway	Replace and relocate Comfort Station #2 closer to the fishing pier and make it universally accessible	1	JB	$104,878	$104,878
Spillway	Remove Spillway West fish cleaning station	1	JB	$1,000	$1,000
Spillway	Replace Spillway East fish cleaning station and make it universally accessible	1	JB	$5,000	$5,000
Spillway	Add overflow parking lot in Spillway East. Relocate Ice Skating Rink from Dam West to this parking lot.	1	JB	$10,000	$10,000
Dam West	Replace overlook and comfort station with a picnic shelter with an attached comfort station	1	LS	$300,000	$300,000
Dam West	Relocate Opossum Creek boat ramp to this area that will service the large group picnic shelter and fish tournament area	1	JB	$93,640	$93,640
Dam West	Rehabilitate vending area, which will include relocating the Dam West Beach picnic shelter	1	LS	$30,000	$30,000
Dam West	Upgrade electric service in area	1	LS	$50,000	$50,000
Dam West	Replace all water lines	1	LS	$30,000	$30,000
Dam West	Add Fish Nursery Pond	1	LS	$100,000	$100,000
Dam West	Add electrical service to overlook berm picnic shelter	1	JB	$2,000	$2,000
Opossum Creek	Remove Day Use Comfort Station #1 and replace with large shower building that includes laundry facilities	1	LS	$259,077	$259,077
Opossum Creek	Rehabilitate 2-lane high water boat ramp so that it can be used year round	1	JB	$39,720	$39,720
Opossum Creek	Add water and sewer hookups to the campsites 1 – 22 and 49 – 56.	30	EA	$670	$20,100
Opossum Creek	Rehabilitate add-on shower comfort stations to remove the shower portion of the buildings	2	EA	$1,000	$2,000

Coon Creek	Relocate Comfort station #8 and one comfort station on A or B leg, replace comfort station #11 and consolidate into mini-shower buildings	2	JB	$211,344	$422,688
Coon Creek	Replace comfort stations near campsite 155 & 176 and consolidate into a mini-shower building	1	JB	$211,344	$211,344
Coon Creek	Add water and sewer hookups to the campsites on A & B legs, and to sites 131-139, 175, 176, 142-144	77	EA	$670	$51,590
Coon Creek	Relocate campsites primarily pull-off sites	20	EA	$1,000	$20,000
Coon Creek	Add additional parking spaces throughout campground	20	EA	$500	$10,000
Coon Creek	Remove Comfort Station near campsite 176	1	JB	$5,000	$5,000
Coon Creek	Replace water lines	1	LS	$50,000	$50,000
Coon Creek	Add trail for pedestrian and bike traffic from fee booth area to main shower building	1	JB	$15,000	$15,000
Coon Creek	Add 2-lane high water boat ramp	1	JB	$43,980	$43,980
Coon Creek	Add second trailer dump station	1	JB	$5,000	$5,000
Lone Point	Replace main shower building with modern design that includes laundry facilities	1	LS	$259,077	$259,077
Lone Point	Relocate comfort station #3 to Walleye Group Camp and replace with a mini-shower building	1	LS	$211,344	$211,344
Lone Point	Relocate the amphitheater to a centralized area within the campground	1	JB	$30,000	$30,000
Lone Point	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
Wilborn Creek	Remove day use comfort station #1, consolidate facilities in the Group Camp Area with the Group Camp comfort station, and replace with mini-shower building	1	LS	$211,344	$211,344
Wilborn Creek	Relocate day use picnic shelter to group camp area enclose shelter install electric service	1	LS	$30,000	$30,000
Wilborn Creek	Rehabilitate primitive campsites into impact area campsites with 50-amp electrical service	15	EA	$1,000	$15,000
Wilborn Creek	Remove the road from the entrance to the sewage treatment facility to the picnic shelter	1	JB	$5,000	$5,000

Wilborn Creek	Replace Okaw Bluff Frame House with mini-shelters in the group camp area	5	EA	$10,000	$50,000
Bo Wood	Add sewer and water campsite hookups	85	EA	$670.00	$56,950
Bo Wood	Rehabilitate existing campsites (47-55) into a group camp area	1	LS	$20,000	$20,000
Bo Wood	Relocate day use picnic shelter from Lone Point Recreation Area to proposed group camp area	1	JB	$20,000	$20,000
Bo Wood	Rehabilitate entrance road	1	JB	$87,000	$87,000
Sullivan Beach	Add electrical service to picnic shelter	1	JB	$2,000	$2,000
Okaw Bluff	Remove Stone House and Frame House facilities. Replace Stone House with a universally accessible multipurpose facility.	1	LS	$201,330	$201,330
Okaw Bluff/Sullivan Beach	Replace water lines	1	LS	$30,000	$30,000
Whitley Creek	Add 4-lane high water boat ramp	1	JB	$91,940	$91,940
Whitley Creek	Relocate and consolidate campground facilities with Bo Wood campground facilities	1	LS	$1,143,000	$1,143,000
Lithia Springs	Relocate south comfort station on B-leg to another area within the campground	1	JB	$104,878	$104,878
Lithia Springs	Add water and sewer hookups at campsites	14	EA	$670	$9,380
Lithia Springs	Relocate amphitheater to a centralized area within the campground	1	JB	$30,000	$30,000
Lithia Springs	Relocate Whitley Creek playground set to this area	1	JB	$2,000	$2,000
Lithia Springs	Add additional parking spaces	15	EA	$500	$7,500
Lithia Springs	Replace all water lines	1	LS	$50,000	$50,000
Lithia Springs	Rehabilitate and expand boat ramp parking lot	1	JB	$100,000	$100,000
Lithia Springs	Replace fish cleaning station	1	JB	$11,550	$11,550
Lithia Springs	Install sand volleyball court, outdoor shower, and two bench shelters at beach	1	LS	$4,000	$4,000
Lithia Springs	Rehabilitate and widen D leg entrance parking lot within the campground	1	JB	$10,000	$10,000
Lithia Springs Marina	Rehabilitate and expand main parking area	1	JB	$165,750	$165,750
Findlay Marina	Connect to Shelbyville or Findlay Sewer System	1	LS	$150,000	$150,000
Project Wide	Coordination and support for the General Dacey Trail Plan	1	LS	$20,000	$20,000
Project Wide	Upgrade electrical service at all campsites to 50-amp service. (Lithia Springs, Coon Creek,	579	EA	$604	$349,716

	Lone Point, Opossum Creek, and Bo Wood).				
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
Low Density Recreation Areas					
Camp Camfield	Remove and replace trail footbridges with culverts	1	LS	$2,000	$2,000
Woods Lake	Relocate Vault Comfort Station from Lithia Springs to this area	1	JB	$30,000	$30,000
Vegetative Management Areas					
Whitley Creek Bottoms	Add 146-acre wetland	1	LS	$353,920	$353,920
Whitley Creek Bottoms	Add a fish nursery pond	1	LS	$94,000	$94,000
Environmentally Sensitive Areas					
Lithia Springs Chautauqua	Add interpretive signage to this area	1	JB	$10,000	$10,000
Lithia Springs Chautauqua	Add security lighting to this area	1	JB	$15,000	$15,000
Lithia Springs Chautauqua	Relocate shelter from Lithia Springs Recreation Area to this area.	1	JB	$20,000	$20,000
Lithia Springs Chautauqua	Replace wooden bridge	1	JB	$2,000	$2,000
Lithia Springs Chautauqua	Relocate vault comfort station from Whitley Creek to this area	1	JB	$30,000	$30,000
Subtotal: $10,028,014 Contingency – 30% (New Actions): $696,204 Subtotal: $10,724,218 Planning, Engineering, & Design – 15% (New Actions): $452,533 Construction Management – 10% (New Actions): $301,688 Corps of Engineers Total Project Cost: $11,478,439					
Illinois Department of Natural Resources Facilities					
IDNR/Eagle Creek	Add cabins in campground area	20	EA	$10,000	$200,000
IDNR/Eagle Creek	Add storage building	1	JB	$80,000	$80,000
IDNR/Eagle Creek	In Resort Area: Add 50 universally accessible floating docks with full electric service, walkway to connect resort with lakefront, 58 public docking spaces, small gazebo, 45’ X 100’ patio	1	LS	$2,000,000	$2,000,000

IDNR/Eagle Creek	Expand golf course and storm shelter at the Resort	1	LS	$750,000	$750,000
IDNR/Eagle Creek	Rehabilitate roads, which includes widening them	1	LS	$1,700,000	$1,700,000
IDNR/Eagle Creek	Rehabilitate Breakwater	1	JB	$500,000	$500,000
IDNR/Eagle Creek	Add footbridges to connect tent camping areas	1	LS	$3,000	$3,000
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	Rehabilitate campground electrical system	1	LS	$200,000	$200,000
IDNR/Wolf Creek	Add cabins in campground area	20	EA	$10,000	$200,000
IDNR/Wolf Creek	Add electricity and dump station at Equestrian Campground	1	LS	$600,000	$600,000
IDNR/Wolf Creek	Add shower building in campground	1	JB	$350,000	$350,000
IDNR/Wolf Creek	Add hazardous material storage building	1	JB	$50,000	$50,000
IDNR/Wildlife Management Areas	Add hazardous material storage building	1	JB	$50,000	$50,000
					IDNR Total Project Cost: $7,183,000

TABLE 21
FINANCIAL ANALYSIS FOR NEW ACTIONS AT LAKE SHELBYVILLE

GOVERNMENT ESTIMATE WORKSHEET					Sheet 1 of 3
	LAKE SHELBYVILLE MASTER PLAN				DATE: 13 JUNE 2003
	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	ESTIMATED AMOUNT
MAIN DAM	**ADD TRAIL FOR PEDESTRIAN & BIKE TRAFFIC UPSTREAM OF DAM**				
	Bridge attached to upstream side of dam, 40' x 10'	400	Sq.Ft.	$250.00	**$100,000.00**
	Trail on upstream side of dam, 1.2 miles x 8 feet	50,700	Sq.Ft.	8.00	**405,600.00**
	(Includes embankment & asphalt surface & safety rail)				
	SUBTOTAL:				**$505,600.00**
	Contingency - 30%				**151,680.00**
	SUBTOTAL:				**$657,280.00**
	Planning, Engineering & Design - 15%				**98,592.00**
	Construction Management - 10%				**65,728.00**
	TOTAL COST: PEDESTRIAN & BIKE TRAIL				**$822,000.00**
MAIN DAM	Add maintenance lifts & equipment for confined space				
	issues, rehabilitate electrical system, replace				
	electrical system on roadway lights, and electrical				
	system on east and west gallery.	1	Lump Sum	318,000	**318,000.00**
	SUBTOTAL:				**$318,000.00**
	Contingency - 30%				**95,400.00**
	SUBTOTAL:				**$413,400.00**
	Planning, Engineering & Design - 15%				**62,010.00**
	Construction Management - 10%				**41,340.00**
	TOTAL COST: ELECTRICAL REHAB.				**$517,000.00**
MAIN DAM	**RE-PAINT BRIDGE & OTHER METAL WORKS**				
	Tainter Gates, 3ea x 39.4' x 45.3' x2 sides=10,720 sf	10,720	Sq.Ft.	7.00	**75,040.00**
	Beams of each Gate, 3ea x 35.7' x1.5' x2 = 321 sf	320	Sq.Ft.	7.00	**2,240.00**
	Bridge I-beams, 3eax50.3'x1.5' x 5 rows=11,400 sf	11,400	Sq.Ft.	7.00	**79,800.00**
	Remove existing Paint	22,440	Sq.Ft.	4.00	**89,760.00**
	Miscellaneous items	1	Lump Sum	60,000	**60,000.00**
	SUBTOTAL:				**$306,840.00**
	Contingency - 30%				**92,052.00**
	SUBTOTAL:				**$398,892.00**
	Planning, Engineering & Design - 15%				**59,834.00**
	Construction Management - 10%				**39,889.00**
	TOTAL COST: BRIDGE PAINTING				**$499,000.00**
DAM WEST	**RELOCATE OPOSSUM CREEK BOAT RAMP**				
	Excavate/Grade Ramp Area - 60' wide x 90' x 3'	600	Cu.Yd.	12.00	**7,200.00**
	Push-In Boat Ramp, Concrete, 48' x 78' x1'	140	Cu.Yd.	500.00	**70,000.00**
	Rock Protection-Shoulders	60	Ton	24.00	**1,440.00**
	Demolish existing boat ramp & remove	1	Lump Sum	15,000.00	**15,000.00**
	SUBTOTAL:				**$93,640.00**
	Contingency - 30%				**28,092.00**
	SUBTOTAL:				**$121,732.00**
	Planning, Engineering & Design - 15%				**18,260.00**
	Construction Management - 10%				**12,173.00**
	TOTAL COST: RELOCATE BOAT RAMP				**$152,000.00**

GOVERNMENT ESTIMATE WORKSHEET				Sheet 2 of 3	
LAKE SHELBYVILLE MASTER PLAN				DATE: 13 JUNE 2003	
	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	ESTIMATED AMOUNT
DAM WEST	**ADD FISH NURSERY POND**				
	Excavate/Fill 5-Acre pond with avg depth of 5 feet	5,000	Cu.Yd.	6.00	**30,000.00**
	Water Control Structure with headwall & pipe	1	Lump Sum	40,000.00	**40,000.00**
	Concrete Catch Basin	1	Each	20,000.00	**20,000.00**
	Water supply Pump	1	Each	10,000.00	**10,000.00**
	SUBTOTAL:				**$100,000.00**
	Contingency - 30%				**30,000.00**
	SUBTOTAL:				**$130,000.00**
	Planning, Engineering & Design - 15%				**19,500.00**
	Construction Management - 10%				**13,000.00**
	TOTAL COST: FISH NURSERY POND				**$163,000.00**
OPOSSUM CREEK	**REHABILITATE 2-LANE HIGH WATER BOAT RAMP**				
	Excavate/Grade Ramp Area - 40' wide x 70' x 3'	310	Cu.Yd.	12.00	**3,720.00**
	Boat Ramp, Cast in place Concrete, 32' x 60' x1'	72	Cu.Yd.	500.00	**36,000.00**
	Rock Protection	40	Ton	24.00	**960.00**
	SUBTOTAL:				**$39,720.00**
	Contingency - 30%				**11,916.00**
	SUBTOTAL:				**$51,636.00**
	Planning, Engineering & Design - 15%				**7,745.00**
	Construction Management - 10%				**5,164.00**
	TOTAL COST: BOAT RAMP				**$65,000.00**
COON CREEK	**ADD HIGH WATER BOAT RAMP**				
	Excavate/Grade ramp area - 40' wide x 75' x 3'	335	Cu.Yd.	12.00	**4,020.00**
	Push-In Boat Ramp, Concrete, 32' x 65' x1'	78	Cu.Yd.	500.00	**39,000.00**
	Rock Protection-Shoulders	40	Ton	24.00	**960.00**
	SUBTOTAL:				**$43,980.00**
	Contingency - 30%				**13,194.00**
	SUBTOTAL:				**$57,174.00**
	Planning, Engineering & Design - 15%				**8,576.00**
	Construction Management - 10%				**5,717.00**
	TOTAL COST: BOAT RAMP				**$71,000.00**
COON CREEK	**TRAILER DUMP STATION**	1	Each	5,000.00	**5,000.00**
	SUBTOTAL:				**$5,000.00**
	Contingency - 30%				**1,500.00**
	SUBTOTAL:				**$6,500.00**
	Planning, Engineering & Design - 15%				**975.00**
	Construction Management - 10%				**650.00**
	TOTAL COST: DUMP STATION				**$8,000.00**
OKAW BLUFF	**REMOVE/REPLACE HOUSE WITH MULTIPURPOSE FACILITY**				
	Remove existing stone house, 78' x 51'	3,978	Sq.Ft.	2.00	**7,956.00**
	Pre-fabricated multipurpose building, 80' x 50'	4,000	Sq.Ft.	45.00	**180,000.00**
	Remove existing frame house, 53' x 79'	4,187	Sq.Ft.	2.00	**8,374.00**
	Mini-Shelters	5	Each	1,000.00	**5,000.00**
	SUBTOTAL:				**$201,330.00**
	Contingency - 30%				**60,399.00**
	SUBTOTAL:				**$261,729.00**
	Planning, Engineering & Design - 15%				**39,259.00**
	Construction Management - 10%				**26,173.00**
	TOTAL COST: PRE-FAB BUILDING				**$327,000.00**

GOVERNMENT ESTIMATE WORKSHEET					Sheet 3 of 3
LAKE SHELBYVILLE MASTER PLAN					DATE: 13 JUNE 2003
	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	ESTIMATED AMOUNT
WHITLEY CREEK	**ADD HIGH WATER BOAT RAMP**				
	Excavate/Grade ramp area - 70' wide x 80' x 3'	625	Cu.Yd.	12.00	**7,500.00**
	Push-In Boat Ramp, Concrete, 64' x 70' x1'	166	Cu.Yd.	500.00	**83,000.00**
	Rock Protection-Shoulders	60	Ton	24.00	**1,440.00**
	SUBTOTAL:				**$91,940.00**
	Contingency - 30%				**27,582.00**
	SUBTOTAL:				**$119,522.00**
	Planning, Engineering & Design - 15%				**17,928.00**
	Construction Management - 10%				**11,952.00**
	TOTAL COST: BOAT RAMP				**$149,000.00**
LITHIA SPRINGS	**REHABILITATE PARKING AREA**	221,000	Sq.Ft.	0.75	**165,750.00**
MARINA	(2" binder course, and 1" wearing course)				
	SUBTOTAL:				**$165,750.00**
	Contingency - 30%				**49,725.00**
	SUBTOTAL:				**$215,475.00**
	Planning, Engineering & Design - 15%				**32,321.00**
	Construction Management - 10%				**21,548.00**
	TOTAL COST: PARKING AREA				**$269,000.00**
WHITLEY CREEK	**DEVELOP 146-ACRE WETLAND**				
BOTTOMS	Water Control Structure-Major	1	Lump Sum	120,000.00	**120,000.00**
	Sheet Pile Cutoff	2,000	Sq.Ft.	30.00	**60,000.00**
	Riprap Protection	300	Ton	24.00	**7,200.00**
	Electric Pump	1	Lump Sum	30,000.00	**30,000.00**
	Crushed Stone Surfacing	120	Ton	16.00	**1,920.00**
	Earthen Levee	10,200	Cu.Yd.	6.00	**61,200.00**
	Water Control Structure-small,Whitley Creek	1	Lump Sum	40,000.00	**40,000.00**
	Sheet Pile Cutoff,Whitley Creek	1,000	Sq.Ft.	30.00	**30,000.00**
	Riprap Protection,Whitley Creek	150	Ton	24.00	**3,600.00**
	SUBTOTAL:				**$353,920.00**
	Contingency - 30%				**106,176.00**
	SUBTOTAL:				**$460,096.00**
	Planning, Engineering & Design - 15%				**69,014.00**
	Construction Management - 10%				**46,010.00**
	TOTAL COST: 146-ACRE WETLAND				**$575,000.00**
WHITLEY CREEK	**ADD A FISH NURSERY POND**				
BOTTOMS	Excavate/Fill, 4-Acre pond with avg depth of 5 feet	4,000	Cu.Yd.	6.00	**24,000.00**
	Water Control Structure with Headwall & pipe	1	Lump Sum	40,000.00	**40,000.00**
	Concrete Catch Basin	1	Each	20,000.00	**20,000.00**
	Water Supply Pump	1	Each	10,000.00	**10,000.00**
	SUBTOTAL:				**$94,000.00**
	Contingency - 30%				**28,200.00**
	SUBTOTAL:				**$122,200.00**
	Planning, Engineering & Design - 15%				**18,330.00**
	Construction Management - 10%				**12,220.00**
	TOTAL COST: FISH NURSERY POND				**$153,000.00**

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 Central Illinois 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 2013.