

# SECTION III

## RIVERS PROJECT MANAGEMENT STATUS

### 3.1. INTRODUCTION

In 1988, the St. Louis District Corps of Engineers established a Riverlands Area Office to manage the resources on the federal lands and waters associated with Mississippi River Navigation Pools 24, 25, 26 and Locks 27. The establishment of the Rivers Project Office in 1994 expanded responsibility to include the Kaskaskia River Navigation Project and the Cache River Diversion Channel. Today, the Rivers Project Office recognizes and manages the multi-purpose use of these lands and waters. Overall, the Rivers Project Office manages 416 miles of navigation channels on the Mississippi, Illinois and Kaskaskia Rivers and provides environmental stewardship, recreation, interpretive services and visitor assistance for 47,641 acres of project lands and waters.

St. Louis District works closely with several other governmental agencies on the river to ensure sound management of the region's resources. These agencies were directly involved in the preparation of this master plan as well. In particular, the district works closest with the Illinois Department of Natural Resources, (IDNR), the Missouri Department of Conservation, (MDC) and the U. S. Fish and Wildlife Service (USFWS). This section presents information on the management of Corps lands as well as agency and interagency programs that pertain to the Mississippi, Illinois and Kaskaskia Rivers.

### 3.2. GENERAL PLAN AND COOPERATIVE AGREEMENTS

In cooperation with the USFWS, the IDNR, and MDC 35,132 acres were made available for fish and wildlife management by a General Plan and Cooperative Agreement. The General Plan and Cooperative Agreement are being revised by the Corps, USFWS, state agencies and the new total acreage is 32,329 displayed in *Figure 3-1*. Section 7 discusses the proposed changes. Authorized by the Fish and Wildlife Coordination Act of 1934 and following amendments these agreements provided for federal and state cooperation in managing federal lands for wildlife resources and habitat.

### 3.3. OTHER AGENCIES ROLES

#### Characterization of Existing System

Federal, state and regional agencies and authorities, through enabling legislation, regulatory powers, established precedents, agency experience, or developed programs, act individually or in various partnerships to manage water and related land resources of the Rivers Project region. Each of these agencies and authorities is briefly described with respect to its major activities in the Rivers Project Area and listed in *Table 3-2*.

The roles of federal and state agencies are currently in transition as interest in states' rights in water resources management, the role of the

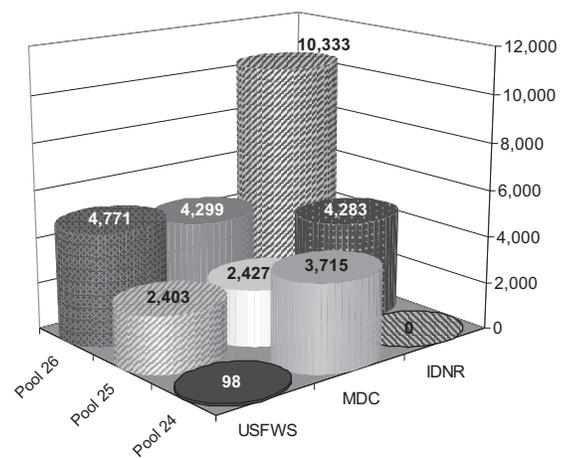


Figure 3-5  
General Plan Land

Department of the Interior, and the future of the Water Resources Planning Act (PL 89-80) in federal water policy is being evaluated.

**Federal Agencies**

Federal agencies in water and related land resources management share authorities with governmental units at other levels. Many federal agencies, such as the U.S. Environmental Protection Agency, (EPA) establish policies or regulations to be implemented by others and fund development activity by others. There are two notable exceptions where direct water resource development authority and protection capabilities have been granted to allow individual and independent actions: the Corps and the USFWS (Department of the Interior). The U. S. Department of Agriculture, (USDA) through the Natural Resources Conservation Service (NRCS) is organized to provide close technical assistance through various programs to conserve and protect natural resources.

The following agency descriptions briefly present the basic water resources authority and interest intent of federal entities.

**U.S. Army Corps of Engineers**

This agency’s activity is central to most of the system-wide planning and development in the St. Louis District. As part of its studies and projects, the Corps is involved in broad areas of navigation, flood control, recreation, fish and wildlife, and environmental protection features. Specific authorities include coordination, planning, design, construction, and operation activities. The areas owned in fee and easement under the jurisdiction of the Secretary of the Army and Corps of Engineers were

acquired for the purpose of navigation. Subsequent public laws authorized recreation, fish and wildlife conservation and environmental stewardship. Coincidental uses of these property interests have been for public use and cultural resource conservation. The Corps environmental stewardship mission is reflected in management practices that insure the conservation, preservation and protection of resources for present and future generations. The establishment, maintenance, and protection of vegetative cover will sustain wildlife populations, and provide for basic erosion control during the life of the project. The Corps interprets and applies federal policy. The functional areas most directly affected are recreational boating, commercial navigation, flood damage reduction, dredging, and dredged material placement. Virtually all project resource management objectives may be affected by Corps activities.

The Corps is structured with divisions and district offices to enable the agency to focus on specific regional needs. The St. Louis District is in the Mississippi Valley Division (MVD) with Division Headquarters at Vicksburg, Mississippi.

The Clean Water Act of 1977 amended PL 92-500 (the Federal Water Pollution Control Act Amendment of 1972). Under Section 404 of the amended act, the Corps has primary responsibility for issuing permits to discharge dredge or fill material into waters of the United States. Section 10 of the Rivers and Harbors Act of 1899 prohibits the unauthorized obstruction or alteration of any navigable water of the United States unless recommended by the Corps. MVD districts to the north of St. Louis include St. Paul and Rock Island. To the south, there are Memphis, Vicksburg and New Orleans. The Kansas City District is in

Table 3-2  
Agencies Involved in  
Rivers Project Resource Management

<b>Federal Departments/Agencies</b>
U.S. Department of Defense: <i>U.S. Army Corps of Engineers</i>
U.S. Department of Agriculture: <i>Natural Resources Conservation Service</i>
U.S. Department of the Interior: <i>Bureau of Land Management, National Park Service, Fish and Wildlife Service U.S. Geological Survey</i>
U.S. Department of Transportation: <i>U.S. Coast Guard</i>
U.S. Environmental Protection Agency
Federal Emergency Management Agency
<b>State Governments</b>
Illinois Department of Natural Resources
Missouri Department of Conservation, Department of Natural Resources
<b>Regional Entities</b>
Upper Mississippi River Basin Association
Upper Mississippi River Conservation Committee
Regional Commerce & Growth Assoc. (RCGA)
Mississippi River Parkway Commission
Illinois River Coordinating Council
Alton Lake Heritage Parkway Advisory Commission

the Northwest Division (NWD) and is responsible for the Missouri River.

### ***Department of Agriculture***

In the St. Louis District, the USDA pursues its programs through the NRCS, the Farm Service Agency, the Rural Utilities Services, the Rural Housing Service and Rural Business Cooperative Service. The Farm Service Agency administers the resource conservation programs such as the Conservation Reserve Program and the Environmental Quality Incentives Program. The NRCS conserves and protects resources by reducing soil erosion, improving soil and water quantity and quality, improving and conserving wetlands, enhancing fish and wildlife habitat, reducing upstream flooding, improving woodlands, providing hydrometeorological data for regulating reservoir storage and managing streamflow, and making available new and improved conservation plants for erosion reduction.

### ***Department of the Interior***

The mission of the Department of the Interior is to protect and provide access to the nation's natural and cultural heritage. The Department manages the nation's public lands and minerals, national parks and national wildlife refuges. It is responsible for migratory wildlife conservation; historic preservation; endangered species; mapping; and geological, hydrological, and biological science. Bureaus within the Department of Interior include the USFWS, National Park Service (NPS) United States Geological Survey (USGS) and Bureau of Land Management (BLM).

#### **■ United States Fish and Wildlife Service**

The USFWS is responsible for improving and maintaining fish and wildlife resources by proper management of wildlife and habitat. It also helps fulfill the public demand for recreational fishing while maintaining the nation's fisheries at a level and in a condition that will ensure their continued survival. Specific wildlife and fishery resources programs include the following:

- **Migratory Birds**: Wildlife refuge management for production, migration and wintering, law enforcement, game and bird population, and harvest surveys.
- **Mammals and Non-Migratory Birds**: Refuge management of resident species, law enforcement, and technical assistance.

The USFWS's mission is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefits on the American people. Within this framework, the USFWS strives to foster an environmental stewardship ethic based on ecological principles and scientific knowledge of wildlife and works within the states to improve the conservation and management of the nation's fish and wildlife resources. The USFWS provides national and international leadership in identifying, protecting and restoring endangered species of fish, wildlife, and plants.

Public use and information programs include preparing leaflets and brochures; operating environmental study areas on USFWS lands; operating visitor centers, self-guided nature trails, observation towers and display ponds; and accomodating hunting, fishing and wildlife photography.

The USFWS's federal aid programs apportion funds generated by excise taxes on sporting arms and fishing equipment to the states and territories for projects to conserve and enhance the nation's fish and wildlife resources.

### ■ The National Park Service

The National Park Service was established within the Department of the Interior on 25 August 1916.

The National Park Service is dedicated to conserving unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of present and future generation. The National Park Service also administers the following programs:

- The state portion of the Land and Water Conservation Fund,
- Nationwide Outdoor Recreation coordination and information and state comprehensive outdoor recreation planning,
- National Trails System, natural area programs, and
- *National Register of Historic Places*, national historic landmarks and historic preservation.

### ■ United States Geological Survey

The United States Geological Survey was established by the Organic Act of 3 March 1879. The USGS provides relevant, objective scientific studies and information used to help address issues and solve problems dealing with natural resources, natural hazards and the environmental effects on human and wildlife health. Among responsibilities of the USGS are:

- Investigating and assessing the nation's land, water, energy, biological and mineral resources.
- Providing information to resource managers in the Department of the Interior in a form that helps them to assess and manage the biological consequences of management practices.
- Establishing a National Geologic Mapping Program.

To attain these objectives, USGS prepares maps and digital and cartographic data; collects and interprets data on energy and mineral resources; conducts nationwide assessments of the quality, quantity and use of the nation's water resources; performs fundamental and applied research in the sciences and techniques involved; and publishes the results of its investigations through new maps, technical reports and publications, and fact sheets.

The Long Term Resource Monitoring (LTRM) Program is managed by the Biological Resources Division of the USGS, being established through the Environmental Management Program (EMP) authorized by WRDA 1986. LTRM data is important to the on-going UMR navigation study that is assessing the impacts of navigation on the river ecosystem.

### ■ Bureau of Land Management

The Bureau of Land Management was established on 16 July 1946, by the consolidation of the General Land Office (created in 1812) and the Grazing Service (formed in 1934). The BLM is responsible for subsurface resource management of 300 million acres where mineral rights are owned by the federal government.

The BLM is also responsible for the survey of federal lands and establishes and maintains public land records. It administers a program of payments in lieu of taxes based on the amount of federally owned lands in counties and other units of local government.

The BLM oversees and manages the development of energy and mineral leases and ensures compliance with applicable regulations governing the extraction of the resources. It has responsibility to issue rights-of-way, leases, and permits under its jurisdiction.

***Department of Transportation***

The Department of Transportation is concerned with highways, railroads, urban mass transit, airports and airways, and public safety on various transportation systems including waterways. Its role is primarily in setting policies for and funding of these systems. The Coast Guard, as one of the agencies in the Department, is directly involved in commercial and recreational boating safety, maintaining the aids to navigation, movement of hazardous material, oil pollution response, commercial vessel licensing and inspecting, and bridge administration. The Federal Highway Administration (FHWA) administers the National Scenic Byways program through the Intermodal and Statewide Highway Program and the State Scenic Byways Coordinator.

***U.S. Environmental Protection Agency (EPA)***

The Environmental Protection Agency authorities include general water quality management, drinking water safety, solid and hazardous waste disposal, toxic substance management, air quality control, and general environmental quality review. The EPA exercises its authorities primarily through the development of regulations, delegation of programs to state agencies, and funding of environmental quality control programs and projects. Significant EPA interests are those river project activities directly affecting water quality and water supplies. Issues of concern are related to standards setting, and point and non-point source pollution controls (including erosion control). It also includes activities affecting water quality, such as, wetlands; urban, forest, and agricultural land management; dredged materials placement; and transportation and water resource project review.

***Federal Emergency Management Administration (FEMA)***

The Federal Emergency Management Agency is the central agency within the federal government for emergency planning, preparedness, mitigation, response and recovery. Working closely with state and local governments the agency funds emergency programs, offers technical guidance and training, and deploys federal resources in times of catastrophic disaster. These coordinated activities ensure a broad-based program to protect life and property and provide recovery assistance after a disaster.

Agency programs include response to and recovery from major natural disasters and human-caused emergencies, emergency management planning, floodplain management, hazardous materials planning, dam safety, and multi-hazard planning. Other activities include off-site planning for emergencies at commercial nuclear power plants and the Army's chemical stock pile sites, emergency food and shelter funding for the homeless, plans to ensure the continuity of the federal government during national security emergencies, and federal response to the consequences of major terrorist incidents.

The Federal Insurance Administration (FIA) is also a part of FEMA and manages the National Flood Insurance Program.

Of special importance, the Mitigation Program provides for the development, coordination, and implementation of policies, plans and implementation of policies, plans, and programs to eliminate or reduce the long-term risk to life and property from natural hazards such as floods, earthquakes, hurricanes and dam failures. A goal of this activity is to encourage and foster mitigation strategies at the state and local levels.

## **State Government Agencies**

The States of Missouri and Illinois have responsibilities and authorities in the broad functional areas. Few water resource projects can proceed without directly involving state agencies. State governments delegate or defer certain resource management and development responsibilities to local government and can play an essential middleman role in projects involving combined federal, state, and local resources or interests.

### ***Illinois***

The most prominent agency involved in water and related land resources management in the State of Illinois is the Department of Natural Resources (IDNR).

On areas outgranted to the State of Illinois by the Corps, the IDNR missions include environmental compliance, management of recreation and wildlife management areas, boundary maintenance, stream monitoring, biological data collection, erosion and sedimentation control, habitat protection and enhancement, the EMP program, trail development, water safety, visitor assistance and law enforcement, educational events, the Watchable Wildlife program, and the National Great Rivers Museum.

### ***Missouri***

The essential state-level authorities for managing Missouri water and related land resources are exercised by the Department of Natural Resources (MDNR) and the MDC.

The MDC is Missouri's equal to the IDNR carrying out much of the same responsibility, but is not involved with stream gauging data collection and the National Great Rivers Museum. The MDNR is involved with trail development, Clean Water Act compliance, stream data collection and archaeological and historic preservation compliance.

## **Regional entities**

These entities are generally involved in programs or activities oriented to a portion of the Upper Mississippi River Region.

### ***Upper Mississippi River Basin Association (UMRBA)***

The association was formed by the Governors of the five states of the Upper Mississippi River Basin (Illinois, Iowa, Minnesota, Missouri, and Wisconsin), following the dissolution of the Upper Mississippi River Basin Commission, a federal-state regional planning body. The UMRBA provides a regional interstate forum for the discussion, study, and evaluation of river-related issues of common concern to the states and serves as an advocate of the states' collective interests before Congress and the federal agencies.

### ***Upper Mississippi River Conservation Committee***

This Committee was organized in 1943 as a result of an interagency meeting held for the general purpose of "securing recognition of wildlife and recreational use of the river, together with navigation and other public uses, in proportion to the related public benefits."

The Committee was sponsored by the States of Minnesota, Wisconsin, Illinois, Iowa, and Missouri with the encouragement of the USFWS and the Corps. The primary objective of the Committee is to coordinate the resource management activities of the five states bordering the Upper Mississippi River.

The Committee has adopted the following four objectives as part of its constitution:

- Promote the preservation, development, and wise use of the natural and recreational resources of the Upper Mississippi River bordering the states of Minnesota, Wisconsin, Iowa, Illinois, and Missouri.
- Formulate policies, plans, and programs for carrying on cooperative surveys and studies for the above-stated purposes.
- Keep necessary records, and publish and distribute reports.
- Recommend to the governing state entities the furtherance of the objectives of the Upper Mississippi River Conservation Committee.

### ***St. Louis Regional Commerce and Growth Association (RCGA)***

The St. Louis Regional Commerce and Growth Association (RCGA) is the Chamber of Commerce and economic development organization for the bi-state St. Louis region. Formed in 1973, RCGA is the result of the merger of three separate organizations; the Chamber of Commerce of Metropolitan St. Louis, the St. Louis Regional Industrial Development Corporation and the St. Louis Research Council.

The following entities also provide coordination, planning, and guidance for portions of the Upper Mississippi Region.

### ***Mississippi River Parkway Commission***

The membership of the Mississippi River Parkway Commission (MRPC) includes all states of the Mississippi River main stem, plus various other agencies and interest groups. The MRPC is primarily a tourism-driven organization. Its major mission is directed toward improving opportunities for tourism growth along the Mississippi River corridor from New Orleans to St. Paul.

### ***Alton Lake Heritage Parkway Advisory Commission (ALHPAC)***

The Alton Lake Heritage Parkway Commission was established by the General Assembly of the State of Illinois in 1991 to preserve or enhance the quality of the Alton Lake Heritage Parkway. The Parkway is located along the banks of the Mississippi River between the western city limits of Alton, Illinois and Pere Marquette State Park, excluding the City of Grafton. The Commission was mandated to develop a Corridor Management Plan for the Parkway and submit it to the Illinois General Assembly. The ten-member commission is made up of appointed representatives from the communities, townships and counties adjacent to the Parkway.

The Corridor Management Plan was submitted to IDOT and FHWA in December 1997. On 9 June 1998, the Meeting of the Great Rivers Scenic Byway was approved by FHWA in Washington D.C. The byway begins at the Melvin Price Locks and Dam Visitor Center in Alton and extends north along the Great River Road to the town of Eldred and the Village of Kampsville. The byway is 50 miles long.

The Corridor Management Plan was developed by a steering committee consisting of two representatives each from the Alton Lake Heritage Parkway Commission, Madison County, Jersey County, Green County and the Village of Kampsville. The Steering Committee worked for six months developing the Corridor Management Plan, holding public meetings and generating support for the project.

**Great Rivers Land Trust**

Great Rivers Land Trust is a local non-profit organization dedicated to preserving open spaces, scenic beauty, critical wildlife habitat, and the unique river landscape that is our special heritage. Great Rivers accomplishes this goal through a variety of conservation techniques including donations and acquisitions of key parcels of land.

**Illinois River Coordinating Council**

Governor Jim Edgar established the twelve-member Illinois River Coordinating Council to coordinate the restoration and management of the Illinois River Watershed. The Council acts to reduce soil erosion and sedimentation, improve water quality and enhance wildlife habitats. The Illinois River Coordinating Council evolved from an Integrated Management Plan that was developed by the Illinois River Strategy Team. The plan consisted of 34 recommendations to improve and restore the watershed. The job of the Coordinating Council is to address those recommendations. The council is chaired by the Lt. Governor and includes seven citizen members, five state agency representatives and ex-officio representatives of six federal agencies. Members are appointed by the governor and serve two-year terms.

**Summary**

The existing management authorities affecting the river consist of federal and state agencies, cities and counties, and other regional entities. The most geographically extensive efforts are those of the Corps and the USFWS. State management efforts of Missouri and Illinois are directed toward the natural resources of the river corridor. Some of the most effective activity is occurring through regional, local or voluntary efforts. Some examples of local activities are the Alton Lake Heritage Parkway Commission, and the riverfront development efforts of St. Louis, Missouri and Alton, Illinois.

**3.4. OUTGRANTS ON PUBLIC LANDS**

Table 3 - 3  
Lands Leased to States

<b>POOL</b>	<b>Description</b>
<b>Illinois Historic Preservation Agency</b>	
27	Lewis and Clark Memorial Park
<b>Illinois Department of Natural Resources</b>	
26	Glades Access
26	Piasa Creek
26	Pohlman Lake Slough
26	Pere Marquette State Park
26	Royal Landing
26	Stump Lake
26	Michael's Landing
26	Godar Diamond Island
26	Hadley Landing
25	Village of Batchtown
25	Red's Landing
25	Titus Hollow
24	Pleasant Hill
24	Cincinnati Landing
<b>Missouri Department of Conservation</b>	
26	Dresser Island
26	Norton Woods

Outgrants of Corps land to agencies, organizations, businesses or individuals have been made for the purpose of providing access to recreation opportunities, marina services, and assisting riverine related industry. See Paragraphs 2.3 and 3.2 for discussion of General Plan lands and how they are managed.

**Recreational Leases**

Recreation opportunities in the form of accesses and parks have been developed by state or local governments. The Corps real estate instrument for public recreational areas is the park and recreation lease. Table 3 - 3 presents recreation areas leased to the States of Illinois and Missouri. State recreation areas range from small access areas to large state parks. It is proposed to remove several areas from the IDNR park and recreation lease and include them as simply a minimal access within the General Plan lands or in Corps areas as stated in the management area descriptions in Section 7. For some areas, the park and recreation lease acreage may be reduced.

**Commercial Concession Leases**

Commercial concessions on public ground offer marina services for the public. Each marina concession is established with a commercial concession lease. Table 3 - 4 (page 9) shows commercial concession and non-state recreational areas.

Table 3-4  
Commercial Concessions and

POOL	Description
<b>Commercial Concessions</b>	
26	Alton Motorboat Club, Inc.
26	Club Sherwood Marina, Inc.
26	Western Boats and Motors, Inc.
24	Lighthouse Inn, Inc.
24	Two Rivers, Marina
<b>Non-State Public Park and Recreation Area</b>	
26	Alton Riverfront (City of Alton)
<b>Other Recreation</b>	
26	Boys and Girls Club of Alton

Table 3-5  
Recreation Cottage Leases in the Project Areas

	Cabin Leases	Industrial Leases
Pool 24	51	3
Pool 25	7	
Pool 26	310	1
Pool 27		4
Kaskaskia		
<b>Total</b>	<b>368</b>	<b>8</b>

Table 3-6  
Industrial Leases in the Project Area

POOL	Lessee	Acres
27	Tri-City Regional Port District	43.790
27	Tri-City Regional Port District	5.054
27	Tri-City Regional Port District	217.316
27	Continental Oil Company (Conoco)	2.260
26	AmerenUE	227.380
24	SSS Lumber, Inc.	6.820
24	Dyno-Nobel, Inc.	15.310
24	Holnam, Inc.	293.000
<b>TOTAL</b>		<b>810.930</b>

## Miscellaneous Outgrants

### Recreational Cottages

In 1944, Section 4 of the Flood Control Act authorized the Secretary of the Army to grant leases of lands at water resources development projects for such periods, and upon such terms and for such purposes as the Secretary may deem reasonable in the public interest. As a result of this, the government advertised certain sites along the Mississippi and Illinois Rivers to be developed as recreational cottage sites in the early 1950s. Within the St. Louis District, nearly 800 such leases were advertised and executed, the major intent of which was to provide recreational cottages only, not permanent residences.

In 1965, the St. Louis District ceased granting any new cottage sites leases on project lands in the navigation pools. This action was consistent with Corps policy of discouraging the public from constructing habitable structures in the floodplain.

In 1988, there were 764 privately owned recreational cottages on leased fee-owned lands in Pools 24, 25 and 26. The MVD Regional Plan Concerning Private Exclusive Use at Navigational Pool Projects, consistent with Corps policy and the Master Plan, established a prohibition on expansion of private exclusive use and a fair and equitable programmatic effort to phase out such use began. Today, 368 cottage leases remain as shown in Table 3-5. Of the original 23 subdivisions, only 13 remain with 5 or more active leases. Under existing law, the more well-built and maintained structures are expected to remain indefinitely.

### Commercial Industrial Leases

The Rivers Project Office has eight existing commercial industrial leases totaling approximately 810.93 acres as shown in Table 3-6. The use of these leases range from docking and loading facilities to multi-purpose industrial development.

These lands have been leased to commercial entities for many years. As such, these lands have been effectively reduced to perpetual private exclusive use and are not available for other uses, nor are they available for general public use.

In addition, the Corps administrative procedures are often seen as cumbersome for the for-profit tenants. Lessees sometimes are required to duplicate forms, inspections and tests already requested by other licensing agencies. In some instances, Corps regulations are in conflict with more stringent ones required by agencies that directly regulate the specific activity.

For the above reasons, it is the policy of the Rivers Project Office and the St. Louis District to refrain from entering into any new industrial leases. Furthermore, the Corps plans to reduce or eliminate existing industrial leases through methods such as land exchange or disposal as best supports federal and public interests.

### **Easements**

Flowage, operational and utility easements have been established for the Rivers Project. Twenty-four flowage easements were purchased for improvement of the river for navigational purposes. These easements provide the right to overflow, permanently or intermittently, to excavate and remove material, and to cut, remove and dispose of all timber and other natural or artificial obstructions which shall at any time and in any manner interfere with use of said land for navigation purposes. Seven operations easements were acquired to permit the use of certain lands for the operation of facilities, i.e., near Dam 27. Many utility easements including pipeline, telephone, electric, etc. are located throughout the project.

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### **3.5. NAVIGATION INTERFACE**

Federal interest in navigation is established by the Commerce Clause of the Constitution, and subsequent court decisions, defining the right to regulate navigation and improvement of the navigable waterways.

The navigable waters are important to the nation as a major means of commercial transportation and as a part of national defense.

Navigation operations interface with other project purposes in various ways. Manipulation of pool levels affects shoreline vegetation and recreation facilities such as marinas. An environmental pool management program (EPM) has been instituted to make pool level changes that enhance shoreline habitat when possible. Marinas located near the locks and dams may experience water level perturbations that require floating operations. Dredging to keep the main channel open for navigation can result in island creation. These islands can serve uses such as Least tern habitat or as a location for recreational day use. Recreational boating use on the pools is significant in the summer months although recreational boat use of the Mississippi locks is minimal while recreational lockages on the Kaskaskia River are high. Barges traveling the river require areas for temporary stops, i.e. fleeting areas. The industry is developing specially designed river buoys and land anchors for these fleeting areas.

Several programs associated with navigation have been developed for environmental restoration:

- The Avoid and Minimize (A&M) Program was implemented to reduce possible environmental impacts of increased river navigation traffic due to the addition of the second lock at Melvin Price Locks and Dam;
- Section 1135 of WRDA 1986 recognizes the potential of modifying existing Corps project structures or their operations for the purposes of providing environmental benefits in the public interest;
- Section 205, WRDA 1996 is a continuing authorities program (CAP) that makes money available for environmental dredging as part of O&M for federal navigation projects;
- Section 204, WRDA 1992 is another CAP that provides protection, restoration and creation of aquatic and wetland habitats; and
- The Environmental Management Program's Long Term Resource Monitoring Program provides useful data on the environmental health of the Upper and Middle Mississippi River.

### **Navigational Servitude**

Navigational Servitude is defined by 33 CFR Ch. II, Part 329 as the "constitutional power given to the federal government to regulate

navigable waters” for the purposes of improving and regulating navigation. It includes submerged lands and water flowing over them and also pertains to all lands below the ordinary high water mark of a navigable river. Servitude is a concept of power, not of property and expresses the notion that the right of the public to use a waterway supersedes any claim of private ownership.

### **Locks and Dams**

The Locks and Dams are operated by the Corps and regulated as described below. The Corps manages the projects to meet navigation needs in an environmentally responsible manner.

Dams were authorized on the Mississippi for the sole purpose of providing sufficient pool to allow navigation. This resulted in the creation of pools behind the dams and their exploitation for recreational activities. Dredging to maintain the navigation channel has resulted in the development of some islands for environmental and recreational purposes. Environmental restoration projects have been developed to mitigate for the impacts of navigation. The five navigation structures on the Mississippi and Kaskaskia Rivers have permitted the transport of over 200 million tons of cargo annually for the benefit of commerce and regional economic development. Many agencies, organizations and businesses are participating in the development and management of the Mississippi River.

### **Pool Regulation**

The pools are regulated by means of ‘control points.’ These are points on which the pool level is tilted when the inflow increases above a certain amount. At the dam, the pool is fluctuated between regulated maximum and minimum elevations.

For example, the maximum and minimum regulated pool elevations at Dam 24 are 449.0 feet and 445.5 feet NGVD, respectively. The ‘control point’ is at Louisiana (RM 282.9), where the maximum and minimum regulated pool levels are elevations 449.5 and 448.8 feet NGVD respectively. As the inflow increases, the pool stage is lowered at the dam by gradually increasing the gate openings to maintain the level at Louisiana within the prescribed control limits until, at the dam, the pool is lowered to elevation 445.5 feet NGVD. As inflow continues to increase, the gates are opened further to pass the increased flow until the tailwater elevation equals pool elevation. When this occurs, at a flow of approximately 146,000 cubic feet per second (cfs), the gates are lifted entirely out of the water resulting in ‘open river’ conditions. After the crest has passed and the inflow decreases, the procedure is reversed; the gates are in operation again when the pool falls to elevation 445.5 feet NGVD. This elevation is held until the ‘control point’ returns to within the prescribed limits. Operating within the control point limits, ‘maximum pool’ elevation is regained when the flow is less than 75,000 cfs.

*Table 2 – 1 (page 1) and Table 2 – 2 (page 6) in Section II summarize project and operational data for Navigation Pools 24, 25, 26, Locks 27 and Kaskaskia Lock and Dam.*

### **Channel Maintenance**

The UMRS within the St. Louis District is composed of commercially navigable portions of the Mississippi, Illinois and Kaskaskia Rivers. It is a major resource affecting both regional and national economies. In 1930, Congress authorized the Corps to maintain a nine-foot navigation channel. The channel and the locks and dams that were subsequently built to improve navigation between Saverton, Illinois, and Cairo Illinois, have made large scale waterborne commerce possible on the river. The St. Louis District coordinates with affected agencies regarding dredging

locations and proposed disposal sites. Agency representatives occasionally recommend alternative disposal sites.

See Paragraph 2.2 for further information on dredging operations.

### **Avoid and Minimize**

In October 1992, the St. Louis District issued Design Memorandum 24 (DM 24), "Avoid and Minimize Measures." DM 24 was developed as a commitment made in the Record of Decision (signed in 1988) for the Melvin Price Locks and Dam Second Lock Environmental Impact Statement to avoid and minimize possible environmental impacts as a result of increased navigation traffic. The implementation program was funded from 1996 to 2002 through the Operation and Maintenance (O&M) budget.

The Avoid and Minimize Program is a cooperative effort among the conservation agencies of Illinois and Missouri, USFWS, River Industry Action Committee (RIAC), and the Corps. One of the current efforts of this group is to preserve and enhance through structural or other modifications the 23 side channels in the open river portion of the Mississippi River. These unique habitats are vital to the overall health of the aquatic communities of the river ecosystem.

### **Environmental Management Program**

The Environmental Management Program was authorized by Congress in 1986 along with the second lock at Melvin Price Locks and Dam. Funding for this program was provided to evaluate the ecological health of the river and long-term monitoring of those conditions (LTRM), the navigation system impacts, and recreational use patterns and facilities. Additional purposes included developing a 50-year plan for the navigation system and expansion as justified, and to engineer and construct Habitat Restoration and Enhancement Projects (HREP). Many projects have been completed and are operational. See Paragraph 8.6 for more detail.

### **Other agencies and organizations involved:**

#### ***Coast Guard***

The Coast Guard is directly involved in the promotion of commercial and recreational boating safety, maintenance of the aids to navigation, movement of hazardous material, oil pollution response, commercial vessel licensing and inspection, and bridge administration.

#### ***Tri-City Regional Port District (TCRPD)***

The Tri-City Regional Port District is the inland river port located within the Illinois portion of the St. Louis Metropolitan Area. The TCRPD, created by the Illinois legislature in 1959, has a prime directive to promote transportation, and industrial and commercial activities within its territory. The legislature created the TCRPD as a political subdivision of the state with necessary and attendant powers to accomplish its directive.

#### ***Kaskaskia Regional Port District (KRPD)***

The Kaskaskia River Port District was created by the Illinois Legislature in 1965. This agency has the charge of promoting industrial uses along the waterway, plus identifying and assisting in development of specific sites. The KRPD is a political subdivision of the State of Illinois and is responsible for much of the rules, regulations and guidelines necessary for development to occur.

***Fleeting***

When barges are not in use for hauling commodities they are sometimes parked along the river shoreline. The temporary parking of barges along the river shoreline is known as fleeting. Fleeting areas are analogous to railroad yards where cars are temporarily stored and trains are assembled and disassembled. Fleeting occurs on private as well as public land. Fleeting on public land is regulated by the agency's shoreline management plan. Fleeting that occurs on private land is regulated by the Section 404 and Section 10 environmental laws. The St. Louis District Corps of Engineers will develop a shoreline management plan for the Mississippi and Illinois Rivers after the approval of this Master Plan.